Contents

7. PCB AND FUNCTIONS

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1. Outdoor Unit Control PCB

1-1. Outdoor Unit Control PCB
ACXA733656*
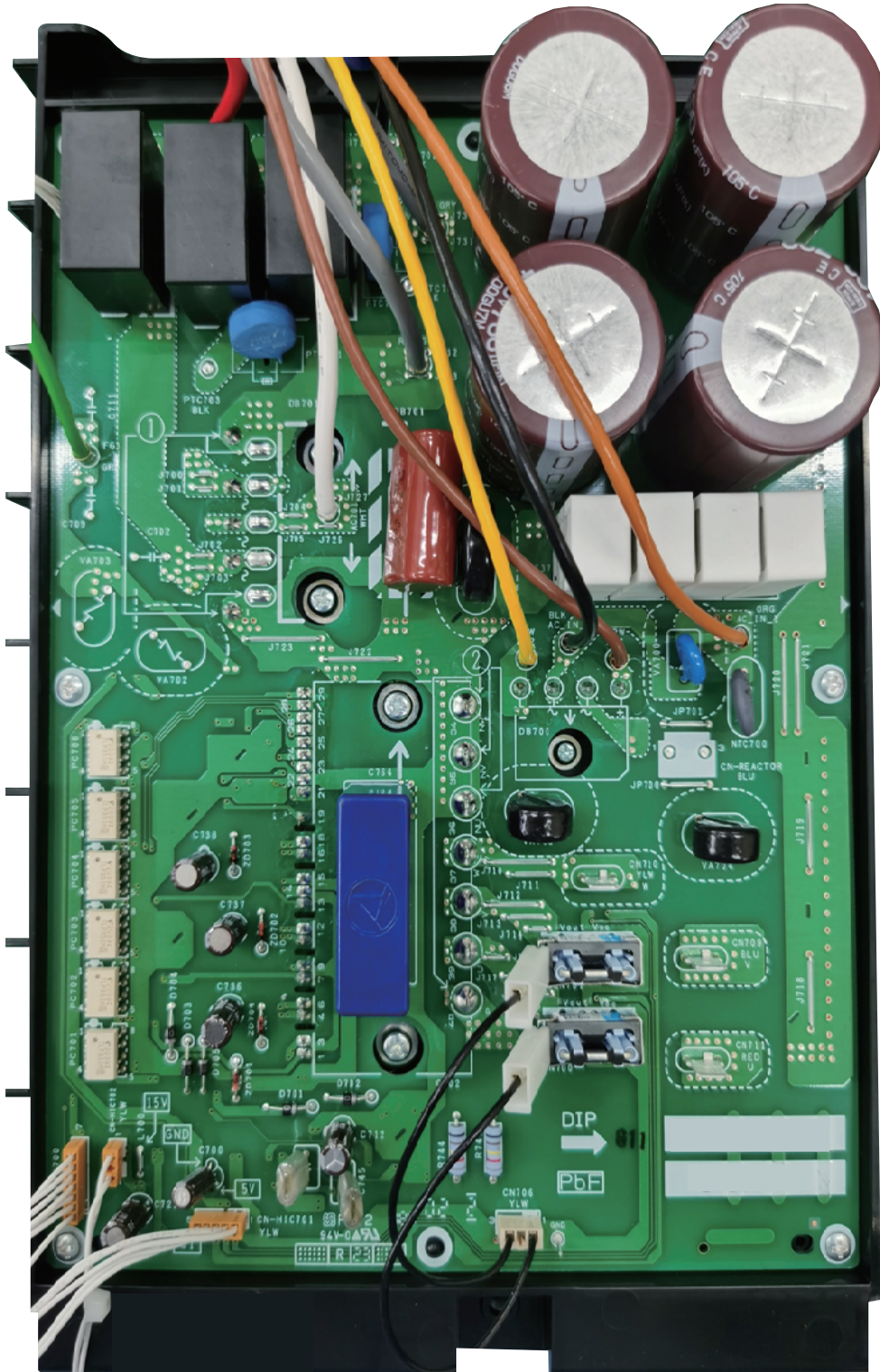
1. Outdoor Unit Control PCB

1-2. Outdoor Unit HIC PCB
ACXA73C6415* (ACXA73-3657*)

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1. Outdoor Unit Control PCB

1-3. Functions

A. ADD pin (2P, Black)	Auto address setting pin • Short-circuit this pin for 1 second or longer to automatically set the addresses at the indoor units that are connected to that outdoor unit and are within the same system. • The system address is "1" at the time of shipment. Auto address setting is necessary even for communications lines in a single system where the inter-unit control wiring does not cross to any other systems. • While auto address setting is in progress, the 2 LEDs (LED1, 2: Red) on the outdoor unit control PCB blink alternately. (Short-circuiting this pin while auto address setting is in progress will stop the auto address setting operation.)
SW1 DIP switch (2P, Black)	Switches for setting system address 10s digit and 20s digit • If 10 systems or more are set, the setting is made by a combination of this DIP switch and S002. • If 10 - 19 systems are set, set switch 1 (10s digit) to ON. • If 20 - 29 systems are set, set switch 2 (20s digit) to ON, and set switch 1 (10s digit) to OFF. • If 30 systems are set, set both switch 1 (10s digit) and switch 2 (20s digit) to ON. (For details, see Table 7-1.)
SW2 Rotary switch (10 positions, Yellow)	Outdoor system address setting switch • The setting is "1" at the time of shipment. It is not necessary to change the setting if wiring is connected only to an outdoor unit and indoor units in a single system and the inter-unit control wiring does not cross multiple systems. • If wiring links the inter-unit control wiring for multiple systems to the same communications lines, then a different address must be set for each refrigerant tubing system. • If wiring links multiple systems, a maximum of 30 systems (up to 64 indoor units) can be connected. This setting can be set up to "39," however control will be for 30 systems even if the setting is set to higher than 30. An alarm will be displayed if system addresses are duplicated. (For details, see Table 7-1.)
SW3 DIP switch (1P, Black)	Switches for setting the 10s and 20s digit for the number of connected indoor units • If 10 systems or more are set, the setting is made by a combination of this DIP switch and SW4. • If 10 - 15 units are set, set only switch 1 (10s digit) to ON. (For details, see Table 7-2.)
SW4 Rotary switch (10 positions, Red)	Switch for setting the number of connected indoor units. In order to allow the outdoor unit to manage indoor units in the same refrigerant system, set the number of connected indoor units. (For details, see Table 7-2.)

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1. Outdoor Unit Control PCB

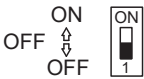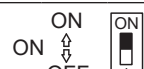|	
CN-TERMINAL pin (3P, Black)	For communications circuit impedance matching • A connecting socket (3P, Black) is attached to the terminal plug at the time of shipment from the factory. • In the case of link wiring which combines the inter-unit control wiring for multiple systems into a single communications circuit, When using, refer to the item "4. Auto Address Setting" under the section "5. TEST RUN" in the Service Manual & Test Run Service Manual.
LED1, 2 (2P, Red)	• LED 1 and 2 blink alternately while auto address setting is in progress. • Display the alarm contents for alarms which were detected by the outdoor unit.
RUN pin (2P, Black)	Start pin Short-circuit this pin and apply a pulse signal to start all indoor units in that refrigerant system.
STOP pin (2P, Black)	Stop pin Short-circuit this pin and apply a pulse signal to stop all indoor units in that refrigerant system.
AP pin (2P, Black)	Vacuuming pin • To perform vacuuming of the outdoor unit, short-circuit this pin and then turn the power ON. All solenoid valves turn ON and vacuuming begins smoothly. (Do not perform auto address setting at this time.) • Release the short-circuit to return the unit to normal status.
MODE pin (3P, Black)	Indoor unit Heating/Cooling mode change pin • During the summer season, short-circuit this pin in the cooling mode. Then, perform auto address setting. When auto address setting is completed, release the short-circuit to return the unit to normal status. • When cooling mode is short-circuited, only cooling operation can be used. • When heating mode is short-circuited, only heating operation can be used.
TEST pin (2P, Black)	• This pin is used to test the PCB at the factory. • When the power is turned ON after this pin has been short-circuited, all output signals will be output in sequence. (Sequential output does not occur if this pin is short-circuited when the power is already ON.) Releasing this pin returns the unit to normal control.
CHK pin (2P, Black)	When short circuited, test run begins. (If the remote controller is connected in test run mode, it is automatically cancelled after 1 hour.) Also, if short-circuit is cancelled, test run mode is cancelled.
DEF pin (2P, Black)	When the pin of the main unit is short-circuit in heating mode, defrosting operation is started. Even if short circuited, defrosting will not be activated immediately.
SILENT plug (2P, White)	Can be used when setting the outdoor unit fan in sound absorbing mode.
SA1 (Surge absorber)	If "TO INDOOR UNIT" accidently connected to high voltage, use the following method. 1. Replace the wire CN-OC with the wire CN-EMG. 2. Cut off SA1.

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1. Outdoor Unit Control PCB

Table 7-1

● **Examples of refrigerant circuit (R.C.) address settings (required when link wiring is used) (SW1, SW2)**

System address No.	System address (SW1) (2P DIP switch) 10 20		System address (SW2) (Rotary switch)
System 1 (factory setting)	Both OFF		Set to 1
System 11	1 ON		Set to 1
System 21	2 ON		Set to 1
System 30	Both ON		Set to 0

Table 7-2

● **Examples of the number of indoor units settings (SW3, SW4)**

Number of indoor units	Indoor unit setting (SW3) (1P DIP switch) 10		Indoor unit setting (SW4) (Rotary switch)
1 - 9 unit (factory setting : 1 unit)	OFF		Set to 1 - 9
10 - 16 unit	ON		Set to 0 - 6

The sub unit control P.C. board contains the same switches as the main unit control P.C. board for the number of indoor units, and system address. However it is not necessary to set these switches.

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