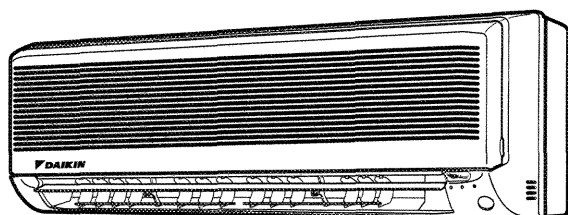




INSTALLATION MANUAL

Split series indoor units Multi system indoor units



Installation manual
Split series indoor units
Multi system indoor units

English

FT18GV1B

FT25GV1B

FT35GV1B

FT45GV1B

FT60GV1B

FTY18GV1B

FTY22GV1B

FTY35GV1B

FTY45GV1B

FTY60GV1B

DAIKIN INDUSTRIES, LTD.

declares under its sole responsibility that the air conditioning models to which this declaration relates:
 erkl rt auf seine alleinige Verantwortung da  die Modelle der Klimager te f r die diese Erkl rung bestimmt ist:
 d clare sous sa seule responsabilit  que les appareils d'air conditionn  vis s par la pr sente d claration:

verklaart hierbij op eigen exclusieve verantwoordelijkheid dat de airconditioning units waarop deze verklaring betrekking heeft:
 declara baja su  nica responsabilidad que los modelos de aire acondicionado a los cuales hace referencia la declaraci n:
 dichiara sotto sua responsabilit  che i condizionatori modello a cui   riferita questa dichiarazione:

 hl nwei me αποκλειστικ  της ευθ νης  τι τα μοντ λα των κλιματιστικ ν συσκευ ν στα οποία αναφ ρεται η παρούσα  hl ωση:
 declara sob sua exclusiva responsabilidade que os modelos de ar condicionado a que esta declara o se refere:
 erkl rer under eneansvar, at klimaenl gmodellerne, som denne deklaration vedr rer:

deklarerar i egenskap av huvudansvarig, att luftkonditioneringsmodellerna som ber rs av denna deklaration inneb r att:
 erkl rer et fullstendig ansvar for at de luftkondisjoneringsmodeller som ber res av denne deklarasjon inneb rer at:
 ilmoittaa yksinomaan omalla vastuullaan, ett  t m n ilmoituksen tarkoitamat ilmastointilaitteiden mallit:

FT18GV1B, FT25GV1B, FT35GV1B, FT45GV1B, FT60GV1B,
 FTY18GV1B, FTY22GV1B, FTY35GV1B, FTY45GV1B, FTY60GV1B,

are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:
 der/den folgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, da  sie gem   unseren Anweisungen eingesetzt werden:
 sont conformes   la/aux norme(s) ou autre(s) document(s) normatif(s), pour autant qu'ils soient utilis s conform ment   nos instructions:

conform de volgende norm(en) of   n of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies:
 est n en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones:
 sono conformi al(i) seguente(i) standard(s) o altro(i) documento(i) a carattere normativo, a patto che vengano usati in conformit  alle nostre istruzioni:

 vati s mfwna me to(a) ak louθο(a) pr tupo(a)    llo  ggrapo(a) kanonism n, up  την pr o t θεση  τι χρησιμοποιούνται s mfwna me τις odhgies mas:
 est o em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de acordo com as nossas instru es:
 overholder f lgende standard(er) eller andet/andre retningsgivende dokument(er), forudsat at disse anvendes i henhold til vore instrukser:

respektive utrustning  r utf rd i  verensst mmelse med och f ljer f ljande standard(er) eller andra normgivande dokument, under f ruts ttning att anv ndning sker i  verensst mmelse med v ra instruktioner :
 respektive utstyr er i  verensstemmelse med f lgende standard(er) eller andre normgivende dokument(er), under forutsetning av at disse brukes i henhold til v re instrukser:
 vastaavat seuraavien standardien ja muiden ohjeellisten dokumenttien vaatimuksia edellytt en, ett  niit  k ytet n ohjeidemme mukaisesti:

EN60335-2-40,

following the provisions of:
 gem   den Vorschriften der:
 conform ment aux stipulations des:

overeenkomstig de bepalingen van:
 siguiendo las disposiciones de:
 secondo le prescrizioni per:

me t ρηση των διαt ξεων των:
 de acordo com o previsto em:
 under iagttagelse af bestemmelserne i:

enligt villkoren i:
 gitt i henhold til bestemmelsene i:
 noudattaa m  r yksi :

Low Voltage 73/23/EEC
 Machinery Safety 89/392/EEC
 Electromagnetic Compatibility 89/336/EEC *

Directives, as amended.
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 Directives, telles que modifi es.

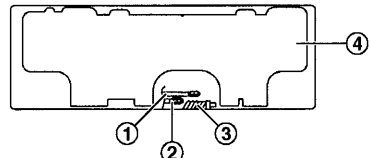
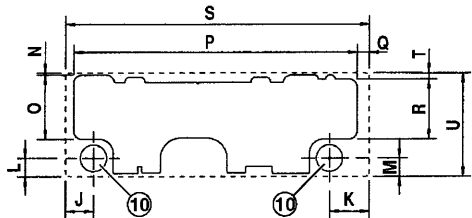
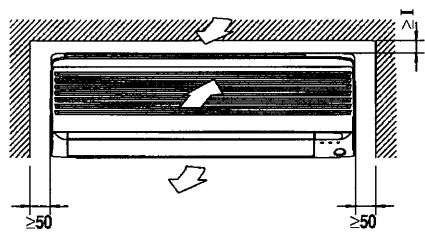
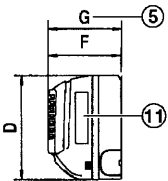
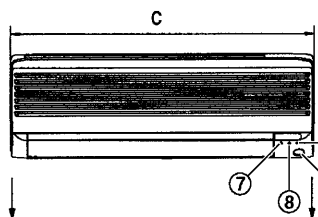
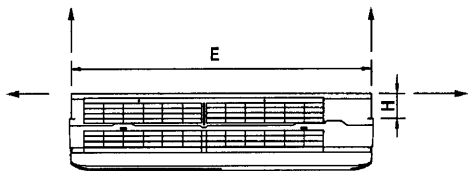
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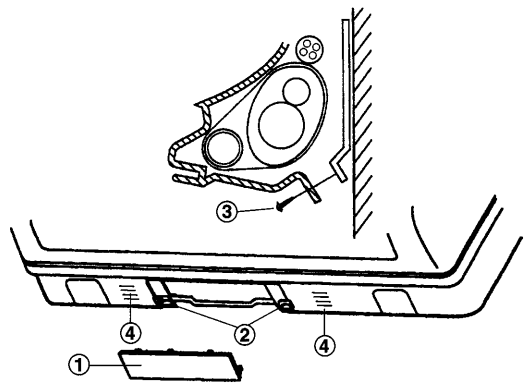
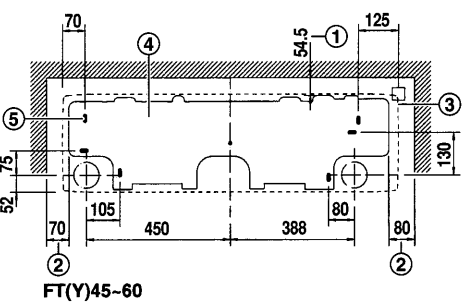
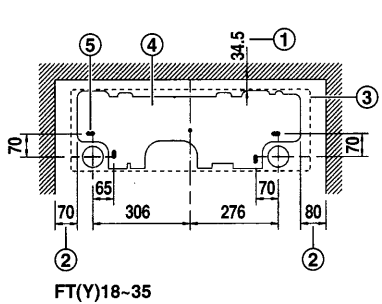
<p>* Note Hinweis Remarque Bemerk Nota Nota Σημει�ση Nota Bem�rk Information Merk Huom</p>	<p>as set out in the Technical Construction File DAIKIN.TCF.001 and judged positively by KEMA according to the Certificate 58242-KRQ/ECM95-4224. wie in der Technischen Konstruktionsakte DAIKIN.TCF.001 aufgef�hrt und von KEMA positiv ausgezeichnet gem�� Zertifikat 58242-KRQ/ECM95-4224. tel que stipul� dans le Fichier de Construction Technique DAIKIN.TCF.001 et jug� positivement par KEMA conform�ment au Certificat 58242-KRQ/ECM95-4224. zoals vermeld in het Technisch Constructiedossier DAIKIN.TCF.001 en in orde bevonden door KEMA overeenkomstig Certificaat 58242-KRQ/ECM95-4224. tal como se expone en el Archivo de Construcci�n T�cnica DAIKIN.TCF.001 y juzgado positivamente por KEMA seg�n el Certificado 58242-KRQ/ECM95-4224. delineato nel File Tecnico di Costruzione DAIKIN.TCF.001 e giudicato positivamente da KEMA secondo il Certificato 58242-KRQ/ECM95-4224. �πως προσδιορίζεται στο Αρχείο Τεχνικής Κατασκευής DAIKIN.TCF.001 και κρίνεται θετικά από το KEMA s�mfwna me to Πιστοποιητικό 58242-KRQ/ECM95-4224. tal como estabelecido no Ficheiro T�cnico de Construa�o DAIKIN.TCF.001 e com o parecer positivo de KEMA de acordo com o Certificado 58242-KRQ/ECM95-4224. som anf�rt i den Tekniske Konstruktionsfil DAIKIN.TCF.001 og positivt vurderet af KEMA i henhold til Certifikat 58242-KRQ/ECM95-4224. utrustningen �r utf�rd i enlighet med den Tekniska Konstruktionsfilen DAIKIN.TCF.001 som positivt intygas av KEMA vilket ocks� framg�r av Certifikat 58242-KRQ/ECM95-4224. som det fremkommer i den Tekniske Konstruktionsfilen DAIKIN.TCF.001 og gennem positiv bedommelse av KEMA if�lge Sertifikat 58242-KRQ/ECM95-4224. jotka on esitetty Teknisess� Asiakirjassa DAIKIN.TCF.001 ja jotka KEMA on hyv�ksynyt Sertifikaatin 58242-KRQ/ECM95-4224 mukaisesti.</p>
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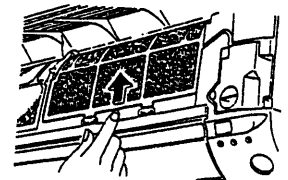
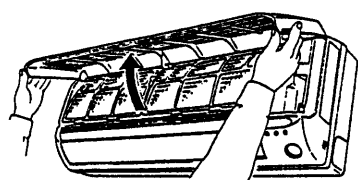
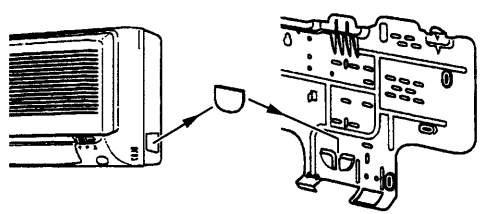


	② ØA	① ØB	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
FT18,25 FTY18,22	Ø9.5mm or 3/8" Cut	Ø6.4mm or 1/4" Cut	750	250	740	180	182	60	30	69	99	44.5	44.5	4.5	155	700	30	145	(750)	14.5	(250)
FT35 FTY35	Ø12.7mm or 1/2" Cut	Ø6.4mm or 1/4" Cut																			
FT45,60 FTY45	Ø15.9mm or 5/8" Cut	Ø6.4mm or 1/4" Cut	1050	298	1042	190	193	65	50	75	137	52	52	22	167	1000	30	175	(1050)	14	(298)
FTY60	Ø15.9mm or 5/8" Cut	Ø9.5mm or 3/8" Cut																			

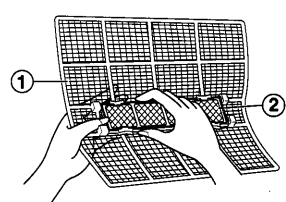
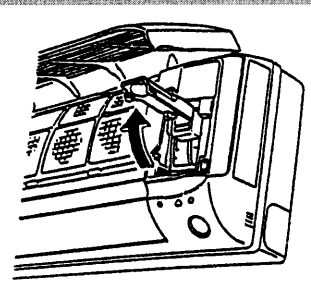
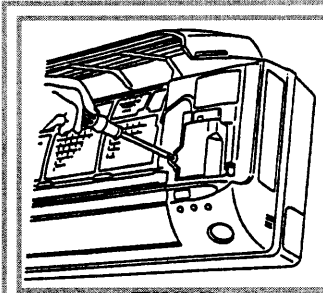
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2



3



FT(Y)45-60 FT(Y)18-35

7

8

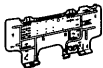
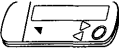

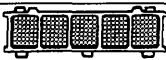




FT18GV1B FTY18GV1B
 FT25GV1B FTY22GV1B
 FT35GV1B FTY35GV1B
 FT45GV1B FTY45GV1B
 FT60GV1B FTY60GV1B

Split series indoor units
 Multi system indoor units

COMBINE THIS INDOOR UNIT WITH A DAIKIN OUTDOOR UNIT ONLY!
READ THIS MANUAL CAREFULLY TO ENSURE CORRECT INSTALLATION. BE SURE TO GIVE THE CUSTOMER THE ENCLOSED OPERATION MANUAL.
REFER TO THE INSTALLATION MANUAL OF THE OUTDOOR UNIT FOR THE ITEMS NOT DESCRIBED BELOW.

STANDARD SUPPLIED ACCESSORIES

	FT	FTY	
mounting plate	1	1	
remote controller	1	1	
dry batteries	2	2	
operation manual installation manual	1 of each	1 of each	
air purifying filter	2	2	
indoor unit fixing screw M4 x12	2	2	
remote controller holder	1	1	






IMPROPER INSTALLATION OR ATTACHMENT OF EQUIPMENT OR ACCESSORIES COULD RESULT IN ELECTRIC SHOCK, SHORT-CIRCUIT, LEAKS, FIRE OR OTHER DAMAGE TO THE EQUIPMENT. BE SURE ONLY TO USE ACCESSORIES MADE BY DAIKIN WHICH ARE SPECIFICALLY DESIGNED FOR USE WITH THE EQUIPMENT AND HAVE THEM INSTALLED BY A PROFESSIONAL.
IF UNSURE OF INSTALLATION PROCEDURES OR USE, ALWAYS CONTACT YOUR DAIKIN DEALER FOR ADVICE AND INFORMATION.

1. INSTALLING THE INDOOR UNIT



Never turn the circuit breaker ON until all the installation work is completed!

1.1. OUTLOOK DRAWING (see figure 1)

- | | | |
|--------------------------------------|-----------------------------|---|
| 1) liquid pipe ØB | 6) ON/OFF switch | 11) nameplate |
| 2) gas pipe ØA | 7) operating indicator lamp |  required free space |
| 3) drain hose (ID Ø14.0 - OD Ø18.0) | 8) timer indicator lamp |  piping direction |
| 4) mounting plate | 9) cleaning indicator lamp |  air flow |
| 5) dimensions: unit + mounting plate | 10) hole for rear piping | |

1.2. SELECTING THE LOCATION



Make sure that the indoor and outdoor unit is installed out of reach for children!

Leave sufficient space for piping and electric wiring.

Be sure to install the unit so that:

- the indoor and outdoor unit, the interconnection and the power supply cable are at least 1m away from televisions or radios. This is to prevent interference from the air conditioner on your televisions or radios.
- the air will be distributed to the entire room.
- the wall is strong enough to bear the weight of the indoor unit.
- the unit is not exposed to direct sunlight.
- there are no obstructions for the air inlet and outlet.
- the wall hole to the outdoor side for the electric wiring, the refrigerant and drain piping can be made without problems in terms of building structure.

Please consult with your dealer for installing in a special environment (e.g. a place in oily surroundings, a place with sulfide gas such as hot springs, a place where chemicals are used nearby, a place with big voltage fluctuations such as factories).

1.3. INSTALLATION

1.3.1. Fixing the mounting plate

Position the mounting plate and check that the position is right and horizontal.

Check the clearance from the ceiling and from the right end position of the unit. For rear piping, determine the position of the wall hole to the outdoor side in the same way. (see figure 2)

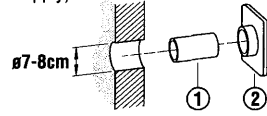
- | | |
|---|----------------------------------|
| 1) clearance between the ceiling and the mounting plate | 4) mounting plate |
| 2) space for installation work | 5) reference point for wall hole |
| 3) unit outer dimension | |

Fix the mounting plate on the wall with 6 to 8 screws.

1.3.2. Making the wall hole to the outdoor side for the electric wiring, the refrigerant and drain piping

- The hole must slope down toward the outdoor side.
- The hole size must be just as large as to hold the protective pipe (Ø70–80mm) (field supply).
- Use a wall hole cover (field supply) to hide the wall hole as much as possible.

- 1) protective pipe (field supply)
- 2) wall hole cover (field supply)

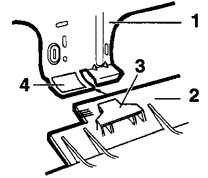




1.3.3. Mounting the indoor unit on the mounting plate

Extend the drain hose if required. Remove the bottom frame cover. Mount the indoor unit on the mounting plate.

- Press the lower part of the indoor unit bottom frame onto the mounting plate with both hands and hook the bottom frame claws into the rectangle holes on the mounting plate.

- | | |
|-------------------|----------|
| 1) mounting plate | 3) claw |
| 2) bottom frame | 4) catch |
- Fix the bottom frame to the mounting plate with the supplied screws (M4 x 12) (see figure 3)
- | | |
|---------------------------------|------------------|
| 1) bottom frame cover | 3) screw M4 x 12 |
| 2) bottom frame fixing position | 4) push mark |



Note  To remove the indoor unit from the mounting plate, press the push marks  upwards at the bottom frame of the indoor unit.

2. INSTALLING THE OUTDOOR UNIT

Refer to the installation manual of the outdoor unit.

3. REFRIGERANT PIPING

3.1. FIELD PIPING

All field piping must be provided by a licensed refrigeration technician and must comply with the relevant local and national codes.

3.2. PIPE CONNECTIONS

- Refer to the outlook diagram (see figure 1) for the required piping diameters.
- Cut the plates in the bottom frame of the indoor unit according to the piping direction. The removed plate can be kept in the mounting plate pocket (see figure 4).
- Be sure to insulate the gas pipe and the liquid pipe separately with polyethylene foam insulation material (thermal conductivity = 0.041–0.052 kW/mK).

model	gas pipe insulation		liquid pipe insulation	
	inside diameter	wall thickness	inside diameter	wall thickness
FT18, FT25, FTY18, FTY22	12–15mm	8-10mm	8–10mm	7–10mm
FT35, FTY35	14-16mm	10mm	8-10mm	7-10mm
FT45, FT60	16-20mm	8-10mm	8-10mm	7-10mm
FTY45	14-16mm	8-10mm	8-10mm	7-10mm
FTY60	16-20mm	8-10mm	12-15mm	8-10mm

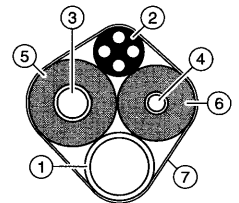
Note  For the gas pipe, use a polyethylene foam resistant to a temperature of 110°C.

3.3. FOR PIPING CONNECTIONS ON THE RIGHT SIDE OF THE UNIT (RIGHT, REAR OR BOTTOM), TAKE THE FOLLOWING STEPS

- Place the drain hose under the refrigerant pipes.


- | | |
|--------------------------|---------------------------|
| 1) drain hose | 5) gas pipe insulation |
| 2) interconnection cable | 6) liquid pipe insulation |
| 3) gas pipe | 7) finishing tape |
| 4) liquid pipe | |

- Hang the indoor unit on the hooks at the top of the mounting plate.
- Hook while putting the auxiliary piping and the drain hose into the wall hole to the outdoor side.

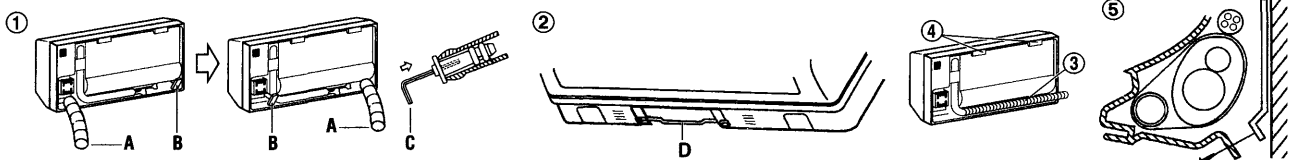


3.4. FOR PIPING CONNECTIONS ON THE LEFT SIDE OF THE UNIT (LEFT, REAR OR BOTTOM), TAKE THE FOLLOWING STEPS

- 1) Switch positions of the drain hose (A) and the drain plug (B). Insert a hexagon wrench (C) into the drain plug to ensure that the drain outlet is perfectly closed.

Note  Do not use lubrication oil when inserting the plug into the drain pan outlet. Oil causes deterioration of the drain plug, resulting in drain leakage.

- 2) To work easily, remove the bottom frame cover and cut the bar (D) away.

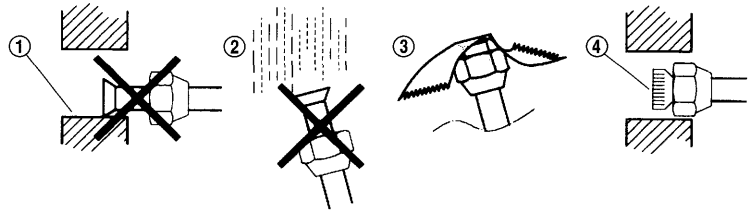


- 3) Insulate the pipes and the electric cable together at the connection of the field piping and the indoor unit piping.
- 4) Hang the indoor unit on the hooks at the top of the mounting plate.
- 5) Fix the bottom frame to the mounting plate. (see 1.3.3. Mounting the indoor unit on the mounting plate).

3.5. CAUTION

When inserting the refrigerant piping in the wall hole, take care not to let dust or moisture come into the piping. Protect the pipes with a cap or seal the pipe end completely with tape.

- 1) dust
- 2) moisture
- 3) tape
- 4) cap

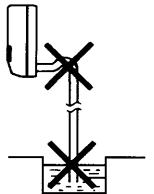
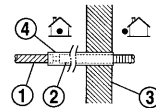


4. DRAIN PIPING

4.1. CAUTIONS

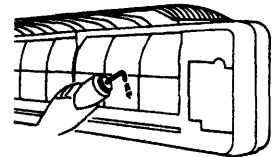
- The drain hose must slope downward to the outdoor side.
- Do not use a trap in the drain piping.
- Never put the end of the drain hose into water.
- If you extend the drain hose, always insulate it up to the outdoor side with polyethylene foam insulation material (field supply).

- 1) drain hose fixed to the indoor unit
- 2) the indoor side extension drain hose
- 3) wall
- 4) polyethylene foam



4.2. DRAIN CHECK

- Open the front grill. (see figure 5)
- Remove the air filters.
 - Push the knob at the centre of the air filter upwards.
 - Pull the filter downward to take it out.



Pour some water into the drain pan to check if the water flows smoothly.

5. VACUUM DRYING OF THE INSTALLATION

Refer to the installation manual of the outdoor unit.

6. FIELD WIRING

6.1. CAUTIONS


- All field wiring and components must be provided by a licensed electrician and must comply with the relevant local and national codes.
- Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
- Before supplying the power, check that the voltage is within $\pm 10\%$ of the rated voltage marked on the nameplate.
- Take care not to bend the printed circuit board when inserting or removing the connectors.

6.2. FIELD WIRING

- Open the front grill. (see figure 5)
- Open the service cover. (see figure 7)
- Wire in accordance with the wiring diagrams. (see figures 9 ~ 12)
- Route the field cable through the back of the indoor unit and connect to the terminal block.

Parts table:

⊕	protective earth	M1S	swing motor	S1W	operation switch
C70	running capacitor	MR	magnetic relay	S2W	address switch
FU	fuse	PCB1,PCB2,...	printed circuit board	S8W	cleaning indicator reset switch
H1P,H2P,H3P	pilot lamp	R1T,R2T	thermistor	X1M	terminal strip
M1F	fan motor	S1,S2,...	connector on PCB		

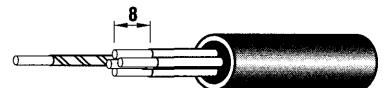
Note  S11 and S15 are for master control.



Note that the operation will restart automatically if the main power supply is turned off and then back on again.

6.3. FIELD CABLE AND FIELD FUSE

- Use solid core cables to avoid loosening of the wires.
- Refer to the installation manual of the outdoor unit for the required field cable section and field fuse.
- Remove maximum 8mm of the wire insulation when connecting the wires to the terminals.
- Insert only one wire in one terminal.



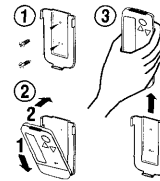
7. SETTING THE AIR PURIFYING FILTERS

The air purifying filters catch pollen, dust, smoke of cigarettes and unpleasant smell.

- Open the front grill. (see figure 5)
- Remove the air filter. (see 4.2. Drain check)
- Install the air purifying filter (2) on the air filter (1) as shown in figure 8. Make sure that the net-side (black) of the air purifying filter is facing up.
- Put the sticker with the sample colours on the back of the grill.
- Be sure to set the air filters back into place.

8. INSTALLING THE REMOTE CONTROLLER (optional)

- 1) Fix the remote controller holder with two screws.
- 2) Set the remote controller on the claw at the holder bottom and press.
- 3) To remove, pull it out upward.



CAUTIONS

- The maximum transmission distance is about 7m in a straight line.
- Check that the signals can be received from the selected position of the remote controller. If there is anything that blocks signals to the signal receiver, such as curtains or doors, the air conditioner does not operate.
- Do not install the remote controller near a heater or in a position exposed to direct sunlight.
- Do not install the remote controller in places where there is a considerable amount of moisture.

9. CHECK LIST AND TEST RUN

9.1. CHECK LIST

After installing, check the following items:

Is the indoor unit securely installed?	
Is the gas leakage checked?	
Is the heat insulation	- for the gas pipe adequate? - for the liquid pipe adequate? - for the indoor side extension drain hose adequate?
Does the drain flow out smoothly?	
Are the line voltages approximately correct?	
Is the earth wire earthed?	
Are the correct wires used?	
Are the air inlet and outlet of the indoor and outdoor unit not blocked?	
If installed as multi system indoor unit, check for each indoor unit if the piping and the wiring have the same code. (A/B/C/D/E)	


9.2. TEST RUN

This program is to test the air conditioner independent from the room temperature and the temperature setting (i.e. as the thermostat of the indoor unit is bridged).

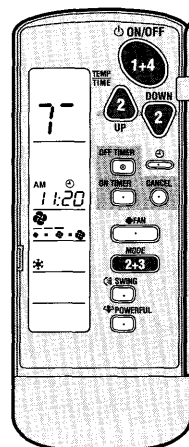
Carry out the test operation in accordance with the operation manual to ensure that all functions and parts, such as louvre movement, are working properly.

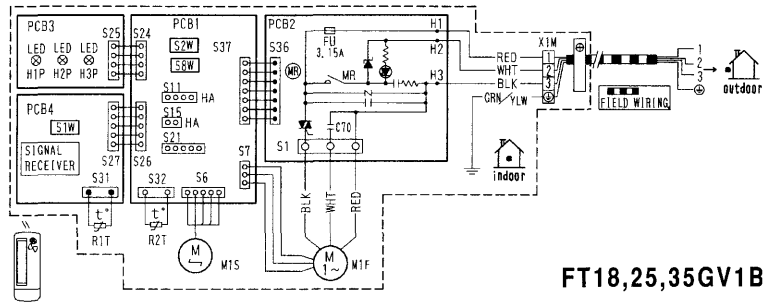
Using the remote controller for trial operation

1. Press the ON/OFF button to turn on the system.
2. Simultaneously press DOWN, UP and MODE buttons.
3. Press the MODE button twice. ("7" appears on the display to indicate that the trial operation mode is selected.)
4. Trial run mode terminates in approximately 30 minutes and switches into normal mode. To quit a trial operation, press the ON/OFF button.

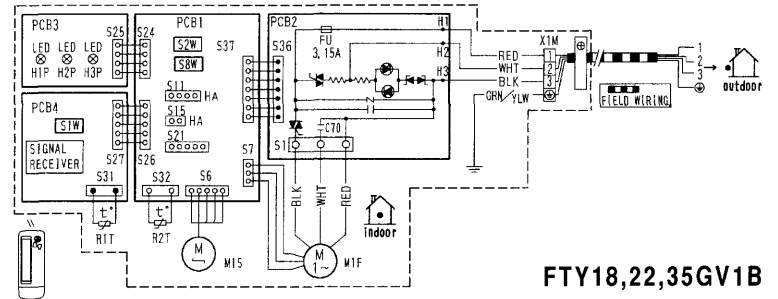
Note 

The air conditioner requires a small amount of power in stand-by mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.

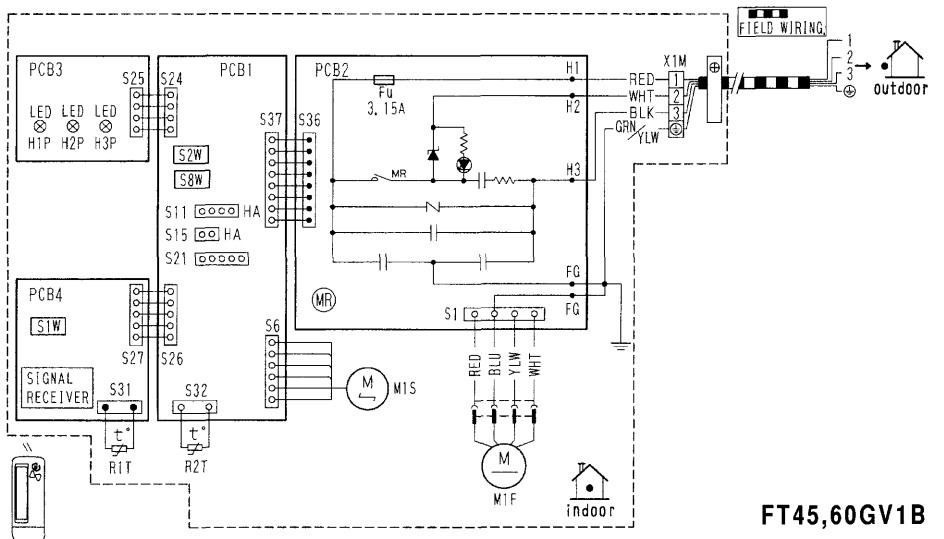




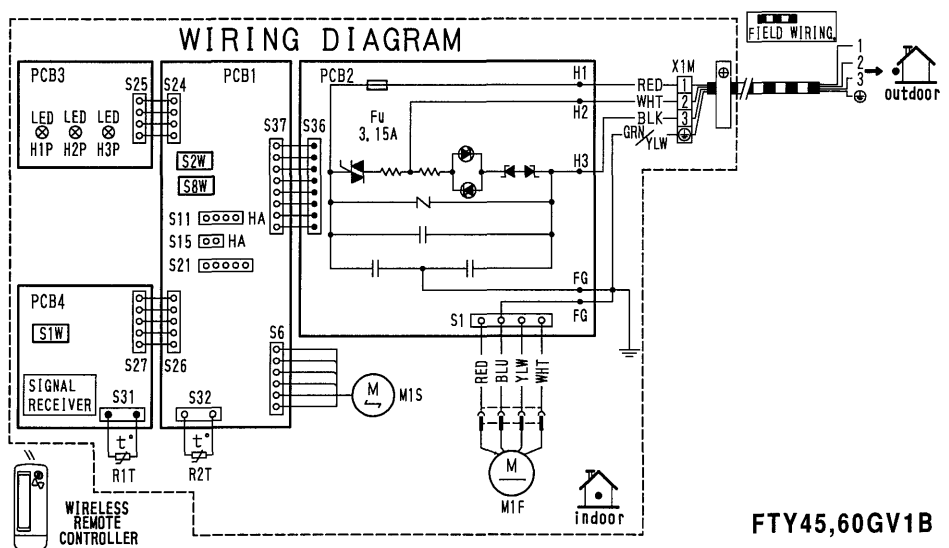
FT18,25,35GV1B



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FT45,60GV1B



FTY45,60GV1B

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