

Daikin Air Conditioner

Wiring adaptor for electrical appendices (DS-NET adaptor) Installation manual DAT113B51 Personal Home Use

1P150219-1A

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained. Also, inform customers that they should store this installation manual along with the operation manual for future reference. This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.

WARNING Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
NOTE Indication situation that may result in equipment or property-damage-only accidents.

WARNING

Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine by yourself.

Improper installation may result in water leakage, electric shocks or fire.

Perform installation work in accordance with this installation manual.

Improper installation may result in water leakage, electric shocks or fire.

Be sure to use only the specified accessories and parts for installation work.

Failure to use the specified parts may result in water leakage, electric shocks, fire or the unit falling.

Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.

Improper installation work may result in the equipment falling and causing accidents.

Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.

An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.

Make sure that all wiring is secured, the specified wires are used, and no external forces act on the terminal connections or wires.

Improper connections or installation may result in fire.

When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the electric parts box lid can be securely fastened.

Improper positioning of the electric parts box lid may result in electric shocks, fire or the terminals overheating.

Before touching electrical parts, turn off the unit.

Ground the air conditioner. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.

Incomplete grounding may result in electric shocks.

When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air.

Do not reconstruct or change the settings of the protection devices.

If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may result.

Do not touch the switch with wet fingers.

Touching a switch with wet fingers can cause electric shock.

Install an leak circuit breaker, as required.

If an leak circuit breaker is not installed, electric shock may result.

Do not install the air conditioner or the remote controller in the following locations:

(a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen.

Plastic parts may deteriorate and fall off or result in water leakage.

(b) where corrosive gas, such as sulfuric acid gas, is produced.

Corroding copper pipes or soldered parts may result in refrigerant leakage.

(c) near machinery emitting electromagnetic waves.

Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.

(d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.

Operating the unit in such conditions may result in fire.

CAUTION

Be very careful about product transportation.

Safely dispose of the packing materials.

Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.

Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

NOTE

Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.

(Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)

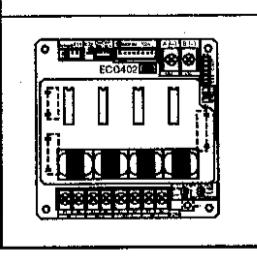
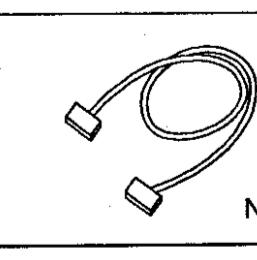
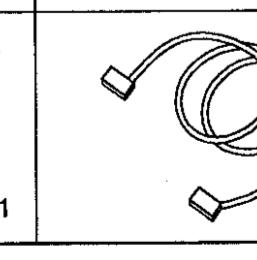
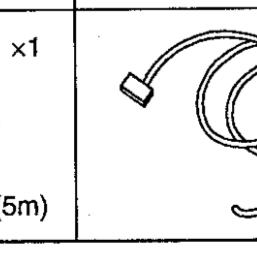
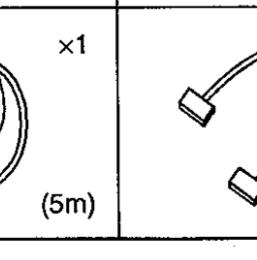
Remote controller (wireless kit) transmitting distance can result shorter than expected in rooms with electronic fluorescent lamps.

(inverter or rapid start types)

Install the indoor unit as far away from fluorescent lamps as possible.

1 ACCESSORIES

Check if the following accessories are included in the kit.

Adaptor	Relaying wire harness			
	(1) for the power source	(2) for connecting Modem	(3) for connecting control input of forced start/forced stop	(4) D-SUB 25→15 changer
	x1		x4	
		NOTE1		
PC board support	x4		x1	
Installation manual	x1	(5m)	(5m)	(0.15m)
SMS Command List	x1			

NOTE1

- Relaying wire harness inside the power source depends on the type of the indoor unit to which this kit is to be equipped. (The following table indicates the type of harness to be used.)
- Each of the four (4) pieces of harnesses for the power source contained has each different length, only one of which is to be used.
- Each of the four (4) pieces of harnesses for the power source is marked "A", "B", "C" and "D" for identification purpose on its connector area.

NOTE2

- Kits vary according to applicable models.
- A special adaptor fixing plate and box are required for the following models.

Personal Home Use

Model name of the indoor unit to which this kit is to be equipped	Installation box for adaptor	Harness for the power source to be used
Marking	Harness length (mm)	
FA-F	—	A 500
FAY-F	—	A 500
FAY-FA	—	A 500
FAYP-B	—	A 500
FHK-F	—	A 500
FHYK-FJ	—	A 500
FHY(B)-F	KRP1B97	A 500
FHB-F	KRP1B97	A 500
FAY-L	KRP4A93	A 500
FHY(B)-B	KRP1C93	B 800
FHY(B)	KRP1C93	B 800
FV(Y)-LA	KRP4A95	B 800
FFQ-BV1B	KRP1B101	C 1150
FUY-FJ	KRP1B97	C 1150
FUYP-B	KRP1B97	C 1150
FHY(C)-K	KRP1B98	C 1150
FHYCP-D	KRP1D98	C 1150

Professional Multiple Use

Model name of the indoor unit to which this kit is to be equipped	Installation box for adaptor	Harness for the power source to be used
Marking	Harness length (mm)	
FXK	—	A 500
FXKO	—	A 500
FXL(Q), FYLYP, FXN(Q), FYLYMP	—	A 500
FXM(Q)200-250, FYXMP200-250	—	A 500
FXM(Q)40-125, FYXMP40-125	—	A 500
FXS(Q), FYXSP, FYXB	—	A 500
FXYA	—	A 500
FXD-KA	KRP1B96	A 500
FXC(Q), FYXCP	KRP4A93	A 500
FXA(Q)	KRP4A93	A 500
FXY(H), FYXHP	KRP1C93	B 800
FFQ, FXZQ	KRP1B101	C 1150
FXP(Q)	KRP1D98	C 1150
FXD(Q)	KRP1B101	D 1900

4 INSTALLATION

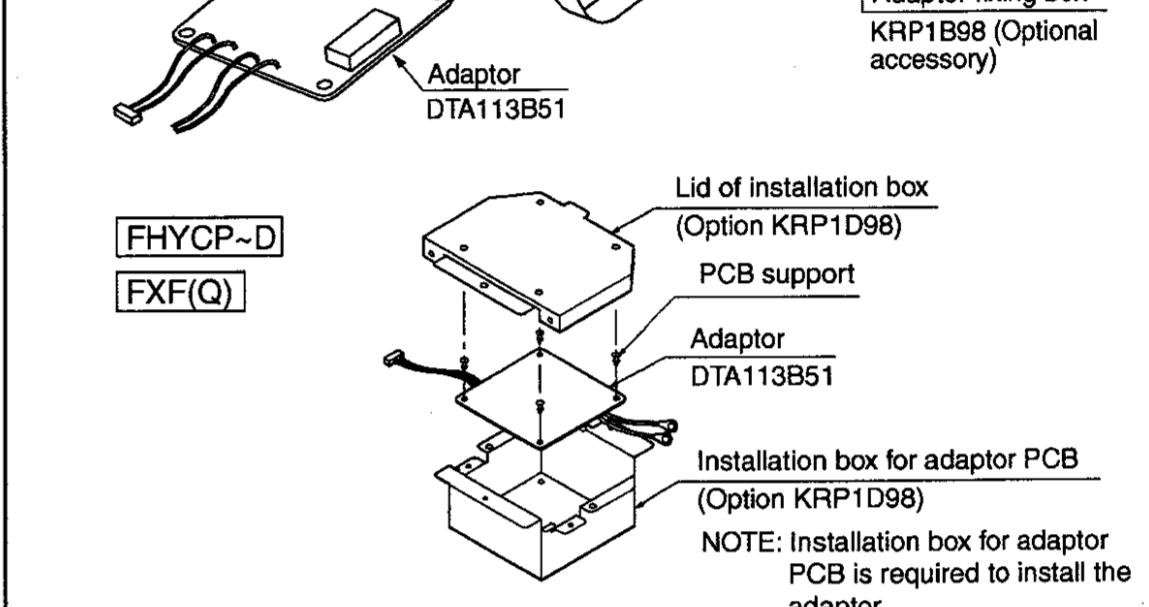
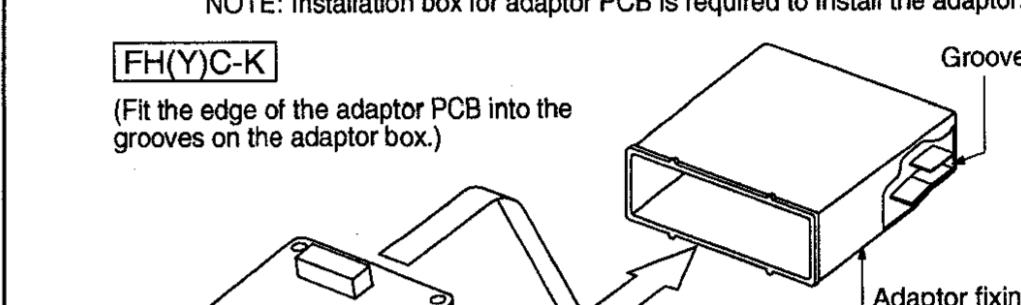
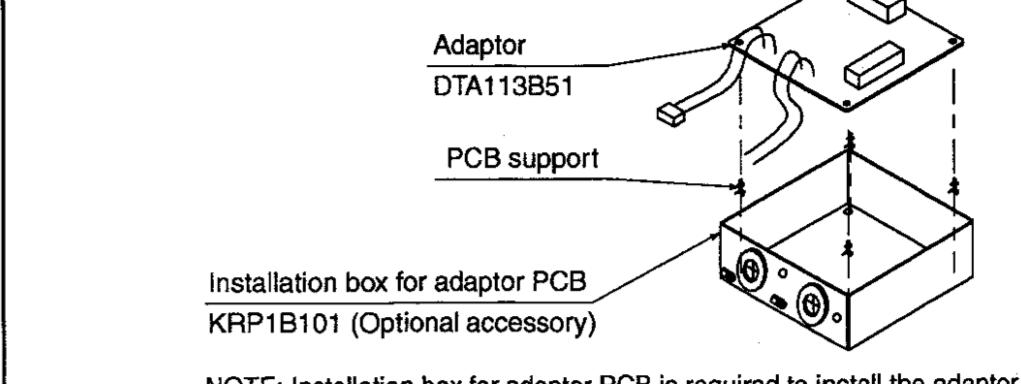
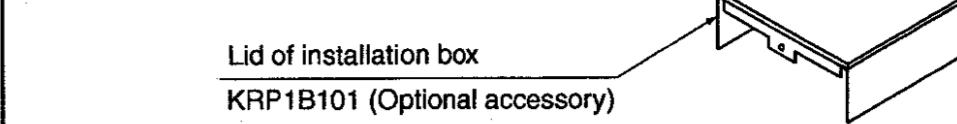
«Ceiling-mounted cassette type»

«Ceiling-mounted Duct type»

FFQ (600x600 Multiflow model)

FXZQ

FXD(Q) (Ceiling-mounted Duct type)

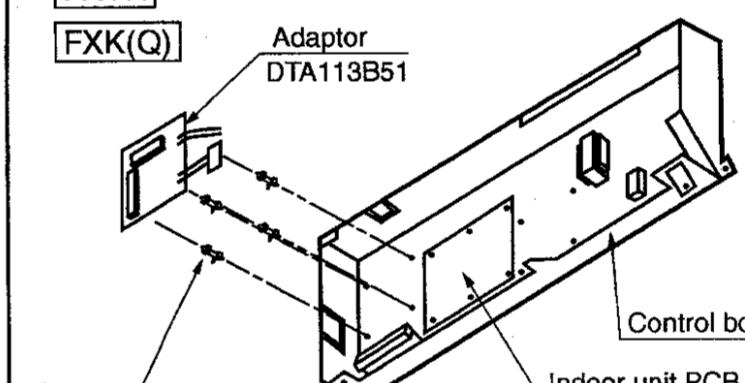


«Ceiling-mounted cassette type»

FH(Y)K(P) (Corner model)

FYXK

FXK(Q)

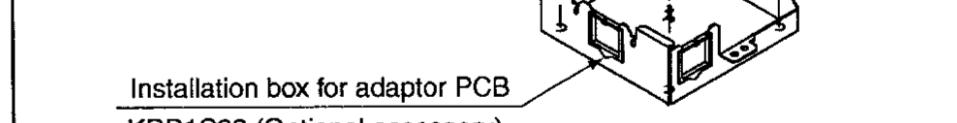
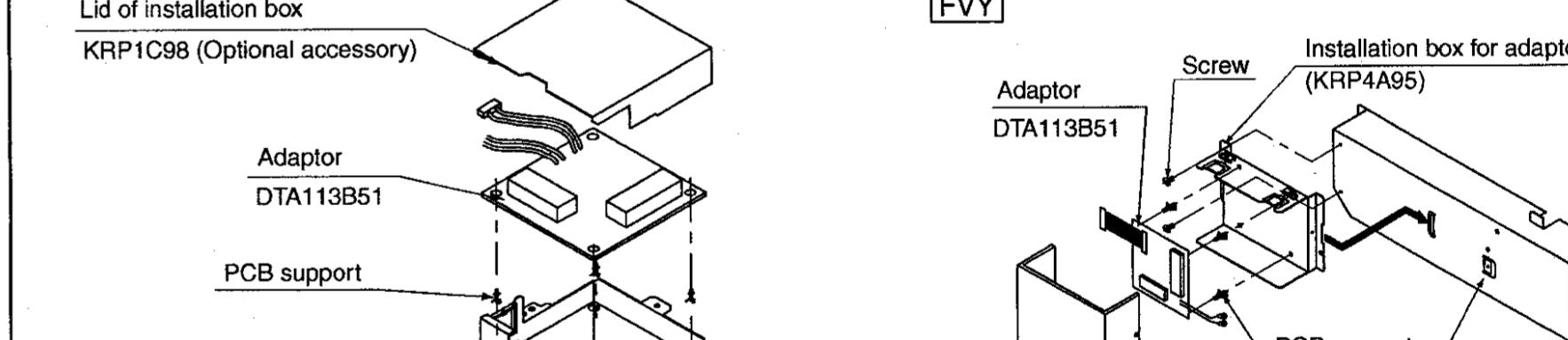


«Floor-standing type»

FXYL(M)

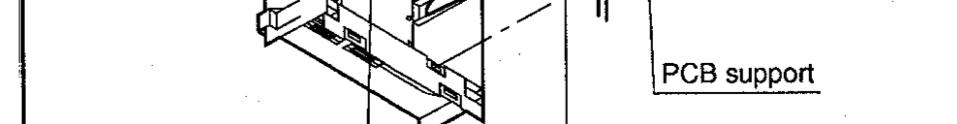
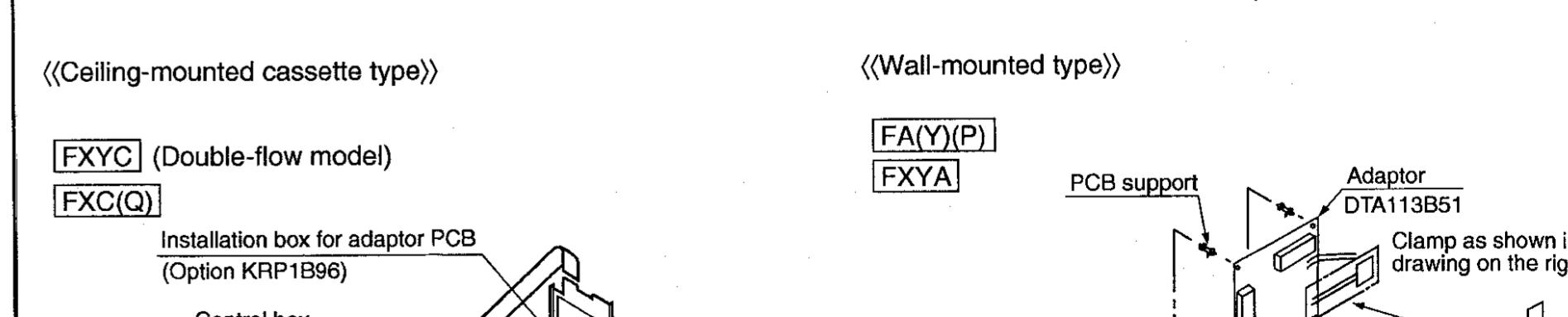
FXL(Q)

FXN(Q)



«Floor-standing type»

FVY



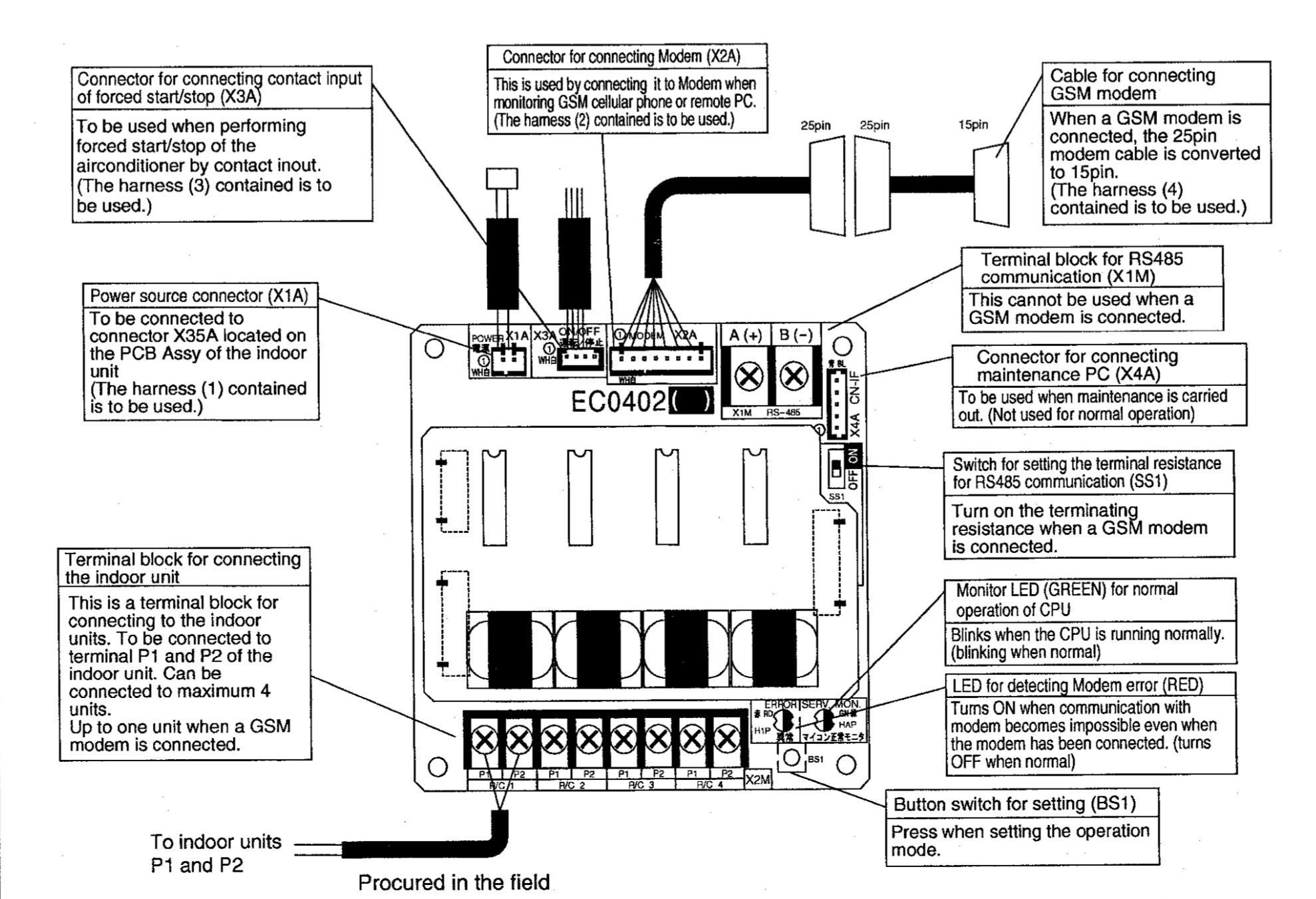
«Wall-mounted type»

FA(Y)(P)

FXYA

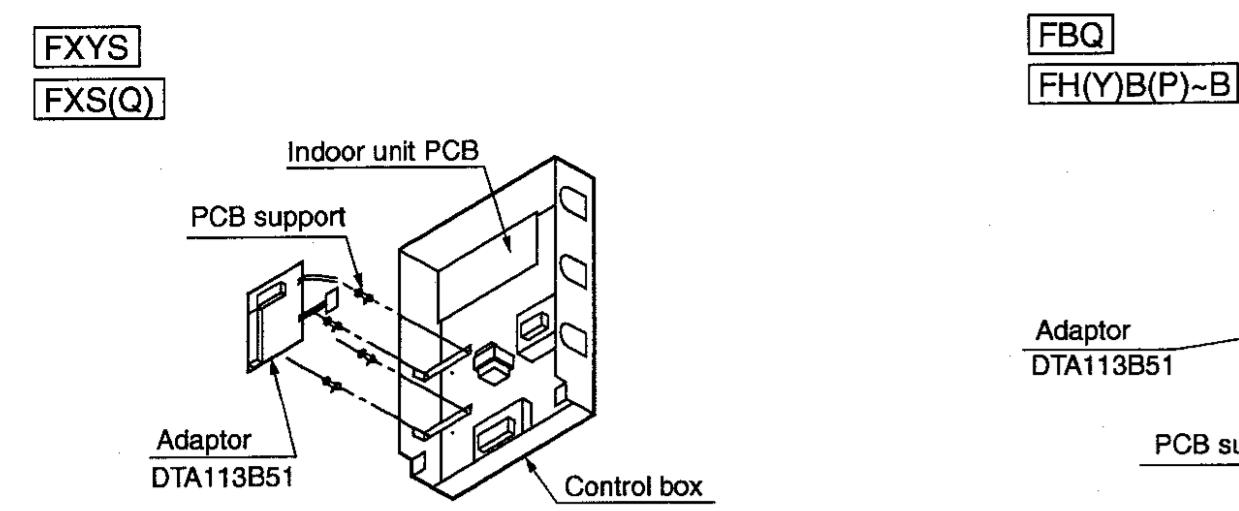


3 NAME OF PARTS AND FUNCTION (Personal Home Use)

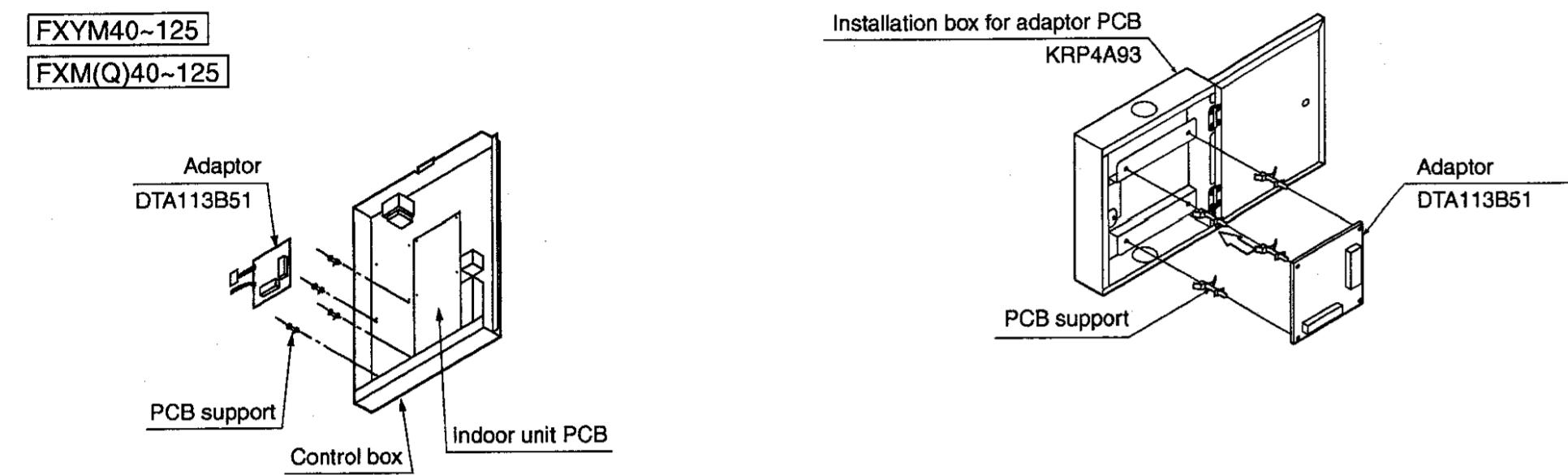


1P150219-1A

«Ceiling-mounted built-in type»



«Ceiling-mounted duct type»



5 ELECTRIC WIRING (Personal Home Use)

BEFORE INSTALL

- Personal Home Use
When performing monitoring and control from a GSM cellular phone, the following items will have to be procured on site.

1. One Wavecom GSM Modem M1206 (specified)
 - (1) Direct-current power source for the M1206
 - (2) One A-1140.26 antenna for the M1206
 - (3) One adaptor 46346 for the M1206
2. Up to 4 GSM cellular phones with a short message (SMS) function for monitoring and control, and up to 3 of the same for receiving error alerts.
1. One SIM card for the GSM modem
2. One SIM card for each cellular phone
In addition, the power line for the GSM modem must be installed as well.

1. GSM modem

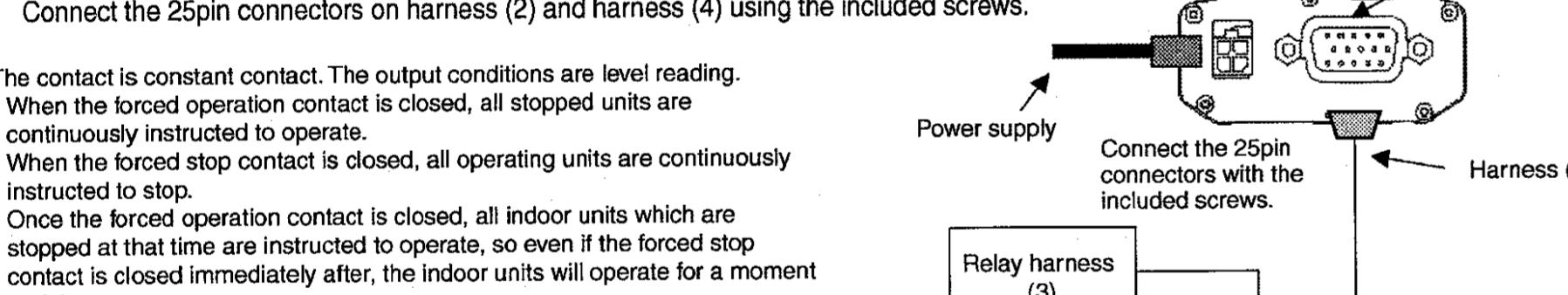
The Wavecom M1206 is specified as the GSM modem.

See the operation manual for the GSM modem for details on settings and how to use it.
After installing the modem as per the GSM modem operation manual, install the antenna and SIM card, and supply the power.

If the LED lamp flashes slowly, this indicates that it has connected to the wireless network correctly.

2. GSM modem cable

Connect the harness (2) that came with the DS-NET adaptor.
Connect the harness (4) to the GSM modem and tighten the screws.



The contact is constant contact. The output conditions are level reading.
• When the forced operation contact is closed, all stopped units are continuously instructed to operate.

• When the forced stop contact is closed, all operating units are continuously instructed to stop.

• Once the forced operation contact is closed, all indoor units which are stopped at that time are instructed to operate, so even if the forced stop contact is closed immediately after, the indoor units will operate for a moment and then stop.

(This is the same as with remote controller operation.)

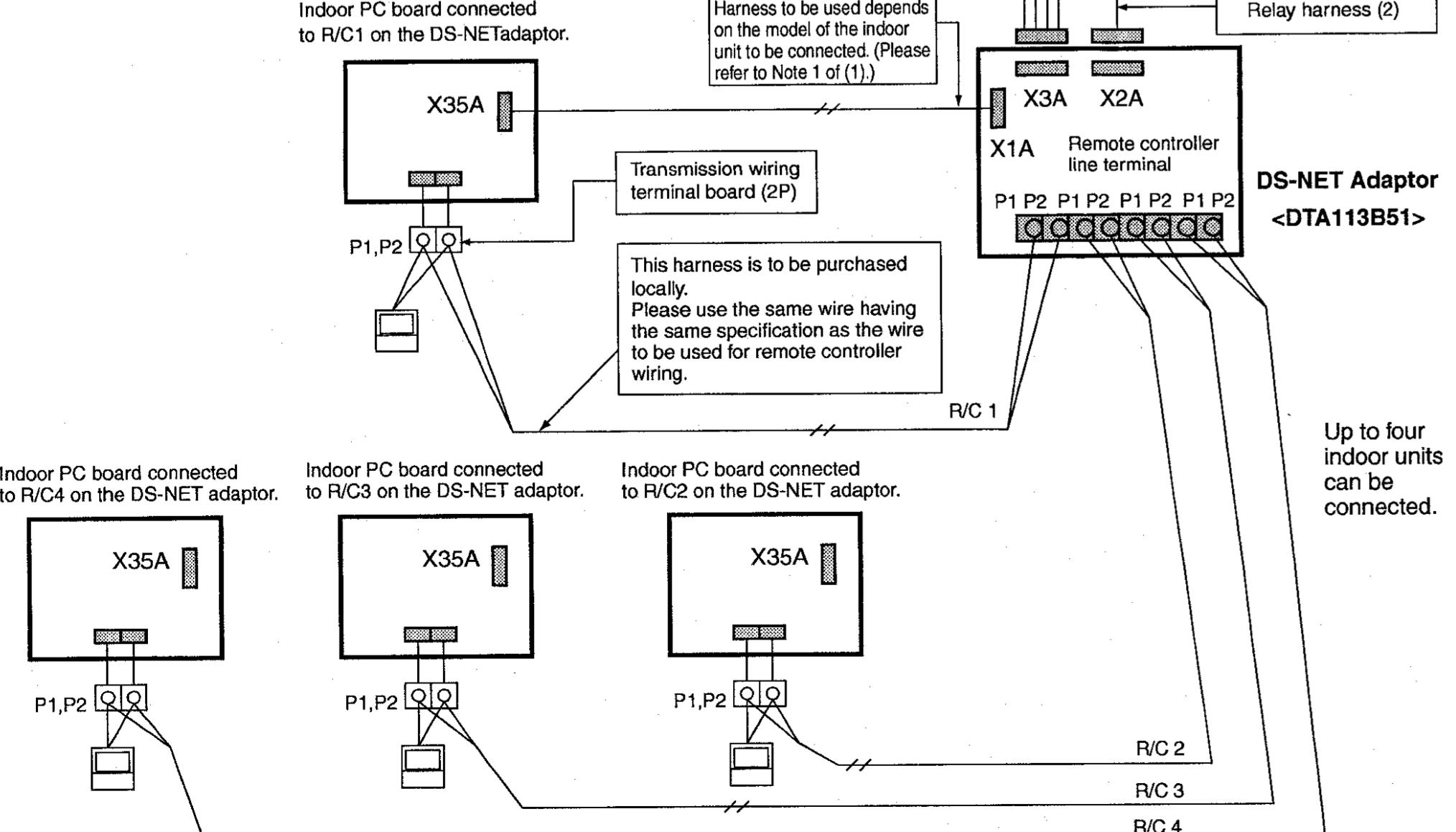
The contact is to be purchased locally.

The current applied when the contact is ON is approx. DC16V, 10mA.

Input is via momentary A-contact.

Minimum 1 second is required for turning ON.

Please don't clamp with high voltage cable



6 ABOUT SETTING

Before using the adaptor in Personal Home Use, it is necessary to use the remote controller's service function to set the operation modes. The settings are made using button switch BS1 on the adaptor and the remote controller connected to the indoor unit in which the adapter has been installed.

Backup Control

This function starts up the air-conditioner to maintain the number of units which were operating before a power outage, if the operating air-conditioner stops because of a power outage or an error (not including warning or precaution alarms). The air-conditioners which were started up are stopped once those air-conditioners which stopped due to the error are restored.

Even if the error alert condition is set to include warning and precaution alarms (Error Report set value 3 or 4) and an alert is generated by a warning or precaution alarm, the backup function will not be used.

The error alert condition does not affect the automatic backup operation function.

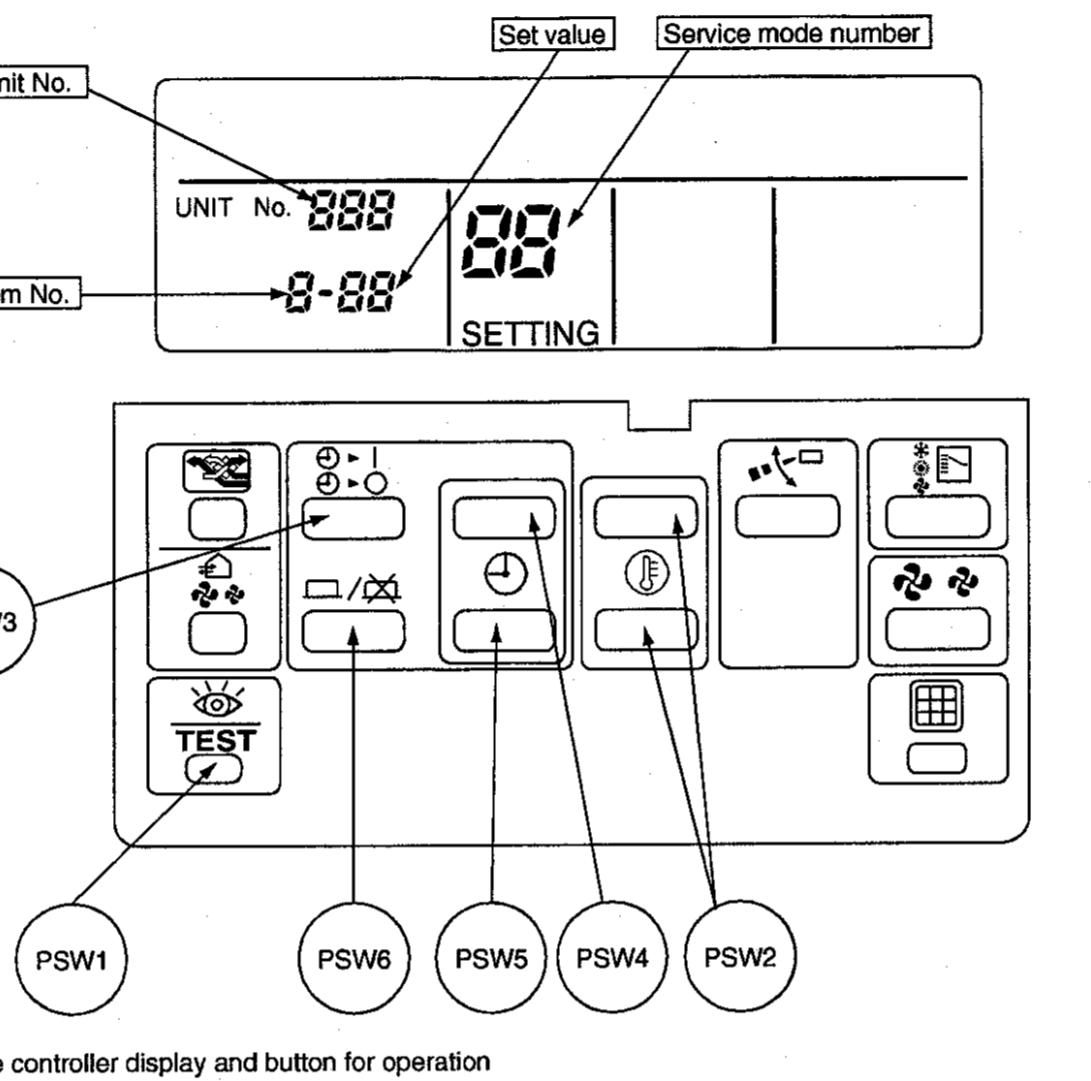
Automatic Alternating Operation Control

This function turns air-conditioners on and off at certain set intervals in order to average out the operating times of each air-conditioner. The operation pattern is determined by the number of air-conditioners connected and the minimum number of guaranteed operating units. The minimum number of guaranteed operating units can be set to between 1 and 3 when in automatic alternating operation.

Sequential Start Control

This function prevents an excess of startup current when starting up all air conditioners simultaneously using batch operation of the air conditioners. Sequential start control is not available when a GSM modem is connected.

The sequential start function is only valid when instructed by a command from the monitor PC. Turning this function on for Personal Home Use is meaningless.



Remote controller display and button for operation

Procedures for setting	Remote controller display
1. Pressing BS1 on the adaptor makes it possible to make the settings using the remote controller function and causes H1P (Red) on the adaptor to flash.	 Normal display
2. After completing Step 1., the remote controller display will show "88" after around a minute. After completing Step 1., the remote controller display will return to normal after around 75 seconds.	 UNIT No. 888 88 88 SETTING
3. Pressing PSW1 (TEST) for 4 seconds in a row causes the remote controller to display the service functions. The service mode number in the right Fig (1) becomes "01". Here, we can carry out the setting of service mode number 20 and 21 by means of setting procedure 4.	 UNIT No. 15 01 (1) 88 88 SETTING
4. In this display, you can operate PSW2 to PSW6 and settings No. 1 through 11 shown in the following Table. (When this happens, the unit no. may not be displayed due to the service mode number.) 1) By operating PSW2, select either "Service mode number" 20 or 21. 2) By operating PSW3, set the "Unit number" to 15. (Right Fig (2)) 3) By operating PSW4, select to "Item No." (Right Fig (3)) 4) By operating PSW5, select "1" or "2". (Right Fig (4)) 5) Finally, press PSW5 and fix the set value.	 UNIT No. 15 20 (1) 88 88 SETTING
5. Pressing PSW1 (TEST) for 4 seconds in a row causes the remote controller to display service mode number 40. Further, if PSW1 (TEST) is pressed for 4 seconds in a row again, service mode number 50 is displayed.	 UNIT No. 15 50 (1) 88 88 SETTING
6. In the remote controller's service function display, you can operate PSW2 to PSW6 and settings 12 through 15 shown in the following Table. 1) By operating PSW3, set the "Unit number" to 15. (Right Fig (2)) 2) By operating PSW4, select to "Item No." (Right Fig (3)) 3) By operating PSW5, select "1" or "2". (Right Fig (4)) 4) Finally, press PSW5 and fix the set value.	 Normal display
7. Pressing PSW1 (TEST) again returns the remote controller service function display to return to normal	 Normal display
8. After performing Step 7., press SW1 on the adaptor to turn off the remote controller service function. This causes H1P to turn off. However, if service number 20 has been changed, H1P does not go off and instead doubles the flash speed.	
9. After completing Step 8., the remote controller display will show "88" after around a minute. If, after service number 20 has been changed, H1P flash cycle speed has doubled, H1P will go off. After completing Step 8., the remote controller display will return to normal after around 75 seconds.	

Items to be set from remote controller service function (Personal Home Use)

No.	Setting Items	Service Mode No.	Item No.	Set value	Unit No.	Remarks
1	RS-232 Port Function	20	0	5: SMS specification (GSM modem)		*2: Present The RS-232 port function is only enabled when "3: Upper unit present (analog modem)" is true.
2	Automatic Reception		6	Non		Sequential start control is not available for Personal Home Use.
3	Backup Control	21	0	1: No *2: Present		Setting range: 1, 2, and 3 *: 1
4	Sequential Start Control		2	Non		Regular reports are not available for Personal Home Use.
5	Minimum Guaranteed Units for Operation		3	Minimum guaranteed units during automatic alternation operation.		Filter sign reports are not available for Personal Home Use.
6	Regular Report		0	Non		Communication error reports are not available for Personal Home Use.
7	Filter Sign Report		1	Non		Additional connection error reports are not available for Personal Home Use.
8	Communications Error Report		2	Non		Operation status change reports are not available for Personal Home Use.
9	Additional Connection Error Report		3	Non		
10	Operation Status Change Report		4	Non		
11	Error Report		5	*1: No 2: Only an error 3: Error and warning 4: Error, warning, and precaution		
12	Automatic Alternation Operation Time	50	0	Automatic Alternation Operation Time (H): the tens place		Setting range: 00 to 99 (H) 00H: No automatic alternation operation function *: 00H
13	Regular Report Time		1	Automatic Alternation Operation Time (H): the one place		
14	(Reservation)		2	Non		
15	Adaptor address		3	Non		
16			4	Non		
17			5	Non		
18			6	(Reservation)		
19			7	(Reservation)		
20			8	Non		
21			9	Non		

Bold heading should be necessary.

*: Factory settings

Non: This does not need to be set for disabling.