

Daikin VRV Installation

Participant Guide



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1/18/2013



























































































				KIN AC'	
	VRV absolute comfort				
RefNet Branch Kits					
Heat Pump – KHRP26 Kit includes 2 <i>RefNets</i> (Liquid & Dual Pressure Gas) Heat Recovery – KHRP25 Kit includes 3 <i>RefNets</i> (Liquid, Suction & Dual Pressure Gas) • Each <i>RefNet</i> included in the Branch Kits is individually labeled for proper identification <i>RefNet</i> Branch Kits					
	RefNet "Y" Joint Heat Pump (2-Pipe)	Heat Recovery (3-Pipe)	RefNet Header Heat Pump (2-Pipe)	Heat Recovery (3-Pipe)	
	KHRP26A22T	KHRP25A22T	4 - PORT KHRP26M22H(9)		
	KHRP26A33T	KHRP25A33T(9)	8 - PORT KHRP26M33H(9)	8 - PORT KHRP25M33H(9)	
	KHRP26M72TU(9)	KHRP25M72TU(9)	8 - PORT KHRP26M72H(9)	8 - PORT KHRP25M72H(9)	
	KHRP26M73TU(9)	KHRP25M73TU(9)	8 - PORT KHRP26M73HU(9)	8 PORT KHRP25M73HU(9)	
RefNet Branch Kits are determined by the Outdoor Unit capacity and connected fan coil capacities in the refrigerant circuit					













































































































































































































































































Ο ΔΑΙΚΙΝ ΛΟ

Basic VRV Remote Controller Installation & Configuration











































gurable display mode	 Detailed, Stand 	dard, and Simple	New
Display Mode	Detailed	Standard	Simple New
Display image	Auto	Auto Cost Ser 10 Des 74 Rest70	Auto bit of and 70, 74, 20
On/Off status on LED (LED blinks when an error is occurred)	x	x	x
Mode	X *1	X *1	X*1
Setpoint (Dual/Single)	X *2	X *2	X *2
Room temperature	x		x
Fan speed	X *3	X *3	X *3
Air flow direction (when a louver is available)	×		
Day and Time	X *3		
Status icon	X *3	X *3	
Key lock icon	x	x	
Error massage	X	х	



BRC1E72 Status Icon Elimination											
 Status icon and other information on the display can be eliminated through Field Setting e.g. "Central Control" icon is not necessary in hotel room 											
ltem	Available Display mode			Field Setting							
	Detailed	Standard	Simple	Code	Choice						
STSANDBY icon	Х	Х	Х	1b-7	01: display in Defrost or Hot Start 02: Not display						
Day/Clock	Х			1b-11	01: display 02: Not display						
CENTRAL CONTROL icons	Х	Х		1e-9	(MASTER CONTROL icon too) 01: display 02: Not display						
Prohibit button message	Х	Х	Х	1e-10	01: Key lock icon blinks for 5 sec (Key lock icon is not displayed in Simple display mode)02: Message						
Slide 24 © 2012 Daikin AC											
	BRC1E72 Initial Setting – Single Setpoint Display Mode w/Face Decal										
----	--	--	--	---	--	--	--	--	--	--	--
	Theme	Everything	No Mode Change	Fan Speed Fixed							
	LCD Display Image	Auto Cool Set to 72, ₹■ _	Auto Cool Set to 72, 72 , 72 , 72 ,	Auto Cool Set to 72, 72, 72,							
M	Optional Face Decal Face Decal can be applied to Detailed and Standard display mode too.	10 10 10 10 10	1 1 0 0	Patanov Motor O O O O O O O O O O O O O							
ľ.		BRC1E72RMF	BRC1E72RF	BRC1E72RM							
Μ	Display mode - Simple (Main menu)	Х	Х	Х							
Μ	Display item - Room Temp (Main menu)	Х	Х	Х							
Μ	Single setpoint (Srv Menu \rightarrow Min Setpoint Diff - Single SP)	Х	Х	Х							
Μ	Prohibit Menu/OK and Cancel buttons (Special sequence required)	Х	Х	Х							
М	Mode button prohibit (Srv menu \rightarrow Prohibit functions \rightarrow Prohibit button)		Х								
М	Fan icon display off (Field Setting 1b-15-02) Fan button also prohibited			Х							
0	Off display instead of Mode while the unit is off (Field setting 1b-13-02)	Х	Х	Х							
0	Erase setpoint display while the unit is off (Field setting 1b-12-02)	Х	Х	Х							
				Slide 25 @ 2012 Daikin A(

	BRC1E72 Initial Setting – Du Display Mode w/Face Deca	ual Setpoint I Cont.		KIN AC [®] absolute comfort
	Theme	Everything	No Mode Change	Fan Speed Fixed
	LCD Display Image	Auto hit is 10. 74. 20. 74. 20. 74.	Auto Internet Cont 700-740 720 -740 720 -7	Auto Cool Set to Heat Cool 70, 74, 72, 72,
	Optional Face Decal	Paster	Pann	Passes
	and Standard display mode too.	© . ⊙ . •	20 20 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Mater A Concert a biology a bio
'Τ.		BRC1E72RMF2	BRC1E72RF2	BRC1E72RM2
M	Display mode - Simple (Main menu)	Х	Х	Х
М	Display item - Room Temp (Main menu)	Х	Х	Х
М	Dual setpoint (Srv Menu \rightarrow Min Setpoint Diff - 0 to 7F)	Х	Х	Х
М	Prohibit Menu/OK and Cancel buttons (Special sequence required)	Х	Х	Х
М	Mode button prohibit (Srv menu \rightarrow Prohibit functions \rightarrow Prohibit button)		Х	
М	Fan icon display off (Field Setting 1b-15-02) Fan button also prohibited			Х
0	Off display instead of Mode while the unit is off (Field setting 1b-13-02)	Х	Х	Х
0	Erase setpoint display while the unit is off (Field setting 1b-12-02)	×	Х	Х





















Availability of	Indoor	Unit	Field S	Setting	s (Contr	ol Relate	ed)		As of	12/01/2012	
Mode No.			10					12			
First Code No.	2		5	6	0	1	2 (***)	3		6	8
Second Code No.	01/02	03	01/02	01/02	01/03/04	01/02/03	01/02	01/02	03	01/02/03	01/02
FXSQ_MVJU	Х	X**	X**	Х	X	X	X (02)	Х	X**	X*	n/a
FXMQ_MVJU	X	X*	X*	X	X	X	X (02)	X	X*	X*	n/a
FXMQ72/96MVJU	X	X	X	X	X	X	X (02)	X	X	X	n/a
FXMQ_PVJU FBQ_PVJU	х	Х	х	х	Х	Х	X (02)	х	х	Х	n/a
FXDQ_MVJU	Х	Х	Х	Х	Х	Х	X (02)	Х	Х	n/a	n/a
FXTQ_PVJU FTQ_PAVJU FTQ_PBVJU	х	х	х	х	х	х	X (02)	х	х	х	n/a
BEQ_MVJLR1 (FXOQ)	х	х	х	х	Х	Х	X (02)	х	х	Х*	n/a
FXLQ_MVJU	Х	X*	X*	Х	Х	Х	X (02)	Х	Χ*	X*	n/a
FXNQ_MVJU	Х	X*	X*	Х	Х	Х	X (02)	Х	X*	X*	n/a
FXAQ_MVJU FAQ_MVJU FAQ_PVJU	х	Х*	Х*	х	n/a	х	X (01)	х	Х*	n/a	n/a
FXAQ_PVJU	Х	Х	Х	Х	n/a	Х	X (01)	Х	Х	n/a	n/a
FXZQ_M7VJU	Х	X*	Χ*	Х	Х	Х	X (01)	Х	Χ*	X*	n/a
FXFQ_MVJU FCQ_MVJU FCQ_PVJU	х	n/a	n/a	n/a	х	х	X (01)	х	n/a	n/a	n/a
FXFQ_PVJU FCQ_PAVJU	х	Х	х	х	Х	Х	X (01)	х	х	Х	х
FXHQ_MVJU FHQ_MVJU FHQ_PVJU	х	n/a	n/a	n/a	х	х	X (01)	х	n/a	n/a	n/a

Field	Settings – II	ndoor Units (Control Related)				
Mode No. (Note 1)	First Code No.	Description	Second Code No. (Note 2) (Cells in bold are factory defa	ault settings)		
10(20)	2	Priority of thermistor sensors for space temperature control	01 The return air thermistor is primary and the remote controller thermistor Is secondary	02 Only the return air thermistor will be utilized.	03 Only the remote controller thermistor will be utilized.	
	5	Room temperature value reported to multi-zone controllers	Return air thermistor	Thermistor designated by 10- 2 above (Note 3)		
	6	The remote controller thermistor is used in Remote Controller Group	No	Yes		
2(22)	0	KRP1B71 X1-X2 status output	Indoor unit Thermo-On/Off status		Indoor unit Operation On/Off status	Indoor unit Alarm status
	1	Indoor unit 11-12 input	Forced Off Closed Contact-Indoor unit is forced off and Central Control icon is displayed. Unit cannot be furned on manually. Operation can be overridden by central control. Open contact-Indoor unit can resume normal operation. Unit must be turned on manually or by central control.	On/Off Closed Contact-Indoor unit is turned on. Open Contact-Indoor unit is turned off. Unit responds to last command, i.e., unit can be turned on manually or by central control after circuit has opened. Operation is prohibited when remote controller On/Off control is restricted by a multi-zone controller.	External Protection Device Closed contact-Unit shall resume normal operation. Open contact-Unit shall shut down and generate an A0 error.	
	2	Thermo-On/Off deadband (Note 4)	2F (1C)	1F (0.5C)		
	3	Fan Speed in Heating Thermo-Off	LL	User set	UΠ	
	6	Fan Speed in Cooling Thermo-Off	LL	User set	UT	
	8	Return air sensor offset	20	(for remote sensor)		l

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Field	Settings	- BRC1E72 (G	reen highlighted ite	ms are new fro	om BRC1E71)			
Mode No.	First Code No.	Description	Second Code No.	default cottin				
I			(Cells in bold are race 01	02]s)	03		04
1b	7	STANDBY icon	Display in Defrost or H/ Start	ot Not Displayed	i			
	11	Day/Clock	Displayed	Not Displayed	<u> </u>			
	12	Setpoint display while the unit is off	Displayed	Not Displayed	Not Displayed			
	13	Mode display while the unit is off	Displayed	Display OFF i	nstead of the mod	ie		
	14	Fan Speed button configuration	Fan Speed	Fan ON/Auto (Fan LL in the (Applicable *	armo-off) to SkyAir only)	FAN ON/Auto (Fan Off in thermo (Applicable to Sk	FAN ON/Auto (Fan Off in thermo-off) (Applicable to SkvAir only)	
	15	Fan icon display	Displayed	Not Displayer	1		<u> </u>	-
1c	1	Thermistor sensor used for Auto-changeover and Setback control	Return Air Thermistor- return air temperature displayed on controller as room temperature	Remote Contr controller tem controller as r	Remote Controller Thermistor – remote controller temperature displayed on controller as room temperature			
1	10	Temperature	01: -5.4°F 02: -4.5°F (-3.0°C) (-2.5°C)	- 03: -3.6°F (-2.0°C)	04: -2.7°F (-1.5°C)	05: -1.8°F (-1.0°C)	06: -0.9°F (-0.5°C)	07: 0.0°F (0.0°C)
1		Sensor Onser	13: +5.4°F 12: +4.5°	F 11: +3.6°F	10: +2.7°F	09:+1.8°F	08:+0.9°F	
1e	2	Setback availability	(+3.0°C) (+2.5°C) N/A	(+2.0°C) Heating mode	Heating mode only		(+0.5°C)	Cooling/ Heating modes
	4	Schedule and Auto- changeover enabled when multi-zone controller is detected (Note 1)	No	Yes				
	9	CENTRAL CONTROL icon	Not displayed	Displayed whe multi-zone co	en under control b ntroller	iya		
	10	Message when button pushed which has been prohibited by a multi-zone controller	Key lock icon blinks for seconds	5 Message disp Centralized C remote contro	layed on screen: " ontrol. Adjustment al are being restric	'Under ts at the ted."		
	11	Auto changeover guard timer	15 min	30 min		60 min		90 min
	12	Auto changeover point	0.9 ∘F (0.5 ∘C)	1.8⊧F (1.0 ∘C)		2.7∘F (1.5∘C)		3.6°F (2.0°C)
	13	Quick changeover point beyond the auto changeover	0.9 ∘F (0.5 ∘C)	1.8⊧F (1.0 ∘C)		2.7°F (1.5°C)		3.6∘F (2.0∘C)

Factory Default Field Settings on BRC1E72

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BRC1E72 Field Setting - Factory Default Values

- Do not change from the factory default value in the cells below highlighted in grey.
 This table would be referred to confirm the default value when you might have changed the unnecessary field setting accidentally.

Mode No. First Code No.	1b	1c	1e
0	02	02	
1	02	02	02
2		02	01
3		01	
4	04	02	01
5	01	01	02
6	01	01	02
7	01	02	02
8	05	01	02
9	01	01	02
10		07	02
11	01	07	03
12	01		01
13	01		01
14	01		
15	01		

BRC1E72 Senso	r - Field Settings		DAIKI	absolute comfort						
• To use only BRC1E72 sensor, set field settings as 10-2-03, 10-5-02, & 1C-1-02										
 10-2-03, 10-5-02 availability always available: FXMQ_P, FXTQ_P, FXAQ_P, FXFQ_P, FBQ_P, FTQ_P, FCQ_PA All _M series (except FXFQ, FXHQ, FCQ, FHQ) Manufactured after 9/1/2009: always available Manufactured before 9/1/2009: confirm if 10-2-03, 10-5-02 are available. never available: FXFQ_MVJU, FXHQ_MVJU, FCQ_MVJU, FCQ_PVJU, FHQ_MVJU, FHQ_PVJU Set 10-2-02 and use Remote sensor (or Return air sensor) only Field setting – 10-2, 10-5 and 1C-1 settings are necessary 										
Which single sensor is used?	For indoor unit control (Cool/Dry/Heat VRV and thermo-on/off control)	For BRC1E72 control (Auto changeover and setback control)	For Multi-zone Control							
BRC1E72	10-2-03	1C-1-02 (default)	10-5-02	Recommended						
Remote sensor (or Return air sensor)	10-2-02 (it is always available)	1C-1-01	10-5-01 (default)							
				Slide 41 © 2012 Daikin AC						





Initial	Sett	ing – Ena	able Setba	ck	DAIK	absolute comfort					
• Field	l setti	ng is availa	able in the S	ervice Setting	gs						
 Setback function is disabled (1e-2-01) by default 											
• To	• To enable it, set 1e-2-04										
Mode No. First Description Second Code No. Code (Cells in bold are factory default settings)											
1e	No. 2	Setback availability	01 N/A	02 Heating mode only	03 Cooling mode only	04 Cooling/ Heating modes					
			Default								
						Slide 44 @ 2012 Daik					













Indoor Unit Temperatures

- Service Settings \rightarrow Indoor Unit Status
 - Applicable for P-series indoor units (FXMQ_P, FXTQ_P)

Indoc	r Unit	Status	
Unit	No O		
Thi	72-	тыр.	
Th2:	12F 27F	Th6:	F
Th3:	32F		
Th4:	32F		
			\$

ΔΑΙΚΙΝ ΛΕ

Th #	Description
Th1	Return air sensor (Remote sensor) temperature
Th2	Liquid line temperature
Th3	Gas line temperature
Th4	Discharge air temperature (FXMQ_P only)
Th5	Remote controller sensor temperature
Th6	Temperature to be used for indoor unit control (See field setting 10(20) - 2)

DIII-Net – Configure Wireless Hand-Held Remote Controller Changeover Master

ΔΑΙΚΙΝ ΛΟ

 On power up of indoor units, all "Master Controlled" icons or symbols will be flashing on the wired Controllers ONLY. The wireless Controllers do not display an icon for Master

- Go to the wireless Controller you want set as the Changeover Master and while pointing the wireless Controller at the indoor unit receiver:
 - Press and hold the MODE button for approx. 4 seconds you will hear "BEEP-BEEP" then a second "BEEP-BEEP"
 - Press the **MODE** button a second time and listen for a "BEEP-BEEP" again; this is the confirmation that you have configured this indoor unit Remote Controller as the system Master
- To change the Master to a different Remote Controller in the system
 - Press and HOLD the **MODE** button for 4 seconds until "BEEP-BEEP"
 - Go to the new Remote Controller and press the MODE button once to set the MASTER

Field Settings for Daikin VRV / SkyAir indoor unit and BRC1E72

Control Engineering, Daikin AC (Americas) 7/31/2013

Availability of Indoor Unit Field Settings (Control Related)

As of 7/31/2013

Mode No.			10					12			
First Code No.	2		5	6	0	1	2 (****)	3		6	8
Second Code No.	01/02	03	01/02	01/02	01/03/04	01/02/03	01/02	01/02	03	01/02/03	01/02
FXSQ_MVJU	Х	X***	X***	Х	Х	Х	X (02)	Х	X***	X**	n/a
FXMQ_MVJU	Х	X**	X**	Х	Х	Х	X (02)	Х	X**	X**	n/a
FXMQ72/96MVJU	Х	Х	Х	Х	Х	Х	X (02)	Х	Х	Х	n/a
FXMQ_PVJU FBQ_PVJU	Х	х	Х	Х	х	х	X (02)	Х	Х	х	n/a
FXDQ_MVJU	Х	Х	Х	Х	Х	Х	X (02)	Х	Х	X *	n/a
FXTQ_PVJU FTQ_PAVJU FTQ_PBVJU	х	х	х	х	х	х	X (02)	х	Х	х	n/a
BEQ_MVJLR1 (FXOQ)	Х	Х	Х	Х	х	Х	X (02)	Х	Х	X**	n/a
FXLQ_MVJU	Х	X**	X**	Х	Х	Х	X (02)	Х	X**	X**	n/a
FXNQ_MVJU	Х	X**	X**	Х	Х	Х	X (02)	Х	X**	X**	n/a
FXAQ_MVJU FAQ_MVJU FAQ_PVJU	х	X**	X**	х	n/a	х	X (01)	х	X**	n/a	n/a
FXAQ_PVJU	Х	Х	Х	Х	n/a	Х	X (01)	Х	Х	n/a	n/a
FXZQ_M7VJU	Х	X**	X**	Х	Х	Х	X (01)	Х	X**	X**	n/a
FXFQ_MVJU FCQ_MVJU FCQ_PVJU	х	n/a	n/a	n/a	х	х	X (01)	х	n/a	n/a	n/a
FXFQ_PVJU FCQ_PAVJU	Х	Х	Х	Х	Х	х	X (01)	Х	Х	х	х
FXHQ_MVJU FHQ_MVJU FHQ_PVJU	х	n/a	n/a	n/a	х	х	X (01)	х	n/a	n/a	n/a

* Field settings highlighted in purple may not be available in units manufactured before 1/1/2013.

** Field settings highlighted in orange may not be available in units manufactured before 9/1/2009.

*** Field settings highlighted in blue may not be available in units manufactured before 1/1/2007.

**** Factory default value is indicated in parenthesis.

Mode No.	First Code	Description	Second Code No. (No. (No. (Cells in bold are fac	ote 2) tory default settings)		
(Note 1)	No.		01	02	03	04
10(20)	2	Priority of thermistor sensors for space temperature control	The return air thermistor is primary and the remote controller thermistor Is secondary.	Only the return air thermistor will be utilized.	Only the remote controller thermistor will be utilized.	
	5	Room temperature value reported to multizone controllers	Return air thermistor	Thermistor designated by 10-2 above (Note 3)		
	6	The remote controller thermistor is used in Remote Controller Group	No	Yes		
12(22)	0	KRP1B71 X1-X2 status output	Indoor unit Thermo- On/Off status		Indoor unit Operation On/Off status	Indoor unit Alarm status
	1	Indoor unit T1-T2 input	Forced Off Closed Contact- Indoor unit is forced off and Central Control icon is displayed. Unit cannot be turned on manually. Operation can be overridden by central control. Open Contact- Indoor unit can resume normal operation. Unit must be turned on manually or by central control.	On/Off Closed Contact-Indoor unit is turned on. Open Contact-Indoor unit is turned off. Unit responds to last command, i.e., unit can be turned on manually or by central control after circuit has opened. Operation is prohibited when remote controller On/Off control is restricted by a multizone controller.	External Protection Device Closed contact-Unit shall resume normal operation. Open contact-Unit shall shut down and generate an A0 error.	
	2	Thermo-On/Off deadband (Note 4)	2F (1C)	1F (0.5C)		
	3	Fan Speed in Heating Thermo-Off	LL	User set	Off	
	6	Fan Speed in Cooling Thermo-Off	LL	User set	Off	
	8	Return air sensor offset	2C	None (for remote sensor)		

Field Settings – Indoor Units (Control Related)

- 1. Field settings are normally applied to the entire remote control group, however if individual indoor units in the remote control group require specific settings or for confirmation that settings have been established, utilize the mode number in parenthesis.
- 2. Any features not supported by the installed indoor unit will not be displayed.
- 3. When mode 10-2-01 is selected, only the return air temperature value is reported to the multizone controller.
- 4. The actual default deadband value will depend upon the indoor unit model.

Field Settings – BRC1E72

(Green highlighted items are new from BRC1E71)

Mode No.	First Code	Description	Second Code No. (Cells in bold are factory default settings)				
	No.		01	02 03		04	
1b	7	STANDBY icon	Display in Defrost or Hot Start	Not Displayed			
	11	Day/Clock	Displayed	Not Displayed			
	12	Setpoint display while the unit is off	Displayed	Not Displayed			
	13	Mode display while the unit is off	Displayed	Display OFF instead of the mode			
	14	Fan Speed button configuration	Fan Speed	Fan ON/Auto (Fan LL in thermo-off) (Applicable to SkyAir only)	FAN ON/Auto (Fan Off in thermo-off) (Applicable to SkyAir only)		
	15	Fan icon display	Displayed	Not Displayed			
1c	1	Thermistor sensor used for Auto- changeover and Setback control	Return Air Thermistor-return air temperature displayed on controller as room temperature	Remote Controller Thermistor – remote controller temperature displayed on controller as room temperature			
	10	Temperature Sensor Offset	01: -5.4°F 02: -4.5°F (-3.0°C) (-2.5°C)	03: -3.6°F 04: -2.7°F 05 (-2.0°C) (-1.5°C) (-	: -1.8°F 06: -0.9°F 1.0°C) (-0.5°C)	07: 0.0°F (0.0°C)	
			13: +5.4°F (+3.0°C) 12: +4.5°F (+2.5°C)	11: +3.6°F 10: +2.7°F 09 (+2.0°C) (+1.5°C) (+	:+1.8°F 08 :+0.9°F -1.0°C) (+0.5°C)		
1e	2	Setback availability	N/A	Heating mode only	Cooling mode only	Cooling/ Heating modes	
	4	Schedule and Auto-changeover enabled when multizone controller is detected (Note 1)	No	Yes			
	9	CENTRAL CONTROL icon	Not displayed	Displayed when under control by a multizone controller			
	10	Message when button pushed which has been prohibited by a multizone controller	Key lock icon blinks for 5 seconds	Message displayed on screen: "Under Centralized Control. Adjustments at the remote control are being restricted."			
	11	Auto changeover guard timer	15 min	30 min	60 min	90 min	
	12	Auto changeover point	0.9°F (0.5°C)	1.8°F (1.0 °C)	2.7°F (1.5°C)	3.6°F (2.0°C)	
	13	Quick changeover point beyond the auto changeover point	0.9°F (0.5°C)	1.8°F (1.0°C)	2.7°F (1.5°C)	3.6°F (2.0°C)	

1. Native remote controller Schedule and Auto-changeover functions are disabled when a multizone controller is detected and a group address is assigned.

BRC1E72 Field Setting - Factory Default Values

- Do not change from the factory default value in the cells below highlighted in grey.
- This table would be referred to confirm the default value when you might have changed the unnecessary field setting accidentally.

Mode No. First Code No.	1b	1c	1e
0	02	02	
1	02	02	02
2		02	01
3		01	
4	04	02	01
5	01	01	02
6	01	01	02
7	01	02	02
8	05	01	02
9	01	01	02
10		07	02
11	01	07	03
12	01		01
13	01		01
14	01		
15	01		