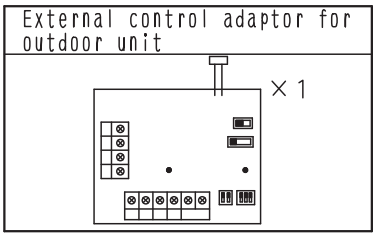
9. External Control Adaptor for Outdoor Unit

9.1 DTA104A61 / DTA104A62 / DTA104A53

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

External control adaptor for outdoor unit × 1



PCB support	× 4
Clamp	× 3
Installation manual	× 8

NOTES

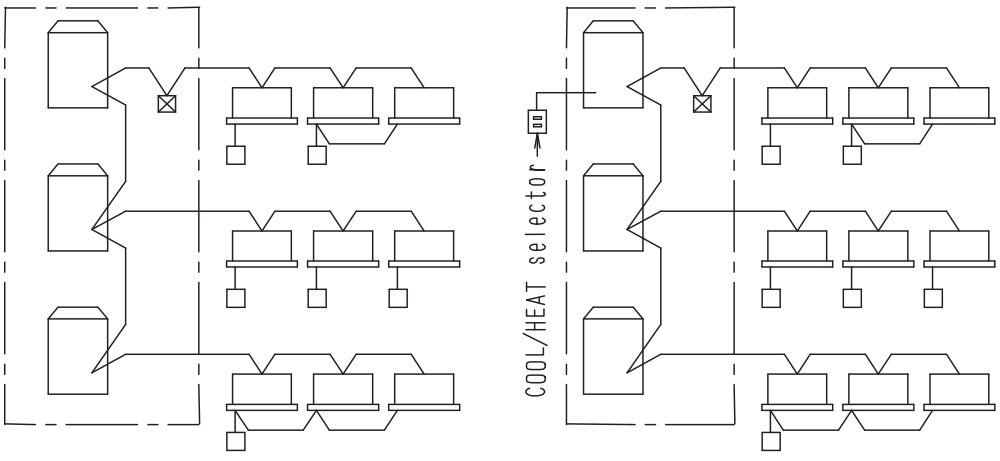
- The kit type (DTA104A61・51 type, DTA104A62・52 type, DTA104A53 type)varies according to air conditioner model.
- The installation box for adaptor PCB are required with the following air conditioner models.

FXC(Q) KRP1B96
FXFQ-P KRP1H98
FXF, FXFQ-M KRP1D98
FXH(Q) KRP1C93
FXA(Q) KRP4A93
FXD(Q) KRP1B101
FXMQ-P KRP4A96

1 General description of system

With the external control adaptor, outdoor units are controlled as follows.
1. Operation mode (COOL/HEAT/FAN)is switched simultaneously for more than one outdoor unit.
   - If switching operation mode by indoor unit remote controller or COOL/HEAT selector.
   - Except RSEY(P)～KJ

☒ External control adaptor for outdoor unit
□ Indoor unit remote controller

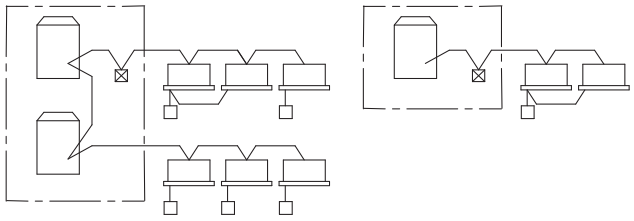


You can simultaneously switch operation mode for outdoor units in [ ].

C: 1PA63164D

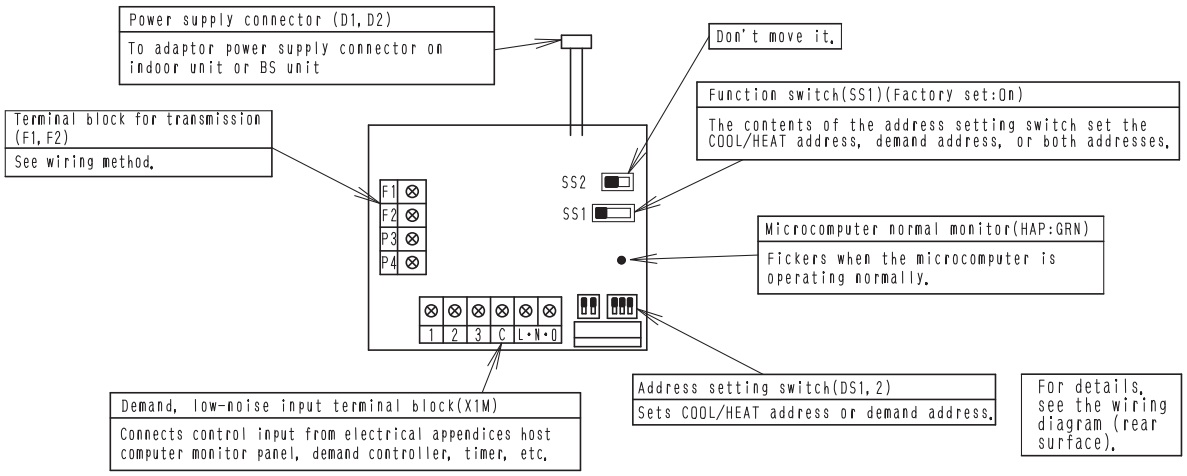
2. Demand control and low-noise control are executed simultaneously for more than one outdoor unit.

• Except RSEY(P)~KJ



Demand control and low-noise control are executed simultaneously for outdoor units in [ ]

2 Names of parts and functions



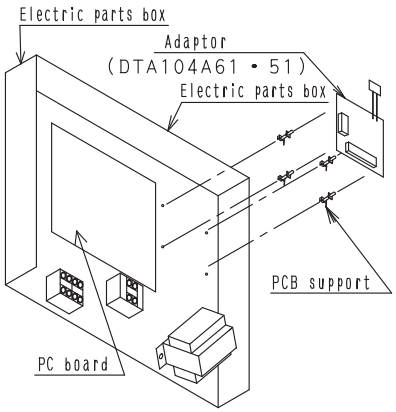
C: 1PA63164D

❸ Installation

- Install the adaptor inside the electric parts box of indoor unit of same refrigerant circuit.
- If installing on a BS unit, install the adaptor inside the electric parts box of the BS unit.

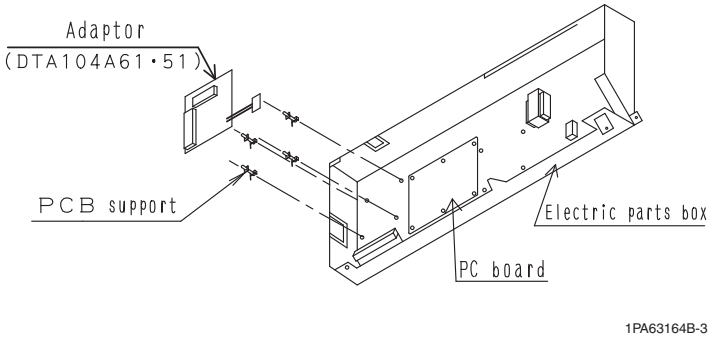
《BS Unit》

BSV(Q)



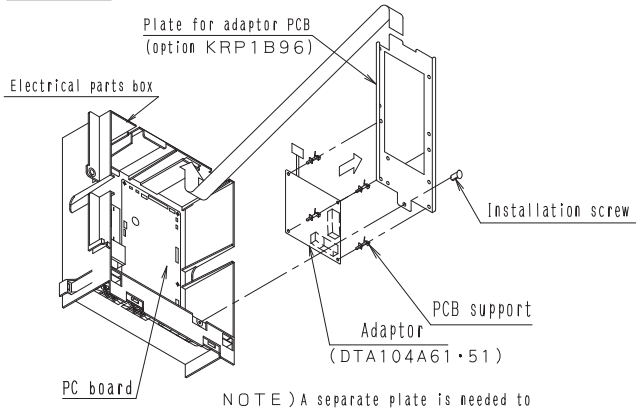
《 Ceiling-mounted cassette type 》

FXK(Q) (Corner model)



《 Ceiling-mounted cassette type 》

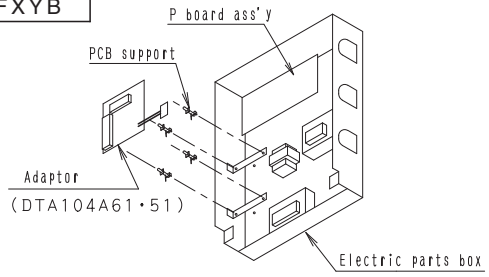
FXC(Q) (Double-flow model)



NOTE) A separate plate is needed to install the adaptor PCB.

《 Ceilling-mounted Built-in type》

FXS(Q)
FXYB



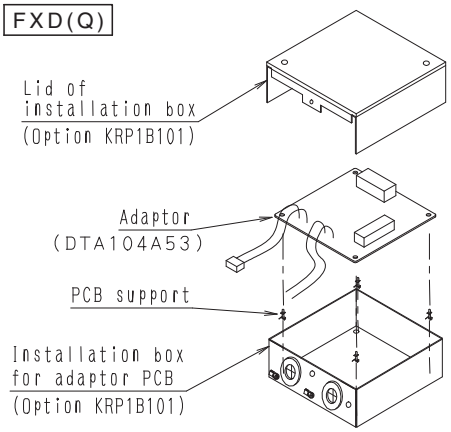
Note :
Installation box is necessary for second adaptor (FXS) .

《 600x600 Ceilling mounted cassette type 》

<Slim ceiling mounted duct type>

FXZQ

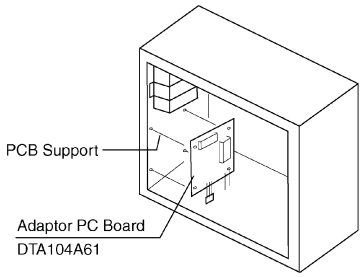
FXD(Q)



NOTE :Installation box for adaptor PCB is required to install the adaptor.

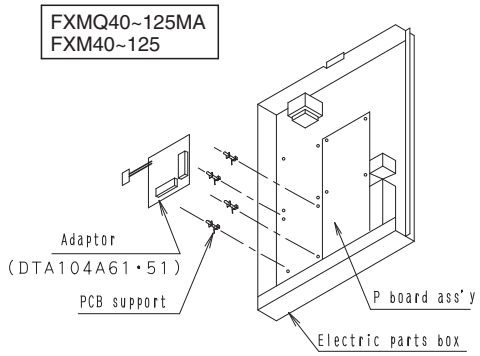
《Ceiling Mounted Duct Type 》

FXYD-KA

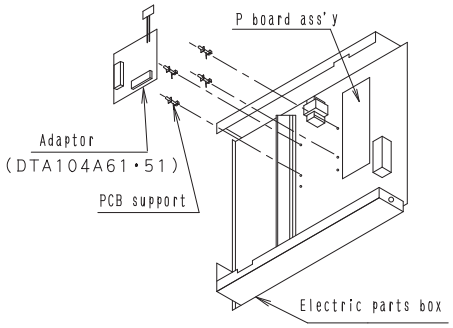


《 Ceilling - mounted Duct type 》

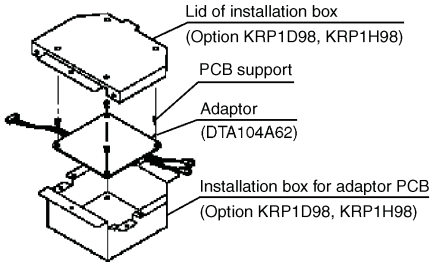
FXMQ40~125MA
FXM40~125



FXM(Q)200 · 250



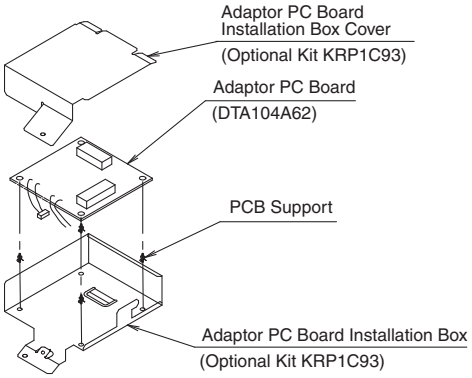
FXF(Q)



Note:
Installation box for adaptor PCB is required to install the adaptor.

《 Ceiling Suspended type 》

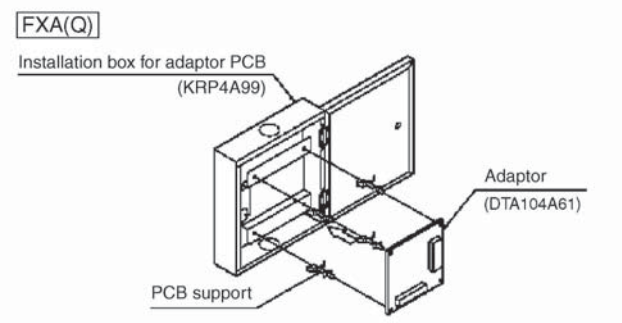
FXH(Q)



Note:
For installation, the optional kit of adaptor PCB installation box is required.

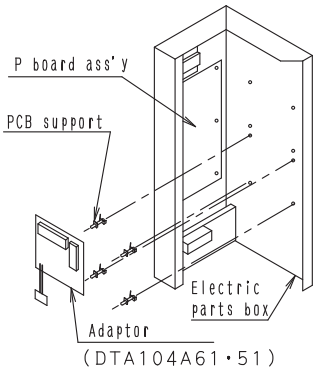
《 Wall mounted type 》

FXA(Q)



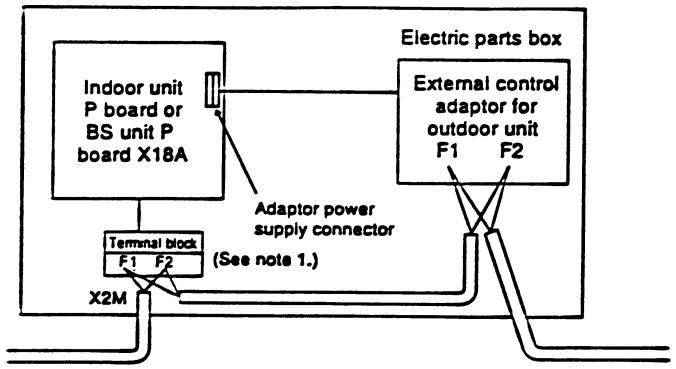
《 Floor-standing type 》

FXL(Q)
FXN(Q)



④ Electrical wiring

① Connect the power supply wiring from the adaptor to the adaptor power supply connector on the PCB of the Indoor unit or BS unit.
② Connect the transmission wiring to the various terminal blocks, and to the F1 and F2 terminals on the PCB. (Use double-core wiring with no polarity.)
③ Using the attached wiring ties, clamp the transmission wiring to weak field wiring, etc.



Note 1: If mounting on a BS unit, connect the BS unit's terminal block (F1 and F2, indoor unit side) with F1 and F2 of the adaptor.

NOTES

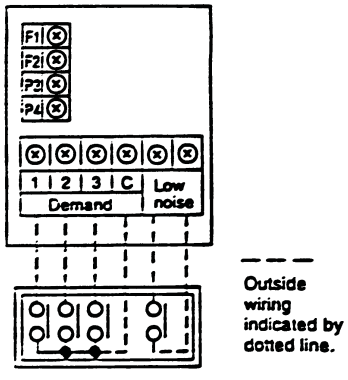
- (Transmission wiring specifications)

Sheathed wire
(2 wire)
0.75 ~ 1.25 mm²

- (Transmission wiring length)

Malfunction of transmission may occur if the following limits are exceeded.
(Total wiring length: Max. 1000 m
No. of branches: Max. 16)

④ If carrying out demand or low-noise input, connect the adaptor's terminals as shown below.



Host computer monitor panel or demand controller

(B0137)

[Input signal]
Constant a contact
Input current is approx. 10 mA per contact.
For the relay contact, use a weak current contact.

[Outside wiring specifications]
Recommended wiring: 0.75-2 mm^2 sheathed wire
Wiring length: Within 150 m
Keep a minimum 50 mm from power supply wiring to prevent malfunction.

Demand input terminal
Short circuit between (Demand 1) - (C)...As a guideline, demand should be about 70%.
Short circuit between (Demand 2) - (C)...As a guideline, demand should be about 40%.
Short circuit between (Demand 3) - (C)...Forced thermo OFF

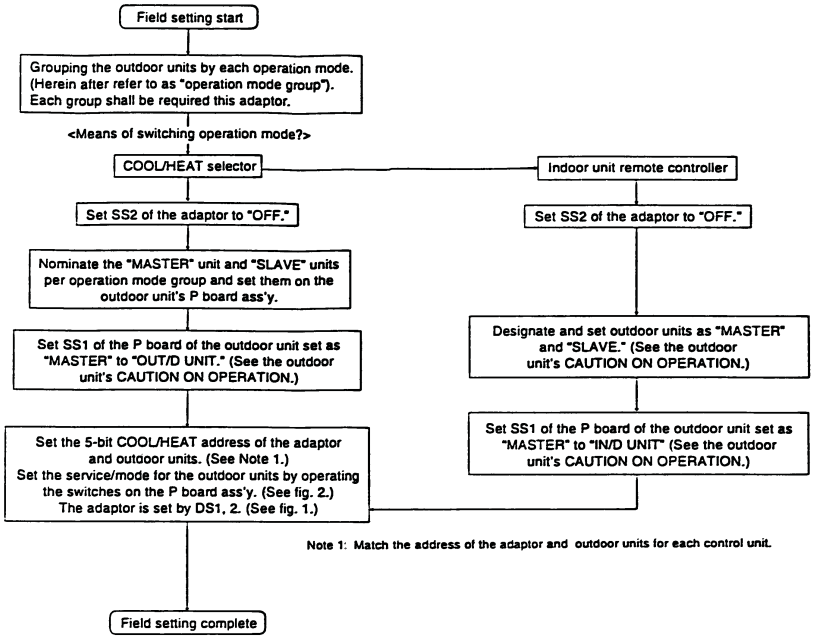
Low-noise input terminal
When terminals are short-circuited during cooling, capacity save (outdoor unit fan low-speed turn, compressor frequency control) is carried out.
use only at night when load is slight.

How to set demand control in the field
1. Outdoor unit field setting
- Setting mode 1...Turn ON low noise control as explained in the outdoor unit's service manual.
- Setting mode 2...Match low noise and demand addresses to the external control adaptor address.
2. External control adaptor settings
- Function switch (SS1)
  Set SS1 to either "BOTH" or "DE".
- Address setting switch (DS1,DS2)
  Match DS1 and DS2 to the low noise and demand addresses of the outdoor unit.

5 Field settings

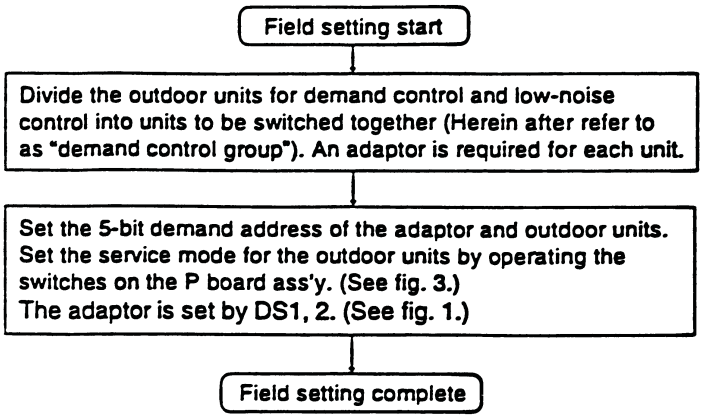
1. The contents of the various settings for unified switching of the operation mode (cool, heat, fan) are as follows.

Setting switches cannot be switched unless the power is turned on. Be sure, therefore, to turn the power off after switching the switches.



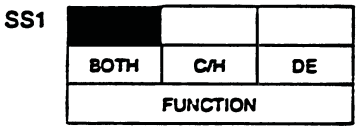
(B0138)

2. The contents of the various settings for unified switching of demand and low noise operation are as follows.



3. To carry out operation mode switching and demand control simultaneously

You can carry out operation mode switching and demand control simultaneously by setting function switch SS1 on the adaptor to "BOTH." Only one address, however, can be set on the adaptor, so the "operation mode switch unit" and "demand control unit" are the same.



Factory set to "BOTH."

Set the COOL/HEAT address, demand address and low noise address, or both as needed.


Left (BOTH)


Middle (C/H)

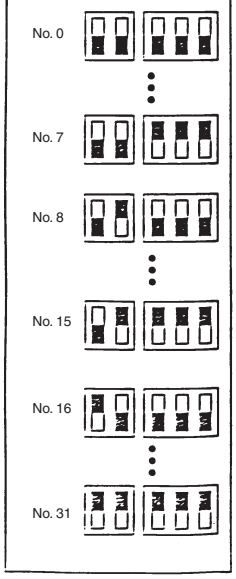

Right (DE • LOW NOISE)

Note 2: The outdoor unit can have an independent "COOL/HEAT address" and "demand address". You can therefore set the "operation mode group" and "demand control group" to different ranges.

(B0139)

Fig. 1 Setting of 5-bit cool/heat address by DS1,2

Designate and set cool/heat addresses 0-31 for each operation mode switch unit.



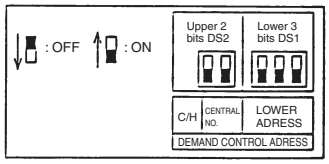


Fig. 2 (Ex.) To set the outdoor unit's cool/heat address to No. 15 :

●—Off ○—On ◑—Flicker

Procedure	Setting contents	MODE	TEST	5-bit C/H SELECT IND	5-bit C/H SELECT MASTER	5-bit C/H SELECT SLAVE	5-bit L.N.O.P.	5-bit SEQ. START
When power turned on	Setting mode (factory set)	● LED20	● LED21	○ LED22	● LED23	● LED24	● LED25	○ LED25
Hold down next page button for 5 secs.	Enters address setting.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push operation button one time.	Enters cool/heat address setting.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	○ LED25
Push confirmation button one time.	Make sure cool/heat address has been entered.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push operation button 15 times. (Address No. = Times pushed)	Sets cool/heat address.	○ LED20	● LED21	● LED22	◑ LED23	◑ LED24	◑ LED25	◑ LED25
Push confirmation button two times.	Check cool/heat address.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push next page button one time.	Returns to set mode.	● LED20	● LED21	○ LED22	● LED23	● LED24	● LED25	○ LED25

Fig. 3 (Ex.) To set the outdoor unit's demand address to No. 7 :

●—Off ○—On ◑—Flicker

Procedure	Setting contents	MODE	TEST	5-bit C/H SELECT IND	5-bit C/H SELECT MASTER	5-bit C/H SELECT SLAVE	5-bit L.N.O.P.	5-bit SEQ. START
When power turned on	Setting mode (factory set)	● LED20	● LED21	○ LED22	● LED23	● LED24	● LED25	○ LED25
Hold down next page button for 5 secs.	Enters address setting.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push operation button two times.	Enters demand address setting.	○ LED20	● LED21	● LED22	● LED23	● LED24	○ LED25	● LED25
Push confirmation button one time.	Make sure demand address has been entered.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push operation button 7 times. (Address No. = Times pushed)	Sets demand address.	○ LED20	● LED21	● LED22	● LED23	◑ LED24	◑ LED25	◑ LED25
Push confirmation button two times.	Check demand address.	○ LED20	● LED21	● LED22	● LED23	● LED24	● LED25	● LED25
Push next page button one time.	Returns to set mode.	● LED20	● LED21	○ LED22	● LED23	● LED24	● LED25	○ LED25