

## GME 152, 222, 302, 402 (Slave Version)

### Underceiling/Console Split System Indoor Units

### Installation & Maintenance

#### GENERAL

The GME Underceiling Indoor Units are designed to be coupled with the OSA outdoor units and controlled by the HAN-L6 room temperature controller. Units must be installed in accordance with all national and local safety codes.

#### Tandem Combinations

One GME unit c/w HAN-L6 Controller (Master) and one GME unit without controller (Slave) can be connected in tandem to one single circuit Outdoor Unit. Tandem combinations available are:

- Two GME 152 with one OSA 73
- Two GME 152 with one OSA 85
- Two GME 222 with one OSA 126/127
- Two GME 302 with one OSA 180/181
- Two GME 402 with one OSA 221

One GME 222 and GME 152 (Slave) with one OSA100/101

#### UNPACKING UNITS

The OSA outdoor unit and GME indoor units are cartoned separately. Unpack each item carefully. Examine for transit damage.

#### GME SLAVE UNIT

##### Components

The GME carton includes:

1. GME Slave indoor unit.
2. Insulated condensate drain extension kit.
3. Interconnecting cable 12.5 m.
4. Wiring schematic label.
5. Right-angled suction pipe extension c/w lock nut and teflon seal.

#### INSTALLATION

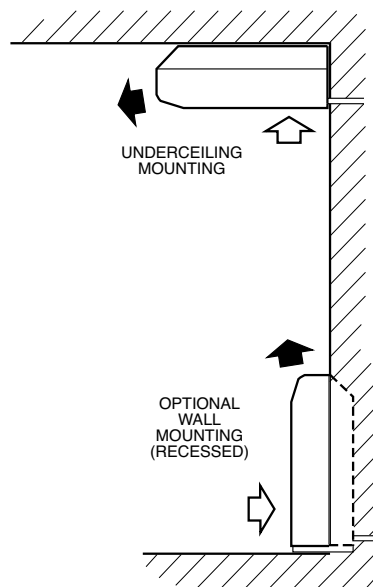
##### Positioning & Mounting

The GME is designed to be installed :

- a. suspended horizontally beneath a level or sloping ceiling, or
- b. floor or wall mounted (i.e. vertically).

**Note:** For an extra low profile the unit can be recessed into the ceiling (or wall).

Fig. 1 Mounting Options



#### Preparation

Prior to mounting the GME the mounting brackets must be detached from each end of the unit.

1. Open the end filter panel and locate the screw securing the unit endcaps (refer figure 2).
2. Remove the endcap securing screw and retain.
3. Remove the endcap by first sliding it forward approx. 20 mm, then pull outwards away from end of the unit.
4. Release each mounting bracket from behind the two bolts securing them to the unit.
5. Remove the floor mounting base from the back of the GME if when ceiling mounted it is required to fit flush to the wall.

#### Underceiling Mounting

Locate the GME near a wall to take full advantage of the long supply air throw and to hide the condensate drain pipe (and other connections) exiting at the rear of the unit.

Refrigeration and wiring connections are via the top or the rear access holes. A right-angled suction pipe extension is supplied to facilitate top exit.

Fig. 3 Mounting Detail

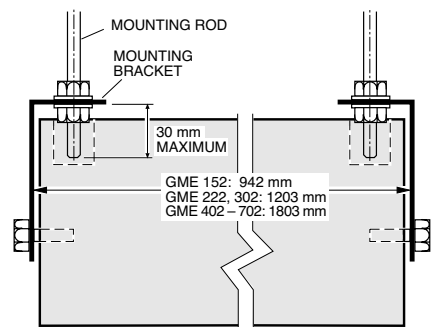
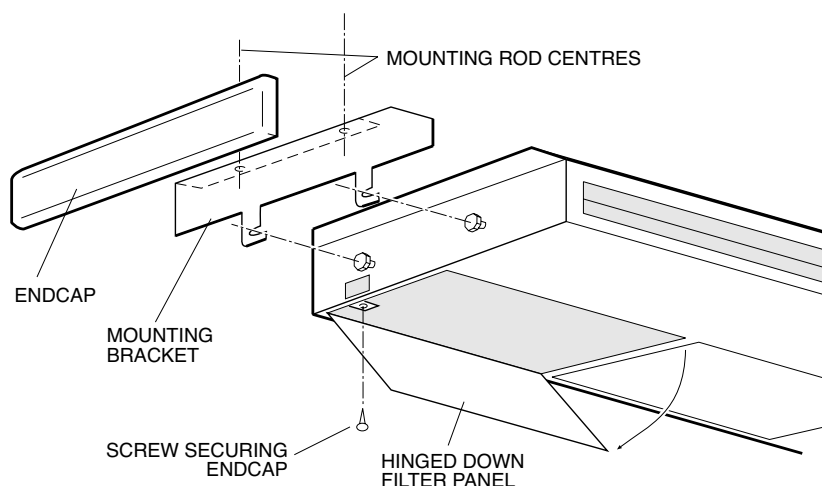


Fig. 2 Mounting Bracket Detachment

VIEWED FROM BELOW



#### Underceiling Installation

1. If an extra low profile installation is preferred, first cut the required ceiling aperture.
2. Install four M8 threaded hanging rods (not supplied) to protrude no more than 30 mm below the level of the mounting bracket flange (refer figure 3).
3. Thread on and tighten the lower washer and locknut sets (not supplied) to secure the left and right mounting brackets.  
**Note:** Mounting bracket flanges face inwards.
4. Adjust distance between mounting brackets to match dimensions in figure 3.

5. Lift the unit to the mounting brackets locating the two protruding bolts, at each end of the unit, securely into the two slots provided in each mounting bracket, then tighten bolts to secure the GME unit.
6. Check that the secured GME is installed level to facilitate condensate drainage.
7. Complete all refrigeration piping connections (refer 'Refrigeration Piping' below).
8. Fit the insulated condensate drain extension, orientated so that the drain vent tube is at the highest point in the condensate line.
9. After completing all piping connections replace the GME unit's left and right endcaps as follows:
  - a. Place each endcap slightly forward of the appropriate end of the unit,
  - b. Compress the endcap at its centre and slide back hooking the endcaps hook under the 'U' shaped bracket on the unit and into position .
  - c. Secure each with the screws removed earlier from behind the filter panels.

#### Wall / Floor Installation

Vertically mounted, the refrigeration and wiring connections can be made through the back or base of the unit.

1. Measure and cut wall recess, if required.
2. Secure the mounting brackets to the wall using fastenings suitable for the wall construction and weight of the GME unit. (Note: Mounting bracket flanges to face inwards.)
3. Refer to 'Underceiling Installation' instructions, steps 4 to 9 above, to complete vertically mounted installation.

#### REFRIGERATION PIPING

##### General

The GME Underceiling unit is shipped from the factory with a holding charge of dry nitrogen. Refer to the Outdoor Unit 'Installation & Maintenance' pamphlet for evacuation procedure.

GME 152 refrigerant line connections are:  
Liquid: 6 mm OD (1/4") flare nut  
Gas: 13 mm OD (1/2") flare nut

GME 222 refrigerant line connections are:  
Liquid: 10 mm OD (3/8") flare nut  
Gas: 16 mm OD (5/8") flare nut

GME 302 refrigerant line connections are:  
Liquid: 10 mm OD (3/8") flare nut  
Gas: 19 mm OD (3/4") sweat

GME 402 refrigerant line connections are:  
Liquid: 13 mm OD (1/2") flare nut  
Gas: 19 mm OD (3/4") sweat

GME 502, 702 refig. line connections are:  
Liquid: 13 mm OD (1/2") flare nut  
Gas: 22 mm OD (7/8") sweat

#### Separation Limits

Maximum Pipe Length: Up to 30 m total \*1  
Indoor Unit above Outdoor Unit : 12 m \*2  
Outdoor Unit above Indoor Unit : 18 m \*2

\*1 25 m total for GME 152 when connected to OSA 45.

\*2 10 m for GME 152 when connected to OSA 45.

For line lengths in excess of the above, contact the manufacturer's nearest sales office for additional piping requirements.

#### Tandem Piping Arrangement

When connecting two indoor units in tandem to a single circuit outdoor unit ensure the following:

1. Maximum line length specified for the outdoor unit must include both tandem legs.
2. Tandem legs must be as close as possible to equal, after leaving the common leg.
3. Ensure each 'T' joint connection is the same size as the common leg's pipe size, downsizing from there (if necessary) to the recommended pipe size for each indoor unit.

#### CONDENSATE DRAIN

Connect a 19 mm ID drain pipe (not supplied) to the GME's drain connection. Maintain a downwards slope of at least 1 in 50 (20 mm/m) along the drain line. No 'U' trap is necessary.

Insulation of the GME 502 and 702 drain pipes is recommended especially in high humidity environments.

**Note:** The unit has a right angled drain tray to allow for wall or ceiling installation.

#### ELECTRICAL WIRING

The electrical supply required (via the Master Indoor Unit) is specified on the Outdoor Unit's wiring diagram.

Electrical work must be carried out by a qualified electrician in accordance with local supply authority regulations and the wiring diagram.

To complete the tandem wiring arrangement, proceed as follows:

1. Remove the electrical panels from both GME Indoor Units
2. Use the interconnecting cable supplied with the GME Slave unit to complete the wiring as per wiring diagram (refer back page). Note: Take extra care when connecting the cable's end to the HAN-L6 controller board.
3. Replace the existing wiring diagram on the GME Master Unit with the self-adhesive label supplied.
4. Replace electrical box covers.

#### COMMISSIONING

Refer to the GME Master unit's *Installation & Maintenance* pamphlet for commissioning instructions.

#### MAINTENANCE

##### Weekly For First Four Weeks

1. Check air filter; vacuum clean as necessary.
2. Check condensate drains for free drainage.

##### Monthly

Check air filter; vacuum clean as necessary.

##### Six Monthly

1. Check condensate drain for free drainage.
2. Check the tightness of the fan.
3. Check that fan motor is free running.
4. Check tightness of electrical connections.
5. Check air supply at louvre.

#### NOTE

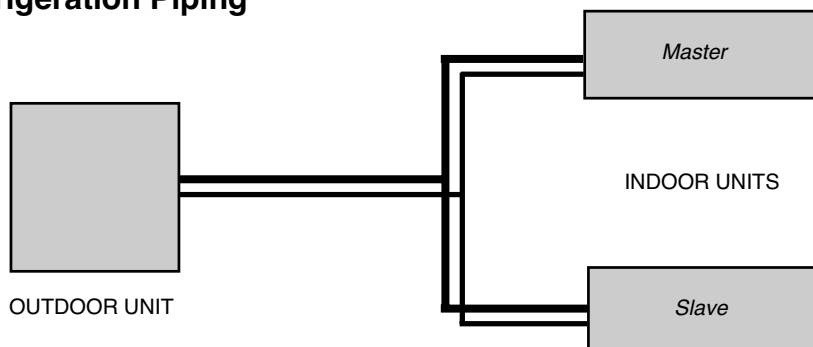
The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified dimensions available on request.

#### WARNING

This unit is designed for use ONLY with the refrigerant HCFC-22. The use of other refrigerants is NOT authorised or approved by the manufacturer and may cause operational problems such as poor performance and efficiency, loss of capacity, degradation of materials and refrigerant leaks.

**The use of flammable or explosive materials as a refrigerant creates the additional risks of fire and explosion which may result in property damage, personal injury or death.**

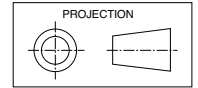
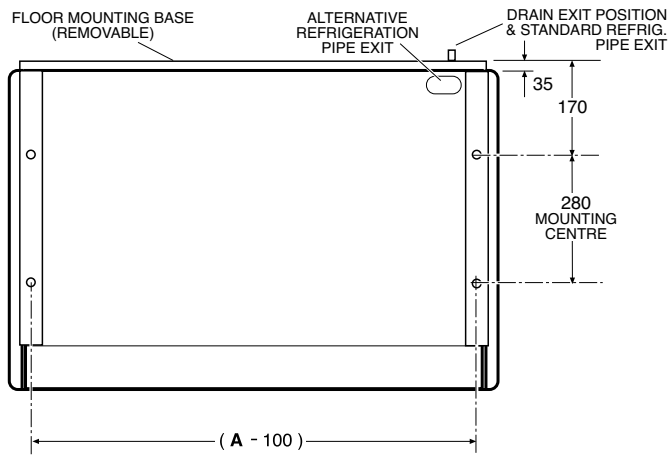
**Fig.4 Tandem Refrigeration Piping**



# DIMENSIONS (mm)

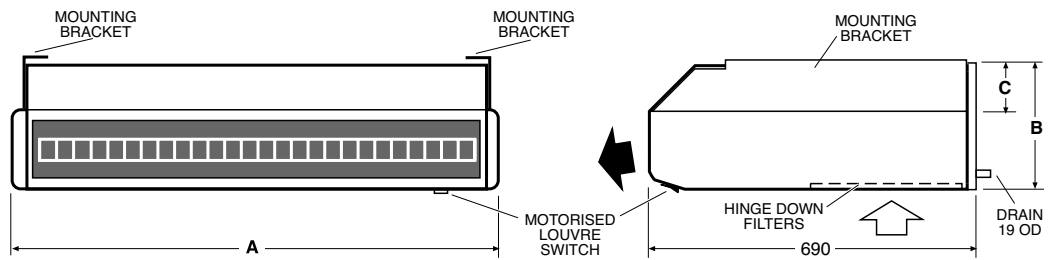
## Fig. 5 GME 152, 222, 302, 402

Not to Scale



MODEL	A	B	C
<b>GME 152</b>	1000	190	35
<b>GME 222</b>	1260	190	35
<b>GME 302</b>	1260	255	100
<b>GME 402</b>	1860	255	100

**Net Weight:**  
 GME 152 27 kg  
 GME 222 38 kg  
 GME 302 48 kg  
 GME 402 68 kg



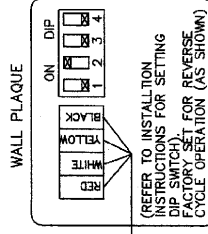
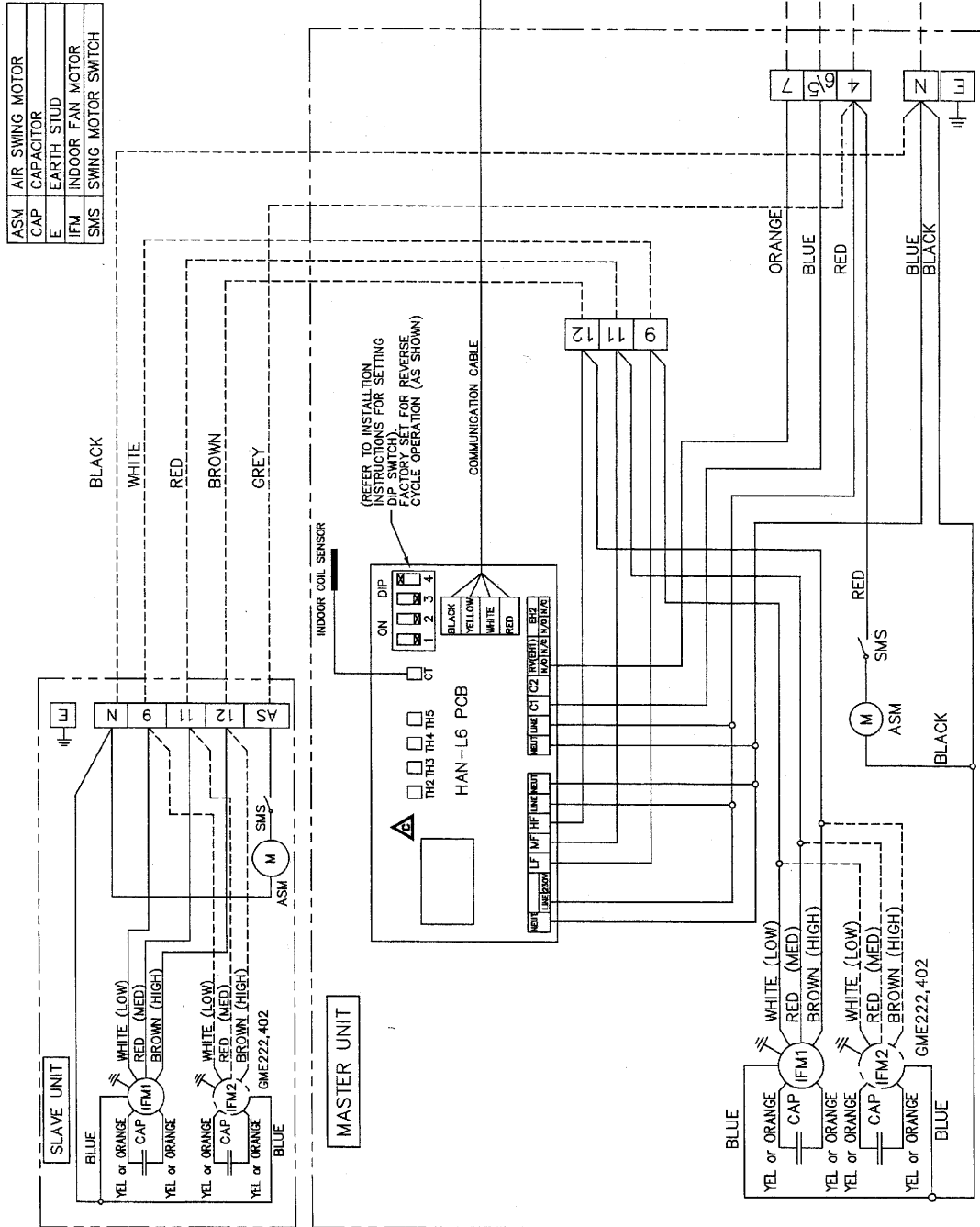
This pamphlet replaces the previous issue no.s 2485 dated 05/05. Wiring revision C.

MODEL	GME 152	GME 222	GME 302	GME 402	GME 502	GME 702
INDOOR MOTOR	0.45	0.45	0.70	0.60	0.70	1.40
INDOOR FAN MOTOR	0.22	0.23	0.54	0.45	0.54	1.00
INDOOR FAN MOTOR RUNNING AMPS	0.17	0.18	0.45	0.36	0.45	0.90
CAPACITOR MFD	2.75	2.75	3.5	3.5	3.5	5

ASM	AIR SWING MOTOR
CAP	CAPACITOR
E	EARTH STUD
IFM	INDOOR FAN MOTOR
SMS	SWING MOTOR SWITCH

**CLIENT WIRING**

Interconnections between units by client. Double insulated multi-core cable. NOTE: - CHECK WIRING BEFORE SWITCHING ON, INCORRECT CONNECTION WILL DAMAGE MOTORS



NOTE: 3 & 4 MUST BE OFF. 1 & 2 CAN BE IN ANY POSITION FOR SINGLE WALL CONTROL.

Title: **GME 152 TO 402 COMBINED MASTER WIRING SCHEMATIC AND SLAVE UNITS**

TANDEM ARRANGEMENT

**temperzone**

Drawn L.H.Z. Date 25.11.04  
Scale  
Aprvd [Signature]

Revision  
Drawing No. 208-134-004  
C

ISSUE	MODIFICATION	ECN	DATE	APRVD	DRG SIZE	No.	DESCRIPTION	Mat'l	FINISH	ASSY No.
C	CHANGE TO TH2/TH3/TH4/TH5	1180	17-06-05	ROD						
B	TERMINOLOGY CORRECTION		10-05-06	L.H.Z.						
A	WORDING "RED" REMOVED TO FOLLOW 208-134-001		21-04-06	D.M.W.						

Programmed by: PLOTTED 15-12-05

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