

START UP VRV K-serie

- CAUTIONS FIELD PIPING
 - PRESSURE TEST BEFORE VACUUMING

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CAUTIONS FIELD PIPING

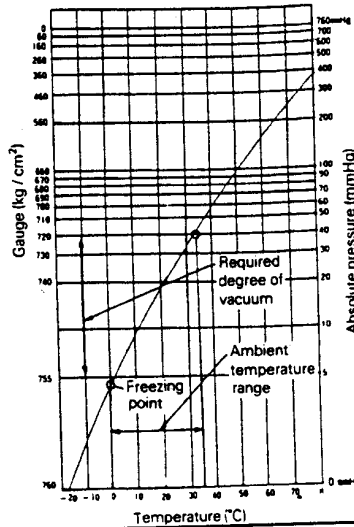
- PRESSURE TEST
 - check STOP VALVES OUTDOOR CLOSED ,
 - 3 STEPS :
 - 3.0 BAR (N2) MINIMUM 3 MINUTES,
 - 15.0 BAR (N2) MINIMUM 3 MINUTES ,
 - 28.0 BAR (N2) MINIMUM 24 HOURS (if R22) ,
 - 32.0 Bar (N2) MINIMUM 24 HOURS (if R407C)
 - MAX. DROP : (θ AIR BEGIN - θ AIR END) * 0.1

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CAUTIONS FIELD PIPING

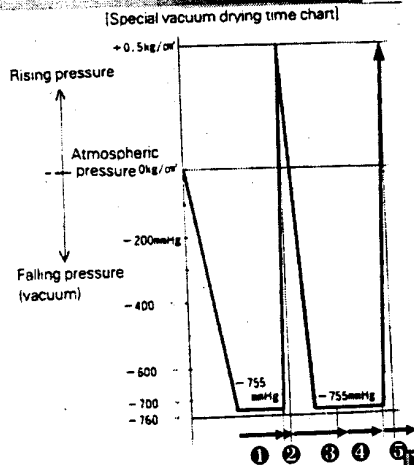
- PRESSURE TEST
- VACUUMING
 - MINIMUM 40L/min
 - VACUUM LEVEL



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CAUTIONS FIELD PIPING

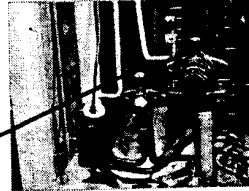
- PRESSURE TEST
- VACUUMING
 - MINIMUM 40L/min
 - VACUUM LEVEL
 - VACUUM
 - ① VACUUM PUMP min 1Hour
WHEN 755mm Hg is reached !!
 - ② BREAK VACUUM (N₂)
 - ③ VACUUMPUMP 1HOUR
 - ④ KEEP VACUUM 1HOUR
 - ⑤ ADD TRIM CHARGE



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CAUTIONS FIELD PIPING

- PRESSURE TEST
- VACUUMING
- TRIM CHARGE " G "



→ TOTAL **LENGTH** [meter] OF **LIQUID** PIPES :

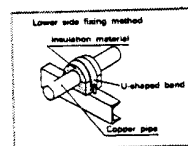
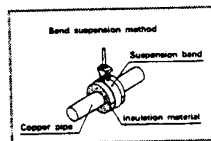
- G = L[Ø 12.7mm] * 0.100 Kg/m (0.120 if R407C)
 + L[Ø 9.5 mm] * 0.050 Kg/m (0.060 if R407C)
 + L[Ø 6.4 mm] * 0.025 Kg/m (0.023 if R407C)
 - 1 if RSX5K7 or RSXY5K7 (0 if R407C) ,
 - 2 if RSX8,10K7 or RSXY8,10K7 (0 if R407C)

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CAUTIONS FIELD PIPING

- PRESSURE TEST
- VACUUMING
- TRIM CHARGE
- FIXATION PIPING



☛ EXPANSION - CONTRACTION :

$$\checkmark \Delta L = L \text{ straight (m)} * 16.5 * 10^{-6} (\text{m}/^{\circ}\text{C}) * \Delta T (^{\circ}\text{C})$$

$$\checkmark \text{EXAMPLE : } L = 10 \text{ m , } T \uparrow = 50^{\circ}\text{C ,}$$

$$\checkmark \Delta L = + 8.2 \text{ mm !}$$

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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
✓ POWER OFF

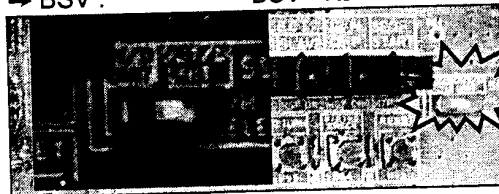
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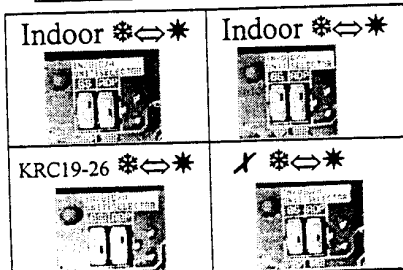
FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :

- INVERTER : RSXY - K7 INDOOR / OUTDOOR
→ BSV : BSV - KJ INDOOR / ADAPTOR



RSXY - K7



**BSV
- KJ**

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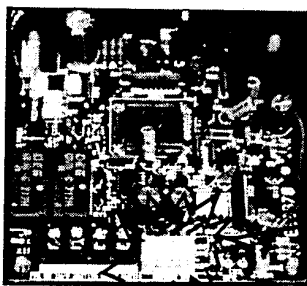
FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :

- INVERTER : RSXY - K7 INDOOR / OUTDOOR
- BSV : BSV - KJ INDOOR / ADAPTOR

- CONNECTOR : RSEY-K7

- + BSV-KJ : UPPER
- + BSV-AK : LOWER



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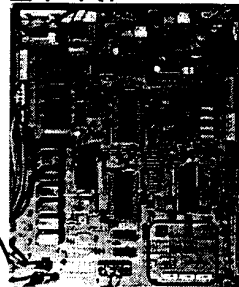
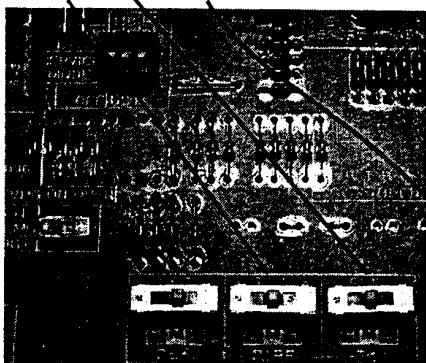
FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :

- INVERTER : RSXY - K7 INDOOR / OUTDOOR
- BSV : BSV - KJ INDOOR / ADAPTOR

- CONNECTOR : RSEY-K7

- SWITCH Te/Tc/Defrost : RSEY-K7

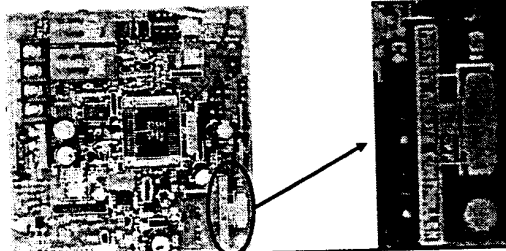


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FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :
 - INVERTER : RSXY - K7 INDOOR / OUTDOOR
 - BSV : BSV - KJ INDOOR / ADAPTOR
- CONNECTOR : RSEY-K
- SWITCH Te, Tc, Defrost RSEY-K7
- SWITCH OPTIONAL BOARDS :
 - MIX-MATCH ADAPTOR K-serie C/H SELECTION



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FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :
 - INVERTER : RSXY - K7 INDOOR / OUTDOOR
 - BSV : BSV - KJ INDOOR / ADAPTOR
- CONNECTOR : RSEY-K
 - + BSV-KJ : UPPER
 - + BSV-AK : LOWER
- SWITCH OPTIONAL BOARDS :
 - MIX-MATCH ADAPTOR K-serie C/H SELECTION
 - KRP2A51~53 Or KRP4A51~53
 - ✓ ON/OFF INPUT SIGNAL ROTARY SWITCH
 - ✓ ENABLE/DISABLE SETPOINT SLIDE SWITCH

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FIELD SETTINGS POWER-OFF

• SWITCH COOL/HEAT :

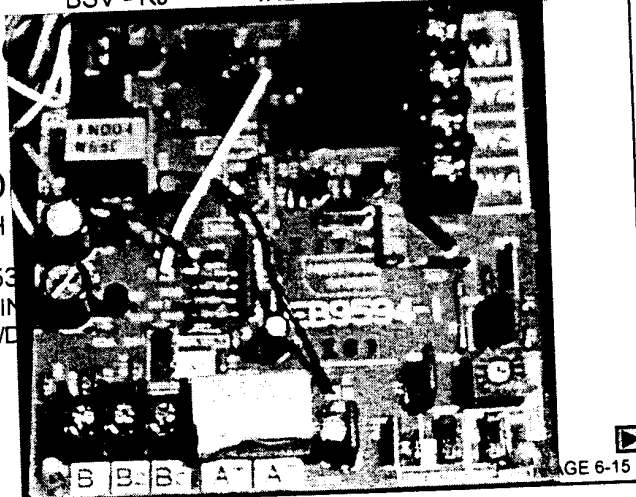
- INVERTER : RSXY - K7 INDOOR / OUTDOOR
- BSV : BSV - KJ INDOOR / ADAPTOR

• CONNECT

- + BSV-KJ :
- + BSV-AK :

• SWITCH O

- MIX-MATCH
- KRP2A51~53
- ✓ ON/OFF IN
- ✓ ENABLE/D



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FIELD SETTINGS POWER-OFF

• SWITCH COOL/HEAT :

- INVERTER : RSXY - K7 INDOOR / OUTDOOR
- BSV : BSV - KJ INDOOR / ADAPTOR

• CONNECTOR : RSEY-K

- + BSV-KJ : UPPER
- + BSV-AK : LOWER

• SWITCH OPTIONAL BOARDS :

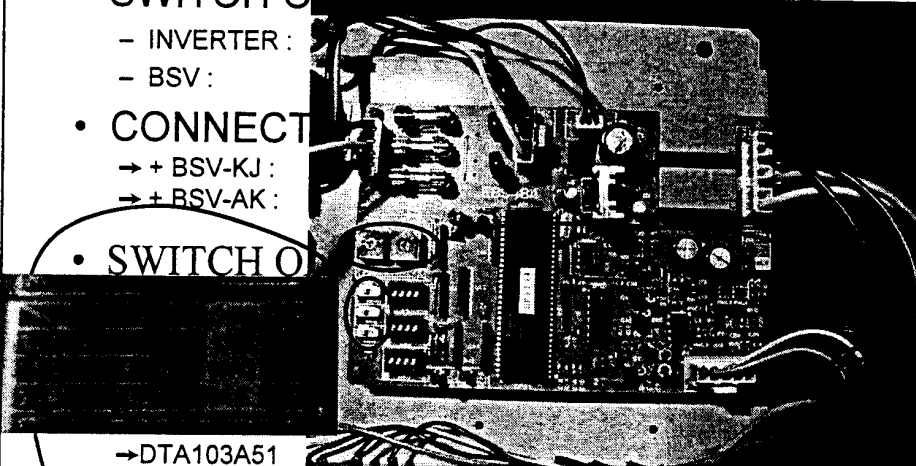
- MIX-MATCH ADAPTOR K-serie C/H SELECTION
- KRP2A51~53 Or KRP4A51~53
- ✓ ON/OFF INPUT SIGNAL ROTARY SWITCH
- ✓ ENABLE/DISABLE SETPOINT SLIDE SWITCH
- DTA103A51

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FIELD SETTINGS POWER-OFF

- SWITCH COOL/HEAT :
 - INVERTER :
 - BSV :
- CONNECT
 - + BSV-KJ :
 - + BSV-AK :
- SWITCH ON
 - DTA103A51
 - GROUP NUMBER (DCS302A51)
 - ✓ FEED BACK SIGNAL
 - ROTARY SWITCH
 - SLIDE SWITCH




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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS POWER-OFF
- CHECKS AT POWER-ON

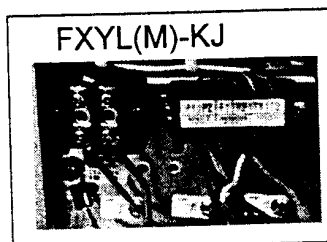
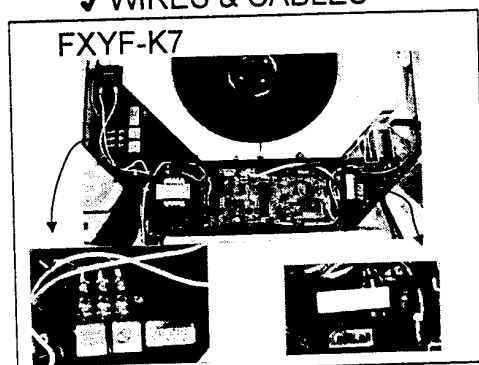


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CHECKS AT POWER - ON

- CHECK POINTS BEFORE POWER-ON :
✓ WIRES & CABLES

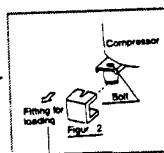
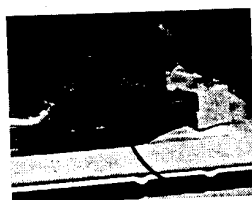


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CHECKS AT POWER - ON

- CHECK POINTS BEFORE POWER-ON :
✓ WIRES & CABLES ,
✓ Remove transport brackets compressors



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CHECKS AT POWER - ON

- CHECK POINTS BEFORE POWER-ON :
 - ✓ WIRES & CABLES ,
 - ✓ Remove transport brackets compressors
 - ✓ Connectors to decoration panel(s)



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CHECKS AT POWER - ON

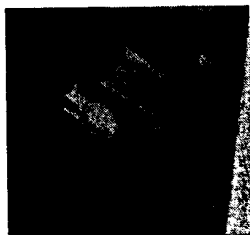
- CHECK POINTS BEFORE POWER-ON
- CHECK POINTS AFTER POWER-ON :
 - ✓ NORMAL VOLTAGE
 - ➔ 3 PHASE 345 ~ 456VAC , L1↔L2↔L3 max.2% ,
 - ✓ CHECK CRANKCASE HEATER HEATS
 - ☺ ⌘ power ON 6 HOURS BEFORE OPERATION ⚡

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CHECKS AT POWER - ON

- CHECK POINTS BEFORE POWER-ON :
 - ✓ WIRES & CABLES ,
 - ✓ Remove transport brackets compressors
 - ✓ Connectors to decoration panel(s)



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CHECKS AT POWER - ON

- CHECK POINTS BEFORE POWER-ON
- CHECK POINTS AFTER POWER-ON :
 - ✓ NORMAL VOLTAGE
 - ➔ 3 PHASE 345 ~ 456VAC , L1↔L2↔L3 max.2% ,
 - ✓ CHECK CRANKCASE HEATER HEATS
 - ☺ ⌚ power ON 6 HOURS BEFORE OPERATION 🌡

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START UP VRV K-serie

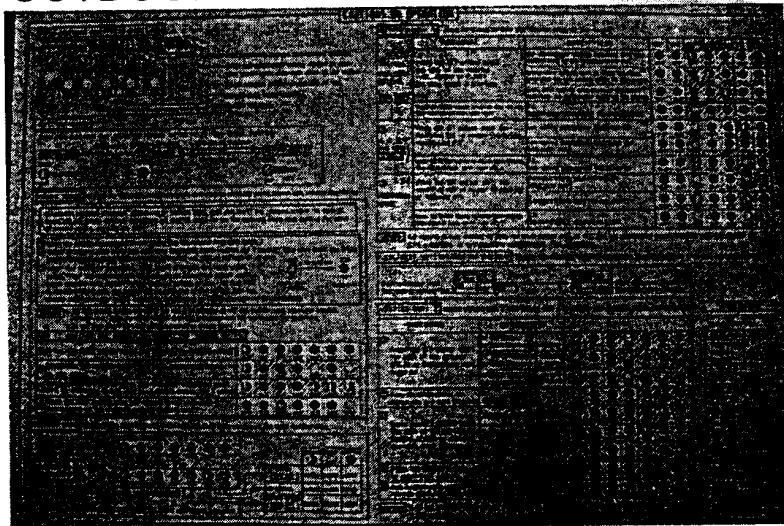
- CAUTIONS FIELD PIPING
- FIELD SETTINGS POWER-OFF
- CHECKS AT POWER-ON
- FIELD SETTINGS POWER-ON
 - INDOOR UNIT :
 - ✓ MODE "00 or 30" GROUP NUMBER DCS302B51
 - ✓ MODE "10~25" APPLICATION
 - ✓ MODE "44" INDIVIDUAL
BRC1A..GRP
 - OUTDOOR : PERFORMANCE SETTINGS

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FIELD SETTINGS POWER-ON

- OUTDOOR PROGRAM VRV-K INVERTER



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FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER

PUSH-BUTTONS AND THEIR FUNCTIONS

MODE	TEST	C/H SELECTOR IND. MASTERSLAVE			L.N.O.P.	SEQ. START	INDV OUT/C/H UNIT UNIT SELECT		For selection of cooling and heating. Reset addresses after wiring changes or when more indoor units are added to the system. Check if wiring is correct or no. To make field settings. Mode switching.
<input type="radio"/> H1P	<input type="radio"/> H2P	<input type="radio"/> H3P	<input type="radio"/> H4P	<input type="radio"/> H5P	<input type="radio"/> H6P	<input type="radio"/> H7P	SS1		

MODE BS1	SET BS2	RETURN BS3	WIRING CHECK BS4	RESET BS5
-------------	------------	---------------	---------------------	--------------

SETTING MODE

You can change the mode with the MODE button as shown below.

MONITOR MODE	PRESS ONCE	NORMAL OPERATION	PRESS ONCE	SETTING MODE 2
MODE <input type="radio"/> FLICKERING <input type="radio"/> H1P		MODE <input type="radio"/> LIGHT-OFF <input type="radio"/> H1P		MODE <input type="radio"/> LIGHT-UP <input type="radio"/> H1P

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FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER :

→ LEVEL 1 :

- ✓ COOL / HEAT
INDIV / MASTER / SLAVE
- ✓ LNOP
ACTIF / NON-ACTIF
- ✓ SEQUENTIAL START ACTIF / NON-ACTIF
- ✓ WIRING CHECK

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FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER

SETTING MODE 1 Keep settings within the shaded area on the right.

①	PROCEDURE	DESCRIPTION	MODE/TEST		C/H SELECT				L/L O.P.	SEL START	
			HP	HSP	HP	HSP	HP	HSP			HP
COOL/HEAT SETTING (HEAT PUMP UNIT ONLY)	Press the SET button until the LEDs of the setting INDL, MASTER or SLAVE1 you want start flickering.	For individually setting cool/heat from each outdoor unit on the system (Factory set) Master unit setting when uniting cool/heat selection for all outdoor units on the system. Slave unit setting when uniting cool/heat selection for all outdoor units on the system.	●	●	●	●	●	●	●	●	●
	Press the RETURN button to decide your setting. (The selected LED will light up)	Ex. Individual cool/heat selection (IND)	●	●	●	●	●	●	●	●	●
② L.N.O.P. LOW NOISE OPERATION POSITION	Press the SET button until the specified LED is either flickering or lighting off.	Low noise operation position ON =1 Low noise operation position OFF (Factory set)	●	●	●	●	●	●	●	●	●
	Press the RETURN button to decide your setting. (The selected LED will light up or light off)	Ex. Low noise operation position ON	●	●	●	●	●	●	●	●	●
③ SEQUENTIAL START	Press the SET button until the specified LED is either flickering or lighting off.	Sequential starting ON (Factory set) Sequential starting OFF	●	●	●	●	●	●	●	●	●
	Press the RETURN button to decide your setting. (The selected LED will light up or light off)	Ex. Sequential starting ON	●	●	●	●	●	●	●	●	●

CAUTIONS : A special wiring odoror is required where worked with =1. See the instruction manual provided with the odoror kit.
2. This setting is not possible for RSMYS.

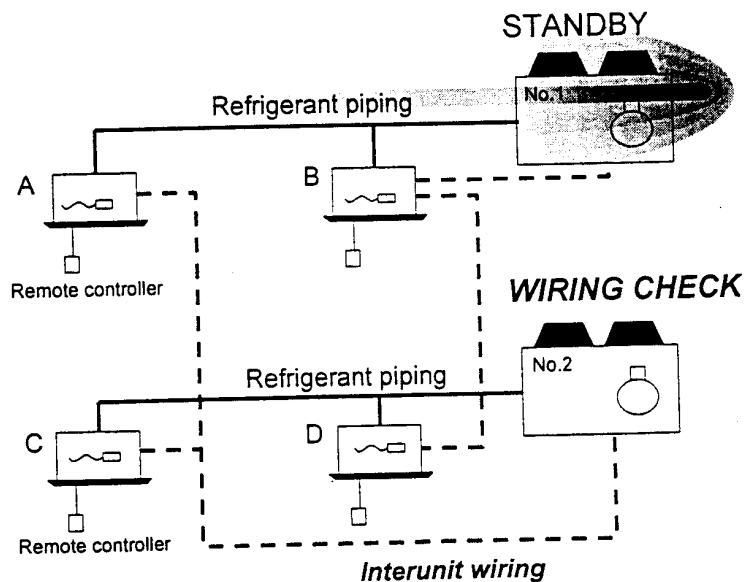
COOL/HEAT SETTING (HEAT PUMP UNIT ONLY) Change the setting only if selecting cooling/heating from the cool/heat selector.

ISS#	IND OUT/C/H UNIT UNIT SELECT	IND OUT/C/H UNIT UNIT SELECT
When selected from the remote controller.	■ SS1 (FACTORY SET)	■ SS1 when selected from the cool/heat selector.

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WIRING CHECK- ? WHAT ?



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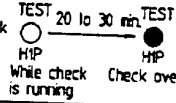
FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER

WRING CHECK To check if the indoor and outdoor units have been properly wired and the piping between them is properly constructed.

To prevent wrongful detection, if cooling or heating (heat pump unit only) was stopped within the last 72 hours, set all indoor units on the system you want to check to the fan mode and leave them running for about 60 minutes before starting the check.

- ① Check the number of connected indoor units from the monitor mode. (See below)
- ② Return to setting mode 1 and then hold down the WRING CHECK button for 5 seconds. This will start the check. The TEST led will stay lit while the check is running, and will go out when it is over.
- ③ After the check is completed, wait about 1 minute and then check again from the monitor mode, the number of connected indoor units. Check whether this number is the same as before or not. If not, the difference indicates the number of incorrectly wired units. Use the remote controller to locate the units (displayed as "UP") and rewire if necessary.



- CAUTIONS**
1. The LED starts flickering while the check is warning up, if the wiring check runs into trouble. In such case, hold the RESET button down for 5 seconds and try again from the beginning.
 2. Do not make other settings while running the wiring check.

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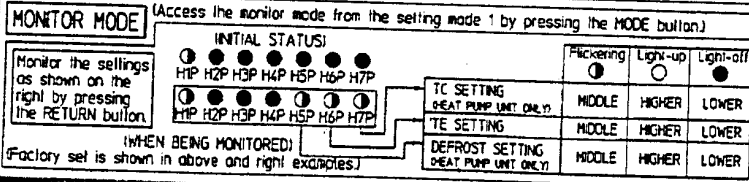
PAGE 6-29

WIRING CHECK - ? HOW ?

☞ MONITORING MODE : CHECK NUMBER OF INDOOR UNITS

HOW TO MONITOR THE NUMBER OF CONNECTED INDOOR UNITS

- ① Press the MODE button once and access the monitor mode.
- ② Press the SET button until the LED's appear as shown on the right.
- ③ Press the RETURN button once. The number of connected units will be displayed on the LED's as a binary number. (Ex. 7 units)
- ④ Press the Mode button once and return to the setting mode 1. (The example on the right shows the factory set.)



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WIRING CHECK - ? HOW ?

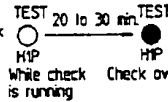
- ☞ MONITORING MODE : CHECK NUMBER OF INDOOR UNITS
- ☞ PUSH "WIRING CHECK" BUTTON



WIRING CHECK To check if the indoor and outdoor units have been properly wired and the piping between them is properly constructed.

To prevent wrongful detection, if cooling or heating (heat pump unit only) was stopped within the last 12 hours, set all indoor units on the system you want to check to the fan mode and leave them running for about 60 minutes before starting the check.

- ① Check the number of connected indoor units from the monitor mode. (See below)
- ② Return to setting mode 1 and then hold down the WIRING CHECK button for 5 seconds. This will start the check. The TEST led will stay lit while the check is running, and will go out when it is over.
- ③ After the check is completed, wait about 1 minute and then check from the monitor mode, the number of connected indoor units. Check whether this number is the same as before or not. If not, the difference indicates the number of incorrectly wired units. Use the remote controller to locate the units (displayed as "UF") and rewire if necessary.



- CAUTIONS**
1. The LED starts flickering while the check is warning up, if the wiring check runs into trouble. In such case, hold the RESET button down for 5 seconds and try again from the beginning.
 2. Do not make other settings while running the wiring check.

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WIRING CHECK - ? HOW ?

- ☞ MONITORING MODE : CHECK NUMBER OF INDOOR UNITS
- ☞ PUSH "WIRING CHECK" BUTTON : SYSTEM Ⓢ FOR STABLE INDOOR

⊕ ALL INDOOR FAN STARTS AUTOMATICALLY

⊕ INDOOR COIL °C : 3 READINGS Δθ LESS 1°C &

⊕ INDOOR [AIR - COIL °C] Δθ LESS 2°C

⊕ MEMORY ALL INDOOR COIL °C

⊕ START WIRING CHECK :

⊕ COMPRESSORS LOAD UP

⊕ INDOOR FAN-OFF

⊕ CHECK :

⊕ INDOOR COIL °C ↘ MINIMUM 8°C : START INDOOR FAN

⊕ FINAL CHECK :

⊕ DISPLAY "UF" IF INDOOR DETECTS ABNORMALITY

☞ MONITORING MODE : NUMBER INDOOR = NUMBER BEFORE TEST

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FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER :

– LEVEL 1 :

- COOL / HEAT INDIV / MASTER / SLAVE
- ✓ LNOP ACTIF / NON-ACTIF
- ✓ SEQUENTIAL START ACTIF / NON-ACTIF
- ✓ CROSS WIRING
- ✓ RESET

→ LEVEL 2 :

- ✓ Tc SET (HEATING) LOW / MEDIUM / HIGH
- ✓ Te SET (COOLING) LOW / MEDIUM / HIGH
- ✓ DEFROST EARLY / NORMAL / LATE

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FIELD SETTINGS POWER-ON

• OUTDOOR PROGRAM VRV-K INVERTER

SETTING MODE 2 Access setting mode 2 from setting mode 1 by holding down the MODE button for 5 seconds.

AFTER SETTING Mark your settings on the following table.

PROCEDURE	DESCRIPTION	LED's
① Press the SET button until the LED's of the setting (TE, TC or Defrost) you want light up.	TE SETTING Set LOW Pressure for cooling. TC SETTING HEAT PUMP UNIT ONLY Set HIGH Pressure for heating. DEFROST SETTING Set defrost temperature.	
② Press the RETURN button. The selected LED's will start flickering.	Ex. MODE	
③ Press the SET button until the LED's of the setting (MIDDLE, HIGHER or LOWER) you want start flickering.	MIDDLE (FACTORY SET) To Set HIGHER To Set LOWER	
④ Press the RETURN button to enter your setting.	Ex. MODE	
⑤ Press the RETURN button again and return the LED's to their initial state.		

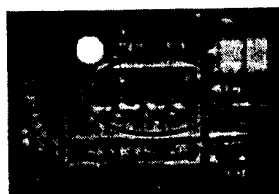
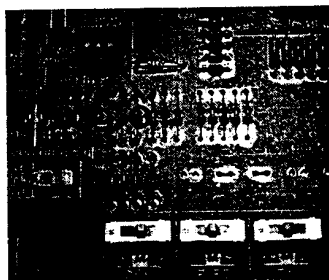
CAUTIONS
 1. If you get lost while making your settings, press the MODE button and return to setting mode 1.
 2. For unlisted settings, see the service manual.

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CHEKS AT POWER-ON

- OUTDOOR VRV-K HEAT RECOVERY:
 - CHECK BY DIP SWITCH :
 - ① NUMBER INDOOR UNITS ,
 - ② NUMBER BSV-UNITS ,
 - ③ NUMBER BSV-UNITS + COOLING-ONLY INDOOR
 - DISPLAY (BINARY) BY LEDS



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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
- DRAIN TEST : fill up drain-pan



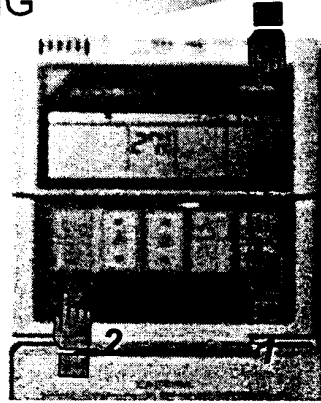
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FXYL(M)

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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
- DRAIN TEST
 - 1°/ select FAN-mode
 - 2°/ select "TEST"
 - 3°/ start indoor unit
drain pump starts !



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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
- DRAIN TEST
- CHECK PERFORMANCE SYSTEM
 - 1°/ OPERATE IN **COOLING ± 5 MINUTES**
 - 2°/ OPERATE INDOOR Nr.1 → Nr.16 ;
 - ✓ CHECK θ COIL & θ GAS = MODE 41 : VERIFIE
 - ☆ SUPERHEAT CONTROL (COOLING) ,
 - ☆ SUBCOOL CONTROL (HEATING) .

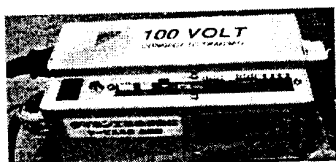
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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
- DRAIN TEST
- CHECK PERFORMANCE SYSTEM

INTERFACE type "1"



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Tranfomer



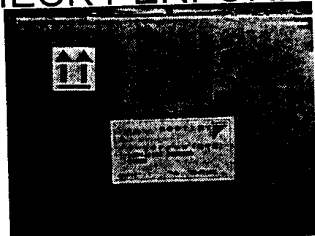
Computer "NEC"



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START UP VRV K-serie

- CAUTIONS FIELD PIPING
- FIELD SETTINGS
- DRAIN TEST
- CHECK PERFORMANCE SYSTEM



INTERFACE type "2"

DAIKIN

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