

EDUS721909B-T 202403

# **Engineering Data**







# Controls

1.	Contr	ol Systems	3
	1.1	Optional Accessories of Operation Control System	3
	1.2	Individual Control Systems	6
	1.3	System Monitoring for the HERO Simple Edge	19
	1.4	Centralized Control System	29
	1.5	Group, Management Point and Area	31
	1.6	Building Management System	36
	1.7	Open Protocol Interface	37
	1.8	Localized Control	38
	1.9	BMS Integration Solutions	46
2.	Contr	ol Devices	58
	2.1	BRC1E73 Navigation Remote Controller	
		(Wired Remote Controller)	58
	2.2	BRC1H71W Madoka Wired Remote Controller	63
	2.3	DTST-ONE-ADA-A Daikin One+ Smart Thermostat	70
	2.4	DTST-TOU-ADA-A Daikin One Touch Smart Thermostat	73
	2.5	BACRC-T-P01/ BACRC-TH-P01/ BACRC-THO-P01/	
		BACRC-THOC-P01 Adaptive Touch Controller	79
	2.6	AZAI6WSCDKA DKN Cloud Wi-Fi Adaptor	86
	2.7	AZAI6WSPDKC DKN Plus Interface	89
	2.8	DSE401A71/DSE401B71 HERO Simple Edge Cloud	
		Communication Adaptor	94
	2.9	BRC4C / 7E / 082A Wireless Remote Controller / Receiver	.158
	2.10	DCM601B71 intelligent Touch Manager	.163
	2.11	Daikin Zoning Kit	.198
3.	Adap	tor	.199
	3.1	KRCS01-5B Remote Sensor	.199
	3.2	KRCS01-6B Remote Sensor	.202
	3.3	KRCS01-1B / KRCS01-4B / KRCS01-2UA Remote Sensor	.205
	3.4	KRCSH2018-01 Button Sensor Kit	.209
	3.5	KRP1H98A Installation Box for Adaptor PCB	.212
	3.6	BKS26A Installation Box for Adaptor Print Circuit Board	.216
	3.7	KRP1BB101 Installation Box for Adaptor PCB	.220
	3.8	KRP1BA97 Installation Box for Adaptor PCB	.224
	3.9	KRP4A98 Installation Box for Adaptor PCB	.226
	3.10	KRP4A96 Installation Box for Adaptor PCB	.228
	3.11	KRP1C93 Installation Box for Adaptor PCB	.230
	3.12	DTA104A53 / 61 / 62 External Control Adaptor for Outdoor Unit	
		(Must be Installed on Indoor Units)	.233

	3.13 DTA109A51 DIII-NET Expander Adaptor	235
	3.14 KRP1C76 / 77 Wiring Adaptor PCB	238
	3.15 KRP1C74 / 75 Wiring Adaptor PCB	239
	3.16 KRP50-2 Wiring Adaptor for Remote Contact / Humidifier	242
	3.17 KRP4A71 / 72 / 73 / 74 Wiring Adaptor for	
	Electrical Appendices (2)	243
	3.18 BRE49B2F / BRE49B1F Sensor Unit (Sensor Kit)	248
	3.19 BRYQ60AAW Sensor Kit	251
	3.20 DTA114A61-9 Adaptor for Multi Tenant	253
	3.21 DTA118A71 BACnet MS/TP adaptor	258
	3.22 DTA118A72 BACnet MS/TP adaptor	
4.	Trademark Disclaimer	272

## 1. Control Systems

#### **Optional Accessories of Operation Control System** 1.1

No.	Item	FXFQ-AAVJU	FXFQ-TVJU	FXZQ-TBVJU	FXZQ-TAVJU	FXUQ-PAVJU	FXUQ-PVJU
1	Navigation Remote Controller	BRC	1E73	BRC1E73		BRC1E73	
2	DKN Cloud Wi-Fi Adaptor	AZAI6W	/SCDKA	AZAI6W	/SCDKA	AZAI6W	/SCDKA
3	Wireless Remote Controller	-	_	BRC082A42W BRC082A41W	BRC082A42W BRC082A42S BRC082A41W	-	_
4	Remote sensor	KRCS01-5B	KRCS01-4B	KRCS01-6B	KRCS01-4B	KRCS01-6B (Note 4)	KRCS01-4B (Note 4)
5	Installation Box for Adaptor PCB	KRP1 (Note	1J98A IH98A ∌ 2, 3)	KRP1	BB101	KRP1	BA97
6	External control adaptor for outdoor unit	DTA10	)4A62*	-	_	-	_
7	DIII-NET expander adaptor	DTA1	09A51	DTA109A51		DTA109A51	
8	Wiring adaptor PCB	KRP1C77*	KRP1C75*	KRC1C77*	KRC1C75*	-	_
9	Wiring adaptor for electrical appendices (2)	KRP4A74*		KRP4	1A74*	KRP4A74*	
10	PCB adaptor for humidifier	-	_	-	_	-	_
11	Sensor unit (Sensor kit)	-	_	BRYQ60AAW	BRYQ60A2W BRYQ60A2S	BRE49B2F (Note 4)	BRE49B1F (Note 4)
12	Adaptor for multi tenant	DTA114A61-9* (Note 5)	DTA114A61-9*	-	_	—	_
13	Madoka Wired Remote Controller	BRC1	H71W	BRC1	H71W	BRC1	H71W
14	Daikin One+ Smart Thermostat	DTST-ON	IE-ADA-A	DTST-ON	IE-ADA-A	DTST-ON	IE-ADA-A
15	Daikin One Touch Smart Thermostat	DTST-TOU-ADA-A		DTST-TC	OU-ADA-A	DTST-TC	DU-ADA-A
16	Adaptive Touch Controller	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01		BACRC BACRC- BACRC-T BACRC-T	C-T-P01 -TH-P01 THO-P01 THOC-P01	BACRC BACRC- BACRC-T BACRC-T	C-T-P01 -TH-P01 THO-P01 THOC-P01
17	DKN Plus Interface	AZAI6W	/SPDKC	AZAI6W	/SPDKC	AZAI6W	/SPDKC
18	Button Sensor Kit	KRCSH	2018-01	KRCSH	2018-01	KRCSH	2018-01
	Drawing No.	C: 3D141051B	C: 3D086933C	C: 4D137353A	C: 4D110595	C: 3D133251	C: 3D090253A

#### Note:

Adaptors with \* required installation box (No.5).
 Up to two adaptors can be fixed for each installation box.
 Only one installation box can be installed to each indoor unit.
 The remote sensor cannot be installed when applying the Sensor unit (Sensor kit).
 A separate long relay harness for connecting Adaptor for multi tenant is required. (DNA local option)

No.	Item	FXEQ-PVJU	FXDQ-MVJU	FXSQ-TBVJU	FXSQ-TAVJU	FXMQ-TBVJU	FXMQ-PBVJU	
1	Navigation Remote Controller	BRC1E73	BRC1E73	BRC	1E73	BRC	BRC1E73	
2	DKN Cloud Wi-Fi Adaptor	AZAI6WSCDKA	AZAI6WSCDKA	AZAI6W	/SCDKA	AZAI6V	AZAI6WSCDKA	
3	Wireless Remote Controller	_	BRC4C82	BRC0	82A43	BRC0	82A43	
4	Remote sensor	KRCS01-4B	KRCS01-1B	KRCS01-6B	KRCS01-4B	KRCS01-6B	KRCS01-4B	
5	Installation Box for Adaptor PCB	KRP1BB101	KRP1BB101	KRP- (Note	4A98 e 2, 3)	KRP4A98 (Note 2, 3)	KRP4A96 (Note 2, 3)	
6	External control adaptor for outdoor unit	_	DTA104A53*	DTA104A61*	—	DTA10	)4A61*	
7	DIII-NET expander adaptor	DTA109A51	DTA109A51	DTA1	09A51	DTA1	09A51	
8	Wiring adaptor PCB	KRP1C75*	KRP1C75*	KRP1C76*	KRP1C74*	KRP1C76*	KRP1C74*	
9	Wiring adaptor for electrical appendices (2)	KRP4A74*	KRP4A74*	KRP4	IA71*	KRP4	1A71*	
10	PCB adaptor for humidifier	—	—	-	-	—	—	
11	Sensor unit (Sensor kit)	—	—	_	_	—	—	
12	Adaptor for multi tenant	_	—	DTA114A61-9*	—	DTA114	4A61-9*	
13	Madoka Wired Remote Controller	BRC1H71W	BRC1H71W	BRC1	H71W	BRC1	H71W	
14	Daikin One+ Smart Thermostat	DTST-ONE-ADA-A	DTST-ONE-ADA-A	DTST-ON	IE-ADA-A	DTST-ON	IE-ADA-A	
15	Daikin One Touch Smart Thermostat	DTST-TOU-ADA-A	DTST-TOU-ADA-A	DTST-TO	U-ADA-A	DTST-TC	DU-ADA-A	
16	Adaptive Touch Controller	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01		BACRO BACRC- BACRC- BACRC-T	C-T-P01 -TH-P01 THO-P01 'HOC-P01	
17	DKN Plus Interface	AZAI6WSPDKC	AZAI6WSPDKC	AZAI6WSPDKC		AZAI6W	/SPDKC	
18	Button Sensor Kit	KRCSH2018-01	KRCSH2018-01	KRCSH	2018-01	KRCSH	2018-01	
	Drawing No.	C: 3D098723	C: 3D043022H	C: 3D140718B	C: 3D112077	C: 3D140813B	C: 3D068551B	

No.	Item	FXMQ-MVJU	FXHQ-MVJU	FXAQ-PVJU	FXLQ-MVJU9	FXNQ-MVJU9
1	Navigation Remote Controller	BRC1E73	BRC1E73	BRC1E73	BRC1E73	BRC1E73
2	DKN Cloud Wi-Fi Adaptor	AZAI6WSCDKA	AZAI6WSCDKA	AZAI6WSCDKA	AZAI6WSCDKA	AZAI6WSCDKA
3	Wireless Remote Controller	BRC4C82	BRC7E83	BRC7E818	BRC4C82	BRC4C82
4	Remote sensor	KRCS01-1B	KRCS01-1B	KRCS01-1B	KRCS01-1B	KRCS01-1B
5	Installation Box for Adaptor PCB	—	KRP1C93	—	—	—
6	External control adaptor for outdoor unit	DTA104A61	DTA104A62*	_	DTA104A61	DTA104A61
7	DIII-NET expander adaptor	DTA109A51	DTA109A51	DTA109A51	DTA109A51	DTA109A51
8	Wiring adaptor PCB	KRP1C74	KRP1C74*	—	KRP1C74	KRP1C74
9	Wiring adaptor for electrical appendices (2)	KRP4A71	KRP4A72*	KRP4A71	KRP4A71	KRP4A71
10	PCB adaptor for humidifier	—	_	_	_	—
11	Sensor unit (Sensor kit)	—	_	_	_	—
12	Adaptor for multi tenant	—	—	DTA114A61-9	—	—
13	Madoka Wired Remote Controller	BRC1H71W	BRC1H71W	BRC1H71W	BRC1H71W	BRC1H71W
14	Daikin One+ Smart Thermostat	DTST-ONE-ADA-A	DTST-ONE-ADA-A	DTST-ONE-ADA-A	DTST-ONE-ADA-A	DTST-ONE-ADA-A
15	Daikin One Touch Smart Thermostat	DTST-TOU-ADA-A	DTST-TOU-ADA-A	DTST-TOU-ADA-A	DTST-TOU-ADA-A	DTST-TOU-ADA-A
16	Adaptive Touch Controller	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01
17	DKN Plus Interface	AZAI6WSPDKC	AZAI6WSPDKC	AZAI6WSPDKC	AZAI6WSPDKC	AZAI6WSPDKC
18	Button Sensor Kit	KRCSH2018-01	KRCSH2018-01	KRCSH2018-01	KRCSH2018-01	KRCSH2018-01
	Drawing No.	C: 3D043022H	C: 3D043022H	C: 3D043022H	C: 3D094932	C: 3D094932

#### Note:

Adaptors with \* required installation box (No.5).
 Up to two adaptors can be fixed for each installation box.
 Only one installation box can be installed to each indoor unit.
 The remote sensor cannot be installed when applying the Sensor unit (Sensor kit).
 A separate long relay harness for connecting Adaptor for multi tenant is required. (DNA local option)

Nia literre		FXTQ-TBVJUA FXTQ-TAVJUA		OYTO	VAM-GVJU		
NO.	Item	FXTQ-TBVJUD	FXTQ-TAVJUD	CXIQ	300/470/600	1200	FXMQ-MFVJU
1	Navigation Remote Controller	BRC1E73		BRC1E73	BRC1E73		BRC1E73
2	DKN Cloud Wi-Fi Adaptor	AZAI6W	/SCDKA	AZAI6WSCDKA	_	-	—
3	Wireless Remote Controller			BRC4C82		-	BRC4C82
4	Remote sensor	KRCS	)1-2UA	KRCS01-2UA		_	KRCS01-1B
5	Installation Box for Adaptor PCB	KRP1I	BB101	KRP1BB101	KRP50-2A90	—	—
6	External control adaptor for outdoor unit	DTA10	)4A53*	DTA104A53*	-	_	DTA104A61
7	DIII-NET expander adaptor	DTA10	09A51	DTA109A51	_	_	DTA109A51
8	Wiring adaptor PCB	KRP1	C75*	KRP1C75*	_	_	KRP1C74
9	Wiring adaptor for electrical appendices (2)	KRP4A74*		KRP4A74*	KRP4A72		KRP4A71
10	PCB adaptor for humidifier			—	KRP50-2		—
11	Sensor unit (Sensor kit)			—			—
12	Adaptor for multi tenant	DTA114	IA61-9*	—	_	-	—
13	Madoka Wired Remote Controller	BRC1	H71W	BRC1H71W	BRC1	H71W	BRC1H71W
14	Daikin One+ Smart Thermostat	DTST-ON	IE-ADA-A	DTST-ONE-ADA-A	-	_	DTST-ONE-ADA-A
15	Daikin One Touch Smart Thermostat	DTST-TO	U-ADA-A	DTST-TOU-ADA-A	_	_	DTST-TOU-ADA-A
16	Adaptive Touch Controller	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01		BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01	_	_	BACRC-T-P01 BACRC-TH-P01 BACRC-THO-P01 BACRC-THOC-P01
17	DKN Plus Interface	AZAI6W	SPDKC	AZAI6WSPDKC	_	_	AZAI6WSPDKC
18	Button Sensor Kit	KRCSH	2018-01	KRCSH2018-01	_	-	KRCSH2018-01
	Drawing No.	-		—	C: 3D07	73395A	C: 3D043022H

#### Note:

Adaptors with \* required installation box (No.5).
 Up to two adaptors can be fixed for each installation box.

Only one installation box can be installed to each indoor unit.
 The remote sensor cannot be installed when applying the Sensor unit (Sensor kit).
 A separate long relay harness for connecting Adaptor for multi tenant is required. (DNA local option)

## 1.2 Individual Control Systems

## 1.2.1 Navigation Remote Controller (wired) (Optional) BRC1E73



Navigation Remote Controller

- Selectable Screen Display
   3 types of displays are available; Standard, Detailed and Simple.
- Clear Display
  - Equipped with backlight and large sized character display and buttons.
- Stylish
  - Basic tone is white and arrow keys are located at the center.
- Simple Operation
   Simple operation used with arrow keys and menu-driven method.
- Multilingual Display
   3 languages available to select: English, French and Spanish.
- Convenient Features
   Schedule function and Daylight Saving Time function.
- Face Decal Options
   Hides unnecessary (locked/prohibited) buttons.

Used with		Single Setpoint mode			Dual Setpoint mode	
	BRC1E72RMF	BRC1E72RF	BRC1E72RM	BRC1E72RMF2	BRC1E72RF2	BRC1E72RM2
Model	() () () () () () () () () () () () () (	2000 2000 2000	×	Press 3	· · · · · · · · · · · · · · · · · · ·	Freese 

## The Navigation Remote Controllers supports a wide range of control functions



## 1.2.2 Madoka Wired Remote Controller (wired) (optional) BRC1H71W



Madoka Remote Controller

- Sleek Stylish Design

Much like the perfection of its circular shape, the remote controller gives you perfect control over your individual climate.

Simple Interface

The remote controller combines functionality and simplicity. The minimalistic touch button control enlarges the display and makes the remote controller easy to use.

- The Madoka Quick Set APP for Installer
   Simplifies the advanced settings such as field settings and the controller configuration via Daikin's Bluetooth<sup>®</sup> furnace connectivity.
- Shorter and Easier Installation
   The application connected to this controller provides 2 modes, Owner / Administrator mode and Installer mode (no end-user mode).
- Display
   Provides 3 selectable options for the display view: Text, Icon and Scale.

## The Madoka Remote Controllers supports a wide range of control functions



## 1.2.3 Wireless Remote Controller (Optional) BRC4C/BRC7E Type



Signal receiver unit (Separate type)

....

0

Wireless Remote Controller

- ON/OFF operation
- Temperature setting
- Change of operation mode
- Airflow setting
- A compact light receiving unit to be mounted into a wall or ceiling is included.
- A light receiving unit for ceiling-suspended type and wall-mounted type is mounted into the indoor unit.

## 1.2.4 Daikin One+ Smart Thermostat DTST-ONE-ADA-A



9

## The One for Connectivity

The Daikin *One*+ smart thermostat is a cloud-connected hub of sophistication, designed for controlling temperature, humidity, and air quality. With a variety of connectivity options, there's a comfort solution for every project and customer.

EQUIPMENT COMPATIBILITY:					
Equipment Type	Equipment Part Number	Compatible Mode			
Air Conditioners	DX20VC, DX18TC, Daikin Fit (DX17VSS), DX16TC	DTST-CWBSA-NI-A			
Heat Pumps	Daikin <i>Fit</i> (DZ17VSA), DZ20VC, DZ18VC, DZ18TC, DZ16TC	DTST-CWBSA-NI-A			
Gas Furnaces	DM97MC, DC97MC, DM96VC, DC96VC, DM96SC, DM80VC, DC80VC, DM80SC	DTST-CWBSA-NI-A			
Air Handlers	DVFEC, DVPEC, DVPTC, MBVC	DTST-CWBSA-NI-A			
Single & Multi-Zone (S21)	CDXS, CTXS, FDXS, FTK_N, FTX_N, FTX_U, FTXG", FTXR, FTXS, FVXS, FDMQ, FFQ	DTST-ONE-ADA-A			
Single & Multi-Zone (P1P2)	FDMQ, FFQ	DTST-ONE-ADA-A			
VRV & VRV LIFE (P1P2)	CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ	DTST-ONE-ADA-A			
SkyAir (P1P2)	FAQ, FBQ, FTQ, FCQ, FHQ	DTST-ONE-ADA-A			
Indoor Air Quality	Daikin <i>One</i> Home Air Monitor (Only compatible with ducted units)	DTST-CWBSA-NI-A, DTST-ONE-ADA-A			

\*The Sarara drying function of the *QUATERNITY* units is not supported with Daikin *One*+ smart thermostat, but the dehumidification function of the Daikin *One*+ can be used with the *QUATERNITY* indoor units.

DAIKIN ONE+ SMART THERMOSTAT SPECIFICATIONS:				
Model Number	DTST-CWBSA-NI-A/DTST-ONE-ADA-A			
Description	Daikin <i>One</i> +Smart Thermostat			
Dimensions	6.8" x 3.4" x 0.8"			
Weight	10.5 oz			
Operation Temperature	32°F to 120°F			
Thermostat Compliance	Compliant to California Title 24 (OCST listed), FCC Certified (Adapter FCC Part 15 subpart B), UL Listed			

#### ADDITIONAL INFORMATION

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operating cost, or energy efficiency rating that is available from your retailer.



Google, Google Assistant, and all related logos are trademarks of Google, or its affiliates. Amazon, Alexa, and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

period is 5-years.



Our continuing commitment to quality products may mean a change in specifications without notice. © 2021 DAIKIN NORTH AMERICA LLC · Houston, Texas · USA · www.daikincomfort.com or www.daikinac.com

PF-ONE+ST\_11-21

## 1.2.5 Daikin One Touch Smart Thermostat DTST-TOU-ADA-A





DAIKIN ONE TOUCH SMART THERMOSTAT

# Say hello to the Daikin One touch smart thermostat.

The Daikin *One* touch smart thermostat is the newest addition to the Daikin *One* ecosystem line of products, joining the Daikin *One*+ smart thermostat as a control solution for Daikin's communicating unitary equipment, including Daikin *Fit.* 

With customizable settings and the power to wirelessly control heating and cooling from anywhere, homeowners may never want to change their thermostat manually again. However, the touchscreen interface supports a user-friendly experience when they do. Additionally, voice control is possible with compatible Amazon and Google devices. Plus, every Daikin *One* touch includes one year of Daikin *One* cloud services at no added cost, allowing contractors to support their customers' systems remotely and offer homeowners additional peace of mind!

#### Features:

- » Simple, elegant industrial design
- » Capacitive touchscreen user interface
- » Wi-Fi-enabled smart thermostat with iOS and Android app control
- » Voice control by Amazon Alexa and Google Assistant
- » Control and comfort functions: Away mode, geo-fencing
- » Outdoor environment monitoring: outdoor temperature, outdoor humidity, and weather forecast
- » Compatible with Daikin One home air monitor for IAQ visualization
- » Error and service notifications
- » Multi-language support: English, Spanish, and French
- » Programmable 4-event schedule with adjustable hold function
- » Compatible with Daikin One cloud services



The **home screen** displays the current temperature, the system mode, a set-point adjustment slider, and icons leading to the other top-level screens.



The **schedule screen** displays upcoming set-point changes and their scheduled times, and access to edit mode for changing the schedule events.

"Actual screen may vary for different indoor unit models. The Daikin One home air monitor only works with ducted units.



First year of Daikin *One* cloud services included with purchase. Ask your Daikin contractor for more information!

≡ away on		
indoor 72°	<u>82'</u>	
	61°	

The **away screen** displays energy saving set-points. Away mode can be selected manually or entered automatically using geo-fencing in the Daikin *One* home app.

indoor	noderate	§ 72	
38 I		0 45%	
outdo	¥ 300d	j 80'	
	AQI 22	Q 57%	
	weather		
Ċ	circulate air	onaschedule	>
38 1	an speed	low	>

The **air quality screen**<sup>\*</sup> displays indoor air quality levels when a Daikin *One* home air monitor is connected. Outdoor air quality and weather will be displayed when the thermostat is connected to the internet and added to the mobile app.

## **Additional Features**

- » Over-the-air software update capable (requires Wi-Fi connection)
- » 1 Auxiliary output (dry contact), configurable as a humidifier, dehumidifier, or primary or secondary heat source
- » Open API compatible for home control systems such as Control4 and Crestron
- » Title 24 compliant
- » This model (DTST-TOU-A) is a base version for use with Daikin unitary systems.

EQUIPMENT COMPATIBILITY:					
Equipment Type	Equipment Part Number	Compatible Model			
Air Conditioners	Daikin Fit (DX17VSS & DX6VS), DX9VC, DX7TC	DTST-TOU-A			
Heat Pumps	Daikin Fit (DZ17VSA & DZ6VS), DZ9VC, DZ7TC	DTST-TOU-A			
Gas Furnaces	DM97MC, DC97MC, DM96VC, DC96VC, DM80VC, DC80VC, DM96SC-U, and DM80SC-U	DTST-TOU-A			
Air Handlers	DFVE, DMVE, DMVT, MBVC	DTST-TOU-A			
Indoor Air Quality Daikin <i>One</i> home air monitor (Only compatible with ducted units)	DESEN-HAQA	DTST-TOU-A			

#### DAIKIN ONE TOUCH SMART THERMOSTAT SPECIFICATIONS:

Model Number	DTST-TOU-A	
Description	Daikin One touch smart thermostat	
Dimensions	0.86"L x 3.4"W x 4.74"H	
Weight	6.5 oz	
Operation Temperature	32°F to 120°F	
Thermostat Compliance	Compliant to California Title 24 (OCST listed), FCC Certified, and UL Listed.	



TO LEARN MORE ABOUT THE DAIKIN ONE TOUCH SMART THERMOSTAT, SCAN CODE OR VISIT: www.daikinone.com



works with the Google Assistant



#### THE DAIKIN *ONE* TOUCH SMART THERMOSTAT IS BACKED BY AN OUTSTANDING 12-YEAR<sup>1</sup> LIMITED WARRANTY<sup>\*</sup>

- \* Complete warranty details available from your local dealer/contractor or at www.daikincomfort.com. To receive the 12-Year Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec. The duration of warranty coverages in Texas differs in some cases.
- <sup>1</sup> 12-Year Limited Warranty is available for owner-occupied residences only. For non-owner-occupied residences, the warranty period is 10-years. For multi-family and/or commercial applications, the warranty period is 5-years.

Google, Google Assistant, and all related logos are trademarks of Google, or its affiliates. Amazon, Alexa, and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

## DAIKIN

Our continuing commitment to quality products may mean a change in specifications without notice. © 2022 DAIKIN COMFORT TECHNOLOGIES NORTH AMERICA.INC. Houston. Texas - USA - www.daikincomfort.com or www.daikinac.com

PF-ONETOUCH\_10-22

## 1.2.6 Adaptive Touch Controller BACRC-T-P01/ BACRC-TH-P01/ BACRC-THO-P01/ BACRC-THOC-P01



## Advanced and Configurable Control Logic

The Daikin Adaptive Touch Controller (ATC) is used to control VRV, SkyAir, Single and Multi-Zone systems (P1P2) with advanced and configurable control logic. The ATC comes in 4 different models with a built-in temperature sensor, humidity sensor, CO<sub>2</sub> sensor, and occupancy sensor. The ATC will also provide analog input, analog output, digital input, and digital output terminals to monitor auxiliary sensors and control auxiliary equipment. The built-in sensors can be combined with advanced logic to create actionable tasks based upon the sensor values. The ATC controller can be integrated with a compatible building management system (BMS) using BACnet<sup>™</sup> MS/TP.

Indoor Unit	Models
BACRC-T-P01	ATC with Temperature Sensor
BACRC-TH-P01	ATC with Temperature/Humidity Sensor
BACRC-THO-P01	ATC with Temperature/Humidity/Occupancy Sensor
BACRC-THOC-P01	ATC with Temperature/Humidity/Occupancy/CO <sub>2</sub> Sensor



BACRC-T-P01 BACRC-TH-P01



BACRC-THO-P01 BACRC-THOC-P01

## **Features**

- » Color LCD touchscreen
- » Available with four different built-in sensor combinations including temperature, humidity,  $\rm CO_{_2},$  and occupancy sensors
- » Basic indoor unit control and monitoring:
  - On/Off
  - Mode (Cool, Heat, Fan, Dry, Auto)
  - Set-point
  - Room temperature (°C/°F)
  - Humidity (%)\*
  - CO<sub>2</sub> (ppm)\*
  - Occupancy sensor\*
  - Fan speed
  - Louver position
  - Alarm status and error code
  - Dirty filter indicator
  - Changeover master identification
- » Integration to a compatible building management system (BMS) using the BACnet<sup>™</sup> MS/TP.
  - Control and monitor the ATC operation using the various BACnet objects.
  - Indoor unit operation data BACnet points

- » Indoor unit control logic:
  - Auto changeover logic with guard timer
  - Dual/Single temperature set-point (°C/°F)
  - Set-point range limitation
  - Setback set-points control
  - Target humidity set-point used to manage humidity via the indoor unit dry mode, over cool logic or external humidifier/dehumidifier\*
  - Target CO<sub>2</sub> set-point used to control external equipment via the ATC auxiliary output\*
  - Schedule
  - Configurable occupancy sensor logic\*

» Advanced and configurable inputs and outputs:

- Aux heater control: primary/secondary/emergency heat
- Interlock through digital and analog outputs: heating stage 1, heating stage 2, cooling thermo-on, heating thermo-on, fan on/off, unit on/off, alarm status, CO<sub>2</sub> alarm, occupancy sensor, and humidifier/ dehumidifier control
- \* Depends on ATC model



#### Compatibility

Indoor Unit Family	Model Number
VRV and VRV LIFE	CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ
SkyAir	FAQ, FBQ, FTQ, FCQ, FHQ
Single and Multi-Zone	FDMQ, FFQ

To learn more about the *Adaptive Touch Controller (ATC)*, contact your local sales representative, visit www.daikincity.com and/or www.daikinac.com.

BACnet<sup>™</sup> is a trademark of ASHRAE.

Our continuing commitment to quality products may mean a change in specifications without notice, © 2020 DAIKIN NORTH AMERICA LLC · Houston, Texas · USA · www.daikincomfort.com or www.daikinac.com

PF-ATC 09-20

## 1.2.7 DKN Plus Interface AZAI6WSPDKC



## **Energy-Efficient Control**

The DKN Plus Interface (AZAI6WSPDKC) enables the energy-efficient control of Daikin air conditioners by a third-party thermostat or an automation system. With this interface, third-party devices or systems can control the *VRV, SkyAir*, and Daikin Single/Multi-Zone indoor units through Cloud API, Modbus<sup>®</sup>, BACnet<sup>™</sup> MS/TP, or thermostat relay contacts. This interface can be commissioned with ease through the DKN Cloud North America (NA) app via Bluetooth<sup>®</sup> Low Energy (BLE).

## 

Features

- » Versatile interface adaptor that can integrate with a third-party thermostat/BMS through multiple approaches:
  - Cloud API
  - Modbus
  - BACnet MS/TP
  - Backup thermostat G/Y/W (Fan/Cool/Heat) relay control through thermostat wire:
    - Automatically disables thermostat relay logic when cloud API connection detected
    - Advanced control logic to maximize indoor unit efficiency
- » Easy commissioning with the BLE configuration app (DKN Cloud NA app)

- » Indoor unit control and monitoring points\*
- On/Off
- Set-point
- Room temperature
- Mode (Auto, Cool, Heat, Fan, Dry)
- Fan speed
- Louver position
- Error code
- Interlock control with indoor unit On/Off
- » Auxiliary Heater Control
  - Auxiliary heater controlled as a secondary heat source

\*Availability depends on indoor unit model

## Compatibility

Indoor Unit Family	Model	Indoor Unit Type
VRV and VRV LIFE	CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ	P1P2
SkyAir	FAQ, FBQ, FTQ, FCQ, FHQ	P1P2
Cincle Zone and Multi Zone	FDMQ, FFQ	P1P2
Single-Zone and Multi-Zone	CDXS, CTXS, FDXS, FTK, FTX, FTXG, FTXR, FTXS, FVXS	S21



## 1.2.8 DKN Cloud Wi-Fi Adaptor AZAI6WSCDKA



# Connect Your Daikin System with the DKN Cloud Wi-Fi Adaptor for *VRV* (P1P2)

The DKN Cloud Wi-Fi Adaptor for *VRV* (P1P2) enables the remote control of your Daikin indoor units through an iOS/Android App. With the app, the DKN Cloud Wi-Fi Adaptor provides remote control and monitoring of P1P2 indoor units' ON/OFF, mode, set-point, fan speed, louver position, room temperature, and error alert status from an iOS/Android smartphone. Voice control is also possible through *Google Assistant* and *Amazon Alexa*.

## System Overview

The adaptor can be connected to the indoor unit as a standalone controller. It can also be connected to the indoor units as a main or sub remote controller if used with a wired remote controller. When connected to a Daikin indoor unit, the adaptor can monitor and control up to 16 indoor units together on the same P1P2 communication bus.







**App Features** = Schedules Manage User Living Room = Home Su 140 Tú We Th Fr All units ro 0 Office ÷ Office 0 00 1 731 John Doe A Floor 1 (2) Basic > MASTER Reception Living Room 0 Jane Doe ced > 12 ли \$ \$ Office (1):74% \$73% 00 嫩 You can only manage users in you advanced groups (A) 0 7:30 1. 77-^ Floor 2 (t) 0 Advanced and Basic features 5:30 +++ Bedroom 0 \*714 0.749 73 Office Floor 2 Bedroom 0Es We - 7:30 AM s[c 70.9 \$ 39 7 Days Schedule Indoor unit control and monitorin Control and monitor indoor unit's Leveled user authority options: Basic/Adva Unlimited indoor units can be added ON/OFF, mode, set-point, fan speed, to one account. Control indoor louver position, room temperature, and error status. units as a group

## Integration

This adaptor enables the control and monitoring of the indoor unit for third party management systems such as a home automation system or hotel automation system. With this adaptor, the energy management system can integrate with Daikin system through either Modbus\* RS-485 or public API.



## Compatibility

The adaptor is compatible with all Daikin indoor unit models that communicate with the P1P2 protocol. It is also backward compatible with previous P1P2 indoor unit models.

Series	Compatible Indoor Unit Models
Single-Zone	FDMQ_RVJU, FFQ_Q2VJU
SkyAir	FAQ_PVJU, FBQ_PVJU, FCQ_PAVJU, FHQ_PVJU, FHQ_MVJU, FTQ_PBVJU, FXAQ_TAVJU, FCQ_TAVJU, FTQ_TAVJU
VRV LIFE	CXTQ_TASBLU, FXDQ_MVJU, FXAQ_PVJU, FXEQ_PVJU, FXFQ_TVJU, FXHQ_MVJU, FXLQ_MVJU9, FXMQ_PBVJU, FXMQ_MVJU, FXNQ_MVJU9, FXSQ_TAVJU, FXTQ_TAVJUAD, FXUQ_PVJU, FXZQ_TAVJU
VRV	FXAQ_PVJU, FXDQ_MVJU, FXEQ_PVJU, FXFQ_TVJU, FXHQ_MVJU, FXLQ_MVJU9, FXMQ_PBVJU, FXMQ_MVJU, FXNQ_MVJU9, FXSQ_TAVJU, FXTQ_TAVJUAD, FXUQ_PVJU, FXZQ_TAVJU

To learn more about the DKN Cloud Wi-Fi Adaptor for VRV (P1P2), contact your local sales representative, or visit www.daikincity.com and/or www.daikinac.com

Google, Google Assistant, and all related logos are trademarks of Google, or its affiliates. Amazon, Alexa, and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

Our continuing commitment to quality products may mean a change in specifications without notice.
© 2020 DAIKIN NORTH AMERICA LLC · Houston, Texas · USA · www.daikincomfort.com or www.daikinac.com

PF-DKNCLOUD-VRV 09-20

## 1.3 System Monitoring for the HERO Simple Edge

## OVERVIEW

# The HERO Cloud Service and HERO Simple Edge

The Daikin *HERO* Simple Edge provides a connection of a Daikin *VRV\** system to the *HERO* Cloud Services network for remote monitoring. The *HERO* Simple Edge is mounted onto the outdoor unit, and the built-in SIM card provides wireless connectivity.

When a Daikin *VRV* system is connected to the *HERO* Cloud Services, users now have the ability to visualize their system data for each connected indoor and outdoor unit. The animated piping diagram provides the operation status of each unit which is also tied to predictive logic alerting users of potential compressor or sensor failures and refrigerant leaks. The *HERO* Cloud Services also helps optimize the equipment operation based upon outdoor unit ambient temperatures.

## Elevate control through remote monitoring:

- » Time and cost-saving opportunities Helps reduce unnecessary truck rolls and expand awareness of potential system issues.
- » An owner-oriented design with a customizable dashboard – Provides a quick overview of all connected sites and VRV systems.

*HERO* Cloud Services is based upon a recurring licensing fee to access site information. Licenses can be purchased in 1-year, 3-year, or 5-year increments, with no additional cost for the first-year access after the device is activated.

Compatible with select Daikin VRV models.
 Please visit daikinac.com to learn more.



## HERO CLOUD SERVICES

# HERO Cloud Services monitors your Daikin HVAC systems 24/7 to help optimize system operation.

## The result? A cloud-based tool that can help you run your building efficiently without sacrificing comfort due to unexpected downtime.

- » Remote monitoring to help manage and diagnose system performance.
- » Uses predictive logic to notify of impending compressor or sensor failures.
- » Visualize system performance through the integrated dashboard (web-based access from phone, laptop, and tablet).
- » Streamline service and maintenance for projects.
- » Secure cellular communication to the HERO Cloud Service using a built-in SIM card.

HERO Cloud Services license options: 1-year, 3-year, and 5-year licenses. Learn more at www.daikinhero.com

## There are many benefits Daikin HERO Cloud Services can offer:

#### **Building Owners** » Peace of mind

» Multisite access

» Remote monitoring via

» Intuitive user interface

the energy dashboard

## **Daikin Representatives**

- » Remote access to all buildings in your territory
- » Continuous commissionina.
- » Provide a service solution to the end-user
- **Contractors**
- » Remotely diagnose technical issues.
- » Easy troubleshooting using multiple tools, live data, graphs, history trends, alarm console...etc.
- » Error prediction and notifications



Daikin HERO Cloud Services



Remote alarms for pre-diagnostics





## MULTISITE DASHBOARD

# Multisite Dashboard

The *HERO* Cloud Services dashboard offers an overview of the accessible sites and provides the status of the total number of units displaying alarms, errors, warnings, or offline. The dashboard can be customized using the "Customize" button on the top right side of the page to fit the user's role. The Customize button allows users to add or remove the widgets (Map, Subscription, and Energy management). For example:

- » The Subscription widget will display the currently subscribed sites and the expiration date.
- » The "Energy Management" widget offers customized bar chart views for the energy consumption of the selected unit. This widget will also give users a quick view of their site's outdoor unit and indoor unit error status and mode of operation.

On the top right of the dashboard, users can switch to dark mode, check the current errors through the notification icon, request site access control through the "key icon," and edit the user profile.



## EQUIPMENT LIST/DETAIL

# Equipment List/Detail

- » The "Equipment List" widget lists all equipment for each site, including the indoor (IDU) and outdoor (ODU) units. The filter or the search bar allows users to search for specific units.
- » The "Equipment Detail" widget can be viewed by selecting the desired equipment row.

#### **Equipment Details**

The piping diagram provides dynamic graphics with real-time data for sensor values with the option to view the sensor description. System operation data is updated in 1 min increments based upon a change of value. In addition, system data can be "Replayed" in 1 hour increments from the stored data (5 years) on the piping diagram.

Al Sites	• Atum	All Operation Modes	• Reset				tearchitasie Q,
2041	Endprised Name 1	Almet Address a	Orme Address &	Model Number 8	Casality	Operation Mode a	Data
Building C	Cuber 2928	47	NA	PAPG20AVER	0 tors	Cool / On	1.500
Building C	Cubr2951	40	NA	FIFQ20AVEB	Otona	Heat / Off	
Building C	Cub#2957	49	NA	FXFQ20AVEB	© tore	Cool / On	
Building C	Cabe2759	50	No.	PREQUENTER	Otono	Cook/ On	
Building C	Cube2967	91	NA	FXFQ20AVER	O tord	Heat / OFF	
Building C	Cube2953	92	-	FXPQ20AVEB	O takes	Cook / On	
Building C	Cubic2959	52	NA	FXFQ204VEB	C toro	Heat / Off	
Building C	ElevLobby	54	NA	FOFGEGAVAB	0 3086	Cook / Off	Δ.
Building C.	Théliey Lola	55	NA.	FXFQ20AVER	0.1046	Herat / Off	
Building C	Hell 2400	74	84	INF-020AVEB	O tono	Heat / Off	
CXTQ_TASBLU + Col - Down - Domage	n n Soon ver	73.89 F Go Boort	Main REYQ168AA1 North Main	/DA Cool Therms Question Descended	n 91,89 F 106 n Dutsh End Terg Terg	2017 03.6017 36.2 Trunt Trunt Experience Economic Trunt	Refease Notes Policy Policy Tr 2775 34-4515 Off Off Off
CXTQ_TASBLU + Categorian Dependent Story Dependent Story Dependent Experiment Tages Experiment Tages	Tome Tomes Tomes Tomes Tomes States Tomes Tomes	72.49 F Banan In Internet Records	Non BRV616AAA Strain Castilistics: Spr Castilistics: Spr Castilist	Cool gracie         Therman	Co 91.89 7 100 Balaita Con Toron Toron Page 1 Page	2017 03.00 7 34.5 2017 2025 2016 2016 2016 2017 100 2017 100	Relates Notes Princy Pully 1
CXTQ_TASSUU + Control TASSUU + Saladi Carlos Carl		22.65 / To the part of the p	Boy Boyo (SEAA) Brand Brand Brand Was there there Was there there Was there there are Sea	(2A Cod Sector Sector			Adduce Manage Addage To 27 m 24.45 m Of Of Manage Addage 28 m Of Manage Addage Addag

Daikin HERO Cloud Services

5

6

## EQUIPMENT LIST/DETAIL (CONT.)

The "Outdoor Unit" information side widget provides » The "Indoor Unit" information side widget provides the outdoor unit model name, serial number, Airnet Address, and linked indoor units and allows remote configuring of the outdoor unit field settings. It also includes links to the manuals for the displayed equipment.

the indoor model name, serial number, Airnet Address, group address, and linked outdoor/indoor units.



## EQUIPMENT LIST/DETAIL (CONT.)

#### **Trend Data**

The Trend Data charts section provides four separate graphs (based on the unit of measurement) to make detailed plots of outdoor or indoor unit data. The chart can be plotted for a specific day or week. The data is available for the past five years. Errors are displayed (red arrow) on the trend graph with the time stamp of error occurrence. The "Preset" button offers preset data points for items like the Capacity Check and Compressor Health Check, and provides the ability to create a customized preset chart.



#### Live Data

The live data from the unit is available for viewing. Users can use the navigation buttons to view additional data or search for particular data. In addition, the data points can be added directly to the trend graphs using the "Add to trending" button.

Live Data: IDU 2		Expert	Live Data: ODU		Export
	Search table	٩		Beach	table Q
Parameters 0	Value		Parameters 4	Nak	
Cool setpoint	61.29 °F 61 90	Add to torning 💌	Accumulator of return	on	Add to reading 🔻
Equipment error level	Normal	Addissioning 🖤	Rackup operation	on	Add to trending 💌
Heat setpoint	32.49 °F 61 50	Add to trending 💌	Communication state	Normal	Assistanting ()
indoor aimet address.	2	Addressing -	Compressor 1 ourrent	0.00 A 0 100	Add to Trending 👻
Indoor EV opening	200.00 pulse 0 - 2000	Add to trending 🔻	Compressor 1 discharge pipe temp.	64.89 °F 32 - 491	Add to trending 🐨
Indoor fan step	5	Addistanding 🖤	Compressor 1 discharge stepping down control	Off	Addiatending 💌
Indoor gas pipe temp.	-63.09 °F -57 248	Add to trending 💌	Compressor 1 fin stapping down control	off	Applie wording 💌
Indoor liquid plan temp,	-63.09 °F -57 248	Add to trending 💌	Compressor 1 fin temp	66.69 °F -197 261	Add to trending 💌
Operation mode	Cool	Additionending 💌	Compressor 1 svercurrent stepping down control	Off	Add to trending 💌
Operation/Stop	On	Attracting •	Compressor 1 predicted operating current	0.00 A 0 100	Add to bending 💌

Indoor unit Live Data

Outdoor unit Live Data

7

## ENERGY MANAGEMENT

# **Energy Management**

The "Energy Management" widget provides detailed energy monitoring for the connected equipment. Three types of charts are available on the energy management page:

- 1. Site Comparison
- 2. Outdoor Unit Comparison
- 3. Multisite Consumption

When the mouse pointer hovers on a bar in the graph, a tooltip displays the actual energy consumption value with more details. The compare feature of the graph provides a way to compare the selected data with past data. Also, the plotted data can be exported using either PNG or CSV file formats.



The bar chart allows the user to view energy data for the selected site. The energy consumption data bars are broken down into modes of operation of the outdoor unit, such as Cooling, Heating, Cooling & Heating, and Fan modes.

## ALARMS CONSOLE

# Alarms Console

The widget provides users with a view of current active or inactive alarms with the option to filter among sites, units, and statuses for a specific duration.

shboard Equipm	CLOUD STRVICES	Alarms Demand Sche	dule Administration -			
A1 Sies	• ATONS •	Al Status - A	IAama - 🖸	© 00:00 🖸	© 00:00 Facut	Search table Q
iter p	Equipment Norme p	Alann Type ()	Alarm Code p	Time of Alaran \$	Status p	Decumences :
ITTP Real VRV	ODU	Error	0413	Jonustry 28, 2023 at 06 34:00 AM (CST)	e tractive	10
ITTP Real VRV	100	Error	SF-00	January 28, 2023 et 08 24:00 AM (CST)	• inactive	4
TTP Real VRV	obu	Caution	6J-00	January 19, 2023 at 12:00:00 AM (CST)	e inactive	25
TTP Real VRV	oou	Warning	<b>63-00</b>	January 18, 2023 at 11:58:01 PM (CST)	· Inactive	29
TTP Real VRV	000	Enter	6201	January 18, 2023 at 11.56-01 PM (CST)	· Inactive	23
TTP Real VRV	104	Caution	A6-01	January 18, 2023 at 11:52:43 PM (CET)	• Active	2
TTP Real VRV	80	Warning	F3-02	January 18, 2023 at 11:50:18 PM (CS7)	e inactive	2
TTP Real VRV	60	Error	A6-20	January 18, 2023 at 11 47:53 PM (CST)	e Inactive	2
TTP Real VRY	ODU	Caution	CJ-00	Jonusty 18, 2023 at 11 G4:58 PM	e inactive	24

The Error Details widget provides information on the error generated, possible causes, and technician tips. It also provides a comments section to create a history of actions taken on the equipment. Support materials are also available, so the technician never has to leave the Daikin *HERO* Cloud Services dashboard to get more information.

Conf.2761		₩ ₩ 75F	Set (0: 75F*	Sun 🔅 78F*	Mon
Alarm Priority (High)	Alarm Description: Tr/72 Sufey Alam				
Alam Bauu: • Active Ener Type: Ener Ener Code: 4000 Edge Name: Eoge-C Local Site Time: Mar 14, 2022, 7:30:50 AM	Possible Causes: Selay Device on TU/T2 is open/mproper field setting Defective indeer unit control PCB				
Equipment Details	-Verify if any wires are connected to T1 and T2, if yes, then set Seld setting accordingly-Commonly used mode 22-1-03.				
Equipment Name: <u>Conf.2265</u> Model Number: FXFC2CAVEB Location: D-NET Address: 23 Edge Device Spinet ID: 2523501983269005 Edge Device Spinet IA:	Condition: When an open circut occurs between exercial input terminals with the sempte controller set to 'external DAV/DFF terminal'. Method of Detection: Detect tigen or short circut services exercial input terminals in indoor unit.				
Demand Limit: ++	Comments				
Linke fundeer Units Card.278 Card.278 Card.278 Card.278 Card.278 Card.278 Card.277 Card.278 Card.277 Card.278 Card.277 Card.278 C	Add comment				
Support Materials					

Daikin HERO Cloud Services

9

## DEMAND SCHEDULE / ADMINISTRATION

# Demand Schedule

Provides monitoring and configuration for the outdoor unit demand limit and low noise schedule operation



# Administration

The "Administration" widget provides user management with customizable access for the specified user type. In addition, multiple user roles are available to fit different user types (manufacturer rep, distributor, Dealer, Engineer, Building owner) to support quick access and identification.

reasonana referense rusa	y management availins being			
Users			Ac	dd User
All Sites	<ul> <li>31 total users</li> </ul>		Search table	۹
Name ¢		Email \$	User Type \$	
vrvuter9 test	est.	vrvuser9@test.com	Building Owner	
vrvuser8 test		vrvuser8@test.com	Sales Representative	
vrvuser11 test		vrvuser11@test.com	Sales Representative	
vrvuser test		vrvuser2@test.com	Daikin Admin	
vrvuser ten		vrvuser10@test.com	Building Owner	
tester mail		mironbad@googl.win	Service Contractor	

## SPECIFICATIONS

HERO Simple Edge			
Model	DSE401A71/DSE401B71		
Description	HERO Simple Edge Cloud Communication Adaptor		
Maximum Connections	64 Indoor Units / 1 Outdoor Unit		
Communication to Outdoor unit	Proprietary		
Communication to Cloud	A71 use existing text for Continental United States, Alaska and Hawaii (only) B71 use LTE-CAT-M1 (multi Carrier) Continental Unites States, Alaska, Hawaii and Canada		
Power	16VDC supplied by Outdoor Unit, less than 3W		
Operating Temp Range	-22 to 125°F (-30-52°C)		
Storage Temp range	-22 to 158°F (-30-70°C)		
Operating Humidity Range Less than 95% RH (Non-condensing)			
Storage Temp range	Less than 95% RH (Non-condensing)		
Installation Elevation	Less than 6500 ft. (2000 m)		
Dimensions (W x H X D)	6.2" X 3.8" X 1.7" (160 mm X 96 mm X 42 mm)		
Weight (Mass)	1.0 lb. (0.46 kg)		
Communication wire	9-33/64 ft. (2900 mm)		
Conversion harness	0.55 ft. (170 mm)		
Enclosure Rating	IP66		
	HERO Cloud Services		
Compatible Browser	Google Chrome, Safari		
Compatible Devices	PC, MAC, Smartphone, and Tablet with internet connection		
Requires Subscription	Yes		
URL	www.daikinhero.com		

## FOR QUESTIONS OR SUPPORT:

1-800-DAIKIN1 • daikinhero.support@daikincomfort.com

Daikin HERO Cloud Services

11

## 1.4 Centralized Control System

#### intelligent Touch Manager

The intelligent Touch Manager (iTM) is an advanced multi-zone controller that controls and monitors the Daikin *VRV* system. The iTM can also provide a cost-effective mini Building Management System (BMS) solution to integrate and control third-party devices through optional software and hardware. If a BMS already exists, the iTM can be used as a BACnet gateway interface for BMS integration with iTM BACnet Server Gateway Option.

Easy Operation and Configuration

- Intuitive user interface with 10.4" LCD touch screen
- Flexible screen views includes the icon view, list view and layout view for system configurations
- Easy engineering with use of the Preset Tool and USB port

#### Advanced Control Logic

- Independent Cool and Heat setpoints or Single setpoint in the occupied period
- Independent Setback setpoints in the unoccupied period
- Weekly Schedule with Optimum Start and Timed Override
- Auto Changeover with configurable methods

#### Facility Management and Billing

- Remote Web access
- Automatic Error and Alert emails
- Tenant Billing with the iTM PPD option

Mini BMS Solution with Software and Hardware Options

- Interlock and Emergency Stop for facility management
- DI, DO, AI, AO points integrated via the WAGO I/O System
- BACnet points (AI, AO, AV. BI, BO. BV, MSI, MSO, MSV) integrated with the iTM BACnet Client Option
- DI and DO points integration via DIII-Net connected DI and DIO units

#### Built-in Service Tool with Remote Access

- Operation data are stored in the iTM for the last 5 days:
  - Indoor unit and outdoor unit operation data
  - BACnet Client objects
  - WAGO I/O system data
- Operation data can be exported through a USB drive or through the iTM web browser remotely
- BMS can monitor the BACnet objects of indoor unit and outdoor unit operation data with the BACnet Server Gateway Option activated

#### BACnet Server Gateway Option

- Direct connection to the VRV system using the iTM as a gateway
- Individual device ID assigned to each indoor unit group and outdoor unit
- Seamless control logic integration between the iTM and BMS
- Greatly reduces the need for BMS integrator programming

#### **BACnet Client Option**

- Monitor and control equipment and sensors connected to a BACnet server via BACnet IP
- Up to 50 BACnet IP servers can be connected

#### PPD Option

Apportions total outdoor unit power consumption back into the respective indoor units served by those outdoor units

#### iTM Web IF (HTTP) Option

Provides the function to monitor and control up to 512 indoor unit group addresses by a BMS via HTTP protocol.



## 1.5 Group, Management Point and Area

## 1.5.1 Definition

#### Remote controller group

- The group means the indoor units connected by the same control wiring for remote controller (connected to terminal P1 and P2) and all the units in the group have "the same setting" and "the same operation".
- The indoor units in the group are controlled by the local remote controller connected to the indoor unit(s).
- Up to 16 indoor units can be placed in one group.

#### Management point

A management point is the target equipment monitored and operated using the iTM.

A remote controller group is a management point in the iTM.

The types of management points that can be controlled by iTM are as follows:

#### Indoor\*1, Ventilator, Dio\*2, Analog\*3, Pulse\*4, Outdoor, MultiState\*5

- \*1 The management points indoor unit and AHU are treated as the indoor management point type.
- \*2 The management points Di, D3Dio, D3Dio, External Di, External Dio, BACnet Di, and BACnet Dio are treated as the Dio management point type.
- \*3 The management points External Ai, External Ao, Internal Ai, BACnet Ai, and BACnet Ao are treated as the Analog management point type.
- \*4 The management points Pi, External Pi, and Internal Pi are treated as the Pi management point type.
- \*5 The management points BACnet Mi and BACnet Mo are treated as the MultiState management point type.

#### Area

#### Area is used in the iTM instead of Zone.

An area is a hierarchical group into which management points, monitored and operated by the iTM, are classified. You can populate an area with member areas and management points. An All area, to which you cannot manually register or delete members from, is provided by default.

- The indoor units connected by the same control wiring for centralized control equipment (connected to terminal F1 and F2) and all the units in the same Area can have "the same setting" or "independent settings".
- The Area control of the indoor unit is operated by the centralized control equipment.
- From 1 up to 64 Areas can be controlled by the centralized control equipment.
- The number of groups you can set in one Area is from 1 up to 64 indoor unit groups.
- Up to 16 indoor units can be set in one group, and up to 64 indoor unit groups (up to 128 indoor units) can be connected.

Centralized control equipment is capable of controlling/monitoring up to 512 groups of indoor units (hereafter "groups") with use of up to 7 iTM Plus Adaptors.

The main functions of the centralized control equipment include :

- 1. Collective starting/stopping of operation of the indoor units connected to the centralized control equipment.
- 2. Starting/stopping of operation, temperature setting, switching between temperature control modes and enabling/disabling of operation with the local remote control by <u>Area</u> or <u>group</u>.
- 3. Scheduling by Area or group.
- 4. Monitoring of the operation status by Area or group.
- 5. Display of the air-conditioner operation history.
- 6. Forced stop input from BMS (non-voltage, normally-open contact).

## Maximum number of areas that can be created: 650 (All excluded)



Maximum number of hierarchal levels that can be created: 10 levels

#### Note:

Registered management points are automatically registered in the folder for the corresponding management point type set up under the all area (default).

## 1.5.2 Patterns of Group and Area

### Group

- A group of indoor units include:
- 1. One indoor unit without a remote controller.



2. One indoor unit controlled with one or two remote controllers.



3. Up to 16 indoor units controlled with one or two remote controllers.



#### Area

- Area control with the centralized control equipment
- Area control, which allows collective settings for more than one group, is available with the centralized control equipment, which facilitates the setting operations.



- One setting can make the same setting for all of the units in one area.
- Up to 512 Areas can be set with one centralized control equipment. (The maximum number of groups in one area is 512.)
- Groups can be placed in areas at will with the centralized control equipment.
- Indoor units in one group can be divided into more than one area. (not recommended)
- 1 Area is not limited to 1 Group and vice versa.

You can register a management point in two or more areas. However, you cannot register the same management point two or more times in one area. You cannot register the same area in two or more areas either.


# 1.5.3 Group Address

- Set a group address to a device to be connected to the DIII-NET.
- The range of addresses to be set is 64 types as shown below.

1-00~1-15	·····16 types	
2-00~2-15	·····16 types	Tatal C4 to man
3-00~3-15	·····16 types	Iotal 64 types
4-00~4-15	·····16 types	

- You cannot set a same group address on a same DIII-NET.
- You do not need to set a group address to a sub unit in a remote control group.
   In case of power proportional distribution is used, you need to set a group address to a sub unit in a remote control group as well.





# 1.6 Building Management System

	Part name		Part name Model No. Function		Function	
em	HERO Simple Edge Cloud Communication Adaptor		HERO Simple Edge Cloud Communication Adaptor		DSE401A71 DSE401B71	The Daikin HERO Simple Edge provides a connection of a Daikin VRV system to the HERO Cloud Services network for remote monitoring.
Jement Syste	Basic	ic Hardware intelligent Touch Manager		DCM601B71	Air-conditioning management system that can be controlled by touch screen.	
ilding Manag	Ontion	Hardware	iTM plus adaptor	DCM601A72	<ul> <li>Additional 64 groups (10 outdoor units) are possible.</li> <li>Max. 7 iTM plus adaptors can be connected to intelligent Touch Manager.</li> </ul>	
Bui	Option	Software	iTM power proportional distribution	DCM002A71	Power consumption of indoor units are calculated based on operation status of the indoor unit and outdoor unit power consumption measured by kWh metre.	
	External E Control	Equipment	iTM BACnet Client Option	DCM009A51	<ul> <li>With this option, the iTM is able to manage DOAS systems and other third party equipment through the BACnet/IP protocol.</li> <li>By registering equipment connected to a BACnet server as management points in the iTM, you can now monitor and control the equipment via the iTM.</li> </ul>	
cation Line	Interface Solutions ITM BACnet Server		iTM BACnet Server	DCM014A51	With the iTM BACnet Server Gateway Option (DCM014A51), the iTM provides BMS integrators with the ability to monitor and/or control the VRV indoor and outdoor units, eliminating the need for an additional hardware interface. Moreover, with the latest software update to the iTM 2+ (v2.06), the iTM is able to serve as a service tool to access indoor and outdoor unit operation data. With the iTM BACnet Server Gateway Option, the operation data points for both the IDU (indoor unit) and ODU (outdoor unit) are also available to the BMS through BACnet.	
սոաս	Interface for use in BACnet (Note 1)		DMS502B71	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet communications.		
Cor	Optional DIII board		DAM411A1	Expansion kit, installed on DMS502B71, to provide 3 more DIII-NET communication ports. Not usable independently.		
	Interface for use in LONWORKS (Note 2)		DMS504C71	Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through LONWORKS communication.		
	Home automation interface adaptor for use in Modbus		DTA116A51	Use of the Modbus protocol enables the connection of the VRV system with a variety of home automation systems from other manufacturers.		
	Mounting	ounting plate		BKS26A	When installing DTA116A51, DTA109A51 into outdoor units.	
ation	DKN Plus Interface		AZAI6WSPDKC	Enables the energy-efficient control of VRV indoor unit by a third-party thermostat or an automation system. With this interface, third-party devices or systems can control VRV indoor unit through Cloud API, Modbus, BACnet MS/ TP, or thermostat relay contacts.		
oller Integr	DKN Cloud Wi-Fi Adaptor AZAI6WS		AZAI6WSCDKA	Enables the energy-efficient control of VRV indoor unit by DKN NA smartphone app and/or voice control command. With this adaptor, third-party devices or systems can control VRV indoor unit through Cloud API, or Modbus.		
ote Contro	Adaptive Touch Controller		Adaptive Touch Controller BACRC-TH-P01 BACRC-THO-P0 BACRC-THO-P0 BACRC-THOC-P0		Built-in sensors and logic for VRV indoor unit control. It also enables the monitoring and control of the VRV indoor unit through BACnet MS/TP.	
Rem	DIII-Net/BACnet MS/TP Communication Adaptor		DTA118A71, 72	BTL certified device with direct connection to the BMS using the BACnet MS/TP protocol.		
nal	Unification computer	n adaptor fo ized control	r	DCS302A72	Interface between the central monitoring board and central control units (not compatible with the iTM).	
og sig	Wiring ad appendice	aptor for ele es	ectrical	KRP4A71, 72, 73, 74	To control the group of indoor units collectively, which are connected by the transmission wiring of remote controller.	
act/Anal	External o outdoor u on indoor	control adap nit (Must be units.)	tor for installed	DTA104A53, 61, 62	<ul> <li>Cooling/Heating mode change over. Demand control and Low noise control are available between the plural outdoor units.</li> </ul>	
Cont	DIII-NET	expander ac	daptor	DTA109A51	<ul> <li>Apply to increase the number of connected outdoor units with a multi-zone controller.</li> <li>Overcome communication errors in electrically noisy environments.</li> </ul>	

# 1.7 Open Protocol Interface

# Integrated control systems that recognize the trend of open protocol control systems

Compatibility with BMS open protocols by utilizing the international communication standards, BACnet , LONWORKS, or Modbus.



DMS502B71 (Interface for use in BACnet)



DTA118A71 DTA118A72 (DIII-Net/BACnet MS/TP Communication Adaptor)



DTA116A51 (Modbus communication adaptor)



DMS504C71 (Interface for use in LONWORKS)



DCM014A51 (intelligent Touch Manager + BACnet Server Gateway Option)



AZAI6WSPDKC (DKN Plus Interface)



AZAI6WSPDKA (DKN Cloud Wi-Fi Adaptor)

# DMS502B71 Interface for use in BACnet

- Conformance class 3 (ASHRAE 135)
- Standard BACnet Device B-ASC (ASHRAE 135)
- BACnet/IP over Ethernet
- Up to 40 outdoor units and 256 indoor unit groups on one gateway. (optional expansion adaptor)
- BTL listed

### DTA118A71 / DTA118A72 DIII-Net/BACnet MS/TP Communication Adaptor

- BTL certified device with direct connection to the BMS using the BACnet MS/TP protocol.
  - Gateway between the Daikin DIII-Net and BMS BACnet MS/TP workstation - Manages up to 32 indoor units and 4 outdoor units
  - Low cost alternative to typical BMS gateways and protocols

### DTA116A51 Modbus Communication Adaptor

- BMS interface based on Modbus (RS485, which communicates via Modbus RTU)
- Gateway between Daikin DIII-Net and BMS Modbus workstation
  - Manages up to 16 indoor units and 2 outdoor units
- Preferred low cost alternative to typical BMS gateways and protocols

### DMS504C71 Interface for use in LONWORKS

- XIF file for confirming of specifications of the units.
- Connectable up to 10 outdoor units and 64 indoor unit groups.

### DCM014A51 intelligent Touch Manager + BACnet Server Gateway Option

- Direct connection to the VRV System using the intelligent Touch Manager as a Gateway
- Individual device ID assigned to each indoor unit and outdoor unit management point
- Seamless control logic integration between the intelligent Touch Manager and BMS
- Greatly reduces the need for BMS integrator programming
- Up to 128 indoor unit and outdoor unit management points can be controlled and monitored by the BMS

### AZAI6WSPDKC DKN Plus Interface

- Versatile interface adaptor that can integrate with a third-party thermostat/BMS through multiple approaches:
  - Cloud API
  - Modbus
- BACnet MS/TP
- Thermostat Relay Control: Y/W/G (Cool/Heat/Fan)

### AZAI6WSPDKA DKN Cloud Wi-Fi Adaptor

- The adaptor that can integrate with a third-party thermostat/BMS through multiple approaches:
  - Cloud API
  - Modbus

### 1.8 Localized Control

For more effective localized environmental control Daikin offers variety of control options such as single or double remote control or centralized control. This enables the construction of a variety of operational control systems which can be adapted for a wide range uses from remote control to building automation.

	Control Method	Objective / Use	Unit Name and Model	Function	Standard Number of Units	
	Local operation of remote controller	Example of typical use				
_	Remote operation of remote controller	For control from multiple locations	Navigation Remote Controller BRC1E73		1 remote controller controls 1 indoor unit	
Remote Controlle	2 remote control *1, *3	For control from 2 places (distant or local)	Madoka Remote Controller BRC1H71W	Main Menu Airflow Direction Ventilation Schodula	2 remote controllers control 1 indoor unit (Main and sub remote controllers)	
	Group control *1, *2	For the control of multiple indoor units at the same time	74 T	<ul> <li>Schedule</li> <li>Celsius / Fahrenheit</li> <li>Maintenance Information</li> <li>Configuration</li> <li>Current Settings</li> <li>Clock &amp; Calendar</li> <li>Daylight Saving Time</li> </ul>	1 remote controller controls up to 16 indoor units simultaneously	
	Group control with 2 remote controllers *1, *2, *3	For control from multiple locations		<ul> <li>Language</li> <li>Service Settings</li> <li>Test Operation</li> <li>Maintenance Contact</li> <li>Field Settings</li> <li>Energy Saving Options</li> <li>Prohibit Buttons</li> <li>Min Setpoints Differential</li> <li>Group Address</li> <li>Indoor unit AirNet Address</li> <li>Outdoor unit AirNet Address</li> <li>Error History</li> <li>Indoor Unit Status</li> <li>Forced Fan ON</li> <li>Switch Main Sub Controller</li> <li>Filter Indicator</li> </ul>	2 remote controllers control up to 16 indoor units from 2 different places simultaneously	
Other devices	Group control *1, *2, *4	For the control of multiple indoor units at the same time	Daikin One+ Smart Thermostat DTST-ONE-ADA-A		1 remote controller controls up to 16 indoor units simultaneously	
	Group control *1, *2, *5		DKN Cloud Wi-Fi Adaptor AZAI6WSCDKA			

### Note:

\*1. Connection to indoor unit: For group control it is connected to 1 unit out of the group, and in the case of control with 2 remote controllers both controllers are

connected to the indoor unit.
\*2. In the case of group control, the controller used as the main controller must be selected with the Navigation/Madoka Remote Controller connected with the indoor unit having auto-swing function.

\*3. In the case of using two remote controllers, the power supply connector (X35A, etc.) on the indoor printed circuit board and the adaptor for wiring (KRP1C74/75) cannot be used at the same time.
\*4. Cannot use together with other wired or wireless controllers.
\*5. The adaptor can used together with the Navigation/Madoka remote controller (optional).



Centralized control using multi-zone controllers

Control Method		Objective / Use	Unit Name and Model	Function	Standard Number of Units	
Cloud Monitoring and Control	HERO Simple Edge	HERO Simple Edge Cloud Communication Adaptor	DSE401A71 DSE401B71	<ul> <li>On-board LED indicates the operation status of the Daikin HERO Simple Edge.</li> <li>Included SIM card for cloud connection</li> <li>Directly powers from the outdoor unit, no external power supply is required.</li> <li>Connects the VRV system to the HERO Cloud Service.</li> <li>Easy setup with QR code label with device information (Edge ID, SIM Card Information).</li> <li>Remote monitoring for outdoor unit operation data</li> <li>Simple customizable dashboards to provide quick status of connected units and sites</li> <li>Animated piping layout with live data and past data at 1-minute intervals.</li> <li>View and download trend graphs of historical operation data.</li> <li>Download historical operation data.</li> <li>Alarm dashboard with automatic email notifications when an alarm occurs</li> <li>Energy management with customizable access for the specified user type.</li> <li>Monitors multiple outdoor units across multiple sites with a single login.</li> </ul>	Monitor up to 1 outdoor unit and 64 indoor units with one HERO Simple Edge	
Control by Multi-zone Controllers	intelligent Touch Manager	For providing centralized control of a Daikin <b>VRV</b> system and other building equipment	DCM601B71	<ul> <li>Independent Cool, Heat, and Setback Setpoints</li> <li>Automatic Changeover in Heat Pump and Heat Recovery Systems</li> <li>Setpoint range limitation</li> <li>Simple Interlock</li> <li>Alarm email</li> <li>Errors and Operation History</li> <li>Power Proportion Distribution Option</li> <li>Various automatic control functions</li> <li>Remote access function</li> <li>VRV Power Proportional Distribution function</li> <li>DIII-NET connection</li> <li>BACnet Client option monitors and controls ancillary equipment via BACnet/IP</li> <li>BACnet Server option used to integrate VRV indoor units and outdoor units to a BMS</li> <li>Operation data available for last 5 days</li> <li>ITM Web IF (HTTP) Option provides the function to monitor and control up to 512 indoor unit group addresses by a BMS via HTTP protocol.</li> </ul>	Controls up to 64 groups (Max. 512 indoor units groups) with one intelligent Touch Manager. (Up to 7 iTM Plus Adaptor can be use to maximize indoor unit group count)	



### Control method using open protocol interface

Control Method	Objective / Use	Unit Name and Model	Function	Standard Number of Units														
															<ul> <li>Interface for use in BACnet DMS502B71</li> </ul>	Interface for use in BACnet Interface unit to allow communications between VRV and BMS	Interface for use in BACnet: Up to 256 indoor unit groups (512 indoor units) When the option DIII board is used	
	Building Management System (BMS) control for air- conditioning are carried out by	<ul> <li>Interface for use in LonWorks DMS504C71</li> </ul>	Interface for use in LONWORKS Interface unit to allow communications between VRV and BMS	Interface for use in LonWorks: Up to 64 indoor unit groups (128 indoor units)														
Building Control System	communication and contact signal.	<ul> <li>Modbus Communication Adaptor</li> <li>DTA116A51</li> </ul>	Modbus Communication Adaptor allows communication between VRV and BMS	Modbus Communication Adaptor: Up to 16 indoor units and 2 outdoor units														
		<ul> <li>iTM BACnet Server Gateway Option</li> </ul>	<ul> <li>Direct connection to the VRV system using the iTM as a gateway</li> <li>Individual device ID assigned to each indoor unit management point</li> <li>Seamless control logic integration between the iTM and BMS</li> <li>Greatly reduces the need for BMS integrator programming</li> </ul>	Up to 128 indoor unit groups and 20 outdoor units														
	Building Management System (BMS) control for air- conditioning are carried out by communication and contact signal.	DIII-Net/BACnet MS/TP Communication Adaptor DTA118A71 DTA118A72	<ul> <li>Direct connection to the VRV system using the BACnet MS/TP Adaptor</li> <li>Individual device ID assigned to each indoor unit management point</li> <li>Seamless control logic integration between the BACnet MS/TP Adaptor and BMS</li> </ul>	Up to 64 indoor units														



Control Method	Objective / Use	Unit Name and Model	Function	Standard Number of Units
		DKN Plus Interface AZAI6WSPDKC	<ul> <li>Versatile interface that can integrate with a third-party thermostat through multiple approaches: Cloud API, Modbus, BACnet MS/TP, Thermostat G/Y/W Relay Control: Fan, Cool, Heat</li> <li>Easy commissioning with Daikin's Bluetooth furnace configuration app</li> <li>Modbus and BACnet MS/TP Integration</li> </ul>	Up to 16 indoor units
Local Control BMS Interface	Building Management System (BMS) control for air- conditioning are carried out by communication and contact signal.	DKN Cloud Wi-Fi Adaptor AZAI6WSCDKA	<ul> <li>A wired remote controller is optional to connect to the indoor unit together with the Wi-Fi adaptor</li> <li>Compatible with Amazon Alexa and Google Home voice control</li> <li>The Wi-Fi adaptor wiring consists of a non-polar two-wire connection to the indoor unit at terminals P1/P2 and a connection to the indoor unit at terminals P1/P2 and a connector X18A or X35A (16VDC)</li> <li>Open API document is available for cloud to cloud integration</li> <li>Modbus Integration</li> </ul>	Up to 16 indoor units
		<ul> <li>Adaptive Touch Controller BACRC-T*</li> </ul>	Communication between indoor unit and BMS using BACnet MS/TP.	Up to 16 indoor units



#### **BMS Integration Solutions** 1.9

### Compatibility with Multi-zone control 1.9.1

The table below shows which combinations of centralized control equipment are possible and which are not.

						TERS OF		
	HERO Simple Edge Cloud Communication Adaptor	intelligent Touch Manager	Interface for use in LonWorкs	Interface for use in BACnet	Modbus Communication Adaptor	Adaptive Touch Controller	DKN Plus Interface	DIII-Net/ BACnet MS/TP Communication Adaptor
	DSE401A71 DSE401B71	DCM601B71	DMS504C71	DMS502B71	DTA116A51	BACRC-T *1	AZAI6WSPDKC	DTA118A71 DTA118A72
HERO Simple Edge Cloud Communication Adaptor	NG	ОК	ОК	ОК	ОК	ОК	ОК	ОК
intelligent Touch Manager	ОК	ОК	ОК	ОК	ОК	OK*1	ОК	ОК
Interface for use in LonWorks	ОК	ОК	NG	NG	NG	NG	ОК	NG
Interface for use in BACnet	ОК	ОК	NG	NG	NG	ОК	ОК	NG
Modbus Communication Adaptor	ОК	ОК	ОК	ОК	NG	NG	ОК	NG
Adaptive Touch Controller	ОК	OK*1	ОК	ОК	ОК	ОК	NG	ОК
DKN Plus Interface	ОК	ОК	ОК	ОК	ОК	NG	NG	ОК
DIII-Net/BACnet MS/TP Communication Adaptor	ОК	ОК	NG	NG	NG	ОК	ОК	OK*2

### Note:

\*1. Humidity, CO2 and external equipment input/output and interlocks on the Adaptive Touch Controller will not be displayed on the intelligent Touch Manager. \*2. Max 2 adaptors per DIII-Net system

# 1.9.2 BMS Integration Overview

BMS Introduction and Daikin Interface



Nallie	T unctions
Interface for use in BACnet (DMS502B71)	Interface unit to allow communications between <i>VRV</i> and BMS. Operation and monitoring of air- conditioning systems through BACnet communications.
Interface for use in LONWORKS (DMS504C71)	Interface unit to allow communications between VRV and BMS
Optional DIII board (DAM411B51)	Expansion kit, installed on the DMS502B71, to provide 2 more DIII-NET communication ports. Not for use independently.
HERO Simple Edge Cloud Communication Adaptor (DSE401A71/DSE401B71)	The Daikin HERO Simple Edge provides a connection of a Daikin <i>VRV</i> system to the HERO Cloud Services network for remote monitoring.
intelligent Touch Manager (DCM601B71)	Main VRV control system or backup system if BMS fails.
Modbus communication adaptor (DTA116A51)	Allows integration between <b>VRV</b> and BMS. Operation and monitoring of the air-conditioning system through Modbus.
Adaptive Touch Controller (BACRC-T*)	Allows connected indoor unit integration directly to a BMS via BACnet MS/TP.
DKN Plus Interface (AZAI6WSPDKC)	Allows connected indoor unit integration directly to a BMS via BACnet MS/TP or Modbus communication.
DIII-Net/BACnet MS/TP Communication Adaptor (DTA118A71/DTA118A72)	Direct connection to the BMS using BACnet MS/TP protocol.

# 1.9.3 Available Control Points through different BMS gateways

# 1. iTM BACnet Server Gateway Points List

System configuration points linked to iTM control logic

Point Name	Point Description
Enable iTM Schedule Operation	Enable or disable iTM schedule operation
Enable iTM Auto Changeover Operation	Enable or disable iTM auto changeover logic.
Timed Override Minutes	Set override time in minutes
System Forced Off	The forced system stop command will force the indoor unit to stop running. Remote controllers will be locked out from restarting indoor units during the forced system stop event.

### Indoor unit points

	Point Name	Point Description
	Unit On_Off Status	Monitors if the indoor unit fan is On or Off
	Alarm Status	Monitors whether or not the indoor unit is operating normally, and issues an alarm if the indoor unit has a malfunction. Error code is shown in the description.
ts	Room Temperature	Monitors and displays the room temperature.
oin	Unit On Details	Indoor unit details operation Off - Normal (ON) - Override - Setback
gР	Filter Sign Status	Monitors filter run time and provides service alert.
Indoor Fan Status Monitors if the indoor unit fan is On or Off		
nito	Communication Status	Monitor if the communication is normal or in alarm
Ř	Thermo-on Status	Monitors whether or not the indoor unit is actively cooling or heating.
	Compressor Status	Monitors if the compressor of the outdoor unit is On/Off/Defrost
	Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating.
	Changeover Option	Monitor if iTM changeover logic is active.

	Point Name	Point Description
	Occupancy Mode	Set the occupancy of the indoor unit occupied, Unoccupied or Standby
	Operation mode	Set Cool-Heat-Fan-Dry operation mode. For the indoor unit and monitors the latest mode
nts	Occ Cooling Setpoint	Sets the occupied cooling setpoint of the indoor unit and monitors the latest setpoint value.
Poi	Occ Heating Setpoint	Sets the occupied heating setpoint of the indoor unit and monitors the latest setpoint value.
ng	Unocc Cooling Setpoint	Sets the unoccupied cooling setpoint of the indoor unit and monitors the latest setpoint value.
tori	Unocc Heating Setpoint	Sets the occupied heating setpoint of the indoor unit and monitors the latest setpoint value.
oni	Max Cooling Setpoint	Sets the maximum cooling setpoint of the indoor unit and monitors the latest setpoint value.
Σp	Min Cooling Setpoint	Sets the minimum cooling setpoint of the indoor unit and monitors the latest setpoint value.
an	Max Heating Setpoint	Sets the maximum heating setpoint of the indoor unit and monitors the latest setpoint value.
ion	Min Heating Setpoint	Sets the minimum heating setpoint of the indoor unit and monitors the latest setpoint value.
gurat	Min Setpoint Differential (Cooling & Heating)	Set the minimum differential value between cooling and heating setpoint and monitor the latest differential value.
onfi	Cooling & Heating Setpoint Tracking Mode	Enable or disable iTM setpoint tracking mode.
ŭ	Fan speed	Sets the indoor unit fan speed and monitors the latest setting
tion	Timed Override Operation	Enable or disable iTM override timer
erat	Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off.
ð	Remote Controller Prohibit (Operation Mode)	Permits or prohibits the remote controller to control the indoor unit's operation mode.
	Remote Controller Prohibit (Setpoint)	Permits or prohibits the remote controller to control the indoor unit's setpoint.
	Filter Sign Reset	Clears the filter sign status.
	Forced Thermo-off	Force the indoor unit to stop actively cooling or heating.

### 2. Interface for use in BACnet

Daikin indoor unit monitoring and control points accessible through the DMS502B71

- Check the appropriate box indicating the required integrated points for this project.

	Function	Description
	On/Off (Note 2)	Start/stops the indoor unit and monitors the latest status
[	Operation Mode (Note 2)	Sets the Cool/Heat/Fan/Dry mode for the indoor unit and monitors the latest mode
b	Setpoint setting	Sets the setpoint of the indoor unit and monitors the latest setpoint.
litorin	Filter sign and reset	Monitors filter run time, provides service alert, and allows a manual reset of the status as required.
d Mor	Remote controller permit/prohibit	Permits or prohibits the remote controller so that it can or cannot be used to control the indoor unit's On/Off/Operation mode/Setpoint
n, an	Lower Centralized Controller operation enable/disable	Enables or disables operation of a Centralized Controller connected to the DIII network .
atio	Fan Speed setting (Note 2)	Sets the fan speed and monitors the latest setting.
ang	Airflow direction setting (Note 2)	Sets the airflow direction and monitors the latest setting.
ղ, Confi	Forced system stop	The forced system stop command will force the indoor units to stop running based upon a received emergency alarm input. Remote controllers will be locked out from restarting indoor units during a forced system stop event.
ratior	Forced Thermo-off	In response to the forced thermo-off command, the indoor unit stops actively cooling or heating.
Ope	Energy saving	Offsets the internal setpoint +3.6°F (2°C) in cooling, and -3.6°F (-2°C) in heating in an indoor unit. The actual setpoint is not changed.
	Ventilation mode setting (Note 2)	Sets the ventilation mode and monitors the latest mode.
	Ventilation amount setting (Note 2)	Sets the ventilation amount and monitors the latest amount.
	On/Off status	Monitors the On/Off status of the indoor unit.
	Alarm	Monitors whether or not the indoor unit is operating normally, and issues an alarm if the indoor unit has a malfunction.
	Malfunction code	Displays a malfunction code specified by Daikin if an indoor unit in the system has a malfunction.
	Operation mode	Monitors if the indoor unit is in Cool, Heat, Fan, or Dry mode.
5	Room temperature (Note 1)	Monitors the room temperature.
nite	Filter sign	Monitors filter run time and provides service alert.
ž	Thermo-on status	Monitors whether or not the indoor unit is in actively cooling or heating.
	Compressor status	Monitors if the compressor of the outdoor unit connected to the indoor unit is properly operating.
	Indoor fan status	Monitors if the indoor unit's fan is properly operating.
	Heater status	Monitors if the indoor unit's heater is properly operating.
	Ventilation mode status	Monitors the ventilation mode status of the Energy Recover Ventilator
	Ventilation amount status	Monitors the ventilation amount status of the Energy Recovery Ventilator

Application Note

- 1. Room temperature data (BACnet object name RoomTemp\_XXX) by default is reported from the Daikin indoor units return air thermistor. This applies to all VRV indoor unit styles and capacities. During periods when the indoor unit is turned off or during certain operating modes that cycle the fan off including defrost operation, hot-start and system pressure equalization, the reported temperature may not accurately reflect the actual space temperature. For applications where this temperature value will be primary to system control including mode and temperature setpoint management, it is recommended that the Daikin remote temperature sensor (Part No. KRCS01-1B or 4B depending on model) is specified for each indoor unit and installed within the occupied space or unit be configured to be controlled from temperature sensor in BRC1E72/73 Navigation Controller if the unit is capable.
- 2. The indoor unit saves the settings for the Setpoint, On/Off, Operation mode, Airflow direction, and Fan Speed in the nonvolatile memory of the indoor unit each time they are changed, so that the settings will not be lost when a power loss occurs. This nonvolatile memory has a write count limit and may cause a failure if the "write to" count limit is exceeded. Therefore when the Setpoint, On/Off, Operation mode, Airflow direction, and Fan Speed of each indoor unit are automatically controlled from the building management system via the Interface for use in BACnet, be sure that the number of changes for each setting should not exceed 7,000 times per year.
- If the same value is repeatedly sent, it will not be added to the total "write to" count.
- 3. BACnet is a registered trademark of ASHRAE.

### 3. Interface for use in Lonworks

Daikin air conditioner monitoring and control points accessible through the DMS504C71

- Check the appropriate box indicating the required integrated points for this project.

	Function	Description
	ON/OFF Status	Monitors the start/stop status of the indoor unit.
	Operation Mode Status	Monitors whether the indoor unit is in the cooling, heating or fan mode.
	Temperature Setpoint	Reports the current temperature setpoint of the indoor unit.
	Room Temperature (Note 1)	Reports the current return air or room temperature of the indoor unit. (Note 1)
	Airflow rate	Reports the current fan speed setting of the indoor unit.
	Filter Indication Status	Reports the status of the filter maintenance icon on the indoor unit remote controller.
	Error Status	Monitors the indoor unit malfunction status.
ints	Error Code	Reports a specific malfunction code for an indoor unit in alarm state.
od bu	Thermo Status	Reports whether the indoor unit is demanding heating or cooling capacity or if it is in a satisfied state.
tori	Forced Thermostat Off Status	Reports whether the indoor unit is forced to a satisfied state.
Monit	Remote Controller ON/OFF Restriction Status	Indicates the restriction status of the indoor units remote controller ON/OFF button.
	Remote Controller Operating Mode Restriction Status	Indicates the restriction status of the indoor units remote controller operation mode button.
	Remote Controller Temperature Setpoint Restriction Status	Indicates the restriction status of the indoor units remote controller temperature setpoint buttons.
	System Forced OFF Setting Status	Monitors the system forced off status for all indoor units connected to the Lon gateway.
	Sub-group Control Operation Restriction Setting Status	Monitors the network variable input status for permission/prohibition of centralized control devices on the DIII-Net bus.
	A/C Communication Status	Monitors the communication status of the indoor unit to the DIII-Net.
	 1	
	 ON/OFF Command	Starts and stops the indoor unit. (Note 2)
	Operating Mode	Sets the cooling/heating/ventilating/auto mode for the indoor unit. (Note 2)
	 Temperature Setpoint	Commands the temperature setpoint for the indoor unit. (Note 2)
on,	Airflow Rate (Fan Speed)	Sets the fan speed (high, low) for the indoor unit. (Note 2)
rati nts	 Filter Indicator Reset	Resets the filter maintenance indicator on the indoor unit.
igu	 Forced Thermo OFF Setting	Forcibly stops all cooling or heating capacity for the indoor unit.
conf	Remote Controller ON/OFF Restriction Setting	Disables the operation of the indoor unit remote controller ON/OFF button.
Operation, and cor	Remote Controller Operating Mode Restriction Setting	Disables the operation of the indoor unit remote controller MODE button.
	Remote Controller Temperature Setpoint Restriction Setting	Disables the operation of the indoor unit remote controller temperature setpoint buttons.
	System Forced OFF Setting	Forcibly stops/resets all indoor units that are under control of the Lon interface. Units cannot be started by a remote controller or centralized controller while in this state.
	Sub-group Control Restriction Setting	Network variable input to permit or prohibit the operation of Daikin centralized control devices on the DIII-Net bus.

### Application Note

= Control Items pertaining to the entire system

- 1. Room temperature data (*SNVT\_temp\_p nvoSpaceTemp\_nn*) by default is reported from the Daikin indoor units embedded return air thermistor. Depending upon the remote controller model and the manufacturing date of the indoor unit, this may be reconfigured to retrieve the room temperature value from the remote controller thermistor. During periods when the indoor unit is turned off or during certain operating modes that cycle off the fan including defrost operation, hot-start and system pressure equalization, the reported temperature may not accurately reflect the actual space temperature. For applications where this temperature value will be primary to system control including mode and temperature setpoint management, it is recommended that the Daikin remote temperature sensor (Part No. KRCS01-1B) is specified for each indoor unit or the remote controller is programmed to report room temperature through the gateway. Please consult Daikin AC for guidance with specific applications.
- 2. The Daikin indoor unit maintains the settings for temperature, start/stop status, operating mode, air direction and fan speed in the non-volatile memory each time they are changed. These settings will not be lost upon a power loss event.

# 4. DIII-Net/BACnet MS/TP Communication Adaptor

# • System configuration points

Point Name	Description
D3 control address indoor	Sets the range of indoor unit address to monitor and control.
D3 control address outdoor	Sets the range of outdoor unit address to monitor and control.
Device instance method	Sets BACnet device instance method of virtual devices.
Adaptor device instance	Sets adaptor BACnet device instance.
Network number	Sets the BACnet network number for virtual device.
Baud rate	Sets BACnet baud rate
Sets scale	Sets the temperature scale for BACnet Objects

### • Indoor unit points

Point Name	Description
Unit On_Off Status	Monitors and displays indoor unit On or Off status
Unit On/Off Command	Command indoor unit On or Off
Alarm Status	Monitors whether the indoor unit is operating normally and issues an alarm if the indoor
	unit has a malfunction. Error Code is shown in the description.
Operation Mode (Note 3,4)	Command and monitor indoor unit operation mode
Ventilation Mode	Command and monitor ventilation unit operation mode
Ventilation Rate	Command and monitor ventilation unit airflow rate
Fresh Up	Command and monitor fresh up setting for a ventilation unit.
Room Temperature	Monitor the room temperature of the indoor unit
Cooling Setpoint (Note 2)	Command and monitor the indoor unit cooling setpoint
Heating Setpoint (Note 2)	Command and monitor the indoor unit heating setpoint
Fan Speed	Sets the indoor unit fan speed and monitors the latest setting
Airflow Direction	Command and monitor the indoor unit airflow direction (louver control)
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off
Remote Controller Prohibit (Operation	Permits or prohibits the remote controller to control the indoor unit's operation mode
Mode)	
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's setpoint
Filter Sign Status	Monitors and displays the filter run time and provides service alert.
Filter sign Reset	Clears the filter sign status
Indoor Unit Fan Status	Monitors and displays indoor unit fan status
Communication Status	Monitor if the communication is Normal or in Alarm
Thermo On status	Monitors and displays whether the indoor unit is actively cooling or heating.
Compressor Status	Monitors and displays if the compressor of the outdoor unit is On/Off/Defrost
Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating
Forced Thermo Off	Command Forced Thermo Off for the target indoor unit.
Indoor unit changeover option	Monitors if the indoor unit can change modes between heating and cooling
Return air temperature (Note 6,7)	Monitors and displays the return air temperature
Discharge air temperature (Note 5,7)	Monitors and displays the discharge air temperature of the FXMQ_PB indoor unit only.
Liquid pipe temperature (Note 6,7)	Monitors and displays the liquid pipe temperature.
Gas pipe temperature (Note 6,7)	Monitors and displays the gas pipe temperature.
EV position (Note 6,7)	Monitors and displays the expansion valve position.
ODU Airnet address (Note 6,7)	Monitors and displays outdoor unit Airnet address.
Forced Stop status	Monitors and displays forced stop status
Energy saving command (Setpoint shift)	Control and monitor energy savings command.

1. Refer to design guide & submittal datasheet for the indoor unit point combability.

2. The Mini-Splits have varied setpoints ranges (64F – 90F in cooling and 50F – 86F in heating). In the event a value outside of the available setpoint range is sent from the BACnet building management system via BACnet Adaptor, the indoor unit will ignore the out of range setpoint command (However, in the above case, the BACnet Adaptor can only send the cooling setpoint value and heating setpoint value of between 64F-82F.)

3. Only Ventilation cleaning on VAM.

4. Fan, Dry, and Auto are not supported when using the KRP928 adaptor for Mini-split integration to the DIII-Net.

5. Unit types other than those supported display an invalid value (0)

6. The data is invalid for models that do not support the target data.

7. For FXDQ, FXHQ and FHQ units a valid value cannot be displayed.

# • Outdoor unit points

Point Name	Description
Communication Status	Monitors and displays the communication status
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool)
Outdoor unit Alarm Status	Monitors whether the outdoor unit is operating normally
Special Modes	Monitors and displays if a unit is defrost/oil-return/pump down or restart standby
	sequence.
Electric Power	Monitors and displays the electric power (calculated)
Electric Current	Monitors and displays the electric current (calculated).
Outdoor Air Temperature	Monitors and displays the outdoor air temperature
Backup Operation	Monitors and displays if the outdoor unit is in backup operation
Stepdown control	Monitors and displays if the outdoor unit is in stepdown control.
Condensing Pressure	Monitors and displays the condensing pressure
Evaporating Pressure	Monitors and displays the evaporating pressure
Condensing Temperature	Monitors and displays the condensing temperature
Evaporating Temperature	Monitors and displays the evaporating temperature
Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor 1
Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor 2
Fan Step	Monitors and displays the fan step
EV Position 1	Monitors and displays the position of the expansion valve 1
EV Position 2	Monitors and displays the position of the expansion valve 2
Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor 1
Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor 2
Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature
Sub Compressor Body Temperature	Monitors and displays the compressor body temperature.
Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX
Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX
Liquid Pipe Temperature (Deicer)	Monitors and displays the liquid pipe temperature for the de-icer
Gas Pipe Temperature (HX Upper	Monitors and displays the gas pipe temperature for the upper HX
Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX
Suction Temperature	Monitors and displays the suction temperature
Compressor Suction Temperature	Monitors and displays the compressor's suction temperature
Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature
Subcool Outlet Temperature	Monitors and displays the subcool outlet temperature
Compressor Body Temperature	Monitors and displays the sub compressor body temperature
Receiver Inlet Temperature	Monitor and displays the Receiver Inlet Temperature.
Subcool EV Position	Monitors and displays the subcool expansion valve position
4WayValve	Monitors and displays the 4 Way valve position
Compressor1 current	Monitors and displays the Compressor 1 current (calculated)
Compressor2 current	Monitors and displays the compressor 2 current (calculated)

Compatible outdoor units.

• VRV4: RXYQ\_T(A), REYQ\_T(A), RXLQ\_T(A), RELQ\_T(A)

VRV 4X: REYQ\_XA, RXYQ\_XA •

VRV 4A: RETU\_AA, K
VRV4S: RXTQ\_TA
VRV LIFE: RXSQ\_TA
VRVW (T): RWEQ\_T

RWEYQ72PCTJ & RWEYQ72PCYD •

• VRV Emerion: REYQ\_AA, RXYQ\_AA

# 5. Modbus Communication Adaptor

Monitor

Op/Off status of indeer units
Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Setpoint of indoor units
Suction temperature of indoor units
Swing, Flap direction (depend on indoor unit capability)
L, M, H (depend on indoor unit capability)
Forced off status of indoor units
Malfunction, Warning with Error code
Filter sign of indoor units
Communication normal/error of indoor units

# Control

On/Off	On/Off control of indoor units
Operation mode	Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Setpoint	Cooling/Heating setpoint
Fan direction	Swing, Stop, Flap direction (depend on indoor unit capability)
Fan volume	L, M, H (depend on indoor unit capability)
Filter sign reset	Reset filter sign of indoor units

# 6. DKN Plus Interface

### Monitoring

Unit on/off	On/Off control of indoor units
Setpoint	Setpoint of indoor units
Room temperature	Suction temperature of indoor units
Mode (Auto/Cool/Heat/Fan/Dry)	Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Fan speed	L, M, H (depend on indoor unit capability)
Louver position	Swing, Flap direction (depend on indoor unit capability)
Error code	Malfunction, Warning with Error code

### Control

Unit on/off	On/Off control of indoor units
Setpoint	Setpoint of indoor units
Mode (Auto/Cool/Heat/Fan/Dry)	Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Fan speed	L, M, H (depend on indoor unit capability)
Louver position	Swing, Flap direction (depend on indoor unit capability)

# 7. DKN Cloud Wi-Fi Adaptor

# Monitoring

Unit on/off	On/Off control of indoor units
Setpoint	Setpoint of indoor units
Room temperature	Suction temperature of indoor units
Mode (Auto/Cool/Heat/Fan/Dry)	Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Fan speed	L, M, H (depend on indoor unit capability)
Louver position	Swing, Flap direction (depend on indoor unit capability)
Error code	Malfunction, Warning with Error code

### Control

Unit on/off	On/Off control of indoor units
Setpoint	Setpoint of indoor units
Mode (Auto/Cool/Heat/Fan/Dry)	Cooling, Heating, Fan, Dry, Auto (depend on indoor unit capability)
Fan speed	L, M, H (depend on indoor unit capability)
Louver position	Swing, Flap direction (depend on indoor unit capability)

# 8. Adaptive Touch Controller

- The following points are available through BACnet MS/TP:
- Monitoring Points

#	Value	Description	Туре
1	SPACE_SENSOR	Space Temperature Value Measured By Controller	R
2	REMOTE_CO2_SENSOR	Remote CO₂ Sensor Value	R
3	REMOTE HUMIDITY	Remote Humidity Sensor Value	R
4	REM SPACE/DAT SENSOR	Remote Space Temperature Or Discharge Air Temperature Value	R
5	OUTDOOR AIR	Outside Air Temperature	R
6	SENSOR FAILURE	Sensor Failure Value	R
7	U SUCTION AIR TEMP	Indoor Unit Return Air Temperature	R
8	COOLING HOURS	Cooling Hours	R
9	HEATING HOURS	Heating Hours	R
10	NUMBER IDU CONNECTED	Number Of Indoor Unit Connected To The Controller	R
11	IDU GAS PIPE TEMP	Indoor Unit Gas Pipe Temperature	R
12	IDU LIQUID PIPE TEMP	Indoor Unit Liquid Pipe Temperature	R
13	IU FAN HOURS	Indoor Unit Fan Operation Time	R
14	ODU FAN STEP	Outdoor Unit Fan Step	R
15	IU OPERATING HOURS	Indoor Unit Operation Hours	R
16	IU ENERGIZED HOURS	Indoor Unit Energized Hours	R
17	IU FAN SPEED RPM	Indoor Unit Fan Speed RPM	R
18	IU EV OPEN PULSE	Indoor Unit EEV Pulses	R
19		Outdoor Unit TH1 Value	R
20	OU TH2 HEAT EXCHANGER	Outdoor Unit TH2 Heat Exchanger	R
21		Outdoor Unit TH3	R
22		Outdoor Unit TH4	R
23		Outdoor Unit TH5	R
20		Outdoor Unit TH6	R
25		Outdoor Unit FEV Pulses	R
26	OU COMP SPEED RPM	Outdoor Unit Compressor Speed	R
27			R
28	U TH4 DISCHARGE AIR TEMP	Indoor Unit Discharge Air Temperature	R
29		Outdoor Unit Fan 1 Hours	R
30	OU FAN2 HOURS	Outdoor Unit Fan 2 Hours	R
31		Outdoor Unit Compressor 1 Hours	R
32	OU COMP2 HOURS	Outdoor Unit Compressor 2 Hours	R
33		Auxiliary Heat Total Hours	R
34	HEAT TOTAL HOURS	Heating Total Hours	R
35		Cooling Total Hours	R
36		Configurable Point (Alarm Or Motion Sensor Or Econ)	R
37	SYSTEM FORCED OFF	System Forced Off (T1-T2)	R
38		Alarm Status	R
39	FILTER SIGN STATUS	Filter Sign Status	R
40		Indoor Unit Cooling Thermo On	R
41		Indeer Unit Heating Thermo On	R
42		Indeer Unit Communication Status	R
43		Override Status	R
44	IU FAN STATUS	Indoor Unit Fan Status	R
45	AUX HEATER STATUS	Aux Heater Status	R
46	EMEREGENCY HEATER STATUS	Emergency Heater Status	R
47		Central Controller Connection Status	R
48	IU THERMO-ON STATUS	Indoor Unit Thermo-On	R
49		Dehumidification Mode	R
50	HUMIDIFICATION MODE	Humidification Mode	R

#	Value	Description	Туре
51	AUX_HEAT_STG_1	Aux Heat Stg 1	R
52	AUX_HEAT_STG_2	Aux Heat Stg 2	R
53	ADPTR AUX Heat Status	Indoor Unit Aux Heat Status	R
54	CALL_FOR_DEHUM	Dehumidification Call	R
55	AUXH_EMERGENCY_OPERATION	Aux Heater Emergency Heater Operation	R
56	DEFROST_OIL_RETURN_MODE	Defrost Oil Return Mode Value	R
57	ECONOMIZER_MODE	Economizer Mode	R
58	TIMED_OVERRIDE_OPERATION	Time Override Operation	R
59	MOTION	Motion Sensor Value	R
60	MOTION_SENSOR_OUT	Motion Sensor Output	R
61	DIGITAL_OUTPUT_1_STATUS	Digital Output 1 Status Value	R
62	DIGITAL_OUTPUT_2_STATUS	Digital Output 2 Status Value	R
63	DIGITAL_OUTPUT_3_STATUS	Digital Output 3 Status Value	R
64	DIGITAL_OUTPUT_4_STATUS	Digital Output 4 Status Value	R
65	IU_CAUTION_1	Indoor Unit Caution	R
66	IU_WARNING	Indoor Unit Warning	R
67	IU_ERROR	Indoor Unit Error	R
68	ALARM_CONTACT	Alarm Contact Status	R
69	IU_DRAIN_PUMP_MP	Indoor Unit Drain Pump Status	R
70	IU_HUMIDIFIER	Indoor Unit Humidifier Status	R
71	IU_ANTIFREEZING_TBF	Indoor Unit Antifreeze Operation Status	R
72	IU_FLOAT	Indoor Unit Float Status	R
73	IU_RC Fan Prohibit	Indoor Unit Fan Speed Change Prohibit	R
74	On Prohibit	Indoor Unit On Prohibit	R
75	IU_TEST_RUN	Indoor Unit Test Run Operation	R
76	TEST_OPERATION	Test Operation Status	R
77	OU_TEST_RUN	Outdoor Unit Test Run Operation	R
78	Backup Operation	Outdoor Unit Backup Operation	R
79	IU_RC_LouverProhibit	Indoor Unit Louver Prohibit	R
80	IU_CHANGEOVER_OPTION	Indoor Unit Master Status	R
81	OU_SV1	Outdoor Unit SV1 Value	R
82	FORCED_THERMO_OFF_STATUS	Forced Thermo Off Status Value	R
83	FORCED_STPT_SHIFT	Indoor Unit Setpoint Shift	R
84	OU OP MODE ACTUAL DISP	Outdoor Unit Actual Mode	R

### Control Points

#	Value	Description	Туре
1	AUX_HEAT	Auxiliary Heat Output (Modulating)	W
2	CO2_DAMPER	CO₂ Damper Outoput (Modulating)	W
3	HUMIDIFIER_DEHUMIDIFIER	Humidifier Or Dehumidifier Output (Modulating)	W
4	IU_W_CONTROL_TEMP	Control Temperature Used By The Controller	W
5	UI_COOL_STPT	Active Cooling Setpoint	W
6	UI_HEAT_STPT	Active Heating Setpoint	W
7	OCC_COOLING_STPT	Occupied Cooling Setpoint	W
8	OCC_HEATING_STPT	Occupied Heating Setpoint	W
9	UNOCC_COOLING_STPT	Unoccupied Cooling Setpoint	W
10	UNOCC_HEATING_STPT	Unoccupied Heating Setpoint	W
11	MIN_COOLING_STPT	Minimum Cooling Setpoint	W
12	MAX_COOLING_STPT	Maximum Cooling Setpoint	W
13	MIN_HEATING_STPT	Minimum Heating Setpoint	W
14	MAX_HEATING_STPT	Maximum Heating Setpoint	W
15	AUX_H_CONFIG_OAT_STPT	Outside Air Temperature Setpoint For Aux Heat Logic	W
16	AUXH_PROP	Aux Heat Control Proportional	W
17	AUXH_INTG	Aux Heat Control Integral	W
18	DEHUM_STPT	Dehumidification Setpoint	W
19	HUM_HYSTERESIS	Hysteresis Used For Humidity Control	W
20	DEHUM_PROP	Dehumidification Control Proportional	W
21	DEHUM_INTG	Dehumidification Control Integral	W
22	HUM_PROP	Humidification Control Proportional	W
23	HUM_INTG	Humidification Control Integral	W
24	SPACE_HUM	Space Humidity Value	W
25	HUMIDITY_STPT	Humidification Setpoint	W
26	CO2_STPT	CO <sub>2</sub> Control Setpoint	W
27	CO2_DIFFERENTIAL	CO <sub>2</sub> Control Differential	W
28	CO2_MINIMUM_POSITION	CO <sub>2</sub> Damper Minimum Position For Occupied Mode	W
29	CO2_MAXIMUM_POSITION	CO <sub>2</sub> Damper Maximum Position For Occupied Mode	W
30	CO2_UNOCCUPIED_POSITION	CO <sub>2</sub> Damper Unoccupied Position	W
31	CO2_TIME_DELAY	Time Delay For CO <sub>2</sub> Control (Minutes)	W
32	CO2_PROP	CO <sub>2</sub> Control Proportional	W
33	CO2_INTG	CO <sub>2</sub> Control Integral	W
34	SPACE_CO2	Space CO <sub>2</sub> Value	W
35	MOTION_UNOCC_DELAY	Time To Set To Unit To Unoccupied When No Motion Is Detected	W
36	OCCUPANCY_RELAX_MAXIMUM	Maximum Setpoint Relax When No Motion Is Detected	W
37	DEMAND_SETPOINT_RELAX_CLG	Cooling Setpoint Relaxation Value During Demand Limit	W
38	DEMAND_SETPOINT_RELAX_HTG	Heating Setpoint Relaxation Value During Demand Limit	W
39		Demand Recovery Step Time Minutes	W
40			W
41	COOL_MODE_TEMP_OFFSET	Cool Mode Temp Offset Value	W
42	HEAI_MODE_IEMP_OFFSEI	Heat Mode Temp Offset Value	W
43		Outdoor Temp	W
44		Discharge Air Temp	W
45	STAGE_DELAY	Stage Delay For Aux Heat	W
46		Fliter Sign Reset	W
4/		Enable Humidity Control During Unoccupied Mode	VV
48		I run On Humidity Control During Override	VV VV
49	REMOTE_HUMIDITY_SENSOR	Enable Remote Humidity Sensor	VV
50		Allow Humidity Control During Heat	VV VV
51		Occupied Mode	VV I

#	Value	Description	Type
52	ENABLE LOCAL SCHED	Enabled Local Schedule	W
53	STPT HOLD	Hold Enable	W
54	STPT_TRACKING	Setpoint Tracking Mode	W
55	DAT SENSOR	Enables Remote Discharge Air Temperature	W
56	DEHUM WOUT FAN	Dehumidification Without Fan	W
57	OAT SENSOR	Enable Outside Air Sensor	W
58	HUMIDIFY WOUT FAN	Humidify Without Fan	W
59	ENABLE_REMOTE_CO2_SENSOR	Enable Remote CO₂ Sensor Monitoring	W
60	DEHUM_OVERCOOL_STATUS	Overcooling To Dehumidify	W
61	SPEED_UP	Speed Up Timers	W
62	RC_PROHIBIT_MODE_OPERATION	Remote Controller Prohibit Mode Operation	W
63	REMOTE_CONTROLLER_PROHIBIT_STPT	Remote Controller Prohibit Setpoint	W
64	ENABLE_DEMAND_CONTROL	Enables Demand Control	W
65	CO2 VENT ENABLE	Enable CO₂ Control	W
66	CONTINUOUS_AUX_FAN	Enable Fan Operation During Aux Heat	W
67	FORCE_FAN	External Forced Fan Input	W
68	CALL_FOR_HUMIDIFICATION	Humidification Call	W
69	HUMIDIFIER_OUT	Humidifier Output Status	W
70	ECONOMIZER	Economizer Status	W
71	CO2_ALARM_OUT	CO₂ Alarm Status	W
72	DEHUMIDIFIER_OUT	Dehumidification Output Status	W
73	ENERGY_SAVINGS_ICON	Energy Saving Icon Status	W
74	AUX_HEAT_FAN	Check For Fan Before Running Aux Heat	W
75	Humidity_Display_Enable	Enable Humidity Display	W
76	CO2_Display_Enable	Enable CO₂ Display	W
77	OAT_Display_Enable	Enable Outside Air Sensor Display	W
78	OPERATION_MODE	Controller Operation Mode	W
79	AUX_HEAT_CONFIGURATION	Aux Heat Configuration Setting	W
80	OVER_COOL_FAN_SPEED	Overcool Mode Fan Speed	W
81	FAN_MODE	Fan Speed	W
82	SCHEDULE_OCC_MODE	Occupancy Mode To Be During Start Of Schedule	W
83	ROOM_TEMP_CALCULATION	Room Temperature Calculation Logic	W
84	PRI_CHANGEOVER_DEADBAND	Primary Changeover Deadband	W
85	SEC_CHANGEOVER_DEADBAND	Second Changeover Deadband	W
86	GUARD_TIME	Autochangeover Gaurdtimer Value	W
87	MIN_STPT_DIFFERENTIAL	Minimum Setpoint Differential Value	W
88	TIMED_OVERRIDE_MINUTES	Timed Override Minutes	W
89	COOLING_UNOCC_RECOVERY	Cooling Unoccupied Recovery Setpoint	W
90	HEATING_UNOCC_RECOVERY	Heating Unoccupied Recovery Setpoint	W
91	DEMAND_CONTROL	Demand Control	W
92	OCCUPANCY_SENSOR_LOGIC	Occupancy Sensor Logic	W
93	OCCUPANCY_RELAX_TIME_DELAY	Occupancy Sensor Setpoint Relax Time Delay	W
94	IU_LOUVER_2_POSITION	Indoor Unit Louver 2 Position	W
95	INPUT_6_CONFIGURATION	Binary Input 6 Configuration	W
96		CO₂ Damper Type Selection	W
97		Indoor Unit Louver Direction	W
98	DO-1_SETTING	Do 1 Setting Value	W
99	DO-2_SETTING	Do 2 Setting Value	W
100		Do 3 Setting Value	VV
101		Do 4 Setting Value	VV
102		Denumidification Control Type	VV
103		Humidilication Control Type	VV
104		External Denumidification Control Type	VV
105	OVERCOOL_OPTION	Overcool Degree	VV

# 2. Control Devices

# 2.1 BRC1E73 Navigation Remote Controller (Wired Remote Controller)

# 2.1.1 Features



### BRC1E73

- Selectable Screen Display .... 3 types of displays are available; Standard, Detailed and Simple.
- Clear Display......Equipped with backlight and large sized character display and buttons.
- Stylish ......Basic tone is white and arrow keys are located at the center.
- Simple Operation ......Simple operation used with arrow keys and menu-driven method.
- Multilingual Display ......Available for selection of 3 languages to display arbitrarily.
- Convenient Features......Schedule function and Daylight Saving Time function are improved.

# Selectable Screen Display

- Thanks to dot LCD, 3 different displays can be selected to meet various customers.
- New Simple display helps the customers to use easily.
- In Auto mode, the actual operation mode (Cool or Heat) is newly displayed.

# **Detailed display**

# Standard display

# $\frac{\text{Auto}}{\text{Cool}} \xrightarrow[\text{Room}]{\text{Room}} \frac{\text{Set to}}{\text{Cool} 74_{\text{F}}} \\ 75_{\text{F}} \xrightarrow[\text{Heat} 70_{\text{F}}]{\text{Heat} 70_{\text{F}}}$





# Simple display



· Larger room temperature display

Layout to fill the entire screen

# Note:

 CONTROL
 , CONTROL of , and

 This function is not available

 are not displayed.

# 2.1.2 Functions Functions

Category	Function	BRC1E73
	Drawing display	Full dot LCD
Basic Functions	Operation method	Menu selection
	Backlight function	$\checkmark$
	Clock function (time display)	$\checkmark$
	Display selection	√ *1
Convenient Functions	Keylock function	$\checkmark$
	Daylight saving time function	$\checkmark$
	Schedule (weekly) timer	$\checkmark$
	Model name display	<b>√</b> *2 *3 *5
Maintananaa/Sanviasa	Contact dealer display	✓ *3 *4
Maintenance/Services	Operation time display	√ *2
	Operational data display	√ *2

✓: Possible

### Note:

\*1 Used for setting Standard Display mode, Detailed Display mode or Simple Display mode.

\*2 Can display for some model only.

\*3 When an error occurs, the error code blinks and the contact address and model names appear.

\*4 The contact address must be registered when the controller is installed.

\*5 For some models, model codes are displayed instead of model names.

# Restrictions

### 1. In the case of 2 remote control system.

		Main				
		BRC1E73	Wireless BRC4*** BRC7***	DKN Cloud Wi-Fi Adaptor AZA***	DKN Plus Interface AZA***	
	BRC1E73	✓	—	✓	✓	
Cut	Wireless BRC4*** BRC7***	_	_	~	~	
Sub	DKN Cloud Wi-Fi Adaptor AZA***	✓	—	_	_	
	DKN Plus Interface AZA***	~	_	_	_	

✓: Connectable —: Not connectable

Due to the limited power supply capacity, there are some restrictions when controlling 2 remote controllers.

Common restriction for SkyAir and VRV

When controlling one indoor unit with 2 remote controllers, the remote controller operated first turns the backlight on.

 Restriction for VRV only When configuring two remote controllers system, Adaptor for wiring (KRP1\*) or Power supply of Adapter for indoor unit (X18A, X35A) is unable to use due to capacity.

When controlling 2 remote controllers, the following functions cannot be set with the sub remote controller.

- Schedule
- Auto Changeover
- Setback
- Dual Setpoint

(For the details, refer to operation manual.)

# 2. In the case of centralized controller connection.

- When connecting centralized control equipment (\*1), the following functions can be re-enabled with a field setting.
  - Schedule
  - Auto Changeover
- Setback

# Note:

\*1. This means all centralized controller.

- intelligent Touch Manager [DCM601B71]
- Interface for use in BACnet [DMS502B71]
- Wiring adaptor for electrical appendices [KRP1C74/75]
- Interface for use in LONWORKS [DMS504C71]

# 2.1.3 Specifications

		New Remote Controller BRC1E73		
Dimension (H × W × D)	in.	4'3/4" × 4'3/4" × 3/4"		
Display size (H × W)	in.	1'25/32" × 2'13/16"		
Display method		Full dot method (dot 160 × 255)		
Backlight		Yes (Background color: white)		
Color		Fresh white		
	imension (H × W × D) Display size (H × W) Display method Backlight Color	imension (H × W × D) in. Display size (H × W) in. Display method Backlight Color		

C: 3D091305A

# 2.1.4 Dimensions



# 2.1.5 Applicable Models Applicable Models

	Applicable Indoor Unit
VRV	All models with P1P2 termination
SkyAir	All models with P1P2 termination
RA	All models with P1P2 termination

# 2.2 BRC1H71W Madoka Wired Remote Controller

# 2.2.1 Features



### Sleek Stylish Design

Much like the perfection of its circular shape, the remote controller gives you perfect control over your individual climate.

### Simple Interface

The remote controller combines functionality and simplicity. The minimalistic touch button control enlarges the display and makes the remote controller easy to use.

### The Madoka Quick Set APP for Installer

Simplifies the advanced settings such as field settings and set point range.

- · Visual interface simplifies advanced settings such as energy saving activation, setting restrictions, etc.
- Easy and quick commissioning, saves time and cost for installers.
- Featuring Daikin's Bluetooth furnace low energy technology.

### Shorter and Easier Installation

The application connected to this controller provides 2 modes, Owner / Administrator mode and Installer mode (no end-user mode). While traditional setting at the controller unit is still available, Installer mode makes installation faster and easier with

- · On-site setting through smartphone application
- · Set up multiple settings at once
- Save and reuse settings

### Display

Provides 3 selectable options for the display view: Text, Icon and Scale.



Text mode



Icon mode



Scale (text mode / icon mode)

# 2.2.2 Functions **Functions**

		Remote controller			Application (Smartphone)		
Category	Functions		Administrator menu	Installer menu	Owner / Administrator mode	Installer mode	Remarks
	Operation Start / Stop	~					
	Operation mode	~					
	Airflow rate (Fan speed)	~					The number of airflow steps depends on indoor unit model.
Basic	Airflow direction	~					
Function	Setpoint	✓					
	Ventilation rate	~					Available for only when Energy Recovery Ventilator
	Ventilation mode	~					is connected.
	Celsius / Fahrenheit	~		ļ	~	✓	
_	Setpoint range set				~	~	
Energy Saving	Sensing sensor low mode				~	~	Applicable for the indeer unit with infrared sensors
	Sensing sensor stop mode			ļ	~	~	
	Airflow direction range (for Floor standing type)					~	
	Individual airflow direction control				~	✓	Applicable for the indoor unit with this function.
	Setback				~	✓	
Comfort	Draft prevention				~	✓	Applicable for the indoor unit with this function.
	Auto cooling / heating changeover (for Heat pump type)				~	~	This note does not apply to the US market. WLAN not used with SkyAir models.
	Setpoint minimum differential				~	✓	Allowed to disable the settings.
Filter	Filter sign (Reset)	~					Filter sign notifies the time to clean the filter of indoor unit.
Filter Indicator	Element sign (Reset)	~					Element sign notifies the time to clean the element of air purifier unit when the indoor unit connected with air purifier unit.
	Prohibit function (user menu items)				~	~	Set whether user can change basic functions in each menu.
Option	Prohibit function (center button prohibit)				~	~	
	Prohibit function (operation Mode)				~	~	Limit available operation mode from remote controller in each mode.
	Contrast adjustment		~				
	LCD backlight adjustment		~		~	✓	
Display	LED brightness adjustment (screen Backlight ON)	~			~	✓	The brightness of LED (Status indicator) when
	LED brightness adjustment (screen Backlight OFF)	~			~	✓	Also, LED can be turned off.
	Auto display OFF			~		~	
	Date and time setting		~		~	✓	
	Daylight Saving Time (DST)				~	~	
	R/C field settings			~		✓	
	Display icon customization			~		~	
Remote Controller	Remote controller thermostat temperature offset			~		~	
Setting	BLE settings (Pairing screen)		~		~	~	
	Set / release Cooling / Heating master (for VRV)			~			Decision procedure for the Master Control is same as BRC1E73.
	Administrator Password Settings		~		~		Default is no password
	Installer Password Settings			~		~	

✓: Possible

### Note:

1. Installer mode includes functions in the Owner / Administrator mode.

Installer mode requires dedicated QR code for startup.
 It can be obtained by either accessing the Daikin Business Portal or by contacting your local Daikin sales office.

# Restrictions

### Limitation of two control connection

There is a limitation when connecting two controllers to one indoor unit because of lack of electricity supply.

### All Indoor Unit restriction

• BRC1H71W cannot connect with E type and C type controller to one indoor unit, refer to the correspondence table below.

		Main						
		New BRC1H71W	Current BRC1E73	Wireless BRC4*** BRC7***	DKN Cloud Wi-Fi Adaptor AZA***	DKN Plus Interface AZA***		
	New BRC1H71W	~	_	_	~	~		
Sub	Current BRC1E73	—	~	—	~	~		
	Wireless BRC4*** BRC7***	_	_	~	~	~		
	DKN Cloud Wi-Fi Adaptor AZA***	~	~	_	_	_		
	DKN Plus Interface AZA***	~	~	_	_	_		

✓: Connectable —: Not connectable

- In the case of two control connection, the backlight of the remote control that you operated the button first turns on.
- In the case of two control connection Heat pump changeover and Setback are not able to be set on sub controller.

### Restriction for VRV only

• When configuring two remote controllers system, Adaptor for wiring (KRP1\*) or Power supply of Adapter for indoor unit (X18A, X35A) is unable to use due to capacity.

# 2.2.3 Specifications Remote Controller

	Dimension (H $\times$ W $\times$ D)	3"11/32 × 3"11/32 × 63/64 (in) 85 × 85 × 25 (mm)		
	Size (H × W)	1 × 1"/1/2 (in) 25.48 × 38.23 (mm)		
LCD	Display area	Full dot 100 × 150 dot (H × W)		
	Backlight	Available		
	Color	White on black background		
Plastic case color		White		
Buttons		Physical SW × 1 + Touch SW × 3		
Operation LED		Blue / Red / Green Dimmable		

# **BLE Specification**

Daikin's Bluetooth furnace	Daikin's Bluetooth furnace 4.2 (BLE)	
Paring algorithm	Numeric comparison	

# Apps Specification

	Android OS	iOS
Recommended OS version	Android OS 9	iOS 12
Recommended smartphone model	Galaxys 10	iPhone XS

# 2.2.4 Dimensions BRC1H71W



# **Plastic Cover**



2P614991C

41.65

41.65

# Installation Metal Fitting







# 2.2.5 Applicable Models

Please ask your DAIKIN dealer for more specific information such as applicable models.

# VRV Indoor Unit

		Model name
	Sensing flow	FXFQ
Cassette	2 x 2	FXZQ
	Single flow	FXEQ
Wall mount		FXAQ
	LICD dust	FXMQ
Duct		FXMQ
	MSP duct	FXSQ
	Slim duct	FXDQ
Ceiling suspended		FXHQ
Wonderful		FXUQ
		FXLQ
Floor standing		FXNQ
Vertical AHU		FXTQ
Cased coil unit		CXTQ
VAM		VAM
Outside air processing unit		FXMQ_MF

# SkyAir Indoor Unit

	Model name
Wall mount	FAQ
Duct	FBQ
Sensing flow	FCQ
Ceiling suspended	FHQ
Vertical AHU	FTQ

# Mini-Split Indoor Unit

	Model name
2 x 2	FFQ
Duct	FDMQ

# 2.3 DTST-ONE-ADA-A Daikin One+ Smart Thermostat

Please ask your DAIKIN dealer for more specific information such as applicable models.

### MODEL COMPATIBILITY:

Compatible with *VRV* and *VRV* Life indoor unit models: CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ

### SPECIFICATIONS:

Model		DTST-ONE-ADA-A
Description		Daikin One+ Smart Thermostat for Ductless Products
Maximum Connections		1 for S21 indoor units (cannot use together with another wireless remote controller or wired remote controller)
Max Wiring Length	Power Wire	5.5 ft (included)
	Thermostat Wire	125 ft (Field-supplied, 18AWG, 4-conductor non-shielded wire)
	P1P2 Communication Wire	6 ft* for the wire between the Translation Adaptor and the indoor unit terminal block (Field-supplied, 18AWG, 2-core non-shielded stranded wire)
Power Supply	Thermostat	Obtained from the Translation Adaptor
	Translation Adaptor	110-240 VAC
Dimensions	Thermostat	6.8" x 3.4" x 0.8"
	Translation Adaptor	2.7" x 7.3" x 1.3"
Weight	Thermostat	10.5 oz
	Translation Adaptor	18.4 oz
Storage Temperature		32°F to 120°F
Operation Temperature	Thermostat	32°F to 120°F
	Translation Adaptor	-40°F to 150°F
Humidity		20 to 95%RH (non-condensing)
Thermostat Screen		640 pixels × 480 pixels × 24 bits RGB
Compliance (Thermostat only)		Compliant to California Title 24 (OCST listed), FCC Certified (FCC Part 15 subpart B), UL Listed

PRODUCT IMAGE:

Thermostat:



Translation Adaptor (Included):



\* P1P2 wire has a maximum wiring length of 1640 feet
#### FEATURES:

- Stylish design
  - o Capacitive multi-touch display
  - o Easy rotational dial for precise setpoint adjustment
  - o Light pipe indication for heating/cooling operation
- Remote control and software update
  - o Wifi-enabled smart thermostat with iOS and Android app control
  - o Voice control by Amazon Alexa and Google Assistant
  - o Over-the-air software updates
  - o Outdoor environment report: outdoor temperature, outdoor humidity, and weather forecast
- Intelligent energy management
  - o Energy and comfort functions: Schedule/Adjustment Hold/Away mode with geo-fencing
  - o Programmable schedule with up to 6 scheduled events per day
- Versatile indoor comfort control
  - o Indoor unit control: Mode (Auto/Heat/Cool/Off), Setpoint, Fan Speed (Heat/Cool), Louver position
  - o Built-in temperature and humidity sensors
  - o Dehumidification with overcooling function
  - o Error Code and maintenance notification
- External device support
  - o Built-in Daikin's Bluetooth furnace and Sub GHz communication
  - o Two dry contacts for auxiliary devices
- Complete support
- o Multi-language support: English, Spanish, French
- Compliant to California Title 24 (OCST listed)

#### SYSTEM DIAGRAM:

- Connect to one indoor unit control group (up to 16 indoor units)
- Cannot use together with another wireless remote controller or wired remote controller



#### WIRING DIAGRAM:



#### DIMENSIONS:

• Thermostat:



• Translation Adaptor:





# 2.4 DTST-TOU-ADA-A Daikin One Touch Smart Thermostat

Please ask your DAIKIN dealer for more specific information such as applicable models.



# **Submittal Data Sheet**

DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## **MODEL COMPATIBILITY:**

#### P1P2

Indoor Unit	Model Number
VRV and VRV LIFE (P1P2)	CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ
Sky Air (P1P2)	FAQ, FBQ, FCQ, FHQ, FTQ
Single-Zone and Multi-Zone (P1P2)	CDMQ, FDMQ, FFQ

### S21

Indoor Unit	Model Number
Wall-mounted	CTXS, FTK*, FTX*, FTXB*, FTXM, FTXR, FTXS, FVXS
Ducted air handler	CDXS, FDXS
Floor-mounted	FVXS

\*Not compatible with FTK\_AXVJU, FTX\_AXVJU, FTKB\_AXVJU, FTXB\_AXVJU, CTX\_AXVJU

The following indoor units do not have the S21 connection and require an additional interface adaptor (ordered separately) to provide the S21 connect for the One Lite communication:

Indoor Unit Models	Required Interface Adaptor
FTX09NMVJU <u>(A),</u> FTX12NMVJU <u>(A).</u> FTX09WMVJU9. FTX12WMVJU9	KRP067A41E
FTX15NMVJU <u>(A)</u> , <u>FTX15WMVJU9</u>	KRP980B2E

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 1 of 6



DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Approval:
Date:
Construction:
Unit #:
Drawing #:

## **SPECIFICATIONS:**

## **PRODUCT IMAGE:**

Model			DTST-TOU-ADA-A
Description			Daikin One Touch Smart Thermostat with translation adaptor
Maximum Connections		ons	1 for indoor units (cannot use together with another wireless remote controller or wired remote controller)
	Power	Wire	5.5 ft (included)
Max Wiring Length		iostat Wire	125 ft (Field-supplied, 18AWG, 4-core non- shielded stranded wire)
	S21 C	ommunication Wire	6 ft (included)
Power Supply Thermostat Translation Adaptor		Thermostat	Obtained from the translation adaptor
		Translation Adaptor	110-240 VAC
Dimensions	Thermostat		0.86"L x 3.4"W x 4.74"H
Dimensions	Trans	ation Adaptor	2.72"L x 7.26"W x 0.43"H
Weight Thermo		iostat	5.5 oz
		ation Adaptor	Need data
Storage Tem	peratu	re	32°F to 120°F
Ambient Thermo		iostat	32°F to 120°F
Operation Temperature	rature Translation Adaptor		32°F to 120°F
Humidity	•		20 to 95% RH (non-condensing)
Compliance			Compliant to California Title 24 (OCST listed), FCC Certified (FCC Part 15 subpart B), UL Listed

Thermostat:



#### Translation Adaptor:



#### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

#### **FEATURES**:

- Simple, elegant industrial design
- Capacitive touchscreen user interface
- Wi-Fi-enabled smart thermostat with iOS and Android app control
- Voice control by Amazon Alexa and Google Assistant
- Multi-language support: English, Spanish, French
- 1 Auxiliary output (dry contact), configurable as humidifier, dehumidifier, primary or secondary heat source
- Over-the-air software update capable (requires wi-fi connection)
- Error and service notifications
- Programmable 4-event schedule with adjustable hold function
- Energy and comfort functions: Away mode, geo-fencing
- Outdoor environment monitoring: outdoor temperature, outdoor humidity, and weather forecast
- Compatible with Daikin One Home Air Monitor for IAQ visualization (ducted systems only)
- Compatible with Daikin One Cloud Services
- Open API compatible for home control systems such as Control4 and Crestron
- Title 24 compliant

#### Specifications

- 1. The thermostat shall have a capacitive touchscreen user interface.
- 2. The thermostat shall have a 4 event, 7-day customizable schedule
- 3. The thermostat shall have energy and comfort functions including Away mode and Geo-Fencing
- 4. The thermostat shall support a user interface in English, French, and Spanish
- 5. The thermostat shall be capable of receiving and implementing Over-The-Air software updates when connected to Wi-Fi
- 6. The thermostat shall be capable of providing settings and performance data to contractors for remote monitoring and adjustments.
- 7. The thermostat shall provide one configurable auxiliary output to control a separate heat source, humidifier, or dehumidifier.
- 8. The thermostat shall be Title 24 compliant
- 9. The thermostat shall be compatible with a whole-home in-duct air quality monitor and display indoor air quality data on the thermostat (ducted applications only).

### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 3 of 6



DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

#### **SYSTEM DIAGRAM:**

For S21 indoor units (see compatibility and exceptions on page 1):



Indoor units that do not have S21 Interface



### **SYSTEM DIAGRAM:**

For P1P2 indoor units (see compatibility on page 1)



Page 4 of 6



DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## WIRING DIAGRAM:

• For S21 indoor units:



• For P1P2 indoor units:



#### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 5 of 6



DTST-TOU-A– Daikin One Touch Smart Thermostat with Translation Adaptor for S21 & P1P2

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **DIMENSIONS:**

• Thermostat and Translation Adaptor:



### **DOCUMENTATION:**

Documentation available on www.daikincity.com and/or www.daikinac.com and/or www.daikinone.com

- Submittal
- Installation Manual Product Flyer

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 6 of 6

# 2.5 BACRC-T-P01/ BACRC-TH-P01/ BACRC-THO-P01/ BACRC-THOC-P01 Adaptive Touch Controller

Please ask your DAIKIN dealer for more specific information such as applicable models.

#### MODEL COMPATIBILITY:

Compatible with *VRV* indoor unit models: FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ\_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, CXTQ

Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ

Compatible with Single Zone/Multi Zone/SkyAir system indoor unit models: FDMQ, FFQ

#### SPECIFICATIONS:

Model		BACRC-T-P01/ BACRC-TH-P01/ BACRCTHO-P01/ BACRC-THOC-P01
Description		Adaptive Touch Controller
Maximum Indoor Un	its	16 indoor units in one remote controller group
Max Wiring Length (P1P2)		1640 ft
Dimensions		3.50 in x 5.12 in x 1.12 in
Weight		0.6202 lbs. in box
Communication Protocol		P1P2
Storage Temperature		-40°F to 140°F
Operation Temperature		32°F to 120°F
Operation Humidity		0% to 90% (non-condensing)
Power Supply		24VAC (requires separate Class 2 power)
BMS Communication		BACnet MS/TP
	Analog Output	1, 0-10VDC
Auxiliary I/O	Digital Output	4
	Analog Input	1, 0-10VDC or 4-20mA (configurable)
	Digital Input	1

#### PRODUCT IMAGE:



BACRC-T-P01 BACRC-TH-P01



BACRC-THO-P01 BACRC-THOC-P01

#### FEATURES:

The Adaptive Touch Controllers (ATC) are available with four different built-in sensor combinations including temperature, humidity, carbon dioxide • and occupancy sensor. The ATC sensor configurations are listed:

Part Number	Model
BACRC-T-P01	ATC with Temperature Sensor
BACRC-TH-P01	ATC with Temperature/Humidity Sensor
BACRC-THO-P01	ATC with Temperature/Humidity/Occupancy Sensor
BACRC-THOC-P01	ATC with Temperature/Humidity/Occupancy/CO₂ Sensor

- Color LCD touchscreen •
- Basic indoor unit control and monitoring\*: .
  - o On/Off
    - o Mode (Cool, Heat, Fan, Dry, Auto)
    - o Setpoint
    - o Room temperature
    - o Fan speed
    - o Louver position
    - o Alarm status and error code
    - o Dirty filter indicator
  - o Changeover master identification
- Indoor unit control logic:
  - o Auto changeover logic with guard timer
  - o Dual/Single temperature setpoint (°C/ °F)
  - o Setpoint range limitation
  - o Setback setpoints control
  - o Humidity control with setpoint (%)\*\*
  - O CO<sub>2</sub> control with setpoint (ppm)\*\*
  - o Schedule
- o Configurable occupancy sensor logic\*\* •
  - Advanced and configurable inputs and outputs:
    - o Aux heater control: primary/secondary/emergency heat
    - o Interlock through digital and analog outputs: heating stage1, heating stage2, cooling thermo-on, heating thermo-on, fan on/off, unit on/off, alarm status. CO<sub>2</sub> alarm, occupancy sensor, humidifier/dehumidifier control
- Optional integration to a compatible building management system (BMS) using the BACnet MS/TP.
  - o Control and monitor the ATC operation using the various BACnet objects.
  - o Indoor unit operation data BACnet points
- \* The ATC can only be set as P1P2 main controller. No sub controller can be connected to the P1P2 network with ATC.
- \*\*Depends on model used

## BACNET POINT LIST:

#### Monitoring Points

#	Value	Description	Туре
1	SPACE_SENSOR	Space Temperature Value Measured By Controller	R
2	REMOTE_CO2_SENSOR	Remote CO <sub>2</sub> Sensor Value	R
3	REMOTE HUMIDITY	Remote Humidity Sensor Value	R
4	REM_SPACE/DAT_SENSOR	Remote Space Temperature Or Discharge Air Temperature Value	R
5	OUTDOOR AIR	Outside Air Temperature	R
6	SENSOR FAILURE	Sensor Failure Value	R
7	IU SUCTION AIR TEMP	Indoor Unit Return Air Temperature	R
8	COOLING HOURS	Cooling Hours	R
9	HEATING HOURS	Heating Hours	R
10	NUMBER IDU CONNECTED	Number Of Indoor Unit Connected To The Controller	R
11	IDU GAS PIPE TEMP	Indoor Unit Gas Pipe Temperature	R
12	IDU LIQUID PIPE TEMP	Indoor Unit Liquid Pipe Temperature	R
13	IU_FAN_HOURS	Indoor Unit Fan Operation Time	R
14	ODU_FAN_STEP	Outdoor Unit Fan Step	R
15	IU_OPERATING_HOURS	Indoor Unit Operation Hours	R
16	IU_ENERGIZED_HOURS	Indoor Unit Energized Hours	R
17	IU_FAN_SPEED_RPM	Indoor Unit Fan Speed RPM	R
18	IU_EV_OPEN_PULSE	Indoor Unit EEV Pulses	R
19	OU_TH1_OAT	Outdoor Unit TH1 Value	R
20	OU_TH2_HEAT_EXCHANGER	Outdoor Unit TH2 Heat Exchanger	R
21	OU_TH3_DAT	Outdoor Unit TH3	R
22	OU_TH4	Outdoor Unit TH4	R
23	OU_TH5	Outdoor Unit TH5	R
24	OU_TH6	Outdoor Unit TH6	R
25	OU_EV1	Outdoor Unit EEV Pulses	R
26	OU_COMP_SPEED_RPM	Outdoor Unit Compressor Speed	R
27	OU_OPERATION_HOURS	Outdoor Unit Operation Hours	R
28	IU_TH4_DISCHARGE_AIR_TEMP	Indoor Unit Discharge Air Temperature	R
29	OU_FAN1_HOURS	Outdoor Unit Fan 1 Hours	R
30	OU_FAN2_HOURS	Outdoor Unit Fan 2 Hours	R
31	OU_COMP1_HOURS	Outdoor Unit Compressor 1 Hours	R
32	OU_COMP2_HOURS	Outdoor Unit Compressor 2 Hours	R
33	AUX_TOTAL_HOURS	Auxiliary Heat Total Hours	R
34	HEAT_TOTAL_HOURS	Heating Total Hours	R
35	COOL_TOTAL_HOURS	Cooling Total Hours	R
36	ALARM_ON-OFF_ECON	Configurable Point (Alarm Or Motion Sensor Or Econ)	R
37	SYSTEM_FORCED_OFF	System Forced Off (T1-T2)	R
38	ALARM_STATUS	Alarm Status	R
39	FILTER_SIGN_STATUS	Filter Sign Status	R
40	IU_COOLING_THERMO_ON	Indoor Unit Cooling Thermo On	R
41	IU_HEATING_THERMO_ON	Indoor Unit Heating Thermo On	R
42	COMMUNICATION_STATUS	Indoor Unit Communication Status	R
43	TIMED OVERRIDE STATUS	Override Status	R
44	IU_FAN_STATUS	Indoor Unit Fan Status	R
45	AUX_HEATER_STATUS	Aux Heater Status	R
46	EMEREGENCY_HEATER_STATUS	Emergency Heater Status	R
47	IU_VRV_CENTRAL_CONTROLLER	Central Controller Connection Status	R
48	IU_THERMO-ON_STATUS	Indoor Unit Thermo-On	R
49	DEHUM_MODE	Dehumidification Mode	R
50	HUMIDIFICATION_MODE	Humidification Mode	R

#	Value	Description	Туре
51	AUX_HEAT_STG_1	Aux Heat Stg 1	R
52	AUX_HEAT_STG_2	Aux Heat Stg 2	R
53	ADPTR AUX Heat Status	Indoor Unit Aux Heat Status	R
54	CALL_FOR_DEHUM	Dehumidification Call	R
55	AUXH_EMERGENCY_OPERATION	Aux Heater Emergency Heater Operation	R
56	DEFROST_OIL_RETURN_MODE	Defrost Oil Return Mode Value	R
57	ECONOMIZER_MODE	Economizer Mode	R
58	TIMED_OVERRIDE_OPERATION	Time Override Operation	R
59	MOTION	Motion Sensor Value	R
60	MOTION_SENSOR_OUT	Motion Sensor Output	R
61	DIGITAL_OUTPUT_1_STATUS	Digital Output 1 Status Value	R
62	DIGITAL_OUTPUT_2_STATUS	Digital Output 2 Status Value	R
63	DIGITAL_OUTPUT_3_STATUS	Digital Output 3 Status Value	R
64	DIGITAL_OUTPUT_4_STATUS	Digital Output 4 Status Value	R
65	IU_CAUTION_1	Indoor Unit Caution	R
66	IU_WARNING	Indoor Unit Warning	R
67	IU_ERROR	Indoor Unit Error	R
68	ALARM_CONTACT	Alarm Contact Status	R
69	IU_DRAIN_PUMP_MP	Indoor Unit Drain Pump Status	R
70	IU_HUMIDIFIER	Indoor Unit Humidifier Status	R
71	IU_ANTIFREEZING_TBF	Indoor Unit Antifreeze Operation Status	R
72	IU_FLOAT	Indoor Unit Float Status	R
73	IU_RC Fan Prohibit	Indoor Unit Fan Speed Change Prohibit	R
74	On Prohibit	Indoor Unit On Prohibit	R
75	IU_TEST_RUN	Indoor Unit Test Run Operation	R
76	TEST_OPERATION	Test Operation Status	R
77	OU_TEST_RUN	Outdoor Unit Test Run Operation	R
78	Backup Operation	Outdoor Unit Backup Operation	R
79	IU_RC_LouverProhibit	Indoor Unit Louver Prohibit	R
80	IU_CHANGEOVER_OPTION	Indoor Unit Master Status	R
81	OU_SV1	Outdoor Unit SV1 Value	R
82	FORCED_THERMO_OFF_STATUS	Forced Thermo Off Status Value	R
83	FORCED_STPT_SHIFT	Indoor Unit Setpoint Shift	R
84	OU OP MODE ACTUAL DISP	Outdoor Unit Actual Mode	R

#### Control Points

#	Value	Description	Туре
1	AUX_HEAT	Auxiliary Heat Output (Modulating)	W
2	CO2_DAMPER	CO₂ Damper Outoput (Modulating)	W
3	HUMIDIFIER_DEHUMIDIFIER	Humidifier Or Dehumidifier Output (Modulating)	W
4	IU_W_CONTROL_TEMP	Control Temperature Used By The Controller	W
5	UI_COOL_STPT	Active Cooling Setpoint	W
6	UI_HEAT_STPT	Active Heating Setpoint	W
7	OCC_COOLING_STPT	Occupied Cooling Setpoint	W
8	OCC_HEATING_STPT	Occupied Heating Setpoint	W
9	UNOCC_COOLING_STPT	Unoccupied Cooling Setpoint	W
10	UNOCC_HEATING_STPT	Unoccupied Heating Setpoint	W
11	MIN_COOLING_STPT	Minimum Cooling Setpoint	W
12	MAX_COOLING_STPT	Maximum Cooling Setpoint	W
13	MIN_HEATING_STPT	Minimum Heating Setpoint	W
14	MAX_HEATING_STPT	Maximum Heating Setpoint	W
15	AUX_H_CONFIG_OAT_STPT	Outside Air Temperature Setpoint For Aux Heat Logic	W
16	AUXH_PROP	Aux Heat Control Proportional	W
17	AUXH_INTG	Aux Heat Control Integral	W
18	DEHUM_STPT	Dehumidification Setpoint	W
19	HUM_HYSTERESIS	Hysteresis Used For Humidity Control	W
20	DEHUM_PROP	Dehumidification Control Proportional	W
21	DEHUM_INTG	Dehumidification Control Integral	W
22	HUM_PROP	Humidification Control Proportional	W
23	HUM_INTG	Humidification Control Integral	W
24	SPACE_HUM	Space Humidity Value	W
25	HUMIDITY_STPT	Humidification Setpoint	W
26	CO2_STPT	CO <sub>2</sub> Control Setpoint	W
27	CO2_DIFFERENTIAL	CO <sub>2</sub> Control Differential	W
28	CO2_MINIMUM_POSITION	CO <sub>2</sub> Damper Minimum Position For Occupied Mode	W
29	CO2_MAXIMUM_POSITION	CO <sub>2</sub> Damper Maximum Position For Occupied Mode	W
30	CO2_UNOCCUPIED_POSITION	CO <sub>2</sub> Damper Unoccupied Position	W
31	CO2_TIME_DELAY	Time Delay For CO <sub>2</sub> Control (Minutes)	W
32	CO2_PROP	CO <sub>2</sub> Control Proportional	W
33	CO2_INTG	CO <sub>2</sub> Control Integral	W
34	SPACE_CO2	Space CO <sub>2</sub> Value	W
35	MOTION_UNOCC_DELAY	Time To Set To Unit To Unoccupied When No Motion Is Detected	W
36	OCCUPANCY_RELAX_MAXIMUM	Maximum Setpoint Relax When No Motion Is Detected	W
37	DEMAND_SETPOINT_RELAX_CLG	Cooling Setpoint Relaxation Value During Demand Limit	W
38	DEMAND_SETPOINT_RELAX_HTG	Heating Setpoint Relaxation Value During Demand Limit	W
39		Demand Recovery Step Time Minutes	W
40			W
41	COOL_MODE_TEMP_OFFSET	Cool Mode Temp Offset Value	W
42	HEAI_MODE_IEMP_OFFSEI	Heat Mode Temp Offset Value	W
43		Outdoor Temp	W
44		Discharge Air Temp	W
45	STAGE_DELAY	Stage Delay For Aux Heat	W
46		Fliter Sign Reset	W
4/		Enable Humidity Control During Unoccupied Mode	VV
48		I run On Humidity Control During Override	VV VV
49	REMOTE_HUMIDITY_SENSOR	Enable Remote Humidity Sensor	VV
50		Allow Humidity Control During Heat	VV VV
51		Occupied Mode	VV I

#	Value	Description	Type
52	ENABLE LOCAL SCHED	Enabled Local Schedule	W
53	STPT HOLD	Hold Enable	W
54	STPT_TRACKING	Setpoint Tracking Mode	W
55	DAT SENSOR	Enables Remote Discharge Air Temperature	W
56	DEHUM WOUT FAN	Dehumidification Without Fan	W
57	OAT SENSOR	Enable Outside Air Sensor	W
58	HUMIDIEY WOUT FAN	Humidify Without Fan	W
59	ENABLE REMOTE CO2 SENSOR	Enable Remote CO <sub>2</sub> Sensor Monitoring	W
60	DEHUM OVERCOOL STATUS	Overcooling To Dehumidify	W
61	SPEED UP	Speed Up Timers	W
62	RC PROHIBIT MODE OPERATION	Remote Controller Prohibit Mode Operation	W
63	REMOTE CONTROLLER PROHIBIT STPT	Remote Controller Prohibit Setpoint	W
64		Enables Demand Control	W
65		Enable CO <sub>2</sub> Control	W
66	CONTINUOUS AUX FAN	Enable Ean Operation During Aux Heat	W
67	FORCE FAN	External Forced Fan Input	W
68	CALL FOR HUMIDIFICATION	Humidification Call	W
69		Humidifier Output Status	W
70		Fconomizer Status	W
70		CO <sub>2</sub> Alarm Status	W
72		Debumidification Output Status	 \\/
73	ENERGY SAVINGS ICON	Energy Saving Icon Status	<u>vv</u>
7/		Check For Fan Before Running Aux Heat	V
75	Humidity Display Enable		<u>۷۷</u> ۱۸/
76	CO2 Display Enable	Enable CO <sub>2</sub> Display	<u>vv</u> \\\/
70		Enable Outside Air Sonsor Display	<u>۷۷</u>
78		Controller Operation Mode	<u>۷۷</u>
70		Aux Heat Configuration Setting	V
80		Overcool Mode Ean Speed	<u>۷</u> ۷
81	FAN MODE	Fan Sneed	V
82		Occupancy Mode To Be During Start Of Schedule	Ŵ
83		Room Temperature Calculation Logic	<u>vv</u>
8/		Primary Changeover Deadhand	<u> </u>
85		Second Changeover Deadband	<u>۷۷</u>
86		Autochangeover Gaurdtimer Value	V
87		Minimum Setnoint Differential Value	V
88			\\/
89		Cooling Unoccupied Recovery Setpoint	V
90	HEATING LINOCC RECOVERY	Heating Unoccupied Recovery Setpoint	W/
01		Demand Control	\\/
02	OCCUPANCY SENSOR LOGIC		W/
02		Occupancy Sensor Setnoint Relay Time Delay	W
93		Indoor Unit Louver 2 Position	V
05		Binary Input 6 Configuration	V
96			V
07		Indoor Unit Louver Direction	<u>۷۷</u> ۱۸/
08		Do 1 Setting Value	\//
00	DO-2 SETTING	Do 2 Setting Value	\//
100	DO-3 SETTING	Do 3 Setting Value	V/
101	DO-4 SETTING	Do 4 Setting Value	\\/
102			V
102		Humidification Control Type	V
10/		External Dehumidification Control Type	\\/
105			 
100			٧V

#### DIMENSIONS:





# 2.6 AZAI6WSCDKA DKN Cloud Wi-Fi Adaptor

Please ask your DAIKIN dealer for more specific information such as applicable models.

#### MODEL COMPATIBILITY:

Compatible with *VRV* indoor unit models: FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ\_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, CXTQ

Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ

Compatible with Single Zone/Multi Zone/SkyAir system indoor unit models: FDMQ, FFQ Backwards compatible with indoor unit models that communicate via the P1P2 protocol

#### SPECIFICATIONS:

Model		AZAI6WSCDKA	
Description		DKN Cloud Wi-Fi Adaptor for VRV (P1P2)	
Maximum Indoor Units		16 indoor units in one remote controller group	
Total Wiring Length		6ft (2m)	
Dimensions		3.6 in x 3.15 in x 1.15 in (92mm x 80mm x 29 mm)	
Weight		0.28lbs (130 g)	
Communication Protocol		P1P2	
Storage Temperatur	е	-4°F to 158°F (-20 °C to 70 °C)	
Operation Temperature		32°F to 122°F (0 °C to 50 °C)	
Operation Humidity		5% to 90% (non-condensing)	
	Connection	WiFi-Certificated network 802.11b/g/n (802.11n up to 150 Mbps) Daikin's Bluetooth furnace: v4.2 BR/EDR and BLE specification	
Communication	Communication Frequency	2.4GHz	
	Max Antenna power	20 dBm	
	Sensitivity	-97 dBm	
	IP Addressing	Static DHCP	
Modbus RS485 communication baud rate		19200 bps	
	Туре	Vdc	
Power Supply	Voltage	12 – 16V	
indoor unit PCB)	max current	85 mA	
,	max Power	1360 mW	

### PRODUCT IMAGE:

AIRZONE		
	4-	
	0	
	P	
	õ	

#### FEATURES:

- A wired remote controller is optional to connect to the indoor unit together with the Wi-Fi adaptor.
- The DKN Cloud Wi-Fi adaptor is capable of controlling a group of up to 16 indoor units
- The Wi-Fi adaptor wiring consists of a non-polar two-wire connection to the indoor unit at terminals P1/P2 and a connection to the indoor unit power supply connector X18A or X35A (16VDC).
  - o Wiring harness provided with Wi-Fi adapter
- The DKN Cloud Wi-Fi adaptor enables the control of P1P2 indoor units through an iOS or Android smartphone app:
  - o Monitor and/or control the indoor units:
    - On/Off
    - Mode Cool, Heat, Auto\*, Dry and Fan
    - Room temperature
    - Sensed by the remote controller or indoor unit return air sensor (depends on indoor unit model)
    - Setpoint
    - Fan speed
    - Error code
    - Next scheduled event
    - o Capable of setting a 7 day schedule for each indoor unit group
    - o Capable of editing unit name and icon, and grouping units
    - o Capable of managing users with Basic and Advanced authority
    - o Capable of displaying different languages: English, Spanish and French
    - o Capable of selecting temperature units °F/°C
  - Open API document is available for cloud to cloud integration
- Modbus Integration
  - o The following points are available through Modbus:

No.	Point Name	Read Only/Writable
1	Unit on/off	Writable
2	Setpoint	Writable
3	Room temperature	Writable
4	Mode Auto/Cool/Heat/Fan/Dry	Writable
5	Fan speed	Writable
6	Louver position	Writable
7	Error code	Read only

\*Applicable to indoor units that connect to VRV Heat Recovery outdoor units only.

#### DIMENSIONS:



#### MOUNTING:

CONNECTION:

The Wi-Fi adaptor shall be mounted onto a flat surface either through screws or double-sided adhesive tape provided with the Wi-Fi adapter





Screw attachment

Double-sided adhesive attachment



\*For FTQ\_P and FXTQ\_P, use the X9A connector on the A2P PCB

#### ADAPTOR COMPATIBILITY:

This adaptor is not compatible with the following adaptors:

- KRP4A71, KRP4A72, KRP4A73, KRP4A74
- DTA104A53, DTA104A61, DTA104A62
- DTA116A51 if powered by the indoor unit PCB

# 2.7 AZAI6WSPDKC DKN Plus Interface

Please ask your DAIKIN dealer for more specific information such as applicable models.

### MODEL COMPATIBILITY:

Compatible with the following indoor units:

Indoor Unit Family	Model Number	Туре
VRV and VRV Life	CXTQ, FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ	P1P2
SkyAir	FAQ, FBQ, FTQ, FCQ, FHQ	P1P2
Cingle Zana and Multi Zana	FDMQ, FFQ	P1P2
	CDXS, CTXS, FDXS, FTK, FTX, FTXG, FTXR, FTXS, FVXS	S21

The following indoor units do not have the S21 connection and require an additional interface adaptor (ordered separately) to provide the S21 connect for the adaptor:

Indoor Unit Models	Required Interface Adaptor
FTX09NMVJU, FTX12NMVJU, FTK09NMVJU, FTK12NMVJU	KRP067A41E
FTX15NMVJU, FTX18NMVJU, FTX24NMVJU, FTK18NMVJU, FTK24NMVJU	KRP980B2E

#### SPECIFICATIONS:

Model		AZAI6WSPDKC	
Description		DKN Plus Interface	
Maximum connections		1 S21 indoor units / 16 P1P2 indoor units	
	P1P2/S21 communication and power wire	7.7ft / 2.35m (included)	
Wiring	S21 wire adaptor	0.5ft / 0.15m (included)	
	P1P2 wire adaptor	0.5ft / 0.15m (included)	
Modbus RS485 communication baud rate		19200 bps	
BACnet MS/TP communication baud rate		9600/19200/38400 bps (Default: 38400)	
Device events	For DKN Plus Interface	12-16VDC from indoor unit PCB	
Power supply	For 3 <sup>rd</sup> party thermostat	24VAC from external power supply	
Dimensions	·	3.62 in x 3.15 in x 1.14 in / 92mm x 80 mm x 29 mm	
Weight		3.24 oz / 92g	
Storage temperature		-4°F to 158°F	
Operation temperature		32°F to 113°F	
Compliance		EMC with the standard 47 CFR Part 15B (US) EMC with ICES-003 Issue6 standard (Canada)	

#### PRODUCT IMAGE:



#### FEATURES:

•

- Versatile interface that can integrate with a third-party thermostat through multiple approaches:
  - o Cloud API
  - o Modbus
  - o BACnet MS/TP
  - o Thermostat G/Y/W Relay Control: Fan, Cool, Heat
    - Advanced control logic to maximize indoor unit efficiency
    - Automatically disables thermostat relay logic when cloud API connection detected
  - Easy commissioning with Daikin's Bluetooth furnace configuration app
- Indoor unit control and monitoring points\*
  - o On/Off
  - o Setpoint
  - o Room temperature
  - o Mode (Auto, Cool, Heat, Fan, Dry)
  - o Fan speed
  - o Louver position
  - o Error code
  - o Interlock control with indoor unit On/Off Dry Contact
- Aux Heater Control
- Modbus and BACnet MS/TP Integration
  - o The following points are available through Modbus or BACnet MS/TP:

No.	Point Name	Read Only/Writable
1	Unit on/off	Writable
2	Setpoint	Writable
3	Room temperature	Writable
4	Mode Auto/Cool/Heat/Fan/Dry	Writable
5	Fan speed	Writable
6	Louver position	Writable
7	Error code	Read only

\* For integration through cloud, Modbus, and BACnet MS/TP only

#### SYSTEM DIAGRAM:

• For S21 indoor units:



#### • For P1P2 indoor units:



#### WIRING DIAGRAM:

• Connects to P1P2 indoor unit



• Connects to S21 indoor unit



### DIMENSIONS:



# 2.8 DSE401A71/DSE401B71 HERO Simple Edge Cloud Communication Adaptor



# **Submittal Data Sheet**

DSE401A71/DSE401B71 – HERO Simple Edge Cloud Communication adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **MODEL COMPATIBILITY:**

Compatible with VRV Emerion (REYQ\_AA) outdoor unit.

#### **SPECIFICATIONS:**

Hero Simple Edge			
Model	DSE401A71/DSE401B71		
Description	HERO Simple Edge Cloud Communication Adaptor		
Maximum Connections	64 Indoor Units / 1 Outdoor Units		
Communication to Outdoor unit	Proprietary		
Communication to Cloud	LTE-CAT-M1 (Verizon) Continental United States, Alaska, Hawaii		
Power	16VDC supplied by Outdoor Unit, less than 3W		
Operating Temp Range	-22 to 125 °F (-30~52°C)		
Storage Temp range	-22 to 158 °F (-30~70°C)		
Operating Humidity Range	Less than 95% RH(Non- condensing)		
Storage Temp range	Less than 95% RH(Non- condensing)		
Installation Elevation	Less than 6500ft (2000m)		
Dimensions (WxHXD)	6.2"X3.8"X1.7" (160mm X 96mm X 42mm)		
Weight (Mass)	1.0lb (0.46kg)		
Communication wire	9-33/64ft (2900mm)		
Conversion harness	0.55ft (170mm)		
Enclosure Rating	IP66		
Hero Cloud Services			
Compatible Browser	Google Chrome, Safari		
Compatible Devices	PC, MAC, Smartphone and Tablet with internet connection		
Requires Subscription	Yes		
URL www.daikinhero.com			

### **PRODUCT IMAGE:**



#### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 1 of 4



DSE401A71/DSE401B71 – HERO Simple Edge Cloud Communication adaptor

Project Name:	
Location: Approval:	
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

#### **FEATURES**:

- On-board LED indicates the operation status of the Daikin HERO Simple Edge.
- Included SIM card for cloud connection
- Directly powers from the outdoor unit, no external power supply is required.
- Connects the VRV system to the HERO Cloud Service.
- Easy setup with QR code label with device information (Edge ID, SIM Card Information).
- Remote monitoring for outdoor unit operation data
- Remote monitoring for indoor unit operation data
- Simple customizable dashboards to provide quick status of connected units and sites
- Animated piping layout with live data and past data at 1-minute intervals.
- View and download trend graphs of historical operation data.
- Download historical operation data.
- · Alarm dashboard with automatic email notifications when an alarm occurs
- Energy management dashboard to view energy consumption for the outdoor units.
- User management with customizable access for the specified user type.
- Monitors multiple outdoor units across multiple sites with a single login.

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 2 of 4



DSE401A71/DSE401B71 – HERO Simple Edge Cloud Communication adaptor

Project Name:	
Location:	_ Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## HERO SIMPLE EDGE





Harness included with device to connect to outdoor unit.



 Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

 www.daikinac.com
 www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 3 of 4



DSE401A71/DSE401B71 – HERO Simple Edge Cloud Communication adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **MOUNTING EXAMPLE:**



#### Please refer to installation manual for more information.

\* Since this product uses wireless communication, it cannot be used in tunnels, or underground, or within buildings where cellular signal cannot reach, or outdoors where the signal is weak or outside the communication service area. Even within the communication service area, this product may not be able to be used in places where cellular signal is difficult to transmit, such as indoors, underground, in tunnels, where blocked by buildings, in mountainous areas, on the open ocean, or on high floors within buildings such as high-rise apartment buildings or condominiums.

#### **DOCUMENTATION:**

Documentation available on www.daikincity.com and/or www.daikinac.com:

- Submittal
- Product Flyer
- Installation Manual
- Guide Specification

## Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 4 of 4

# **Safety Precautions**

Also see the installation manual provided with the equipment that you connect.

Please read these "SAFETY PRECAUTIONS" carefully before installing the unit, and be sure to install the unit correctly.

• The installation manual and the **"SAFETY PRECAUTIONS"** contain important information regarding safety. Be sure to observe all precautions.



• After completing the installation, conduct a trial run to check for faults, and explain to the customer how to operate the unit and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

# 

- Ask your dealer or other qualified personnel to do the installation work. Do not attempt to install the unit yourself. Improper installation may result in electric shock or fire.
- Do not relocate or reinstall the unit yourself. Improper installation work may result in electric shock or fire. Ask your local dealer to carry out the relocation and reinstallation of the unit.
- Install the unit in accordance with the instructions in this installation manual. Improper installation may result in electric shock or fire.
- Be sure to use only the specified accessories and parts for the installation work. Failure to use the specified parts may result in the DSE401A71 falling, electric shock, or fire.
- Install the unit on a foundation strong enough to withstand the weight of the unit. A foundation of insufficient strength may result in the equipment falling and causing injury.
- Always perform the installation work with the power supply shut off. Touching energized electric parts will cause electric shock.

### Installation Manual 3P664946-2B DSE401A71: HERO Simple Edge

1

•	<b>Do not disassemble, modify or repair the unit.</b> Electric shock or fire may result.
	<ul> <li>Make sure that all wiring is secured, that the specified wires are used, and that there is no strain on the terminal connections or wires.</li> <li>Improper connection or securing of wires may result in abnormal heat build-up or fire.</li> </ul>
•	The choice of materials and installations must comply with the applicable national and international standards.
	<b>Carry out the installation work taking earthquakes into account.</b> Failure to do so during installation work may result in the unit falling and causing accidents.
•	<ul> <li>When wiring the power supply, position the wires so that the electric parts box lid can be securely fastened.</li> <li>Improper positioning of the electric parts box lid may result in an abnormal heat build-up, electric shock, or fire.</li> </ul>
•	This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
•	<b>Children should be supervised to ensure that they do not play with the unit.</b> This equipment is not suitable for use in locations where children are likely to be present.

2

dispose of the packing materials. art and throw away plastic packaging bags so that children will not play with them. en play with a plastic bag which was not torn apart, they face the risk of suffocation nit is a FCC class B product. mestic environment, this product may cause radio interference. cases, the user may be required to take adequate measures. al requirements: the dismantling of the unit and of other parts must be done ordance with relevant local and national legislation. ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
art and throw away plastic packaging bags so that children will not play with them. en play with a plastic bag which was not torn apart, they face the risk of suffocation <b>nit is a FCC class B product.</b> <b>mestic environment, this product may cause radio interference.</b> cases, the user may be required to take adequate measures. <b>al requirements: the dismantling of the unit and of other parts must be done</b> ordance with relevant local and national legislation. <b>ing intake hole with putty.</b> f water or insects may result in electric leakage or malfunction. <b>operate with wet hands.</b> shock and malfunction may result. <b>wash the unit with water.</b>
en play with a plastic bag which was not torn apart, they face the risk of suffocation <b>nit is a FCC class B product.</b> <b>mestic environment, this product may cause radio interference.</b> cases, the user may be required to take adequate measures. <b>al requirements: the dismantling of the unit and of other parts must be done</b> <b>ordance with relevant local and national legislation.</b> <b>ing intake hole with putty.</b> f water or insects may result in electric leakage or malfunction. <b>operate with wet hands.</b> shock and malfunction may result. <b>wash the unit with water.</b>
hit is a FCC class B product. mestic environment, this product may cause radio interference. cases, the user may be required to take adequate measures. al requirements: the dismantling of the unit and of other parts must be done ordance with relevant local and national legislation. ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
mestic environment, this product may cause radio interference. cases, the user may be required to take adequate measures. al requirements: the dismantling of the unit and of other parts must be done ordance with relevant local and national legislation. ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
cases, the user may be required to take adequate measures. al requirements: the dismantling of the unit and of other parts must be done ordance with relevant local and national legislation. ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
al requirements: the dismantling of the unit and of other parts must be done ordance with relevant local and national legislation. ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
ing intake hole with putty. f water or insects may result in electric leakage or malfunction. operate with wet hands. shock and malfunction may result. wash the unit with water.
operate with wet hands. shock and malfunction may result. wash the unit with water.
shock and malfunction may result. wash the unit with water.
wash the unit with water.
shock or fire may result
the unit, its power cord, and its communication cable at least
inch (1 m) away from televisions or radios.
to prevent picture interference and noise. (Depending on the incoming signal
n, a distance of 39-3/8 inch (1 m) may not be sufficient to eliminate noise.)
product is installed in an area high in salt, the magnet may rust.
install the unit in the following places.
ces with a high concentration of mineral oil spray or vapor (e.g. a kitchen).
c parts will deteriorate, parts may fall off and water leakage could result.
machinery emitting electromagnetic radiation.
than connected VRV outdoor unit.
action of the unit
ces where flammable gas may leak, where there is carbon fibre or ignitable suspensions in the air, or where volatile flammables such as paint thinner or ine are handled.
ting the unit in such places may result in fire.
ces where the unit is exposed to direct flames.

Cautions about using wireless communication

# 

Do not install this product in places where a person wearing a medical device or an implanted medical device such as a cardiac pacemaker may come within 7-7/8 inch (20 cm) of this product. Malfunction of the medical devices may result.

Do not use this product at airports, hospitals, or other buildings where the use of radio waves is prohibited or restricted, or near high-precision electronic devices. Malfunction of avionic instruments, medical equipment and electronic equipment may result.

This product is not intended for use with equipment or machines that may endanger human life in the event of a malfunction such as medical equipment, nuclear power equipment, aerospace equipment, or transportation equipment, as well as with equipment or machines that require high reliability such as core communication equipment and computer systems. If this product is used with equipment or machines such as those described above, this company shall not be liable for any personal injury, fire accidents, damage to reputation, etc. caused by the failure of this company's product.

# 

This product performs wireless communication. If it is installed in an environment surrounded by metal, the metal will block the radio waves and normal operation may become impossible.

Keep magnetic cards such as cash cards and credit cards away from this product. The cards may become unusable.

Since this product is a device that communicates using wireless infrastructure, proper communication may become impossible due to the effects coming from the factors listed below.

- Effects from the characteristics of the infrastructure network used
- Effects on the infrastructure network used due to construction, disasters, largescale events, etc.

Since this product uses wireless communication, it cannot be used in tunnels, or underground, or within buildings where radio waves cannot reach, or outdoors where the signal is weak or outside the communication service area. Even within the communication service area, this product may not be able to be used in places where radio waves are difficult to transmit, such as indoors, underground, in tunnels, where blocked by buildings, in mountainous areas, on the open ocean, or on high floors within buildings such as high-rise apartment buildings or condominiums.

This company shall not be liable for any damages caused by the product losing opportunities to communicate due to external factors such as power outages and communication equipment.

4

### About handling of magnets for installing on the outdoor unit

Neodymium magnets are used to install this product on the outdoor unit. Neodymium magnets have a strong magnetic force, so be sure to read this manual carefully before use.

# 

Bringing this product close to people with medical devices such as cardiac pacemakers and to other medical devices is very dangerous. It may interfere with the normal operation of the medical device.

Accidental ingestion of magnets can lead to life-threatening accidents. If you ingest a magnet, there is a risk of choking, and if it stays in your body, you may need abdominal surgery. If ingested, consult a doctor immediately. To prevent

accidental ingestion, keep magnets out of the reach of children.

When magnets are attracted to each other or to the air conditioner, fingers or skin may become pinched and injury may result.

# 

If the magnets are vigorously attracted to each other or to an air conditioner by the attractive force of the magnets themselves, the surface coating of the magnet body may be chipped or peel off, or the magnet body itself may chip, which may lead to rust on the magnets.

If you have an allergic reaction to metals, your skin may become irritated or red when you touch the magnets. Do not touch the magnets if you experience any of these symptoms. Never lick the magnets or drink water that touches the magnets, as the components of the magnets may dissolve in water and cause symptoms such as abdominal pain.

Keep magnetic cards such as cash cards and credit cards away from the magnets. The records on the cards may be destroyed or magnetized, and the cards may become unusable.

Bringing magnets close to various electronic devices, video devices, and communication devices (speakers, CD/DVD players, cathode ray tubes, mobile phones, watches, etc.) may interfere with normal operation or lead to malfunction.

If magnets of this product is placed near electronic control equipment, it may result in malfunction or accident.

Do not place magnets of this product near electronic control equipment.

Do not bring the magnets close to such devices or bring them into an aircraft.

If this product is left exposed, it is dangerous to attract surrounding magnets and metals vigorously.

When storing this product, put it in the packing box.

Thi use Thi ple tec	s product (including software) is for the US/Canada region only and cannot be ed overseas. s company shall not be liable if this product is used in other regions. In addition, ase note that this company does not provide any overseas maintenance support or hnical support for this product.
This con This And The	s device, which was assembled by Goodman Manufacturing Company, L.P., contains a nponent that is classified as an intentional radiator. s intentional radiator has been certified by the FCC: FCC ID (XPY2AGQN4NNN). d this international radiator has an Industry Canada ID (8595A-2AGQN4NNN).
(wh This two (1) (2)	s device complies with part 15 of the FCC's Rules. Operation of this device is subject to conditions: This device may not cause harmful interference; and This device must accept any interference received, including interference that may cause undesirable operation.
And	this device meets the applicable industry Canada technical specifications.
The con (ww	FCC responsible party is Goodman Manufacturing Company, L.P., and may be tacted by calling (713)-861-2500, or at 19001 Kermier Rd., Waller, TX 77484. ww.GoodmanMFG.com)
Thi: pro	s equipment complies with FCC radiation exposure limits. To ensure compliance, human ximity to the antenna shall not be less the 7-7/8 inch (20 cm) during normal operations.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### - NOTE -

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there in no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Cor	ntent	S	
1	Before Installation 8		
2	Names of parts 10		
3	Selecting an installation location 11		
4	Installing the HERO Simple Edge13		
	4.1	Connecting the conversion harness 13	
	4.2	Connecting the HERO Simple Edge 14	
	4.3	Wiring the inside of the air conditioner 15	
	4.4	Installing the HERO Simple Edge temporarily 16	
5	Performing test operation of the HERO Simple Edge		
	5.1	Checking the cell signal strength 19	
	5.2	Performing test operation of the HERO Simple Edge 20	
6	Instal	ing the HERO Simple Edge permanently 21	
7	Troubleshooting		

# **1** Before Installation

## Accessories

Check that the following accessories are included.

Name	HERO Simple Edge	Conversion harness	Fall prevention wire	Fall prevention wire fixing screw	Installation manual (this document)
Quantity	1 pc.	1 pc.	1 pc.	1 pc.	1 copy
Shape					

HERO Simple Edge SIM card must be activated before applying power to the device.

Failure to do this will cause up to a 5-hour delay in connecting to the Daikin HERO Cloud Service.

# 

- Accessories are required for installation work. Please keep them safe, and do not lose them.
- Also, please ask the customer to keep the manual after the installation work is completed.

## Field Supplied Parts (NOT Included)

The following parts are required when wiring to the air conditioner. Please prepare by acquiring them locally.

Name	Wiring securing bracket	Cable tie
Quantity	2 pcs.	5 pcs.
Shape		

\* For wiring securing brackets, use something with the following properties.

- Something made for outdoor use which is weather resistant
- Something with no burrs or edges
- Something fixed with double-sided tape




## 

If this product is installed in an area high in salt, the magnet may rust.

## 

Do not install in locations such as the following.

- (1) Do not install on the top surface of the outdoor unit
  - May cause a loss of waterproofness.
  - You may not be able to communicate with cloud services.
- (2) Do not install near the air outlet
  - The heat in the outlet air\* may cause deformation or malfunction.
  - \* Make sure that heat in the outlet air does not affect the unit by installing an airflow direction adjustment plate or windbreak plate.
- (3) Do not install inside the air conditioner
  - This product performs wireless communication. If it is installed in an environment surrounded by metal, the metal will block the radio waves and communication with cloud services will not be possible.
- (4) Do not attach the outdoor unit mounting magnets in a place where the surface is uneven
  - The unit can become easily detached from the air conditioner.
- (5) Do not install in places exposed to chemicals
  - May cause damage and a loss of waterproofness.

# Installing the HERO Simple Edge 4 • When installing the HERO Simple Edge, turn off the power supply of the air conditioner before starting work. Prohibited • Install the HERO Simple Edge on the air conditioner. 4.1 Connecting the conversion harness Connect the conversion harness to the air conditioner. CAUTION Remove the outer panel of the outdoor unit according to the removal procedure outlined in the installation manual and service guide for each model. • Do not remove the ferrite core. (Comply with the emission limits.) (1) Connect the air conditioner connector (X202A) of the conversion harness to the communication connector (X801A) of the outdoor unit printed circuit board. Connector connection example [REYQ96-168A] Conversion harness Air conditioner **HERO** Simple connector Edge X202A connector (Main unit side) X201A Installation Manual 3P664946-2B 13 DSE401A71: HERO Simple Edge

## 4.2 Connecting the HERO Simple Edge

- Connect the HERO Simple Edge to the conversion harness.
- (1) Pass the communication cable of the HERO Simple Edge through the wiring outlet of the air conditioner.



(2) Connect the conversion harness connector (X201A) to the HERO Simple Edge connector (Main unit side) (X201A).



## 4.3 Wiring the inside of the air conditioner

• Refer to the figure below when wiring.



Maintain a gap of 1-31/32 inch (50 mm) or more between the communication cable and the power supply cable/earth wire.

## 🕂 WARNING -

HERO Simple Edge SIM card must be activated before applying power to the device.

Failure to do this will cause up to a 5-hour delay in connecting to the Daikin HERO Cloud Service.

# 

After the wiring work is completed, make sure that the connector of each electrical part in the control box is connected and that all screws on the terminal block are tight.

- (1) Install the conversion harness in the control box and secure it with cable ties.
  - Be sure to install in the control box.
    - Wrap a cable tie around the ferrite core to fix it securely and prevent it from touching other connection terminals or metal parts.
    - So that tension is not applied to the connector, use a cable tie (white) to fix the ferrite core securely to the wiring clamp material closest to the connector.
    - The harness of HERO Simple Edge should not cut across the control board.
    - \* Please acquire cable ties locally. They are not included in the accessories.
- (2) Secure the communication cable to the wiring clamp material that secures the lead wire of the outdoor unit.
- (3) Using a cable tie, secure the communication cable in at least 1 place to the wiring clamp material and the outdoor unit.
- (4) Install the control box and outer panel of the air conditioner in their original positions.



## 4.4 Installing the HERO Simple Edge temporarily





HERO Simple device. Failure to do t Cloud Service	e Edge SIM car this will cause u	d must be activated b up to a 5-hour delay ir	efore applying power to the a connecting to the Daikin HE
Associate th     About HERO S	e HERO Simple Simple Edge LE	e Edge with the custo ED display]	mer's property (via test opera
OO ANT1 ANT	0 2 CLD F	O RUN	
_ED display	: Unlit O: Lit	•: Blinking •: Unli	t or Lit/Blinking
LED name	LED color	Name	Explanation
ANT1	Orange	Antenna level	Cell signal reception display
CLD	Green	Cloud connection	Cloud connection status display
RUN	Green	Test operation	Test operation status display
RUN	Green	Test operation	Test operation status display

## 5.1 Checking the cell signal strength

• The HERO Simple Edge is equipped with a wireless communication function. Install it in an environment with a good cell signal strength to communicate with the cloud.



• With the HERO Simple Edge installed in the installation location, check cell signal strength.

The cell signal changes due to the influence of metal objects such as the outer panel of the air conditioner and obstructions.

- If a device that relays radio waves from a mobile phone line is installed nearby, cellular reception may become bad.
- Turn on the power supply to the air conditioner. Make sure the HERO Simple Edge starts up properly (all 4 LEDs light up for 5 seconds).

0	0	0	0
ANT1	ANT2	CLD	RUN

## 

- If the 4 LEDs of the HERO Simple Edge do not light up, refer to "Troubleshooting".
- (2) Wait for about 3 minutes until ANT1 and ANT2 light up.
- (3) Make sure that the antenna level LED of the HERO Simple Edge is displaying "2 (Good)" or better.

Antenna	Cell signal	Cell signal reception				Usability in
level	strength	ANT1	ANT2	CLD	RUN	installation location
3	Very good	0	0	•	•	OK
2	Good	0				OK
1	Bad		0			(NOTE 1)
0	Out of service area	•	•	•		No (NOTE 2)

#### LED display •: Unlit O: Lit •: Blinking •: Unlit or Lit/Blinking

#### (NOTE 1)

If the antenna level is 1 (Bad), changing the installation location is recommended. **(NOTE 2)** 

If the antenna level is 0 (Out of service area), change the installation location.



6	Installing the HERO Simple Edge permanently
	<ul> <li>How to attach the wiring securing brackets (NOT included)</li> <li>When attaching the wiring securing brackets to the outdoor unit, follow the procedure below.</li> <li>(1) Wipe the mounting surface of the outdoor unit with a clean cloth.</li> <li>(2) Peel off the tape backing, being careful not to touch the adhesive surface of the wiring securing bracket.</li> <li>(3) Attach the wiring securing bracket to the mounting surface of the outdoor unit, and press firmly with your thumb for at least 5 seconds.</li> <li>(4) Make sure that the wiring securing bracket is securely fixed, and then wire the communication cable.</li> </ul>
	<ul> <li>Wiring method to the outside of the air conditioner</li> <li>(1) After performing test operation of the HERO Simple Edge, check again that the radio condition is good.</li> <li>(2) Secure the communication cable coming from the wiring outlet of the outdoor unit in 2 places using wiring securing brackets.</li> <li>Do not make holes in the outdoor unit to secure the cable with screws.</li> <li>Install the wiring securing brackets so that the communication cable exposed on the outside the unit is divided into 3 equal parts.</li> <li>Any remaining length of communication cable should be bundled and stored in the outdoor unit.</li> <li>(3) Attach the fall prevention wire to the unit.</li> <li>Use the fall prevention wire fixing screw.</li> <li>* Tightening torque: 5.31 lbf-in (0.6N·m)</li> <li>(4) Secure the fall prevention wire to the outer panel of the air conditioner using one of the panel screws.</li> <li>Tighten together with the outer panel of the air conditioner. (See the next page.)</li> <li>Attach it to a location above the unit.</li> </ul>
	(If it is attached below the unit, the unit may be damaged due to dropping.) * Be sure to attach the fall prevention wire to prevent the unit from being blown away by heavy winds.



\* How to joint tighten the fall prevention wire Tighten and secure the outdoor unit outer panel together with the fall prevention wire using the outdoor unit panel screw.

# 7 Troubleshooting

	Problem	How to respond				
e test operation	When the power supply of the air conditioner is turned on, the LED doesn't light up	<ul> <li>Is the conversion harness properly connected to the air conditioner?</li> <li>(1) Make sure that the air conditioner connector (X202A) of the conversion harness and the HERO Simple Edge connector (Main unit side) (X201A) are connected properly.</li> <li>(2) Make sure that the harness of HERO Simple Edge is not broken.</li> <li>(3) If the conversion harness is connected properly, there is a possibility that the HERO Simple Edge is defective. Replace the HERO Simple Edge.</li> </ul>				
HERO Simple Edge		<ul> <li>Make sure that the installation location is within a communication service area.</li> <li>If you are outside the communication service area, installation is not possible.</li> </ul>				
	The antenna level LED does not light up/blink	<ul> <li>There is a possibility that the cell signal strength is poor, such as because the HERO Simple Edge is covered by an obstacle or metal.</li> </ul>				
		<ul> <li>Change the installation location and then check if the antenna level LED blinks/lights up.</li> </ul>				
		<ul> <li>If you take the measures noted above but the situation still does not improve, please contact our sales representative.</li> </ul>				

	Problem	How to respond
		• Check the cell signal strength.
	The cloud connection status LED keeps blinking	<ul> <li>If the antenna level is 1 or worse, communication cannot be performed normally. Change the installation location to a location where the antenna level is 2 or better and install.</li> </ul>
		• If you take the measures noted above but the situation still does not improve, please contact our sales representative.
	Won't connect to the cloud	• If HERO Simple Edge was powered up before the SIM card was registered wait up to 5 hours and try to connect again.
ration		• Make sure that the device information is correctly registered in the cloud service.
dge test ope		<ul> <li>Make sure that the registered device information and the installed device match. If they do not match, correct the registered device information and perform test operation again.</li> </ul>
le E		Is the antenna level 1 or worse?
RO Simpl	The test operation status LED keeps blinking or is unlit	<ul> <li>Change the installation location to a location where the antenna level is 2 or better, then perform test operation again.</li> </ul>
HEI		Is the HERO Simple Edge connected to the main outdoor unit?
		<ul> <li>If it is connected to a sub outdoor unit, test operation can not be completed.</li> <li>Reconnect to the main outdoor unit and perform test operation again.</li> </ul>
		<ul> <li>Is the conversion harness properly connected?</li> </ul>
		<ul> <li>If communication with the air conditioner is not correct, test operation can not be completed.</li> <li>Make sure that the conversion harness is connected properly, then perform test operation again.</li> </ul>

24

## **Safety Precautions**

Also see the installation manual provided with the equipment that you connect.

Please read these "SAFETY PRECAUTIONS" carefully before installing the unit, and be sure to install the unit correctly.

• The installation manual and the "SAFETY PRECAUTIONS" contain important information regarding safety. Be sure to observe all precautions.



 After completing the installation, conduct a trial run to check for faults, and explain to the customer how to operate the unit and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

# 

- Ask your dealer or other qualified personnel to do the installation work.
   Do not attempt to install the unit yourself. Improper installation may result in electric shock or fire.
- Do not relocate or reinstall the unit yourself. Improper installation work may result in electric shock or fire. Ask your local dealer to carry out the relocation and reinstallation of the unit.
- Install the unit in accordance with the instructions in this installation manual. Improper installation may result in electric shock or fire.
- Be sure to use only the specified accessories and parts for the installation work. Failure to use the specified parts may result in the DSE401B71 falling, electric shock, or fire.
- Install the unit on a foundation strong enough to withstand the weight of the unit. A foundation of insufficient strength may result in the equipment falling and causing injury.
- Always perform the installation work with the power supply shut off. Touching energized electric parts will cause electric shock.

### Installation Manual EM22A056 DSE401B71: HERO Simple Edge

1

2

• Do not d	isassemble, modify or repair the unit.
Make su is no stra	re that all wiring is secured, that the specified wires are used, and that there ain on the terminal connections or wires.
The choi     and inter	connection or securing of wires may result in abnormal near build-up of fire. ice of materials and installations must comply with the applicable national rnational standards.
Carry ou	t the installation work taking earthquakes into account.
Failure to	do so during installation work may result in the unit falling and causing accidents
When wi can be s Improper electric s	ring the power supply, position the wires so that the electric parts box lid ecurely fastened. positioning of the electric parts box lid may result in an abnormal heat build-up, hock, or fire.
This unit physical unless th applianc	t is not intended for use by persons (including children) with reduced , sensory or mental capabilities, or lack of experience and knowledge, ney have been given supervision or instruction concerning use of the e by a person responsible for their safety.
Children     This equi	should be supervised to ensure that they do not play with the unit. pment is not suitable for use in locations where children are likely to be present.

• Be	e very careful when transporting the unit.
• Sa	felv dispose of the packing materials.
Te	ar apart and throw away plastic packaging bags so that children will not play with them.
lf c	children play with a plastic bag which was not torn apart, they face the risk of suffocation
• Th	is unit is a FCC class B product.
• In	a domestic environment, this product may cause radio interference.
In	such cases, the user may be required to take adequate measures.
• Di	sposal requirements: the dismantling of the unit and of other parts must be done accordance with relevant local and national legislation
• Fil	I wiring intake hole with putty
Er	try of water or insects may result in electric leakage or malfunction.
• Do	o not operate with wet hands.
Ele	ectric shock and malfunction may result.
• Do	o not wash the unit with water.
Ele	ectric shock or fire may result.
• Ins	stall the unit, its power cord, and its communication wire at least
39	-3/8 inch (1 m) away from televisions or radios.
In str	is is to prevent picture interference and noise. (Depending on the incoming signal ength, a distance of 30-3/8 inch (1, m) may not be sufficient to eliminate poise.)
Su	this product is installed in an area high in calt, the magnet may rust
• II (	The product is instaned in an area high in sait, the magnet may rust.
1. li F 2. N	n places with a high concentration of mineral oil spray or vapor (e.g. a kitchen). Plastic parts will deteriorate, parts may fall off and water leakage could result. lear machinery emitting electromagnetic radiation.
E	Electromagnetic radiation may disturb the operation of the control system and result in a nalfunction of the unit.
3. lı c g	n places where flammable gas may leak, where there is carbon fibre or ignitable lust suspensions in the air, or where volatile flammables such as paint thinner or gasoline are handled.
( ∕ 1	Derating the unit in such places may result in fire.
	sbnormal heat build-up or firing may result.

#### Cautions about using wireless communication

# 

Do not install this product in places where a person wearing a medical device or an implanted medical device such as a cardiac pacemaker may come within 7-7/8 inch (20 cm) of this product. Malfunction of the medical devices may result.

Do not use this product at airports, hospitals, or other buildings where the use of radio waves is prohibited or restricted, or near high-precision electronic devices. Malfunction of avionic instruments, medical equipment and electronic equipment may result.

This product is not intended for use with equipment or machines that may endanger human life in the event of a malfunction such as medical equipment, nuclear power equipment, aerospace equipment, or transportation equipment, as well as with equipment or machines that require high reliability such as core communication equipment and computer systems. If this product is used with equipment or machines such as those described above, this company shall not be liable for any personal injury, fire accidents, damage to reputation, etc. caused by the failure of this company's product.

# 

This product performs wireless communication. If it is installed in an environment surrounded by metal, the metal will block the radio waves and normal operation may become impossible.

Keep magnetic cards such as cash cards and credit cards away from this product. The cards may become unusable.

Since this product is a device that communicates using wireless infrastructure, proper communication may become impossible due to the effects coming from the factors listed below.

- Effects from the characteristics of the infrastructure network used
- Effects on the infrastructure network used due to construction, disasters, largescale events, etc.

Since this product uses wireless communication, it cannot be used in tunnels, or underground, or within buildings where radio waves cannot reach, or outdoors where the signal is weak or outside the communication service area. Even within the communication service area, this product may not be able to be used in places where radio waves are difficult to transmit, such as indoors, underground, in tunnels, where blocked by buildings, in mountainous areas, on the open ocean, or on high floors within buildings such as high-rise apartment buildings or condominiums.

This company shall not be liable for any damages caused by the product losing opportunities to communicate due to external factors such as power outages and communication equipment.

4

#### ■ About handling of magnets for installing on the outdoor unit

Neodymium magnets are used to install this product on the outdoor unit. Neodymium magnets have a strong magnetic force, so be sure to read this manual carefully before use.

# 

Bringing this product close to people with medical devices such as cardiac pacemakers and to other medical devices is very dangerous. It may interfere with the normal operation of the medical device.

Accidental ingestion of magnets can lead to life-threatening accidents.

If you ingest a magnet, there is a risk of choking, and if it stays in your body, you may need abdominal surgery. If ingested, consult a doctor immediately. To prevent accidental ingestion, keep magnets out of the reach of children.

When magnets are attracted to each other or to the outdoor unit, fingers or skin may become pinched and injury may result.

# 

If the magnets are vigorously attracted to each other or to an outdoor unit by the attractive force of the magnets themselves, the surface coating of the magnet body may be chipped or peel off, or the magnet body itself may chip, which may lead to rust on the magnets.

If you have an allergic reaction to metals, your skin may become irritated or red when you touch the magnets. Do not touch the magnets if you experience any of these symptoms. Never lick the magnets or drink water that touches the magnets, as the components of the magnets may dissolve in water and cause symptoms such as abdominal pain.

Keep magnetic cards such as cash cards and credit cards away from the magnets. The records on the cards may be destroyed or magnetized, and the cards may become unusable.

Bringing magnets close to various electronic devices, video devices, and communication devices (speakers, CD/DVD players, cathode ray tubes, mobile phones, watches, etc.) may interfere with normal operation or lead to malfunction.

If magnets of this product is placed near electronic control equipment, it may result in malfunction or accident.

Do not place magnets of this product near electronic control equipment.

Do not bring the magnets close to such devices or bring them into an aircraft.

If this product is left exposed, it is dangerous to attract surrounding magnets and metals vigorously.

When storing this product, put it in the packing box.

This product (including software) is for the US/Canada region only and cannot be used overseas. This company shall not be liable if this product is used in other regions. In addition please note that this company does not provide any overseas maintenance suppor technical support for this product. This device, which was assembled by Daikin Comfort Technologies Manufacturing Inc., contains a component that is classified as an intentional radiator. This intentional radiator has been certified by the FCC: FCC ID (XPY2AGQN4NNN). And this international radiator has an Industry Canada ID (8595A-2AGQN4NNN). The manufacturer of the intentional radiator (model no. SARA-R410M-02B) is u-blox AG (www.u-blox.com). This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	t be dition, upport of nc., ). < AG bject to
This company shall not be liable if this product is used in other regions. In addition please note that this company does not provide any overseas maintenance suppor technical support for this product. This device, which was assembled by Daikin Comfort Technologies Manufacturing Inc., contains a component that is classified as an intentional radiator. This intentional radiator has been certified by the FCC: FCC ID (XPY2AGQN4NNN). And this international radiator has an Industry Canada ID (8595A-2AGQN4NNN). The manufacturer of the intentional radiator (model no. SARA-R410M-02B) is u-blox AG (www.u-blox.com). This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	nc., AG
This device, which was assembled by Daikin Comfort Technologies Manufacturing Inc., contains a component that is classified as an intentional radiator. This intentional radiator has been certified by the FCC: FCC ID (XPY2AGQN4NNN). And this international radiator has an Industry Canada ID (8595A-2AGQN4NNN). The manufacturer of the intentional radiator (model no. SARA-R410M-02B) is u-blox AG (www.u-blox.com). This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	nc., ). < AG bject to
This intentional radiator has been certified by the FCC: FCC ID (XPY2AGQN4NNN). And this international radiator has an Industry Canada ID (8595A-2AGQN4NNN). The manufacturer of the intentional radiator (model no. SARA-R410M-02B) is u-blox AG (www.u-blox.com). This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	). < AG bject to
The manufacturer of the intentional radiator (model no. SARA-R410M-02B) is u-blox AG (www.u-blox.com). This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	AG
This device complies with part 15 of the FCC's Rules. Operation of this device is subject to two conditions:	bject to
<ol> <li>This device may not cause harmful interference; and</li> <li>This device must accept any interference received, including interference that may cause undesirable operation.</li> </ol>	nay
And this device meets the applicable industry Canada technical specifications.	
The FCC responsible party is Daikin Comfort Technologies Manufacturing, Inc., and may contacted by calling (713)-861-2500, or at 19001 Kermier Rd., Waller, TX 77484. (www.daikinac.com)	l may be
This equipment complies with FCC radiation exposure limits. To ensure compliance, hum proximity to the antenna shall not be less the 7-7/8 inch (20 cm) during normal operations	, human ations.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### - NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there in no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

8

Сог	nten	ts					
1	Befor	Before Installation					
2	Name	Names of parts 11					
3	Insta	Installation process 13					
4	Selecting an installation location 14						
5	Insta	lling the HERO Simple Edge 16					
	5.1	Connecting the conversion harness 16					
	5.2	Connecting the HERO Simple Edge 21					
	5.3	Wiring the inside of the outdoor unit					
	5.4	Installing the HERO Simple Edge temporarily 29					
6	Perfo	rming test operation of the HERO Simple Edge					
	6.1	Checking the cell signal strength					
	6.2	Performing test operation of the HERO Simple Edge					
7	Insta	lling the HERO Simple Edge permanently 33					
8	Troubleshooting						

1

## **Before Installation**

## Accessories

Check that the following accessories are included.

Name	HERO Simple Edge	Conversion harness (VRV Emerion Series onward)	Conversion harness (VRV-IV Series)
Quantity	1 pc.	1 pc.	1 pc.
Shape			

Name	Fall prevention wire	Fall prevention wire fixing screw	Installation manual (this document)	Cable ties
Quantity	1 pc.	1 pc.	1 copy	5 pcs.*
Shape				

\* All accessories may not be used depending on the outdoor unit to be installed.

# 

HERO Simple Edge SIM card must be activated before applying power to the device.

Failure to do this will cause up to a 5-hour delay in connecting to the Daikin HERO Cloud Service.

## 

- Accessories are required for installation work. Please keep them safe, and do not lose them.
- Also, please ask the customer to keep the manual after the installation work is completed.

Installation Manual EM22A056 DSE401B71: HERO Simple Edge 9

## Field Supplied Parts (NOT Included)

The following parts are required when wiring to the outdoor unit. Please prepare by acquiring them locally.

Name	Wire securing brackets
Quantity	2 pcs.
Shape	

\* For wire securing brackets, use something with the following properties.

- Something made for outdoor use which is weather resistant
- Something with no burrs or edges
- Something fixed with double-sided tape









## 

If this product is installed in an area high in salt, the magnet may rust.

## - $\bigwedge$ CAUTION -

Do not install in locations such as the following.

- (1) Do not install on the top surface of the outdoor unit
  - May cause a loss of waterproofness.
  - It may not be able to communicate with cloud services.
- (2) Do not install near the air outlet
  - The heat in the outlet air\* may cause deformation or malfunction.
  - \* Make sure that heat in the outlet air does not affect the unit by installing an airflow direction adjustment plate or windbreak plate.
- (3) Do not install inside the outdoor unit
  - This product performs wireless communication. If it is installed in an environment surrounded by metal, the metal will block the radio waves and communication with cloud services will not be possible.
- (4) Do not attach the outdoor unit mounting magnets in a place where the surface is uneven
  - The unit can become easily detached from the outdoor unit.
- (5) Do not install in places exposed to chemicals
  - May cause damage and a loss of waterproofness.

# 5 Installing the HERO Simple Edge

• When installing the HERO Simple Edge, turn off the power supply of the outdoor unit before starting work.

CAUTION
 When installing on an existing outdoor unit, since shutting off the power supply will prevent monitoring and control from the centralized controller and other company's equipment, be sure to obtain the customer's approval before proceeding with the installation work.

## 5.1 Connecting the conversion harness

• Connect the conversion harness to the outdoor unit.

## $-\cancel{N}$ CAUTION -

Prohibited

- Remove the outer panel of the outdoor unit according to the removal procedure outlined in the installation manual and service guide for each model.
- Do not remove the ferrite core. (Comply with the emission limits.)

#### **VRV Emerion Series onward**

Connect the conversion harness (VRV Emerion Series onward).

(1) Connect the outdoor unit connector (X202A) of the conversion harness to the communication connector (X801A) of the outdoor unit printed circuit board.



Connect the power connector (X203A) of the conversion harness to the power connector **(X24A or X37A)** of the outdoor unit printed circuit board.

\*Only when installing on VRV-T [RWEQ-T]

First, unplug the printed circuit board ASSY (sub) power connector.

\*Only when an optional adaptor is installed to the outdoor unit Power for the main unit and various optional adaptors is supplied from the same connector on the outdoor unit printed circuit board. Therefore, when installing an optional adaptor alongside the main unit, disconnect the power connector of the optional adaptor from the outdoor unit printed circuit board.







## 5.2 Connecting the HERO Simple Edge

• Connect the HERO Simple Edge to the conversion harness.

(1) Pass the communication wire of the HERO Simple Edge through the wiring outlet of the outdoor unit.



- Where necessary, cut to make a slit hole, using nippers or similar.
- After making the slit hole, remove burrs and apply a repair coating to the edges and surrounding edge surfaces to prevent corrosion.
- When passing the communication harness through the slit hole, protect it using a conduit, bushing, etc., to prevent damage from the edges.
- After passing the wires through, be sure to close any gaps with putty or other sealant (field supplied).
- For details on making the slit hole, refer to the installation manual for the outdoor unit.
- When installing on VRV-WIV [RWEYQ-P] or VRV-T [RWEQ-T], pass the wiring through from above.



#### Installation Manual EM22A056 DSE401B71: HERO Simple Edge

21


# 5.3 Wiring the inside of the outdoor unit

· Refer to the figure below when wiring.



Maintain a gap of 1-31/32 inch (50 mm) or more between the communication wire and the power supply cable/earth wire.

# 

HERO Simple Edge SIM card must be activated before applying power to the device.

Failure to do this will cause up to a 5-hour delay in connecting to the Daikin HERO Cloud Service.

# 

After the wiring work is completed, make sure that the connector of each electrical part in the control box is connected and that all screws on the terminal block are tight.

- (1) Install the conversion harness in the control box and secure it with cable ties.
  - Be sure to install in the control box.
    - Wrap a cable tie around the ferrite core to fix it securely and prevent it from touching other connection terminals or metal parts.
    - So that tension is not applied to the connector, use a cable tie to fix the ferrite core securely to the wiring clamp material closest to the connector.
    - The harness of HERO Simple Edge should not cut across the control board.
- (2) Secure the communication wire to the wiring clamp material that secures the lead wire of the outdoor unit.
- (3) Using a cable tie, secure the communication wire in at least 1 place to the wiring clamp material and the outdoor unit.
- (4) Install the control box and outer panel of the outdoor unit in their original positions.



EM22A056



EM22A056







# 5.4 Installing the HERO Simple Edge temporarily

# 

HERO Simple Edge SIM card must be activated before applying power to the device.

Failure to do this will cause up to a 5-hour delay in connecting to the Daikin HERO Cloud Service.

- Install the unit on the outdoor unit temporarily at the planned installation location.
- (1) Remove the protective tape from the magnets for installing on the outdoor unit.
- (2) Temporarily install the unit on the outdoor unit according to the following installation location example.
  - Before securing wiring on the outside of the outdoor unit, check the cell signal reception of the HERO Simple Edge and perform test operation.
  - Install the HERO Simple Edge vertically to the ground. If it is not installed vertically to the ground, for example, if it is installed sideways, cellular reception may become bad.
- (3) After temporary installation, turn on the power supply to the outdoor unit and perform test operation of the HERO Simple Edge.

[Installation location example]



\* To remove the unit from the outdoor unit, follow the procedure below.

# 

After installing this product on the outdoor unit, do not slide it side-to-side to move it. The outdoor unit or the magnets for installing on the outdoor unit may be scratched and rust.



# 6.1 Checking the cell signal strength

• The HERO Simple Edge is equipped with a cellular communication function. Install it in an environment with a good cell signal strength to communicate with the cloud.

# $-\cancel{N}$ CAUTION –

• With the HERO Simple Edge installed in the installation location, check cell signal strength.

The cell signal changes due to the influence of metal objects such as the outer panel of the outdoor unit and obstructions.

- If a device that relays radio waves from a mobile phone line is installed nearby, cellular reception signal may be reduced.
- Turn on the power supply to the outdoor unit. Make sure the HERO Simple Edge starts up properly (all 4 LEDs light up for 5 seconds).



# - NOTE

- If the 4 LEDs of the HERO Simple Edge do not light up, refer to "Troubleshooting".
- (2) Wait for about 3 minutes until ANT1 and ANT2 light up.
- (3) Make sure that the antenna level LED of the HERO Simple Edge is displaying "2 (Good)" or better.

Antenna	Cell signal	С	ell signal	reception	on	Usability in
level	strength	ANT1	ANT2	CLD	RUN	installation location
3	Very good	0	0	•		OK
2	Good	0	•			ОК
1	Weak	•	0	•		(NOTE 1)
0	Out of service area	•	•	•	•	No (NOTE 2)

# LED display •: Unlit O: Lit •: Blinking •: Unlit or Lit/Blinking

### (NOTE 1)

If the antenna level is 1 (Weak), changing the installation location is recommended. **(NOTE 2)** 

If the antenna level is 0 (Out of service area), change the installation location.

\* Antenna level is updated at 5 second intervals.





### Installation Manual EM22A056 DSE401B71: HERO Simple Edge

33



\* How to joint tighten the fall prevention wire Tighten and secure the outdoor unit outer panel together with the fall prevention wire using the outdoor unit panel screw.



# 8 Troubleshooting

	Problem	How to respond
HERO Simple Edge test operation	When the power supply of the outdoor unit is turned on, the LED doesn't light up	<ul> <li>Is the conversion harness properly connected to the outdoor unit?</li> <li>(1) Make sure that the outdoor unit connector (X202A) of the conversion harness and the HERO Simple Edge connector (Main unit side) (X201A) are connected properly.</li> <li>(2) Make sure that the harness of HERO Simple Edge is not broken.</li> <li>(3) If the conversion harness is connected properly, there is a possibility that the HERO Simple Edge is defective. Replace the HERO Simple Edge.</li> </ul>
	The antenna level LED does not light up/blink	<ul> <li>Make sure that the installation location is within a communication service area.</li> <li>If you are outside the communication service area, installation is not possible.</li> <li>There is a possibility that the cell signal strength is weak, such as because the HERO Simple Edge is covered by an obstacle or metal.</li> <li>Change the installation location and then check if the antenna level LED blinks/lights up.</li> <li>If you take the measures noted above but the situation still does not improve, please contact our sales representative.</li> </ul>

	Problem	How to respond
		• Check the cell signal strength.
	The cloud connection status LED keeps blinking	• If the antenna level is 1 or worse, communication cannot be performed normally. Change the installation location to a location where the antenna level is 2 or better and install.
		• If you take the measures noted above but the situation still does not improve, please contact our sales representative.
	Won't connect to the cloud	• If HERO Simple Edge was powered up before the SIM card was registered wait up to 5 hours and try to connect again.
ration		• Make sure that the device information is correctly registered in the cloud service.
dge test ope		<ul> <li>Make sure that the registered device information and the installed device match. If they do not match, correct the registered device information and perform test operation again.</li> </ul>
e E		Is the antenna level 1 or worse?
RO Simp	The test operation	<ul> <li>Change the installation location to a location where the antenna level is 2 or better, then perform test operation again.</li> </ul>
H	status LED keeps blinking or is unlit	<ul> <li>Is the HERO Simple Edge connected to the main outdoor unit?</li> </ul>
		<ul> <li>If it is connected to a sub outdoor unit, test operation can not be completed.</li> <li>Reconnect to the main outdoor unit and perform test operation again.</li> </ul>
		Is the conversion harness properly connected?
		<ul> <li>If communication with the outdoor unit is not correct, test operation can not be completed.</li> <li>Make sure that the conversion harness is connected properly, then perform test operation again.</li> </ul>

3D049611A

# 2.9 BRC4C / 7E / 082A Wireless Remote Controller / Receiver BRC4C82 / BRC082A43



# **BRC7E83**



# **BRC7E818**



160

# BRC082A42W / BRC082A42S

Unit : in.



# BRC082A41W

Unit : in.



# 2.10 DCM601B71 intelligent Touch Manager

# 2.10.1 Features

The intelligent Touch Manager (iTM) is an advanced multi-zone controller that controls and monitors the Daikin *VRV* system. The iTM can also provide a cost-effective mini Building Management System (BMS) solution to integrate and control third-party devices through optional software and hardware. If a BMS already exists, the iTM can be used as a BACnet gateway interface for BMS integration with iTM BACnet Server Gateway Option.



### Easy Operation and Configuration

- Intuitive user interface with 10.4" LCD touch screen
- Flexible screen views includes the icon view, list view and layout view for system configurations
- Easy engineering with use of the Preset Tool and USB port

### Advanced Control Logic

- Independent Cool and Heat setpoints or Single setpoint in the occupied period
- Independent Setback setpoints in the unoccupied period
- Weekly Schedule with Optimum Start and Timed Override
- · Auto Changeover with configurable methods

### Facility Management and Billing

- Remote Web access
- Automatic Error and Alert emails
- Tenant Billing with the iTM PPD option

### Mini BMS Solution with Software and Hardware Options

- Interlock and Emergency Stop for facility management
- DI, DO, AI, AO points integrated via the WAGO I/O System
- BACnet points (AI, AO, AV. BI, BO. BV, MSI, MSO, MSV) integrated with the iTM BACnet Client Option

### BACnet Server Gateway Option

- Direct connection to the VRV system using the iTM as a gateway
- Individual device ID assigned to each indoor unit group and outdoor unit
- Seamless control logic integration between the iTM and BMS
- · Greatly reduces the need for BMS integrator programming

### Built-in Service Tool with Remote Access

- Operation data are stored in the iTM for the last 5 days:
- Indoor unit and outdoor unit operation data
- BACnet Client objects
- WAGO I/O system data
- Operation data can be exported through a USB drive or through the iTM web browser remotely

• BMS can monitor the BACnet objects of indoor unit and outdoor unit operation data with the BACnet Server Gateway Option activated

# 2.10.2 System Overview

# **System Overview**

# 1. About the iTM (intelligent Touch Manager)

# 1-1 Main Features

- iTM is an advanced central controller operated by using a 10.4" touch panel. It allows you to easily monitor as well as operate air conditioners and generic equipment connected to the iTM from the touch panel.
- One iTM can monitor and control a maximum of 64 groups of indoor units (128 units), including Ventilator. The iTM can be expanded with up to a maximum of 7 iTM plus adaptors, which similarly to the iTM, can connect a maximum of 64 groups of indoor units (128 units); that is, with one iTM you can control and monitor a maximum of 512 groups of indoor units (1024 units). A group of indoor units refers to the following:

(1) One indoor unit without remote controller	(2) One indoor unit controlle	d with one or two remote controllers
Indoor unit		
	or	
No remote controller	Remote controller	Remote controller
(3) Up to 16 indoor units controlled as group with	one or two remote controllers	

• The iTM allows you to define privileges for Users and Managers, so that you can set up and manage them according to their respective privileges. Furthermore, by connecting the iTM with computers in a LAN, you can set up Web Remote Management and allow a maximum of 4 managers and 16 users to simultaneously access the iTM, and if a connection to the Internet is available, then, you can monitor and operate the iTM remotely, via the Internet.

Two remote controller

Up to 16

• The iTM allows you to schedule the operation of each air conditioner in detail.

Up to 16

You can set up an annual schedule by setting up a schedule by the day of the week and defining Special Days such as extra holidays.

Changes by the season are achieved by setting up a validity period to programs.

- By using optional functions, you can display the floor plan of individual buildings and the like as background on the iTM monitoring screen, and monitor and operate by viewing the actual layout of the air conditioners.
- You can use Interlocking Control to start/stop air conditioners in conjunction with other equipment or Setback function to save energy.
- You can use Power Proportional Distribution function (option software) to distribute the electric bill among tenants or the Energy Navigator function (option software) to manage the energy consumption systematically.
- By connecting a USB memory to the iTM, you can output billing data, budget/actual energy consumption data, function settings, history data, etc. to a CSV file.

# - NOTE

 $\square$ 

Remote controller

• Periodical data saving is recommended in order to prevent loss of your important data due to an accidental problem.

9

# 2.10.3 System Configuration

# 1-2 System Configuration



User's Manual EM11A017M intelligent Touch Manager 10

# – NOTE —

### When using the Web Remote Management function

<To prevent unauthorized use>

- As a product using network technology, this product faces the following security risks:
  - \* Information leakage
- \* Unauthorized operation as a result of impersonation
- \* Equipment stoppage as a result of an attack

For the reasons above, be sure to use this product in a secure network environment.

- To strengthen security, observe the following points when managing users:
  - \* Restrict users that can log in by setting user names and passwords
- \* Passwords must be a combination of alphanumeric characters that cannot be easily guessed by others
- This product logs user operation and the equipment operational status for the purpose of system maintenance.

The logs can be viewed on the History screen.

# 2.10.4 Specification

Model		DCM601B71			
Power supply		AC 24 V, 60 Hz			
Power consumption		23 W maximum			
	Surrounding temperature	32 °F to 104 °F			
Operating conditions	Humidity	15% to 85% RH (non condensing)			
Dimensions	H x W x D (inch)	9.57 x 11.42 x 1.97			
Capacity	Max. number of indoor unit	64 addressed indoor unit groups (maximum 128 indoor units)			
	Max. number of outdoor unit	10			
	F1F2 (Daikin DIII-NET communication)	1			
Interface	100Base-TX (Ethernet communication)	1 (RJ-45)			
Intenace	USB port (for flash memory drive)	1 (2 to 32 GB)			
	RS-485 (for iTM Plus Adaptor connection)	1 (2-wire polarity sensitive)			
Innut terminale	Di (Digital input for forced shutdown)	1			
	Di/Pi (Digital/Pulse input)*	3			
EMC certification		FCC Part 15 Class B			

\* Pulse input from kWh meter requirements: 1 pulse to 1kWh or 10kWh. Pulse width must be between 40-400 msec. Non voltage, normally open semi-conductor type.

# 2.10.5 Dimension



168



# 2.10.6 Part Names and Functions

# **Names and Functions**

# 3. Names and Functions of Each Part

# 3-1 Front Panel and Side View



### (1) MONITOR

LCD touch panel for monitoring and performing operations.

# (2) SERVICE LAN

Service LAN connection port. Unused.

### (3) LAN SW

Switch for toggling between the LAN port on the rear and the SERVICE LAN port on the front.

When set to FRONT, you cannot close the cover.

To close the cover, set it to Back. (Be careful not to touch the switch inadvertently.)

# (4) BACKUP

Power ON/OFF switch for settings backup battery. (Be careful not to touch the switch inadvertently.)

### (5) DIII MASTER

Switch for setting up the MASTER and SLAVE when there are two or more DIII-NET central control devices such as the intelligent Touch Manager.

### (6) CPU ALIVE (Green)

This LED flashes when the CPU is operating normally.

If it is not flashing, an operational error occurred in the CPU. (It takes about 10 seconds to determine the cause of an error.)

On: Software error

Off: Hardware error, power-off

33

### (7) LAN LINK (Green)

This LED indicates whether the LAN connection between the intelligent Touch Manager and the connected hardware is correct. The LED is On when the connection is correct.

### (8) DIII MONITOR (Yellow)

This LED flashes when data transmission occurs on the DIII-NET communication line.

### (9) MONITOR key/LED (Orange/Green)

Press this switch to turn on/off the monitor. Doing so also causes the LED color to change as follows.

Off: Indicates that the power is off.

On (Orange): Indicates that the monitor is on.

On (Green): Indicates that the monitor is on.

### (10) RESET//

Restart switch for restarting the intelligent Touch Manager.

### (11) USB socket cover (side)

USB memory port.

# – NOTE –

Do not use the socket for any purpose other than connecting a USB memory.

# 2.10.7 Detailed Screen Description

# 4. Detailed Screen Description

# 4-1 Setup Screen Structure

Standard functions Icon View Displays the operational status of areas and indoor units. (See page 37.) List View Displays the operational status of areas and indoor units as a list. (See page 51.) Menu List Screen (See page 56.) Displays the list of menu items. Schedule Sets up weekly and annual schedules. (See page 64.) Weekly Schedule Sets up a weekly schedule for each day. (See page 67.) Annual Schedule (See page 76.) Sets up schedules for special days, such as extra holidays. Timer Extension Sets up the off-timer to prevent failure to turn off indoor units. (See page 117.) Auto Changeover Sets up the automatic change between cool and heat modes. (See page 119.) (See page 151.) **Emergency Stop** Sets up the emergency stop at fire alarms. (See page 163.) Area Creates and sets up areas. (See page 176.) Mgmt. Pts. Creates and sets up management points. Passwords Sets up passwords, such as the administrator password. (See page 178.) (See page 180.) Maintenance Places the management points under maintenance. Changes the date format and unit of temperature to Regional (See page 181.) those appropriate for the locale. Sets the current time and the daylight saving time. (See page 184.) Time/DST Screensaver Sets up the screensaver. (See page 185.) Sets up the luminance for the screen and volume for Hardware (See page 186.) the touch sound. Enables or disables the display of a confirmation dialog (See page 187.) Confirmation Dialog at On/Off. (See page 188.) Corrects the contact points of the touch panel. **Touch Panel Calibration** Backup Saves iTM data. (See page 189.) (See page 190.) Version Information Displays version information for the iTM. Function for checking and exporting history, such as History (See page 191.) that of error occurrences. (See page 197.) Setup Export Settings for exporting the entire setup information. **Operation Data Export** Operation data export. (See page 198.)

See page 109 for the Optimum Start function and page 153 for the Setback function, respectively.

35

Icon View	Displays the operational status of areas and indoor units	(See per
	Displays the operational status of areas and indoor units.	(See hai
List View	Displays the operational status of areas and indoor units as a list.	(See pa
Layout View	Displays the areas and operational statuses of indoor units on the relevant floor plan.	(See pa
Menu List Screen	Displays the list of menu items.	(See pag
Interlocking Control	Function for starting/stopping management points in conjunction with other equipment.	(See pag
Emergency Stop	Sets up an arbitrary emergency stop program.	(See pag
Network	Sets up the network IP address and the like.	(See page
Web Access Users	Sets up users of the Web Remote Management.	(See pag
- E-mail	Sets up e-mail transmission at error occurrence and the like.	(See page
Power Limit Control	Function for reducing power consumption.	(See page

### Maker option

Mer	u List Screen	Displays	the list of menu items.	(See page 56.)
	- Power Proportional Di	istribution	Function for distributing power to each tenant.	(See page 279.)
	Energy Navigator Function consum		n for managing the budget/actual energy ption.	(See page 282.)

# 4-2 Standard View (Icon) Screen



### (1) Area/Management Point view area

Displays area and management point icons.

(2) Menu List switch button

Switches to the Menu List screen, which consists of Automatic Ctrl., System Settings, Operation Mgmt. and Energy Navigator (optional) tabs.

The button changes to Close while the Menu List screen is being displayed.

### (3) Standard View switch button

Switches from the Layout View screen (optional) to the Standard View screen.

#### (4) Layout View switch button

Switches the screen to the Layout View, which displays icons on a floor plan.

### - NOTE

Displayed only when the Layout View option (see "4-4 Layout View (Optional) Screen") is enabled.

### (5) Lock/Unlock button

Locks/Unlocks switching to the Menu List screen.

The button is not displayed when the screen lock is disabled.



### (10) List switch button

Toggles the Standard View screen between Icon View and List View.

### (11) Information button

Displays the legend for an icon or contact information for inquiries regarding the system.

### (12) Selected area/management point information indicator

Displays the name, icon, and filter sign of the selected area or management point.

#### (13) Room Temp/Operation Mode/Changeover Option indicator

Displays the room temperature and settings of the selected management point. Not displayed for areas.

#### – NOTE -

- When the selected management point is in error, it displays the error code.
- Since the built-in sensor of the air conditioner is used, the temperature displayed may differ from the actual room temperature.

#### (14) Details button

Displays the Detailed Setup screen for the selected area or indoor unit.

#### (15) On/Off button

Starts/Stops the selected area or management point.

### (16) Cool Setpoint spin box

Sets up the cooling temperature for indoor units in the selected area, or the selected indoor unit.

### (17) Heat Setpoint spin box

Sets up the heating temperature for indoor units in the selected area, or the selected indoor unit.

#### - NOTE

In areas containing Hydrobox management points and Indoor management points, if the Heat Setpoint is set up, the Hydrobox Setpoint is also set up.

### (18) Fan Speed button

Sets up the fan speed for the indoor unit of the selected area, or the selected indoor unit.





# (19) Setting button

Displays the Detailed Setup screen for the selected area or management point.

### Detailed Setup Screen

The Detailed Setup screen appears when you touch the **Setting** button **(19)** (see "4-2 Standard View (Icon) Screen" and "4-3 Standard View (List) Screen") on the Standard View screen. Necessary tab is displayed in accordance with the selected management points/areas. Set up the Main, A/C, R/C Prohibition, Ventilator, and Dio, Ao, Mo tabs as required. To change the settings on each tab, select the relevant check boxes. To commit the settings, touch the OK button. For items for which manual setup is prohibited, you can only reset the filter sign.

### Main Tab

Sets up items common to the indoor unit, Ventilator, Dio, and area. Change settings by selecting the relevant check boxes.

On/Off		(1)	Cool	Setpoint	72 °F	Modify	(4)	
On	Ooff		Heat	Setpoint	72 °F	Modify		
Cool	ode	(2)	Min. C	Cool/Heat SP E	)ifferential	(5)		
Setback Set	Enable	(3)	Setpo Enab	oint Tracking M	ode	(6)		
Heat	Enable 64 °F Modif	Y Y	Filter (7)	Sign Reset				
						ок	Cancel	
Menu List							Tue, 0 07:4	4/23 3PM

### (1) On/Off

Starts/Stops the selected area or management point.

On: Start

Off: Stop

#### (2) Operation Mode

Switches the operation mode.

Set up the desired operation mode by selecting from Fan, Cool, Heat, Dependent, and Dry.

# NOTE

- Dependent means either Cool or Heat. This is because the operation mode follows the Cool or Heat operation mode set up in the air conditioner with Changeover option.
- To select the Dry operation mode, you need to complete the initial setup. Some air conditioner models do not provide the Dry function.
- Setting up "Dry" in an indoor unit with Changeover option does not change the operation mode of indoor units without Changeover option that belong to the same Outdoor Unit group and are operating in Cool or Dry mode.

#### (3) Setback Setpoint setting

Sets up the temperatures at which the iTM starts setback operation.

- **Cool**: Set up the temperatures at which to start setback operation during absence, when the operation mode is set to Cool.
  - Select Enable or Disable in the drop down menu to enable the setpoint and enter the setback setpoint in the text box.
- Heat: Set up the temperatures at which to start setback operation during absence, when the operation mode is set to Heat.

Select Enable or Disable in the drop down menu to enable the setpoint and enter the setback setpoint in the text box.

For details, see "5-6 Setting up the Setback".

#### (4) Setpoint setting

Cool Setpoint: Set up the cooling temperature.

Heat Setpoint: Set up the heating temperature.

\*If the target is a dedicated cooling or heating unit or Hydrobox, this is labelled as Setpoint, allowing the following operations.

Indoor: You can set up only the corresponding setpoint.

Hydrobox: You can set up the setpoint.
#### - NOTE \_\_\_\_\_

In areas containing Hydrobox management points and Indoor management points, if the Heat Setpoint is set up, the Hydrobox Setpoint is also set up.

#### (5) Min. Cool/Heat SP Differential setting

Min. Cool/Heat SP Differential refers to the setting value that makes the temperature difference between the cooling and heating setpoints into the constant value or more.

Select the check box and enter the differential value in the drop down menu.

When displayed in Fahrenheit: Select from 0, 1, 2, 3, 4, 5, 6, and 7.

The display unit for the temperature varies depending on the System Settings.

For details, see "Appendix 9. Min. Cool/Heat SP Differential".

#### (6) Setpoint Tracking Mode setting

Setpoint Tracking Mode refers to the control mode in which the iTM fixes the temperature difference between the cooling and heating setpoints to the Min. Cool/Heat SP Differential value. Selecting Enable allows the iTM to adjust the other setpoint value automatically when you change one of the setpoints so that the temperature difference between the cooling and heating setpoints equals the Min. Cool/Heat SP Differential value.

Select the Setpoint Tracking Mode check box and then select Enable or Disable in the drop down menu.

For details, see "Appendix 10. Setpoint Tracking Mode".

#### (7) Filter Sign Reset

Resets the filter sign for the indoor unit and Ventilator.

This check box is displayed only when the filter sign is displayed.

# - NOTE -

The setting areas (3), (5), (6) are not available on iTM in either one of the following cases:

- The BACnet or Lon Interface is connected, and the DIII-NET Engineering setting is set to "Automatic".
- The iTM Main/Sub controller Settings is set to "Sub".

#### • A/C Tab

Sets up the indoor unit.

Change settings by selecting the relevant check boxes. The range of values and items you can set up will depend on the selected equipment.

Detailed Setup : Area1		
Main A/C	R/C Prohibition	
Fan Speed (1) Timer Extension Sett Off Setback Recovery Te Cool Heat +	(3)	Setpoint Restriction (5) Cooling Limit Enable Max 90 °F Modify Min 60 °F Modify Heating Limit Enable Max 90 °F Modify Min 60 °F Modify
		OK Cancel
Menu		Tue, 05/ 10:08A

# (1) Fan Speed

Sets up the fan speed.





## • R/C Prohibition Tab

Enables/disables remote controller of the indoor unit, Ventilator, and area. Change settings by selecting the relevant check boxes.

Detailed Setup : Ar	ea1				
Main	A/C	R/C Prohibition	Ventilator	Dio, Ac	o, Mo
On/Off		Setpo	int		
Permit	ted	OP	ermitted (3)		
Off Or	ly <b>(1)</b>	OP	rohibited		
OProhib	ited				
Operation	Mode				
Permit	ted				
OProhib	ited (2)				
				ок	Cancel
Menu List					Mon, 06/29 02:59AN

#### (1) On/Off

Sets up whether On/Off the management point from the remote controller will be enabled or disabled.

Permitted: Enabled.

Off Only: Only stopping is enabled.

Prohibited: Disabled.

- NOTE -

In the case of the system with Hydrobox, choosing "Stop Only" or "Prohibited" makes the On/ Off (Reheat) to operate as "Permitted".

#### (2) Operation Mode

Sets up whether changing the operation mode from the remote controller will be enabled or disabled.

Permitted: Enabled.

Prohibited: Disabled.

#### (3) Setpoint

Sets up whether changing the management points' setpoint from the remote controller will be enabled or disabled.

Permitted: Enabled.

Prohibited: Disabled.

# - NOTE -

In the case of the system with Hydrobox, the storage water setpoint can be changed even when "Prohibited" is selected.

#### Ventilator Tab

Sets up the Ventilator.

Change settings by selecting the relevant check boxes.

Detailed	Setup : Area1	_	_			_
Main	A/C	R/C	C Prohibition	Ventilator	Dio, Ao,	Mo
	Ventilation Mode	(1)				
	Automatic					
	Ventilation Amount	(2)				
	Low (normal)					
					ж	Cancel
Mer Lis	nu t					Mon, 06/2 03:00AN

#### (1) Ventilation Mode

Select and set up a ventilation mode from Automatic, ERVentilation, and Bypass.

# – NOTE -

This setting may not be available depending on the model.

#### (2) Ventilation Amount

Select and set up a ventilation amount from Auto (normal), Low (normal), High (normal), Auto (fresh up), Low (fresh up), and High (fresh up).

# – NOTE –

This setting may not be available depending on the model.

User's Manual EM11A017M intelligent Touch Manager 46

#### • Dio, Ao, Mo Tab

Sets up the Dio, Ao and Mo.

Change settings by selecting the relevant check boxes.

Detailed Setup : Room1 Main Dio, Ao, Mo Dio Repeat Mode (1) Disable Disable 3 Interval (min.) Mo	Ao Analog Value (2) 0 Modify
Mo MultiState (3) Cool	OK
Menu	Mon, 06/0 10:28A

# (1) Dio

Enable/disable Repeat Mode for Dio, and select and set up a repetition interval in the 1 to 10-minute range, in increments of 1 minute.

When the Repeat Mode is enabled, a start/stop attempt will be repeated again at the specified repetition interval.

#### (2) Ao

Ao refers to analog signal output.

This function enables the signal output equipment (I/O module) connected to the iTM to output a current/voltage corresponding to the adjustment value from external equipment.

(It is used for the adjustment of building equipment, such as degree of aperture of a damper/valve.)

The range, incremental width, and unit of the analog values are set on the screen during trial. (The unit setting may not be available.)

- Ao control image (Example: Changing the degree of damper aperture)
- (1) On the iTM, set the degree of aperture (analog value).
- (2) A voltage corresponding to the analog value is output from the I/O module.
- (3) The damper aperture is set according to the input voltage.



47

#### User's Manual EM11A017M intelligent Touch Manager

# (3) Mo

Select and set a MultiState value for Mo.

The MultiState value set on the screen is set up during the trial.

– NOTE –

You cannot set MultiState in the area.

## • HW Supply Tab

Sets up the hot water supply.

Change settings by selecting the relevant check boxes.

The range of values that can be set up varies depending on the selected equipment.

etailed Setup : A	vrea1				
Main	A/C	R/C Prohibition	Ventilator	Dio, Ao, Mo	HW Supply
	eheat)	(1)	Storage War 158 °F	ter Setpoint Modify	
Low Nois	•	(2)	Leaving Wat	er Setpoint(Cool) Modify	(4)
			Leaving Wat	er Setpoint(Heat) Modify	(5)
	_				
				OK	Cancel
List					Thu, 04 01:46

# (1) On/Off (Reheat)

Sets up whether starting/stopping.

Start : Reheat start

Stop : Reheat stop

# (2) Low Noise

Enables or disables the Low Noise function.

User's	Manual	EM11A017M
intell	igent Tou	ch Manager

# (3) Storage Water Setpoint

Sets up the storage water setpoint.

# NOTE -

When displayed in Fahrenheit, Some temperatures cannot be set.							
Setting Setpoint	Actual Setpoint	Setting Setpoint	Actual Setpoint	Setting Setpoint	Actual Setpoint	Setting Setpoint	Actual Setpoint
113°F	113°F	127°F	127°F	141°F	<u>142°F</u>	155°F	<u>154°F</u>
114°F	<u>115°F</u>	128°F	<u>127°F</u>	142°F	142°F	156°F	156°F
115°F	115°F	129°F	129°F	143°F	<u>144°F</u>	157°F	<u>156°F</u>
116°F	<u>117°F</u>	130°F	<u>129°F</u>	144°F	144°F	158°F	158°F
117°F	117°F	131°F	131°F	145°F	145°F	159°F	<u>160°F</u>
118°F	118°F	132°F	<u>133°F</u>	146°F	<u>145°F</u>	160°F	160°F
119°F	<u>118°F</u>	133°F	133°F	147°F	147°F	161°F	<u>162°F</u>
120°F	120°F	134°F	<u>135°F</u>	148°F	<u>147°F</u>	162°F	162°F
121°F	<u>120°F</u>	135°F	135°F	149°F	149°F	163°F	163°F
122°F	122°F	136°F	136°F	150°F	<u>151°F</u>	164°F	<u>163°F</u>
123°F	<u>124°F</u>	137°F	<u>136°F</u>	151°F	151°F	165°F	165°F
124°F	124°F	138°F	138°F	152°F	<u>153°F</u>	166°F	<u>165°F</u>
125°F	<u>126°F</u>	139°F	<u>138°F</u>	153°F	153°F	167°F	167°F
126°F	126°F	140°F	140°F	154°F	154°F	<u>.</u>	

#### (4) Leaving Water Setpoint (Cool)

Sets up the leaving water setpoint in cooling.

# (5) Leaving Water Setpoint (Heat)

Sets up the leaving water setpoint in heating.

# User's Manual EM11A017M intelligent Touch Manager

# **Detailed Information Screen**

The Detailed Information screen appears when you touch the **Details** button (14) (see "4-2 Standard View (Icon) Screen" and "4-3 Standard View (List) Screen") on the Standard View screen.

Detailed information		
(1) Name 1:1-00	(2) ID 178 (5	5)
(3) Detailed Type Indoor	(4) Port No. 1 Addre	xss 1-00
Detailed Info. (6)		
Properties (7)		
Area:		
Top>All>Indoor		
Top>10F		
Top>10F>Area1		
Thermostat Status [OFF]		V
		Close
Menu		Tue, 16/08

#### (1) Name field

Displays the name of the area or management point.

#### (2) ID field

Displays the ID of the area or management point.

#### (3) Detailed Type field

Displays the type of the area or management point.

#### (4) Port No. field

Displays the port number to which the management point is connected.

# — NOTE –

Not displayed for areas.

#### (5) Address field

Displays the address of the management point.

– NOTE –

Not displayed for areas.

#### (6) Detailed Info. field

Displays detailed information of the area or management point.

#### (7) Properties field

Displays information such as attributes, status, and setting details of the area or management point.

User's Manual EM11A017M intelligent Touch Manager 50

# 2.10.8 Electric Wiring

2	Electric Wiring
	This chapter describes the procedure for connecting the intelligent Touch Manager with DAIKIN air conditioning devices and other equipment.
	In addition to air conditioners, the intelligent Touch Manager can monitor and control a wide range of equipment. However, the required connection procedures vary depending on the equipment to be connected. Do not connect more than two wires to the same terminal.
Required proce- dures	<ul> <li>2.2 Connecting DIII-NET-compatible air conditioning equipment</li> <li>2.7 Connecting power supply</li> </ul>
Equipment-spe- cific procedures	<ul> <li>2.3 Connecting a LAN cable</li> <li>2.4 Connecting I/O module</li> <li>2.5 Connecting an emergency stop input device or power meter</li> </ul>
	2.6 Connecting ITM plus adaptors
2.1	<ul> <li>which there is an elastificating of breaker of a focul of the original of the origin, make sure that the circuit is securely interrupted. Otherwise, an electric shock may result.</li> <li>After the wiring is completed, double-check that all wires are connected correctly before turning on the power supply.</li> <li>After completing connections, be sure to attach the power supply terminal cover on the rear face.</li> <li>All field supplied parts and materials, electric works must conform to local codes.</li> <li>All wiring must be performed by an authorized electrician.</li> </ul>
	When routing the cables of the intelligent Touch Manager, it is necessary to remove the terminal cover and power supply terminal cover.
2.1.1	Removing terminal cover from rear face
	Removing terminal cover> Before you start any of these connection procedures, remove the terminal cover from the rear face. To do

A Terminal cover

Installation Manual 3P291714-8J DCM601B71 intelligent Touch Manager

#### 2.1.2 Removing the power supply terminal cover

Remove the power supply terminal cover. You can remove the power supply terminal cover by removing the two screws using a Phillips screwdriver.



<Removing the power supply

**A** Power supply terminal cover

# 2.2 Connecting DIII-NET-compatible air conditioning equipment

DIII-NET is the DAIKIN's original communication method used between air conditioners. Using DIII-NET, you can centrally control multiple DAIKIN DIII-NET-compatible air conditioning devices by connecting them to your intelligent Touch Manager.

#### WARNING

- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- The maximum length of adhered wiring of high current electrical line of power wires and weak current line of communication wires must be kept to 65 ft. or less.

#### 2.2.1

#### Terminal location and schematic connection diagram

To connect the DIII-NET communication line, use F1 and F2 terminals that are located on the rear face and indicated with "DIII" mark. These 2 terminals have no polarity. An example of connecting more than two air conditioning devices is shown in the following conceptual connection diagram.

# 

Make sure that the wires you are connecting to the F1 and F2 terminals are not power wires. Inadvertently connecting power wires to these terminals results in a failure of the air conditioner or intelligent Touch Manager.



- A Outdoor unit
- **B** OUT OUT communication (terminal)
- C IN OUT communication (terminal)
- D Indoor unit
- E A maximum of 16 indoor units can be connected per remote controller group.
- **F** A maximum of 64 remote controller groups (128 indoor units) can be connected. When the power proportional distributions is applied, the maximum number of indoor units is 64.
- **G** A maximum of 7 outdoor units can be connected to 1 DIII-NET (outdoor multi system counts as 1 unit.).

#### Installation Manual 3P291714-8J DCM601B71 intelligent Touch Manager

#### - NOTE -

• What's a remote controller group?

A single remote controller can simultaneously control a maximum of 16 indoor units. This capability is referred to as group control. A remote controller group is a group of indoor units controlled under the same remote controller. [Schematic diagram of remote controller group]



#### 2.2.2 Wiring specifications

- Cable type: 2-core vinyl-insulated vinyl-sheathed non-shielded cable/vinyl cabtyre nonshielded cable
- Core thickness: AWG 18-16
- Terminal treatment: Use a round crimp-type terminal (M3.5) with insulating sleeve

#### - /I CAUTION -

- Do not use multicore cables with three or more cores.
- The maximum wiring length is 3280 ft. and total wiring length is 6561 ft. or less.

#### 2.2.3 Precautions for using multiple centralized controllers

The "centralized controller" refers to the equipment (e.g. the intelligent Touch Manager) that controls multiple air conditioners. Besides the intelligent Touch Manager, the DAIKIN's product portfolio includes a wide range of centralized controllers suitable for different applications or building sizes, which can be used in combination to construct an optimal air conditioning control system.

If multiple centralized controllers are connected on the DIII-NET network, you must set MASTER and SLAVE relationship for those controllers.

Assign only one of those controllers to MASTER, and other controllers to SLAVE.

The intelligent Touch Manager is set to MASTER by default. Change the setting to SLAVE in any of the following cases:

- Where Interface for use in BACnet is installed in parallel.
- Where Interface for use in LONWORKS is installed in parallel.
- If there is another intelligent Touch Manager or iTM plus adaptor which is assigned to MASTER.

	<pre></pre>
	When installing multiple centralized controllers, set only the highest-priority controller to MASTER and all other controllers to SLAVE according to the following order of priority. (1) Interface for use in BACnet (2) Interface for use in LONWORKS (3) <b>intelligent Touch Manager (Main)</b> , iTM plus adaptor (Main) (4) Central Remote Controller (Main) (5) <b>intelligent Touch Manager (Sub)</b> , iTM plus adaptor (Sub) (6) Central Remote Controller (Sub) (7) ON/OEE Controller (Main)
	<ul> <li>(8) ON/OFF Controller (Sub)</li> <li>Centralized controllers that cannot be connected to the same network as the intelligent Touch Manager.</li> <li>intelligent Processing Unit</li> <li>intelligent Touch Controller</li> <li>DIII-NET Plus Adapter</li> <li>Residential Central Remote Controller</li> <li>Schedule Timer</li> </ul>
2.3	<ul> <li>Wiring Adaptor for Electrical Appendices (1) (KRP2)</li> <li>Connecting a LAN cable</li> <li>By connecting the intelligent Touch Manager with a PC via Ethernet, you can remotely perform operations such as operation setup and maintenance of air conditioning system.</li> <li>MARNING</li> <li>Do not clamp the LAN cable with high current cables.</li> </ul>
	NOTE For how to connect the intelligent Touch Manager to a PC network, contact your net- work administrator. If connecting to the Internet, security must be ensured by the customer.

18

# 2.3.1 Terminal location and schematic connection diagram

Using a LAN cable, connect the LAN port to the network hub.

#### <LAN connection schematic diagram>



- A Rear face of intelligent Touch Manager
- B LAN cable
- C Hub
- D PC

NOTE

2.3.2

#### Wiring specifications

• Applicable cable standard: 100Base-TX or 10Base-T

• When you connect the intelligent Touch Manager to the LAN temporarily during installation

or maintenance, use the SERVICE LAN port

The SERVICE LAN port is enabled by chang-

ing the position of the LAN SW switch beside

the SERVICE LAN to the FRONT position.
You cannot close the front switch cover when the switch set to "FRONT". To close the front

Connector standard: RJ-45

located on the front face.

switch cover, select "BACK".

# <SERVICE LAN socket and LAN SW switch>



A SERVICE LAN

B LAN SW

E in ai	
Eng	ilen.

Installation Manual 3P291714-8J DCM601B71 intelligent Touch Manager

# 2.4 Connecting I/O module

In combination with the I/O module, the intelligent Touch Manager can monitor and control a maximum of 960 contacts of non-DAIKIN peripheral devices such as lighting equipment and security systems. Connect the intelligent Touch Manager to the termination of the RS-485 wiring.



- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- Do not clamp the cables with high-current lines such as a power cable.

#### 2.4.1 Terminal location and schematic connection diagram

<Schematic drawing of I/O module connection>



Connect to the RS-485 terminals located on the rear face. As the terminals have polarity, be sure to connect the positive core wire to the + (positive) terminal and the negative core wire to the - (negative) terminal, respectively.

#### 2.4.2

#### Wiring specifications

- Cable type: CPEV or FCPEV cable (shielded type also acceptable)
- Cable length: 1640 ft. or less
- Core thickness: AWG 22-20

#### - /I CAUTION -

- When using a shielded cable, be sure to connect the cable to the G (ground) terminal.
- Do not connect a shielded cable and a non-shielded cable.

20

# 2.4.3 Address setup

The bus coupler located at the left end of nodes has rotary switches for setting the addresses. Set a unique address for each node. For details, refer to the "Commissioning Manual Supplementary Volume (External Management Points (EM11A026))".



# 2.5 Connecting an emergency stop input device or power meter

The intelligent Touch Manager can perform operations such as an emergency stop of air conditioners according to the external signal input device, and an electricity usage calculation for each air conditioner (for power proportional distribution) according to the pulse inputs from a power meter.

# 

- Be sure to perform the operation during power-off conditions. Not doing so may cause an electric shock.
- Do not clamp high-current cables together with low-current cables.

## 2.5.1 Terminal location and schematic connection diagram

Connect the contact input signal wire or pulse signal wire to Di1, Di2, Di3, Di4, or COM terminal on the orange connector on the rear face. Each of these terminals has different function.

[Di1] Emergency stop input

[Di2] [Di3] [Di4] Pulse input, contact signal input

[COM] Common

However, the function settings for these terminals can be changed later. For how to change the function settings, refer to the "Commissioning Manual (EM11A022)".

#### <Schematic drawing of Di connection>

NOTE — The COM terminals are all connected internally. So, you can use either of them. However, you can connect up to two wires simultaneously to each COM terminal. When using an open collector type output, connect the COM terminal to the negative side.



E in ai	
Eng	ilen.

Installation Manual 3P291714-8J DCM601B71 intelligent Touch Manager



English

## 2.6.1 Terminal location and schematic connection diagram

Connect the iTM plus adaptor to the plus ADP IF terminal located on the rear face. Connect the intelligent Touch Manager to the plus ADP IF terminal. As the terminals have polarity, be sure to connect the positive wire to the "+" terminal and the negative wire to the "-" terminal without fail. Connect the intelligent Touch Manager to the termination of the RS-485 wiring.

<Terminal location and schematic connection diagram>



- A intelligent Touch Manager
- B iTM plus adaptor
- C plus ADP IF (intelligent Touch Manager)
- D plus ADP IF (iTM plus adaptor)
- E iTM plus adaptor on which termination resistor must be enabled (For details, refer to the "iTM plus adaptor installation manual".)

## 2.6.2 Wiring specifications

- Cable type: CPEV or FCPEV cable
- Core thickness: AWG 22-18
- Cable length: The overall cable length between the intelligent Touch Manager and the terminal iTM plus adaptor is 164 ft. or less.
- Wiring connection type: Daisy chain

#### - NOTE -

Each air conditioner controlled via an iTM plus adaptor is also assigned a DIII address between "1-00" to "4-15". From the intelligent Touch Manager, it is recognized as "2:1-00", "3:1-02", or the like, with the DIII-NET port number prefixed.

<b>C</b>	li e le
-na	usn
LING	1011

# 2.11 Daikin Zoning Kit DZK COMPATIBILITY CHART

IDLI Models	D7K030E4-4	D7K030E5-4	D7K048E4-4	D7K048E6-4	D7KS015E3-4	D7KS015E4-4	D7KS030E4-4	DZKS030E5-4	D7KS048E4-4	D7KS048E6-4
EXMO07PBV/III	DEROUGE	DZI(000E0 4	DEITOTOLT	DZI(040E0 4	DERCOTOEO 4	DERODIOLT	DEROUGUE	DERCOUCED 4	DERCOHOLHH	DEITODADEDA
FXMQ09PBV.IU										
EXMQ12PBV.IU										-
EXMQ15PBV.IU	X	X								
EXMQ18PBV.IU	x	X								-
FXMQ24PBVJU	X	X								
FXMQ30PBVJU			X	X						
FXMQ36PBVJU			X	X						
FXMQ48PBVJU			X	X						
FXMQ54PBVJU			X	X						
FXMQ48MFVJU									1	
FXMQ15TBVJU							Х	Х		
FXMQ18TBVJU							Х	Х		
FXMQ24TBVJU							Х	Х		
FXMQ30TBVJU									х	Х
FXMQ36TBVJU									Х	Х
FXMQ48TBVJU									Х	Х
FXMQ54TBVJU										
FXSQ05TAVJU										
FXSQ05TBVJU										
FXSQ07TAVJU										
FXSQ07TBVJU										
FXSQ09TAVJU										
FXSQ09TBVJU										
FXSQ12TAVJU										
FXSQ12TBVJU										
FXSQ15TAVJU					Х	Х				
FXSQ15TBVJU					Х	Х				
FXSQ18TAVJU							Х	Х		
FXSQ18TBVJU							Х	Х		
FXSQ24TAVJU							Х	Х		
FXSQ24TBVJU							Х	Х		
FXSQ30TAVJU							Х	Х		
FXSQ30TBVJU							Х	Х		
FXSQ36TAVJU									Х	Х
FXSQ36TBVJU									Х	Х
FXSQ48TAVJU									Х	Х
FXSQ48TBVJU									Х	Х
FXSQ54TAVJU										
FXSQ54TBVJU										

# Adaptor 3.1 KRCS01-5B Remote Sensor







# 3.2 KRCS01-6B Remote Sensor







# 3.3 KRCS01-1B / KRCS01-4B / KRCS01-2UA Remote Sensor









# 3.4 KRCSH2018-01 Button Sensor Kit

Please ask your DAIKIN dealer for more specific information such as applicable models.

#### MODEL COMPATIBILITY:

Compatible with the following indoor unit models:

· •	
VRV and VRV Life	CXTQ, FXAQ, FXDQ, FXHQ, FXLQ, FXNQ, FXEQ, FXFQ, FXMQ, FXTQ, FXSQ, FXUQ, FXZQ
SkyAir	FAQ, FBQ, FCQ, FHQ, FTQ
Multi-zone and Single-Zone	FDMQ, FFQ

#### SPECIFICATIONS:

Model	KRCSH2018-01
Description	Button Sensor
Weight	0.31 oz (sensor only)
Wiring Length	40 ft
Thermistor	Rt = 20k ohms +/-1% @ 77°or 25°C B 25/50 = 3900 K +/-1% Dissipation Constant ~ 2.5 mW/°C
Self-Heat Compensator	Internal Series Resistor = 140 ohms +/- 1%
Housing	Gray ABS/PC UL94 V-0
Cover	Aluminum (Paintable) Tumble Finish
Spring Fingers	Stainless Steel
Operating Temperature	34 to 125°F (1.1 to 51.6°C)
Storage Temperature	-40 to 140°F (-40 to 60°C)
Humidity	0 to 95% RH non-condensing
Mounting Hole	3/4" Diameter
Compliance	RoHS & REACH Compliant

PRODUCT IMAGE:



#### FEATURES:

- Extend the sensing location by replacing the return air thermistor in the indoor unit
- Compact and concealable design
- Paintable surface to match wall color (Note: when painting the surface of the sensor, be sure to avoid thick/multiples coats to maintain the accuracy of the sensor)
- Sensor, plenum rated cable and wiring harness adaptors are included in the kit

Items	Button sensor	4-pin plenum rated wiring cable	2-pin harness adaptor	3-pin harness adaptor	
Quantity	1	1	1	1	
Image				jj====]	

## DIMENSIONS:

Button Sensor



• 2-pin harness adaptor (included)



#### WIRING DIAGRAM:

• For indoor units that use the 4-pin connector (FXEQ\_PVJU, FXFQ\_TVJU, FXMQ\_PB, FXSQ\_TAVJU, FXUQ\_PVJU, FXZQ\_TAVJU, FCQ\_TAVJU, FBQ\_PVJU, FFQ, FDMQ), use only the 4-pin Plenum rated cable to connect between the button sensor and the indoor unit PCB. The 2-pin harness adaptor and the 3-pin harness adaptor are not needed for these indoor units.



For indoor units that use the 3-pin connector (FXAQ\_PVJU, FAQ\_TAVJU, FXDQ\_MVJU, FXHQ\_MVJU, FXLQ\_MVJU9, FXNQ\_MVJU9, FXMQ\_M, FHQ\_PVJU), use the 4-pin Plenum rated cable and the 3-pin harness adaptor to connect between the button sensor and the indoor unit PCB. The 2-pin harness adaptor is not needed for these indoor units.



• For indoor units that use the 2-pin connector (FXTQ\_TAVJU, CXTQ, FTQ\_TAVJUD), use the 4-pin Plenum rated cable and the 2-pin harness adaptor to connect between the button sensor and the indoor unit PCB. The 3-pin harness adaptor is not needed for these indoor units.



# 3.5 KRP1H98A Installation Box for Adaptor PCB

AIR CONDITIONER Installation box for adapter PCB. KRP1H98A Installation manual									
KEEP THIS MANUAL IN A HANDY PLACE FOR FUTURE REFERENCE. 2P447067-1									
Ca	Caution • This box is mountable on the ceiling mounted cassette type (round-flow type) unit. After confirming the indoor unit model name, mount this box on the unit listed								
	• Wh ad	en mounting the apter PCB (Print	box, see also	the indoor u	nit installa	ation manua n	l and the		
	Kit name		Indoor unit mo	del that part:	y crowded is	possible			
	KRP1H98A	SPLIT	FCQ-TAVJU (Wł	nen using stan	idard deco pa	anel)			
		VRV	FXFQ-TVJU (WI	nen using star	idard deco pa	anel)			
Aco	cessories	Check if the fo	llowing accesso	ories are inc	cluded with	your kit.			
	Name	Adapter box	A d a p c o v e	ter box r	Screw(1	) :	Screw(2)		
	Quantity	1 P C.	1	PC.	2 P C \$	ŝ.	1 P C.		
	Shape	h a p e				)	₩4×8		
	Name	Clamp	Earth wire	Screw for eau	rth wire In ma	stallation nual			
	Quantity	8 P C S .	1 P C.	1 P C .		1 P C.	_		
	Shape Shape Shape								
	ounting –	the adapte	r box)						
	≪ Preparatio	n before wiring	g »		witch box	cover			
	switch box cover. (Fig. 1)								
	[ Fig. 1 ]								
	★ The figure mentions FCQ~TAVJU as a representative.								





C: 2P447068-1


### 3.6 BKS26A Installation Box for Adaptor Print Circuit Board









# 3.7 KRP1BB101 Installation Box for Adaptor PCB









223

# 3.8 KRP1BA97 Installation Box for Adaptor PCB





### 3.9 KRP4A98 Installation Box for Adaptor PCB





## 3.10 KRP4A96 Installation Box for Adaptor PCB





# 3.11 KRP1C93 Installation Box for Adaptor PCB





# Installation preparation





# 3.12 DTA104A53 / 61 / 62 External Control Adaptor for Outdoor Unit (Must be Installed on Indoor Units)

(Note) The drawing is released common for worldwide models. Please ask your DAIKIN dealer for more specific information such as applicable models.





# 3.13 DTA109A51 DIII-NET Expander Adaptor









# 3.14 KRP1C76 / 77 Wiring Adaptor PCB



# 3.15 KRP1C74 / 75 Wiring Adaptor PCB

Please ask your DAIKIN dealer for more specific information such as applicable models.

# Wiring Adaptor Installation Manual

# KRP1C74 • 75







# 3.16 KRP50-2 Wiring Adaptor for Remote Contact / Humidifier

Please ask your DAIKIN dealer for more specific information such as applicable models.



Item	Model	KRP50-2				
Applicable Mode	el	VAM-GVJU				
Dimensions	W	3-11/32"				
Dimensions (in.)	н	1-59/64"				
()	D	1-1/16"				
Applicable load		AC250V 0.01~1A				
Component part	ts	PCB, PCB stand offs, Installation manual				

### Components



#### Installation guide

 The KRP50-2 can be connected to Energy Recovery Ventilator units as follows to send the operation signal (pilot lamp etc.) to remote locations.

Electric wiring is as follows.

For Remote contact



· For Humidifier



2 KRP50-2 can also be connected to SkyAir indoor unit for the interlocked operation with Energy Recovery Ventilator units.

#### Components

See the right for components.

# Fixing Screw3 PCS.Clamp2 PCS.

### Installation

Install the Adaptor PCB to the outside of switch box for Energy Recovery Ventilator unit as show below.



#### Applicable adaptor

	Adapter name	Kit name		
(1)	Adaptor PCB for Humidifier	KRP50-2		
(2)	Adaptor PCB for Remote control	KRP2A21		

C: 4P055444

# 3.17 KRP4A71 / 72 / 73 / 74 Wiring Adaptor for Electrical Appendices (2)







2, Setti	ng the control mode sel	ector switch (RS1)			
Using mode	the control mode selector as described below.	switch (RS1), select the c	ontrol		RS1 Control mode Selector switch
				(Fact °O°PO	ory set) sítion
() For spi	ecifying individual display				
Pos	ition	Function			
	0 Individual o	display (Input ignored)			
(2) When of	perating the unit with const	ant input at input A	1.14.08		Wige terms to our
POSITION	FUNCTION ON/OFF control impossible	When imput Operation (Normally ON/O	A IS UN IFF control imposs	ible	When INPUT A IS UFF
1	by remote controller	by remote controller)			
2	Centralized	Operation + ON/OFF contr remote controller	ol possible by		
3	OFF control possible by remote controller	Operation + OFF control controller (ON control i controller)	possible by remot mpossible by remo	:e ote	OFF + ON/OFF control impossible by remote controller
4	ON/OFF control possible by remote controller	ON/OFF control possible (Operation impossible by	by remote control optional control	ler ler)	
<ul> <li>Input remote it is</li> <li>When of (Use all</li> </ul>	B is for forced ON/OFF inpu controller is impossible, a necessary to reselect input perating the unit using insi n instantaneous input of 20(	t When input B is ON, OFF and input A is ignored. Wh A. cantaneous input at input , ) msec or longer ON time).	control is possib en it is OFF, inp A	ile but iut A i:	ON/OFF control by the s ignored even if selecte
Position	Function	input A	l l		Input B capacity
5	ON/OFF control impossible	Turns OFF system with	ON input IN input	Input	B is for forced NFF inout
6	Individual	Turns OFF system with Turns OFF system with Turns ON system with C (Normally ON/OFF contr by remote controller)	ON input IN input ol possible	(when possib by rem sible,	ON, OFF control is le but ON/OFF control ote controller is impos- and input A is ignored)
★ For th	ermostat control using input	В			
Position	When inpu	it A is ON	W	Vhen in	put B is ON
C	ON/OFF control impossib	le by remote controller	Forced ther	mostat	OFF command
	(Same as	PUSIEIUN 5)	Energy savin	ng co <b>r</b> mostat	mand (‡)
F	Individual (Sam	ne as position 6)	Energy savi	ng co <b>r</b>	mand (*)
<ul> <li>Forced indoor</li> <li>Energy The in</li> <li>Note &gt;</li> <li>In suc stop.</li> <li>When of (lise a)</li> </ul>	uner numstat urr command unit fan only operates, saving command (#) door unit operates at 4°F   h case, even if input A is   perating the unit using inst ) instantanenus input of 200	higher (cooling)/lower (he DN, thermostat control is cantaneous input at input , b msec or longer DN fime)	ating) the set te turned OFF, and a A and B	mperati II uni	ure, ts in the same group will
Position	Function	when input	A IS ON		When input A is OFF
7	ON/OFF control impossible	Operation (Normally ON/	DFF control impos	sible	Ander Inger Allis Ult
	by remote controller	by remote controller) Operation + ON/OFF cont	rol possible hv		
8	Centralized	remote controller			DEE + DN/DEE control
9	OFF control possible by remote controller	Operation + OFF control controller (ON control controller)	possible by remo impossible by rem	te ote	impossible by remote controller
	ON/OFF control possible by remote controller	ON/OFF control possible ler (Operation impossib ler)	by remote contro le by optional co	- ntro -	
В	Individual	Operation (Normally ON/ by remote controller)	OFF control possi	ble	UFF (NO <b>rm</b> ally UN/OFF control possible by remote controller)
<note> <ul> <li>When s</li> <li>is ign</li> <li>At pos</li> </ul></note>	et to position 7-A,and usin ored). ition B, the constant mode	g the constant mode for in for input B is not used.	put B, forced sto	IP CAPA	city is enabled (Input A

Operation output terminals (W) and constant contacts.	W2) and error output terminals (W3 and W4) are no-voltage normally (Allowed electric current per contact is between 10 mA and 3 A,)
Normal operation output (Ry1) ON when the indoor unit is operating normally. Error output (Ry2) ON when the indoor unit stops because of malfunction or when a transmission error occurs between the adaptor and the indoor unit.	$\begin{array}{c c} \hline W1 & \hline \\ \hline W2 & \hline \\ W2 & \hline \\ W2 & \hline \\ W3 & \hline \\ W4 & Adaptor \\ \hline \\ KRP4A71 \cdot 72 \cdot 73 \cdot 74 \end{array} \xrightarrow{Power} \begin{array}{c} \hline \\ \hline $
Display output is as described below. Output Both Ry1 and Ry2 OFF	Only Ry1 ON Only Ry2 ON
Display OFF	Normal System stopped due to malfuction or transmission operation error generated between adaptor and indoor unit

## 3.18 BRE49B2F / BRE49B1F Sensor Unit (Sensor Kit)

Please ask your DAIKIN dealer for more specific information such as applicable models.



C: 3D075714M

# Daikin Air ConditionersSensor kit installation manualRead this manual before<br/>installation and follow the instructionBRE49B1(F)(K), BRE49B2(F)(K)1P383776-1B

Note to the installer • After installation, make sure the sensor can activate the swing flap operation.

Note • Refer also to the installation manual attached to the indoor unit.

Accessories Check if the following accessories are included with your unit.

Name	Shape	Quantity	Name	Shape	Quantity	Name	Shape	Quantity	Name	Shape	Quantity
Sensor assembly		1 set	Sensor cover		1	Brand name plate	$\left( \begin{array}{c} \\ \\ \\ \end{array} \right)$	1	Fixing screw		1
						Wire harness (Long)		1	Wire harness (Short)		1
Clamp material (Large)	\$ <u> </u>	5	Clamp material (Small)	<u></u>	1	Others	Installation manual (This manual)	1			





10000770
# 3.19 BRYQ60AAW Sensor Kit

Please ask your DAIKIN dealer for more specific information such as applicable models.





# 3.20 DTA114A61-9 Adaptor for Multi Tenant

Please ask your DAIKIN dealer for more specific information such as applicable models.

# Daikin Air Conditioner Adaptor for Multi tenant Installation Manual DTA114A61 • 61-9 Adaptor for Multi tenant Installation Manual











1P223254-1B







### 6 FIELD SETTING)

Follow the "FIELD SETTING" in the installation manual of the remote controller for the indoor unit and make a necessary field setting in the remote controller after turning the air conditioner ON. • Set the remote controller to field set mode, select Mode No. "12", and set the FIRST CODE NO. to "1" and the SECOND CODE NO. to "04", (The SECOND CODE NO. is factory set to "0".) Note: The remote control terminals (T1 and T2) of the indoor unit is for multi-tenant use. Therefore, the COMPUTERIZED CONTROL of the indoor unit is not available.

# 3.21 DTA118A71 BACnet MS/TP adaptor

Please ask your DAIKIN dealer for more specific information such as applicable models.



# Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## **MODEL COMPATIBILITY:**

Compatible with VRV, VAM\*\* and SkyAir models that is using DIII-Net communication. Compatible Mini split/Multi-split units

FFQ_LVJU	Requires Interface Adaptor DTA112BA51
FTXS, CTXS, CTXG, FTXG, FDXS, CDXS, FVXS	Requires DIII-Net Adapter KRP928BB2S**
FTX, FTXN, FTK, and FTKN	Requires DIII-Net Adapter KRP928BB2S** and an Interface adaptor
	KRP067A41E/KRP980B1/KRP980B2E
FDMQ, FFQ_Q	Use F1-F2 connection on the indoor unit.

\*FTK\_AXVJU, FTKB\_AXVJU, FTX\_AXVJU and FTXB\_AXVJU units are not compatible.

\*\* Requires at least one VRV unit or an VRV centralized controller in the DIII-Net network.

## **SPECIFICATIONS:**

Model	DTA118A71
Description	DIII-Net/BACnet MS/TP Communication Adaptor
Maximum Connections	32 Indoor Units / 4 Outdoor Units
Communication Wire (DIII-Net)	18AWG-2, No polarity Stranded, Non-shielded
Communication Wire (BACnet)	18 AWG, polarity sensitive
Total Wiring Length (BACnet)	1,640 ft. (500 m)
Communication Protocol	BACnet MS/TP / DIII-Net
Communication Speed (BACnet)	9600bps/19200bps/38400bps
Indoor unit Group Address Range	(1-00 to 2-15) or (3-00 to 4-15)
Outdoor unit Airnet Address Range	00-04,05-08,08-12,13-16,17-20,21- 24,25-28,29-32,33-36,37-40,41- 44,45-48,49-52,53-56,57-60,61-63
BACnet MS/TP MAC Address Range	0-127
BACnet devices in the network	32
Power	16VDC supplied by Outdoor Unit (1.58VA maximum)
Operating Temp Range	-4 to 149°F (-20 to 65°C)
Operating Humidity Range	95% or less (RH) (w/o condensation)
Dimensions (WxH)	3.94 x 3.94 inch (100 x 100 mm)
Weight (Mass)	0.18 lbs. (80 g)

# **PRODUCT IMAGE:**





Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 1 of 7



DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

#### Project Name:

Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **FEATURES**:

- Direct connection to the BMS using BACnet MS/TP protocol
- BTL Certified device
- Easy commissioning using DIP switches & BACnet Objects.
- Each adaptor can connect to 4 outdoor units and 32 indoor units.
- BACnet virtual router function implemented: Individual BACnet device ID assigned to each indoor unit group address and outdoor unit Airnet address.
- Independent heating and cooling setpoints.
- Can be mounted to indoor unit or outdoor units (Select models only)
- BACnet objects for operation data (compatible outdoor units and indoor unit data).
- Supports Celsius or Fahrenheit for temperature values.
- Independent BACnet object error status for indoor unit and outdoor unit.

# **POINTS LIST:**

#### • System Configuration points

Point Name	Description
D3 control address indoor	Sets the range of indoor unit address to monitor and control.
D3 control address outdoor	Sets the range of outdoor unit address to monitor and control.
Device instance method	Sets BACnet device instance method of virtual devices.
Adaptor device instance	Sets adaptor BACnet device instance.
Network number	Sets the BACnet network number for virtual device.
Baud rate	Sets BACnet baud rate
Sets scale	Sets the temperature scale for BACnet Objects

#### Indoor unit points

Point Name	Description
Unit On_Off Status	Monitors and displays indoor unit On or Off status
Unit On/Off Command	Command indoor unit On or Off
Alarm Status	Monitors whether the indoor unit is operating normally and issues an alarm if the indoor
	unit has a malfunction. Error Code is shown in the description.
Operation Mode (Note 3,4)	Command and monitor indoor unit operation mode
Ventilation Mode	Command and monitor ventilation unit operation mode
Ventilation Rate	Command and monitor ventilation unit airflow rate
Fresh Up	Command and monitor fresh up setting for a ventilation unit.
Room Temperature	Monitor the room temperature of the indoor unit
Cooling Setpoint (Note 2)	Command and monitor the indoor unit cooling setpoint
Heating Setpoint (Note 2)	Command and monitor the indoor unit heating setpoint
Fan Speed	Sets the indoor unit fan speed and monitors the latest setting
Airflow Direction	Command and monitor the indoor unit airflow direction (louver control)
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

Remote Controller Prohibit (Operation Mode)	Permits or prohibits the remote controller to control the indoor unit's operation mode
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's setpoint
Filter Sign Status	Monitors and displays the filter run time and provides service alert.
Filter sign Reset	Clears the filter sign status
Indoor Unit Fan Status	Monitors and displays indoor unit fan status
Communication Status	Monitor if the communication is Normal or in Alarm
Thermo On status	Monitors and displays whether the indoor unit is actively cooling or heating.
Compressor Status	Monitors and displays if the compressor of the outdoor unit is On/Off/Defrost
Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating
Forced Thermo Off	Command Forced Thermo Off for the target indoor unit.
Indoor unit changeover option	Monitors if the indoor unit can change modes between heating and cooling
Return air temperature (Note 6,7)	Monitors and displays the return air temperature
Discharge air temperature (Note 5,7)	Monitors and displays the discharge air temperature of the FXMQ_PB indoor unit only.
Liquid pipe temperature (Note 6,7)	Monitors and displays the liquid pipe temperature.
Gas pipe temperature (Note 6,7)	Monitors and displays the gas pipe temperature.
EV position (Note 6,7)	Monitors and displays the expansion valve position.
OU airnet address (Note 6,7)	Monitors and displays outdoor unit Airnet address.
Forced Stop status	Monitors and displays forced stop status
Energy saving command (Setpoint shift)	Control and monitor energy savings command.

1. Refer to design guide & submittal datasheet for the indoor unit point combability.

2. The Mini-Splits have varied setpoints ranges (64F – 90F in cooling and 50F – 86F in heating). In the event a value outside of the available setpoint range is sent from the BACnet building management system via BACnet Adaptor, the indoor unit will ignore the out of range setpoint command (However, in the above case, the BACnet Adaptor can only send the cooling setpoint value and heating setpoint value of between 64F-82F.)

3. Only Ventilation cleaning on VAM.

4. Fan, Dry, and Auto are not supported when using the KRP928 adaptor for Mini-split integration to the DIII-Net.

5. Unit types other than those supported display an invalid value (0)

6. The data is invalid for models that do not support the target data.

7. For FXDQ, FXHQ and FHQ units a valid value cannot be displayed.

#### • Outdoor unit points

Point Name	Description
Communication Status	Monitors and displays the communication status
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool)
Outdoor unit Alarm Status	Monitors whether the outdoor unit is operating normally
Special Modes	Monitors and displays if a unit is defrost/oil-return/pump down or restart standby sequence.
Electric Power	Monitors and displays the electric power (calculated)
Electric Current	Monitors and displays the electric current (calculated).
Outdoor Air Temperature	Monitors and displays the outdoor air temperature
Backup Operation	Monitors and displays if the outdoor unit is in backup operation
Stepdown control	Monitors and displays if the outdoor unit is in stepdown control.
Condensing Pressure	Monitors and displays the condensing pressure
Evaporating Pressure	Monitors and displays the evaporating pressure
Condensing Temperature	Monitors and displays the condensing temperature

### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 3 of 7



. . .

# Submittal Data Sheet

DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

Evaporating Temperature	Monitors and displays the evaporating temperature
Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor 1
Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor 2
Fan Step	Monitors and displays the fan step
EV Position 1	Monitors and displays the position of the expansion valve 1
EV Position 2	Monitors and displays the position of the expansion valve 2
Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor 1
Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor 2
Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature
Sub Compressor Body Temperature	Monitors and displays the compressor body temperature.
Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX
Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX
Liquid Pipe Temperature (Deicer)	Monitors and displays the liquid pipe temperature for the de-icer
Gas Pipe Temperature (HX Upper	Monitors and displays the gas pipe temperature for the upper HX
Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX
Suction Temperature	Monitors and displays the suction temperature
Compressor Suction Temperature	Monitors and displays the compressor's suction temperature
Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature
Subcool Outlet Temperature	Monitors and displays the subcool outlet temperature
Compressor Body Temperature	Monitors and displays the sub compressor body temperature
Receiver Inlet Temperature	Monitor and displays the Receiver Inlet Temperature.
Subcool EV Position	Monitors and displays the subcool expansion valve position
4WayValve	Monitors and displays the 4 Way valve position
Compressor1 current	Monitors and displays the Compressor 1 current (calculated)
Compressor2 current	Monitors and displays the compressor 2 current (calculated)

Compatible outdoor units.

• VRV4: RXYQ\_T(A), REYQ\_T(A), RXLQ\_T(A), RELQ\_T(A)

• VRV 4X: REYQ\_XA, RXYQ\_XA

VRV4S: RXTQ\_TA

VRV LIFE: RXSQ\_TA

VRVW (T): RWEQ\_T

RWEYQ72PCTJ & RWEYQ72PCYD

### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 4 of 7



DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### FUNCTION COMPATIBILITY:

The following centralized controller can be installed with the DTA118A71.

- INTELLIGENT TOUCH CONTROLLER (ITC / ITOUCH) [DCS601C71]
- INTELLIGENT TOUCH MANAGER (ITM) [DCM601A71]
- UNIFIED ON/OFF CONTROL [DCS301C71]
- CENTRALIZED REMOTE CONTROL [DCS302C71]
- SCHEDULE TIMER [DST301BA61]
- DIII-NET ADAPTOR FOR MULTI/MINI SPLITS [KRP928B2S]

The following centralized controller cannot be installed with the DTA118A51 in the same DIII-Net network.

- MODBUS ADAPTOR [DTA116A51]
- GROUP CONTROL ADAPTOR [KRP4A]
- WIRING ADAPTOR FOR ELECTRICAL APPENDICES [KRP2A516]
- OUTDOOR UNIT MODE CHANGEOVER / DEMAND CONTROL [DTA104]
- SYSTEM ON/OFF FROM A CONTROL SYSTEM [DCS302A]
- BACNET INTERFACE [DMS502B71]
- LONWORKS® INTERFACE [DMS504C71]
- ITM BACNET SERVER GATEWAY OPTION [DCM014A51]

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 5 of 7



DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### SUPPORTED MODELS AND OBJECTS

Point Name	VRV Indoor	SkyAir indoor unit, FDMQ,FFQ_Q (except FTXS)	VAM	Outdoor air processing unit	Mini-Split & SkyAir FTXS indoor units (KRP928)
Unit On_Off Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Unit On/Off Command	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Alarm Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Operation Mode (Note 3,4)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Ventilation Mode	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Ventilation Rate	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Fresh Up	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Room Temperature	$\checkmark$	$\checkmark$	Invalid	Entering Air	$\checkmark$
Cooling Setpoint (Note 2)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Heating Setpoint (Note 2)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Fan Speed	$\checkmark$	$\checkmark$	Invalid	Invalid	Invalid
Airflow Direction	$\checkmark$	$\checkmark$	Invalid	Invalid	Invalid
Remote Controller Prohibit (On_Off)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Remote Controller Prohibit (Operation Mode)	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	$\checkmark$
Remote Controller Prohibit (Setpoint)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Filter Sign Status	√	√	$\checkmark$	√	Invalid
Filter sign Reset	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	Invalid
Indoor Unit Fan Status	√	$\checkmark$	Invalid	$\checkmark$	Invalid
Communication Status	√	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Thermo On status	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Compressor Status	√	$\checkmark$	Invalid	$\checkmark$	Invalid
Aux Heater Status	√	$\checkmark$	Invalid	$\checkmark$	Invalid
Forced Thermo Off	√	$\checkmark$	Invalid	$\checkmark$	Invalid
Indoor unit changeover option	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	$\checkmark$
Return air temperature (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Discharge air temperature (Note 5,7)	√	Invalid	Invalid	Invalid	Invalid
Liquid pipe temperature (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Gas pipe temperature (Note 6,7)	√	Invalid	Invalid	Invalid	Invalid
EV position (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
OU Airnet address (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Forced Stop status	√	$\checkmark$	$\checkmark$	$\checkmark$	Invalid
Energy saving command (Setpoint shift)	$\checkmark$	Invalid	Invalid	Invalid	Invalid

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 6 of 7



DTA118A71 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **SYSTEM DIAGRAM:**



#### Note

- The total wiring length of the BACnet MS/TP Communication wire must be within 1640ft.
- A maximum of 32 indoor units and 4 outdoor units can be controlled and monitored using the adaptor.
- A maximum of two adaptors can be connected to one D III Net network.
- A maximum of 32 devices can be connected to the same BACnet MS/TP network as the adaptor.
- D III-NET Expansion Adaptor (DTA109) cannot be connected between ADP and indoor / outdoor units on DIII line
- The adaptor requires another Daikin controller or VRV outdoor unit to able to integrate units other than VRV indoor unit.
- Mounting:
  - RXYQ72 XA or T(A), REYQ72 XA or T(A), RWE\*\*, RXTQ\*\*, RXSQ\*\*: The adaptor cannot be mounted inside the outdoor unit. The adaptor is mounted at the indoor or at externally in the building using a suitable enclosure.
  - **REYQ\_AA/RXYQ\_AA:** The adaptor can be mounted inside the E-box of the outdoor unit.
  - **REYQ\_XA/RXYQ\_XA, REYQ\_T(A)/RXYQ\_T(A), RELQ\_TA/RXLQ\_TA:** The adaptor can be mounted inside the E-box of the outdoor unit using the BKS26A-US mounting plate.

# **DOCUMENTATION:**

Documentation available on www.daikincity.com and/or www.daikinac.com:

- Submittal
- Installation Manual
- Guide Specification

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 7 of 7

# 3.22 DTA118A72 BACnet MS/TP adaptor

Please ask your DAIKIN dealer for more specific information such as applicable models.



# Submittal Data Sheet

DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## MODEL COMPATIBILITY:

Compatible with VRV, VAM\*\* and SkyAir models that are using DIII-Net communication.
Compatible Mini split/Multi-split units

FFQ_LVJU	Requires Interface Adaptor DTA112BA51	
FTXS, CTXS, CTXG, FTXG, FDXS, CDXS, FVXS, FTXR	Requires DIII-Net Adapter KRP928BB2S**	
FTX, FTXN, FTK, and FTKN	Requires DIII-Net Adapter KRP928BB2S** and an Interface adaptor	
	KRP067A41E/KRP980B1/KRP980B2E	
FDMQ, FFQ_Q	Use F1-F2 connection on the indoor unit.	

\*FTK\_AXVJU, FTKB\_AXVJU, FTX\_AXVJU,FTXB\_AXVJU, CTX\_AXVJU, FTK\_BXVJU, FTX\_BXVJU\_FTXB\_BXVJU units are not compatible. \*\* Requires at least one VRV outdoor unit, SkyAir outdoor unit (RZQ/RZR) or a VRV centralized controller in the DIII-Net network.

# **SPECIFICATIONS:**

Model	DTA118A72
Description	DIII-Net/BACnet MS/TP Communication Adaptor
Maximum Connections	32 Indoor Units / 4 Outdoor Units
Communication Wire (DIII-Net)	18 AWG-2, No polarity Stranded, Non-shielded
Communication Wire (BACnet)	18 AWG, polarity sensitive
Total Wiring Length (BACnet)	1,640 ft. (500 m)
Communication Protocol	BACnet MS/TP / DIII-Net
Communication Speed (BACnet)	9600bps/19200bps/38400bps
Indoor unit Group Address Range	(1-00 to 2-15) or (3-00 to 4-15)
Outdoor unit Airnet Address Range	00-04,05-08,08-12,13-16,17-20,21- 24,25-28,29-32,33-36,37-40,41- 44,45-48,49-52,53-56,57-60,61-63
BACnet MS/TP MAC Address Range	0-127
BACnet devices in the network	32
Power	16VDC supplied by Outdoor Unit (1.58VA maximum)
Operating Temp Range	-4 to 149°F (-20 to 65°C)
Operating Humidity Range	95% or less (RH) (w/o condensation)
Dimensions (WxH)	3.94 x 3.94 inch (100 x 100 mm)
Weight (Mass)	0.18 lbs. (80 g)

# **PRODUCT IMAGE:**





Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 1 of 7



DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

## **FEATURES:**

- Direct connection to the BMS using BACnet MS/TP protocol.
- BTL Certified device
- Easy commissioning using DIP switches & BACnet Objects.
- Each adaptor can connect to 4 outdoor units and 32 indoor units.
- BACnet virtual router function implemented: Individual BACnet device ID assigned to each indoor unit group address and outdoor unit Airnet address.
- Independent heating and cooling setpoints.
- Can be mounted to indoor unit or outdoor units (Select models only)
- BACnet objects for operation data (compatible outdoor units and indoor unit data).
- Supports Celsius or Fahrenheit for temperature values.
- Independent BACnet object error status for indoor unit and outdoor unit.

# **POINTS LIST:**

#### • System configuration points

Point Name	Description
D3 control address indoor	Sets the range of indoor unit address to monitor and control.
D3 control address outdoor	Sets the range of outdoor unit address to monitor and control.
Device instance method	Sets BACnet device instance method of virtual devices.
Adaptor device instance	Sets adaptor BACnet device instance.
Network number	Sets the BACnet network number for virtual device.
Baud rate	Sets BACnet baud rate
Sets scale	Sets the temperature scale for BACnet Objects

#### Indoor unit points

Point Name	Description
Unit On_Off Status	Monitors and displays indoor unit On or Off status
Unit On/Off Command	Command indoor unit On or Off
Alarm Status	Monitors whether the indoor unit is operating normally and issues an alarm if the indoor
	unit has a malfunction. Error Code is shown in the description.
Operation Mode (Note 3,4)	Command and monitor indoor unit operation mode
Ventilation Mode	Command and monitor ventilation unit operation mode
Ventilation Rate	Command and monitor ventilation unit airflow rate
Fresh Up	Command and monitor fresh up setting for a ventilation unit.
Room Temperature	Monitor the room temperature of the indoor unit
Cooling Setpoint (Note 2)	Command and monitor the indoor unit cooling setpoint
Heating Setpoint (Note 2)	Command and monitor the indoor unit heating setpoint
Fan Speed	Sets the indoor unit fan speed and monitors the latest setting
Airflow Direction	Command and monitor the indoor unit airflow direction (louver control)
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 2 of 7



DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

Remote Controller Prohibit (Operation Mode)	Permits or prohibits the remote controller to control the indoor unit's operation mode
Remote Controller Prohibit (On, Off)	Permits or prohibits the remote controller to control the indoor unit's setpoint
Filter Sign Status	Monitors and displays the filter run time and provides service alert
Filter sign Reset	Clears the filter sign status
Indoor Unit Fan Status	Monitors and displays indoor unit fan status
Communication Status	Monitor's and displays indeed unit fail status
Thermo On status	Monitors and displays whether the indoor unit is actively cooling or heating.
Compressor Status	Monitors and displays if the compressor of the outdoor unit is On/Off/Defrost
Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating
Forced Thermo Off	Command Forced Thermo Off for the target indoor unit.
Indoor unit changeover option	Monitors if the indoor unit can change modes between heating and cooling
Return air temperature (Note 6,7)	Monitors and displays the return air temperature
Discharge air temperature (Note 5,7)	Monitors and displays the discharge air temperature of the FXMQ_PB indoor unit only.
Liquid pipe temperature (Note 6,7)	Monitors and displays the liquid pipe temperature.
Gas pipe temperature (Note 6,7)	Monitors and displays the gas pipe temperature.
EV position (Note 6,7)	Monitors and displays the expansion valve position.
ODU Airnet address (Note 6,7)	Monitors and displays outdoor unit Airnet address.
Forced Stop status	Monitors and displays forced stop status
Energy saving command (Setpoint shift)	Control and monitor energy savings command.

1. Refer to design guide & submittal datasheet for the indoor unit point combability.

2. The Mini-Splits have varied setpoints ranges (64F – 90F in cooling and 50F – 86F in heating). In the event a value outside of the available setpoint range is sent from the BACnet building management system via BACnet Adaptor, the indoor unit will ignore the out of range setpoint command (However, in the above case, the BACnet Adaptor can only send the cooling setpoint value and heating setpoint value of between 64F-82F.)

3. Only Ventilation cleaning on VAM.

4. Fan, Dry, and Auto are not supported when using the KRP928 adaptor for Mini-split integration to the DIII-Net.

5. Unit types other than those supported display an invalid value (0)

6. The data is invalid for models that do not support the target data.

7. For FXDQ, FXHQ and FHQ units a valid value cannot be displayed.

#### • Outdoor unit points

Point Name	Description
Communication Status	Monitors and displays the communication status
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat & Cool)
Outdoor unit Alarm Status	Monitors whether the outdoor unit is operating normally
Special Modes	Monitors and displays if a unit is defrost/oil-return/pump down or restart standby
	sequence.
Electric Power	Monitors and displays the electric power (calculated)
Electric Current	Monitors and displays the electric current (calculated).
Outdoor Air Temperature	Monitors and displays the outdoor air temperature
Backup Operation	Monitors and displays if the outdoor unit is in backup operation
Stepdown control	Monitors and displays if the outdoor unit is in stepdown control.
Condensing Pressure	Monitors and displays the condensing pressure
Evaporating Pressure	Monitors and displays the evaporating pressure

### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)



. . .

# Submittal Data Sheet

DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

Condensing Temperature	Monitors and displays the condensing temperature
	initial and displays the condensing temperature
Evaporating Temperature	Monitors and displays the evaporating temperature
Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor 1
Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor 2
Fan Step	Monitors and displays the fan step
EV Position 1	Monitors and displays the position of the expansion valve 1
EV Position 2	Monitors and displays the position of the expansion valve 2
Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor 1
Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor 2
Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature
Sub Compressor Body Temperature	Monitors and displays the compressor body temperature.
Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX
Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX
Liquid Pipe Temperature (Deicer)	Monitors and displays the liquid pipe temperature for the de-icer
Gas Pipe Temperature (HX Upper	Monitors and displays the gas pipe temperature for the upper HX
Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX
Suction Temperature	Monitors and displays the suction temperature
Compressor Suction Temperature	Monitors and displays the compressor's suction temperature
Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature
Subcool Outlet Temperature	Monitors and displays the subcool outlet temperature
Compressor Body Temperature	Monitors and displays the sub compressor body temperature
Receiver Inlet Temperature	Monitor and displays the Receiver Inlet Temperature.
Subcool EV Position	Monitors and displays the subcool expansion valve position
4WayValve	Monitors and displays the 4 Way valve position
Compressor1 current	Monitors and displays the Compressor 1 current (calculated)
Compressor2 current	Monitors and displays the compressor 2 current (calculated)

Compatible outdoor units.

• VRV4: RXYQ\_T(A), REYQ\_T(A), RXLQ\_T(A), RELQ\_T(A)

• VRV 4X: REYQ\_XA, RXYQ\_XA

• VRV4S: RXTQ\_TA

VRV LIFE: RXSQ\_TA

VRVW (T): RWEQ\_T
RWEY072PCTL& RW

RWEYQ72PCTJ & RWEYQ72PCYD
 VRV Emerion: REYQ\_AA, RXYQ\_AA

### Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 4 of 7



DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	_ Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

# FUNCTION COMPATIBILITY:

The following centralized controller can be installed with the DTA118A72.

- INTELLIGENT TOUCH CONTROLLER (ITC / ITOUCH) [DCS601C71]
- INTELLIGENT TOUCH MANAGER (ITM) [DCM601A71]
- UNIFIED ON/OFF CONTROL [DCS301C71]
- CENTRALIZED REMOTE CONTROL [DCS302C71]
- SCHEDULE TIMER [DST301BA61]
- DIII-NET ADAPTOR FOR MULTI/MINI SPLITS [KRP928B2S]

The following centralized controller cannot be installed with the DTA118A72 in the same DIII-Net network.

- MODBUS ADAPTOR [DTA116A51]
- GROUP CONTROL ADAPTOR [KRP4A]
- WIRING ADAPTOR FOR ELECTRICAL APPENDICES [KRP2A516]
- OUTDOOR UNIT MODE CHANGEOVER / DEMAND CONTROL [DTA104]
- SYSTEM ON/OFF FROM A CONTROL SYSTEM [DCS302A]
- BACNET INTERFACE [DMS502B71]
- LONWORKS<sup>®</sup> INTERFACE [DMS504C71]
- ITM BACNET SERVER GATEWAY OPTION [DCM014A51]

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 5 of 7



# **Submittal Data Sheet**

DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:		
Location:	_ Approval:	
Engineer:	Date:	
Submitted to:	Construction:	
Submitted by:	Unit #:	
Reference:	Drawing #:	

### SUPPORTED MODELS AND OBJECTS

Point Name	VRV Indoor	SkyAir indoor unit, FDMQ,FFQ_Q (except FTXS)	VAM	Outdoor air processing unit	Mini-Split & SkyAir FTXS indoor units (KRP928)
Unit On_Off Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Unit On/Off Command	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Alarm Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Operation Mode (Note 3,4)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Ventilation Mode	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Ventilation Rate	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Fresh Up	Invalid	Invalid	$\checkmark$	Invalid	Invalid
Room Temperature	$\checkmark$	$\checkmark$	Invalid	Entering Air	$\checkmark$
Cooling Setpoint (Note 2)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Heating Setpoint (Note 2)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Fan Speed	$\checkmark$	$\checkmark$	Invalid	Invalid	Invalid
Airflow Direction	$\checkmark$	$\checkmark$	Invalid	Invalid	Invalid
Remote Controller Prohibit (On_Off)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Remote Controller Prohibit (Operation Mode)	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	$\checkmark$
Remote Controller Prohibit (Setpoint)	$\checkmark$	$\checkmark$	Invalid	Invalid	$\checkmark$
Filter Sign Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	Invalid
Filter sign Reset	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	Invalid
Indoor Unit Fan Status	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Communication Status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Thermo On status	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Compressor Status	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Aux Heater Status	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Forced Thermo Off	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	Invalid
Indoor unit changeover option	$\checkmark$	$\checkmark$	Invalid	$\checkmark$	$\checkmark$
Return air temperature (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Discharge air temperature (Note 5,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Liquid pipe temperature (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Gas pipe temperature (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
EV position (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
OU Airnet address (Note 6,7)	$\checkmark$	Invalid	Invalid	Invalid	Invalid
Forced Stop status	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	Invalid
Energy saving command (Setpoint shift)	$\checkmark$	Invalid	Invalid	Invalid	Invalid

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484

www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 6 of 7



DTA118A72 – DIII-Net/BACnet MS/TP Adaptor

Project Name:	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit #:
Reference:	Drawing #:

### **SYSTEM DIAGRAM:**



### Note

- The total wiring length of the BACnet MS/TP Communication wire must be within 1640ft.
- A maximum of 32 indoor units and 4 outdoor units can be controlled and monitored using the adaptor.
- A maximum of two adaptors can be connected to one DDIII-Net network.
- A maximum of 32 devices can be connected to the same BACnet MS/TP network as the adaptor.
- DIII--NET Expansion Adaptor (DTA109) cannot be connected between ADP and indoor / outdoor units on DIII- line
- The adaptor requires another Daikin controller or VRV outdoor unit to able to integrate units other than VRV indoor unit.
- Mounting:
  - RXYQ72 XA or T(A), REYQ72 XA or T(A), RWE\*\*, RXTQ\*\*, RXSQ\*\*: The adaptor cannot be mounted inside the outdoor unit. The adaptor is mounted at the indoor or externally in the building using a suitable enclosure.
  - **REYQ\_AA/RXYQ\_AA:** The adaptor can be mounted inside the E-box of the outdoor unit.
  - **REYQ\_XA/RXYQ\_XA, REYQ\_T(A)/RXYQ\_T(A), RELQ\_TA/RXLQ\_TA:** The adaptor can be mounted inside the E-box of the outdoor unit using the BKS26A-US mounting plate.

# **DOCUMENTATION:**

Documentation available on www.daikincity.com and/or www.daikinac.com:

- Submittal
- Installation Manual
- Guide Specification

Daikin Comfort Technologies North America, Inc., 19001 Kermier Road, Waller, TX, 77484 www.daikinac.com www.daikincity.com

(Daikin's products are subject to continuous improvements. Daikin reserves the right to modify product design, specifications and information in this data sheet without notice and without incurring any obligations)

Page 7 of 7

# 4. Trademark Disclaimer

BACnet<sup>™</sup> is a trademark of ASHRAE.

LONWORK<sup>®</sup> is a registered trademark of Echelon Corporation.

Modbus® is a registered trademark of Schneider Electric USA, Inc.

WAGO® is a registered trademark of WAGO KONTAKTTECHNIK GMBH

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc., and any use of such marks are under license.

Google, Google Assistant, and all related logos are trademarks of Google, or its affiliates.

Amazon, Alexa, and all related logos are trademarks of Amazon.com, Inc. or its affiliates.





- Warning Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
  - Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
  - Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any inquiries, please contact your local importer, distributor and/or retailer.

### Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced. 2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.