

# 11. DIII-NET Expander Adaptor

## 11.1 DTA109A51

**Accessories** Check the following accessories are included in the kit before the installation

PCB support	× 4
Clamp	× 3
Installation Manual	× 1

**NOTE** This adaptor does not apply to salt damage resistance.

**1 General description of system**

The adaptor allows easy system expansion as long as restrictions are observed.

1. The below systems can be controlled on the Super Wiring System when using the adaptor.

(1) Up to 1024 units can be centrally controlled in 64 different groups. (2) Wiring restrictions (max. length: 1000m, total wiring length: 2000m, max. number of branches: 16) apply to each adaptor.

(With 2 central remote controllers, up to 1024 units can be controlled in 128 groups.)

Restrictions on the number of units that can be connected to the Super Wiring System apply to each adaptor.

The adaptor

Max  
Indoor unit  
128 units  
Outdoor unit  
10 units

Max  
Indoor unit  
128 units  
Outdoor unit  
10 units

A maximum of 128 indoor units and 10 outdoor units can be connected in each group B and C.

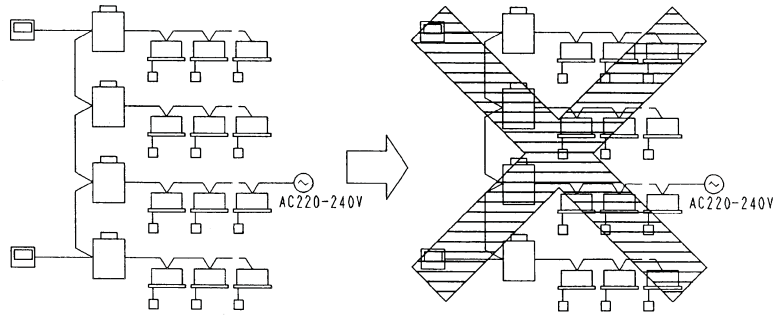
The adaptor

Each group A, B and C can have a maximum wiring length of 1000m, total wiring length of 2000m and a maximum 16 branches.

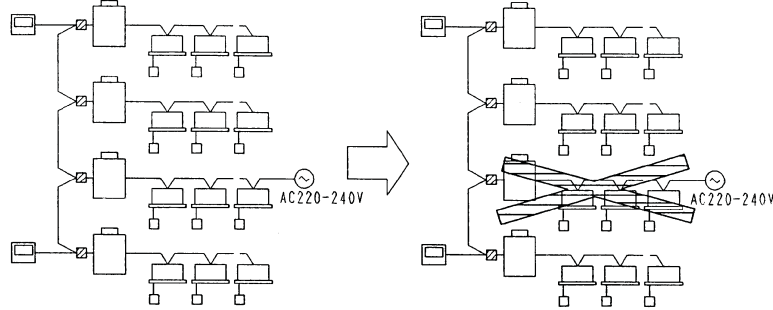
C: 1P013360

(3) Setups risky for centralized control systems are possible.

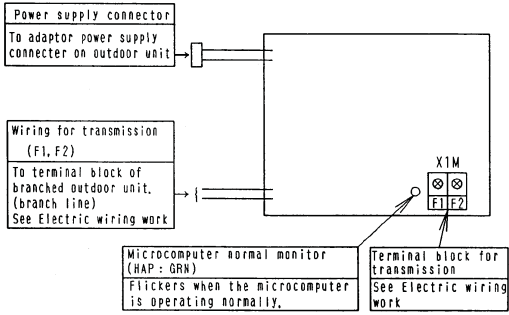
**Conventional System** Misswiring such as apply 220-240V to circuits could possibly shut down the entire system.



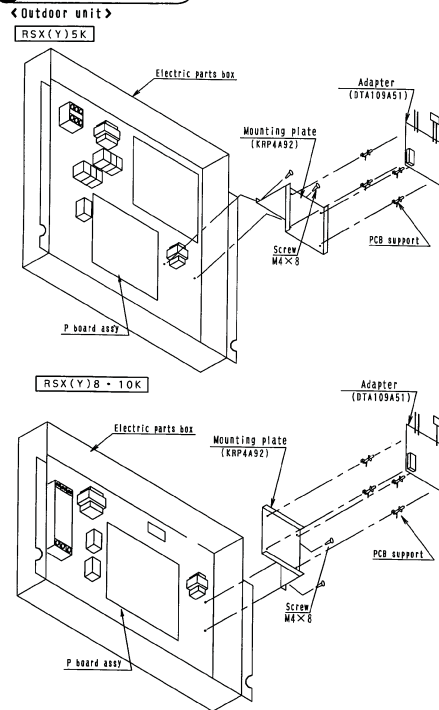
**With the adaptor** Should trouble occur, only units below the adaptor are shut down. Thus, it is possible to avoid a total system shutdown.



**2 Names of parts and functions**



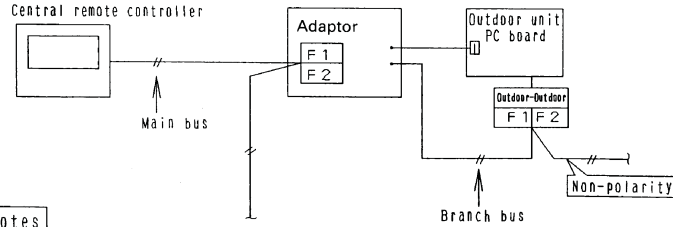
**3 Installation**



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### 4 Electric wiring work

- (1) Connect the wire from the adaptor to the adaptor power connector on the outdoor unit's PC board.  
(For connector Nos., see the electric wiring diagrams for the indoor and function units.)
- (2) Connect transmission wires between outdoor units (Outdoor-Outdoor terminal board).
- (3) Wire transmission wires to terminal boards as shown below.

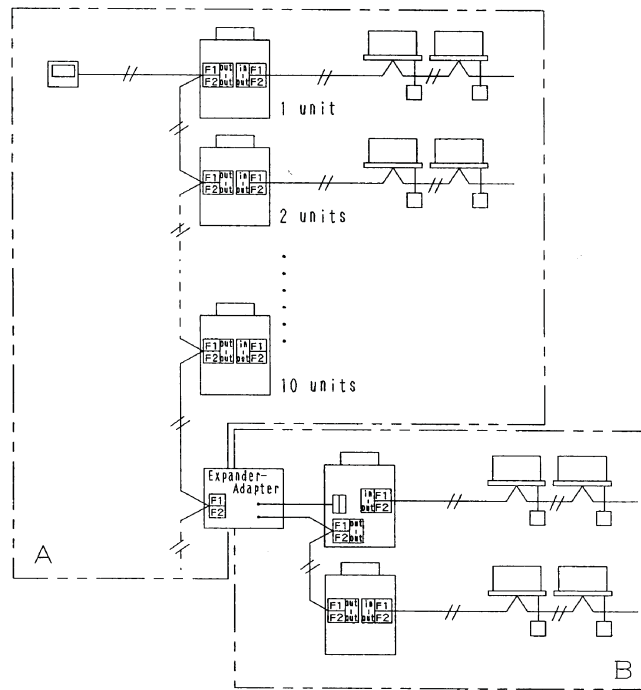


#### Notes

- (Transmission wiring specifications)
- 0.75~1.25mm<sup>2</sup> sheathed wire (2 wire).
- (Transmission wiring length)
- Observe the following limits on transmission wires. The limits apply to each adaptor. If you exceed the limits, it may cause malfunction.
  - (Total length: 2000m)
  - (Max. length---1000m)
  - (Max. number of branches: 16)
- At least one outdoor unit and one optional controller for centralized control are required for every main bus and branch bus.
  - Up to 8 adaptors can be connected in one system.
  - Do not locate adaptors downstream of other adaptors (i.e. : on a branch bus).
  - If not used with a central control device, the expander adaptor cannot be used with the wiring adaptor for electrical appendices (KRP2A) or the schedule timer (DST301B51).
  - The external control adaptor for outdoor units controls group cooling and demand for each adaptor. (Anything beyond the expansion control falls outside the control domain.)
  - Do not turn the system ON/OFF rapidly from the optional controller for centralized control. This can cause temporary erroneous displays.
  - Sequential starts is controlled by each expander adaptor.

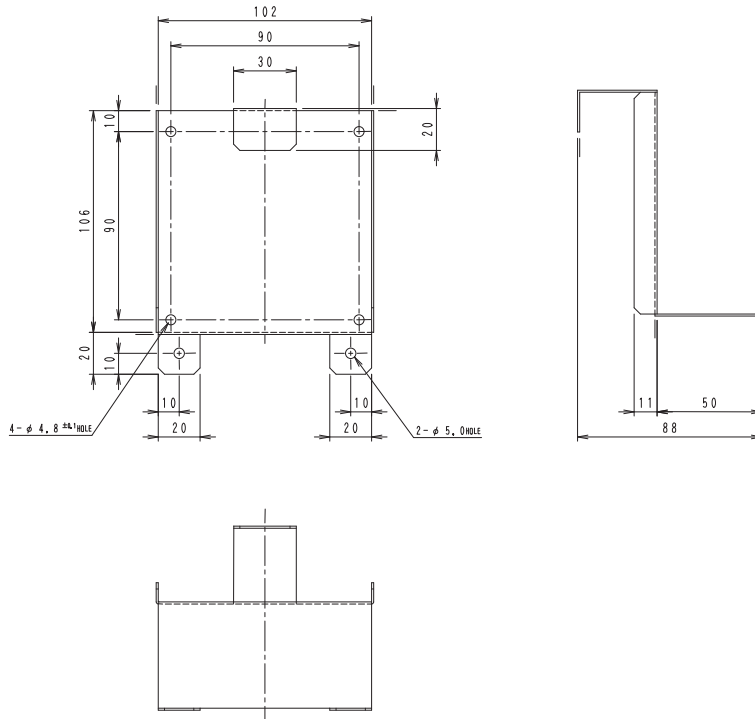
### 5 Wiring example

System with more than 10 outdoor units.



Note Wiring restrictions (see "Electric wiring work") apply to each group A and B.

KRP4A92 - Fixing Plate for DTA109A51



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11.1 DTA109A51

NOTE) CHAMFERS OF CORNERS NOT SPECIFIED : C3. 3P022630A