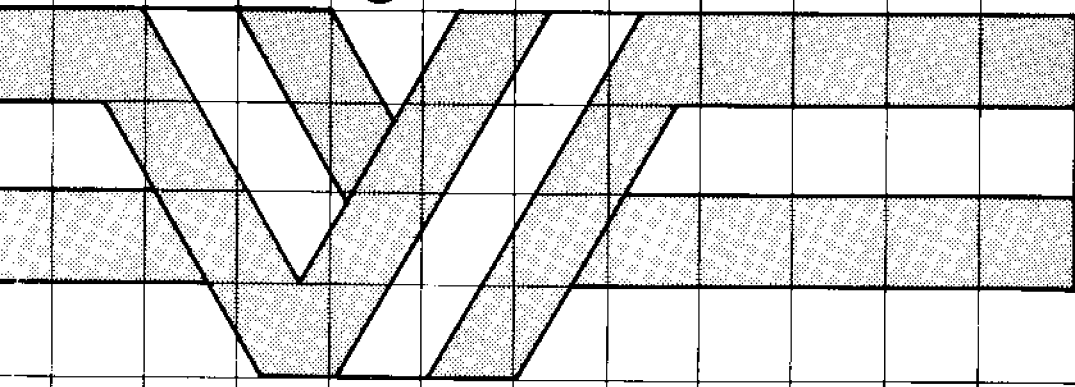
valet

HOME COMMUNICATIONS SYSTEM

VM 1000 & VM 1050 Installation and Operating Instructions



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Installation instructions

General

The following general procedures must be observed in relation to the installation of both the VM500 and VM1000 models.

1. Positioning of both the master station and room stations must be done after consideration of the following –
(a) Stations are best located on external cavity walls in that the sound reproduction is somewhat better due to the resonance achieved through use of the cavity as a speaker chamber.
(b) Stations should not be located within ten feet of each other on the same wall. Locating stations close to each other will lead to "feed-back" between the two stations.

2. Telephone cable is not to be run parallel to electrical wiring.

3. Telephone cable is not to be run in the same conduit as electrical wiring.

4. Telephone cable is not to be run parallel to other telephone cable i.e., wiring for the intercom system is to be spread out as much as possible and cable kept apart.

5. Stations are not to be installed "back to back" as this will cause feed-back (squealing).

6. The power supply is not to be installed in a cavity wall and is to be kept at least 3 metres from the master unit (location closer than 3 metres will cause hum in the master unit).

7. The installation instructions are to be read and followed in detail.

Location of stations

1. Master unit

The master unit is generally located in the kitchen or family room area at a suggested height of 1400 mm from the floor to the centre of the unit. An ideal location is at the external wall at the end of a kitchen bench separating a kitchen and family room. The master unit should in all cases, be installed in either an external wall or a location where there is a void or cavity behind the unit so as to give optimum sound reproduction and also to allow for the numerous cables that are required to join to the rear of the unit. A timber wall box should be installed for the master unit so as to allow for correct support of the master unit.

2. Room stations

Room stations should be located as far apart as possible and preferably with adjoining stations being located on separate walls so as to minimize any possibility of feed-back. Suggested locations are just inside doorways. While an ideal location in a bedroom is for the room station to be located to the side of the bed, problems often occur when the furniture layout is changed or when a bed is changed for another design or style in that a room station located at suitable bed height can be "covered up" or end up in a totally inappropriate position. It is suggested that –
(a) Room stations be kept 15 feet (5 metres) from each other.
(b) Room stations must never be installed "back to back".
(c) It is recommended that suitable height for a room station is 1400 mm from the floor to the centre of a unit.
(d) A room station located on a normal plaster wall will not require any special fixing method, but should be located adjacent to a stud so as to allow for a firm, secure fitting.
(e) Room stations located in a solid brick wall will require the installation in the wall of a wall box which will replace one brick and should be installed by the bricklayer.

3. Front door station
Front door stations will normally require the prior installation of a wall box by the bricklayer at a suggested height of 1400 mm.

4. Power supply
The power supply is usually located at least three metres from the master unit and adjacent to a power point and suggested suitable locations are the ceiling space of a house or a cupboard, wardrobe, linen press, pantry, etc.

5. Door chimes
Door chimes can be located in any suitable location with regard to the layout of a home and in larger homes, two door chimes may be installed or alternatively, electronic door chimes incorporated in the master unit that then sound through all room stations.

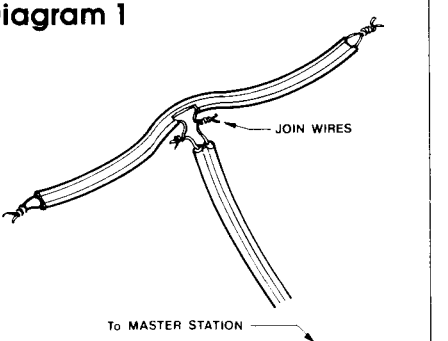
6. Auxiliary input jack
The auxiliary input jack is provided so as to allow connection of either a tape recorder, record player, etc., and is best located just above the skirting as close as possible to the projected location of the "hi fi" equipment.

Door latch (optional extra)
The standard electric door latch replaces the striker plate and is located in the door jamb of the doorway. The operation of the electric latch enables the door to be opened even though the lock itself remains locked. This is achieved by the door latch being able to swivel allowing the door to open even though the tongue of the lock remains extended. The door latch is, in all cases, to be installed by the electrician or carpenter.

Electric deadlock (optional extra)
The electric door lock replaces a lock in the door itself and performs the same function as a standard deadlock together with incorporating the ability to open the door electrically via the intercom system. The electric door lock should be installed by the carpenter and requires cable to be run through the door itself to the hinged edge of the door where, by way of metal contacts between the door and the door jamb, an electrical connection is made between the lock and the intercom system.

Antenna
AM – A wire is to be run from the master unit to the roof space leaving approximately three to five metres of wire within the roof. In flat roof or metal decking roofs it is suggested that the wire from the master unit be taken to the eaves and provision left for extending it later on if poor reception renders it necessary. An **FM antenna** will be required in all instances. This antenna should be approved design for best reception and wired to the master unit via **300 ohm TV ribbon.** Depending on reception, it may be necessary in some cases, to call in an independent aerial expert to advise on the best form of aerial and its location. **See Diagram 1**

Diagram 1



Wiring

1. The following cable is to be used in the installation of the Valet Home Intercom Systems –
VM500 2 pair (4 wire) telephone cable.
VM1000 3 pair (6 wire) telephone cable.
Figure eight electrical cable is to be used between the **master unit** and the **power supply.**
See Diagram 2

2. Wiring can either be run within the roof space, through the walls or beneath the floor. The main requirement is to spread the wire as far apart as possible and to make sure that telephone cable is not run parallel to either electrical cable or to other telephone cable.

3. A separate run of cable is to be made from the **master unit** to each **room station** and the **front door station.** The system does not allow wire to be looped from one station to another.

4. The **door chime** is to be wired back to the front door station.

5. The **din socket** is to be wired back to the master unit.

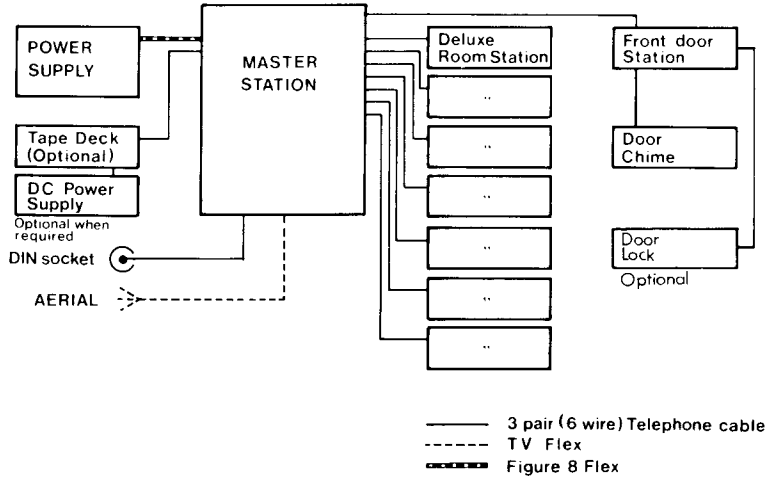
6. The **power supply** is to be wired back to the master unit.

7. Both the **electric latch** and **electric door** lock are to be wired back to the front door station.

8. The **deluxe room stations** require a six wire cable. **(3 pair)**

9. The **optional cassette mechanism** is to be wired via a telephone cable back to the master unit and the figure eight cable back to the **separate power supply** that is supplied with the cassette mechanism. This **separate power supply** can be installed in either the ceiling, cupboard, wardrobe, linen press, etc., and is normally located adjacent to the main power supply with both power supplies running off the same power point.

Diagram 2 ● **VM 1000 & 1050**



Installation and connection procedure

Master station

1. Unpack master station and remove from carton.

2. Cut out hole in plaster board (356 mm x 294 mm) and fix master wall box to stud so as front of box is flush with plaster board surface. **See Diagram 3**

3. Strip cables and connect via screw terminals or solder connection (whichever applies) to appropriate terminals.

4. Secure master unit into the master wall box via four screws provided. To avoid any damage to the moulding, use the metal guard provided to shield the screwdriver head from the moulding.

(N.B. The intercom volume can be adjusted by the "preset", access to which can be gained by removing the back cover of the master unit.)

Room station

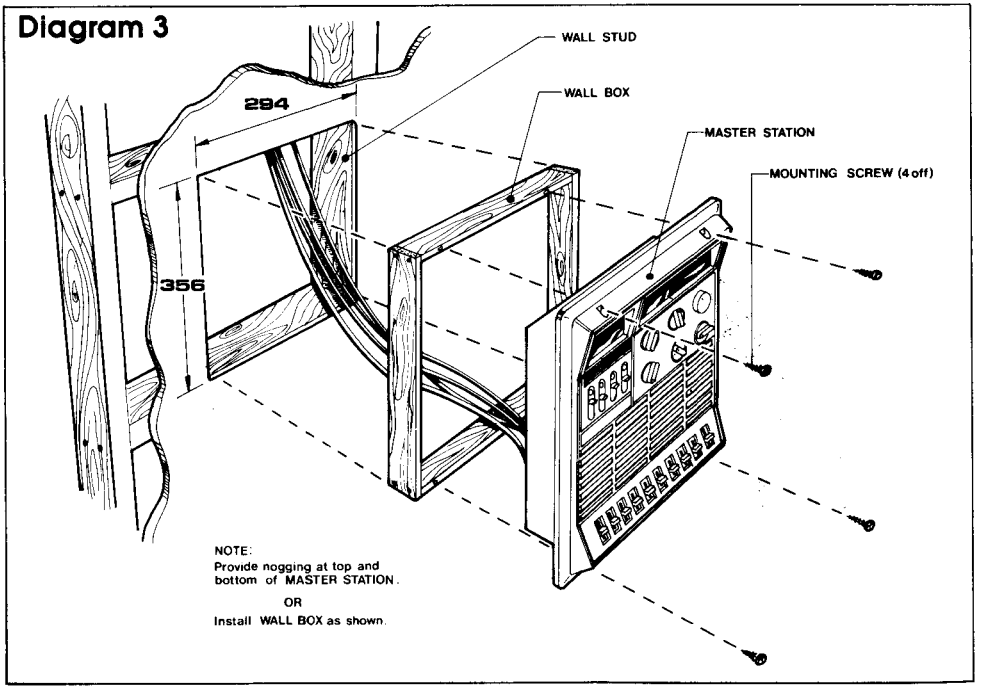
1. Unpack room station from carton. *(For ease of wiring the front facia moulding has not been placed on the room station housing.)

2. Cut hole in plaster board (202 mm x 92 mm), keeping one side of the cut-out adjacent to a stud so as to allow for firm fixing.

3. Fit room station housing into cut out and mark position(s) of wall fixing attachments.
Remove housing and drill **10mm diameter** holes where marked. Insert attachment provided.

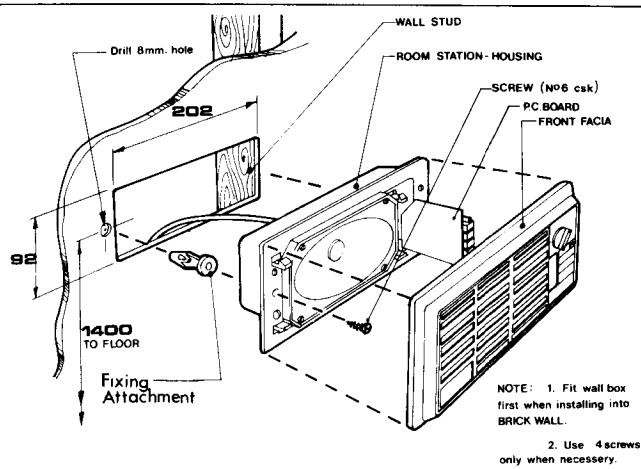
4. Pull cable from the wall through the hole in the plaster board.

Diagram 3



Installation and connection procedure

Diagram 4



5. Secure back section (housing) of room station into the wall (screws provided) with cable being pulled through circular hole in the rear of the right hand side of the back section.

6. Strip the cable and connect the coloured telephone wires to the screw terminals on the removable circuit board. The printed circuit board can be held in the hand while the wires are fixed and then simply slid back in the slots.

See Diagram 4

7. Connect L.E.D. Lamp wires into printed circuit board by pushing clip on the end of the wires into the available clip on the board.

See Diagram 5

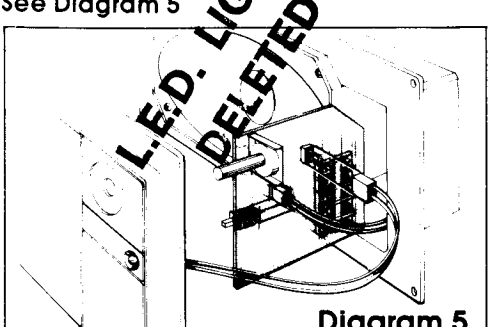
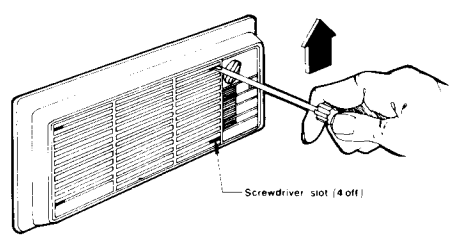


Diagram 5

Diagram 6



8. The front facia can be clipped on to the back section of the room station by hanging the two top clips first and then pressing the front onto the housing.

9. If there is any necessity for removing the front facia, then it should be carried out in the following manner. Very carefully insert a small screwdriver in the slots adjacent to the fixing lugs, (near the corners of the speaker grill) so that by creating a small lever action, the lugs are depressed, allowing the facia to be removed. This should be done at both top slots or both bottom ones. Care should be taken to make sure that no damage is done to the finish of the facia. **See Diagram 6**

Front door station

Same installation procedures are to apply as that of room station except that the station will be fixed into the wooden box which is installed into the brickwork.

See Diagram 7

Door chimes

1. Unpack door chimes from carton.
2. Remove front cover – connect wires and screw into position.
3. Replace cover.

Input jack

1. Unpack input jack.
2. Cut small hole in plaster to suit.
3. Pull through cable and join the black wire to the black and the red wire to the red and screw input jack into position.

Power supply

1. Unpack power supply from carton and screw into position adjacent to power point.
2. Join the figure 8 cable running from the master station to the two terminals on the power supply.
3. Plug three pin plug from power supply into power point and then test system.

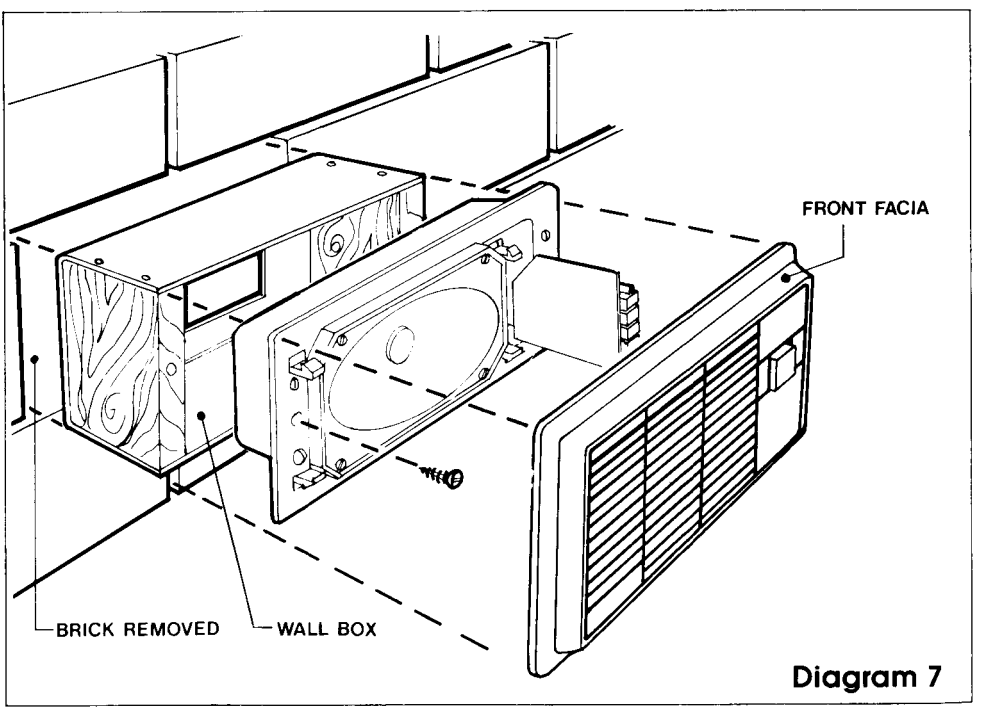


Diagram 7

Wiring connections

General

1. Terminal connections
The master units can be supplied with either a **solder connector terminal** or alternatively with a **screw terminal connector.** Connections at the room station and front door station are by way of screw terminal connections only.

VM1000 system (VM1050)

The telephone cables running to the **master station** are to be connected as per the diagrams. **See Diagram 8&9**

Connections at master station - VM1000

Solder Terminals-

1. Room station wires
A three pair (6 wire) telephone cable is run from each room station back to the master station. The following is the method of connection to these room station wires at the master station.

(a) All the **black** wires (ground) are to be grouped together and connected to the ground terminal No 21A.
(b) All the **red** wires are to be connected to the call terminal No. 8B.
(c) All the **blue** wires are to be connected to control line "A" terminal No. 7A.
(d) All **orange** wires – control line "B" – are to be connected to terminal No. 8A.
(e) All the **green** wires – door lock – are to be connected to terminal No. 19B.
(f) The remaining **white** wires are to be connected to the relevant room station terminals with room station No. 1 being connected to pin No. 18B.
Room station 2 connected to pin No. 17B.
Room station 3 connected to pin No. 16B.
Room station 4 connected to pin No. 15B.
Room station 5 connected to pin No. 14B.
Room station 6 connected to pin No. 13B.
Room station 7 connected to pin No. 12B.
Room station 8 connected to pin No. 11B.
Room station 9 connected to pin No. 10B.
Room station 10 connected to pin No. 9B.

2. Front door station
A three pair telephone cable from the **front door station** is to be connected at the **master station** as follows –
Black and **orange** wires connected to pin No. 20A and 21A (earth).
Red wire connected to pin No. 16A (door speaker).
White wire connected to pin No. 18A (chime).
Blue wire connected to pin No. 21B (DC).
Green wire connected to pin No. 19B (door lock).

3. Power supply
The two pair figure 8 cable from the power supply is to be connected to terminals 1A and 1B.

4. Cassette deck
If a cassette deck is located within 1.5 metres of the master unit all required connections can be made via a **two pair** (four line) telephone cable back to the master unit using the following connections –
Black wire connected to pin No. 2A (DC Negative).
Red wire connected to pin No. 2B (DC Positive).
White wire connected to pin No. 4A (signal earth).
Blue wire connected to pin No. 4B (signal).
If the cassette mechanism is located more than 1.5 metres from the master unit, it will need to be powered by separate power supply and then the only connections that will need to be required at the master unit will be as follows –
Black wire connected to pin No. 4A (signal earth).
Blue wire connected to pin No. 4B (signal).
All spare wires can be connected to pin No. 4A for extra earthing.

Wiring connections

5. Auxiliary (input jack)

Connections at the master unit are as follows –
Red wire connected to pin No. 3A.
Black, white and **blue** wires connected to pin No. 3B.

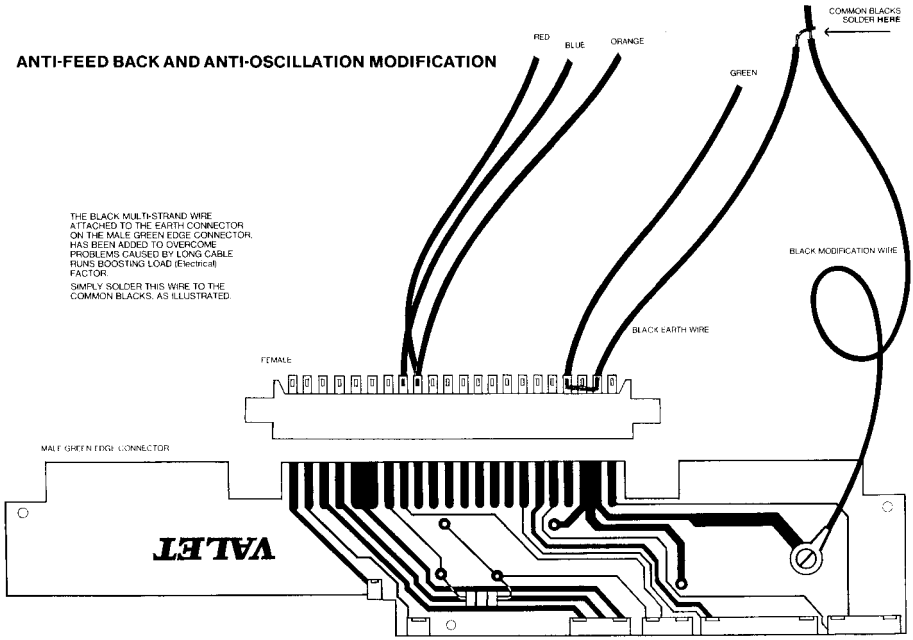
6. AM aerial

Connect the AM aerial cable (if using telephone cable, connect all wires together) to pin No. 5B.

7. FM aerial

Connect the **300 ohm ribbon** cable to pins numbered 6A and 6B. If telephone cable is used instead of the recommended ribbon cable, connect all wires to pin numbered 6B.

WIRING NOTE FOR GREEN EDGE CONNECTOR:
Regarding Room Station Wires.
ALL BLACK WIRES (Ground)to be grouped and soldered to black wire which goes to Terminal 21A
ALL RED WIRES to be soldered to red wire which goes to Terminal 8B
ALL BLUE WIRES to be soldered to blue wire which goes to Terminal 7A
ALL ORANGE WIRES to be soldered to orange wire which goes to Terminal 8A
ALL GREEN WIRES to be soldered to green wire which goes to Terminal 19B.



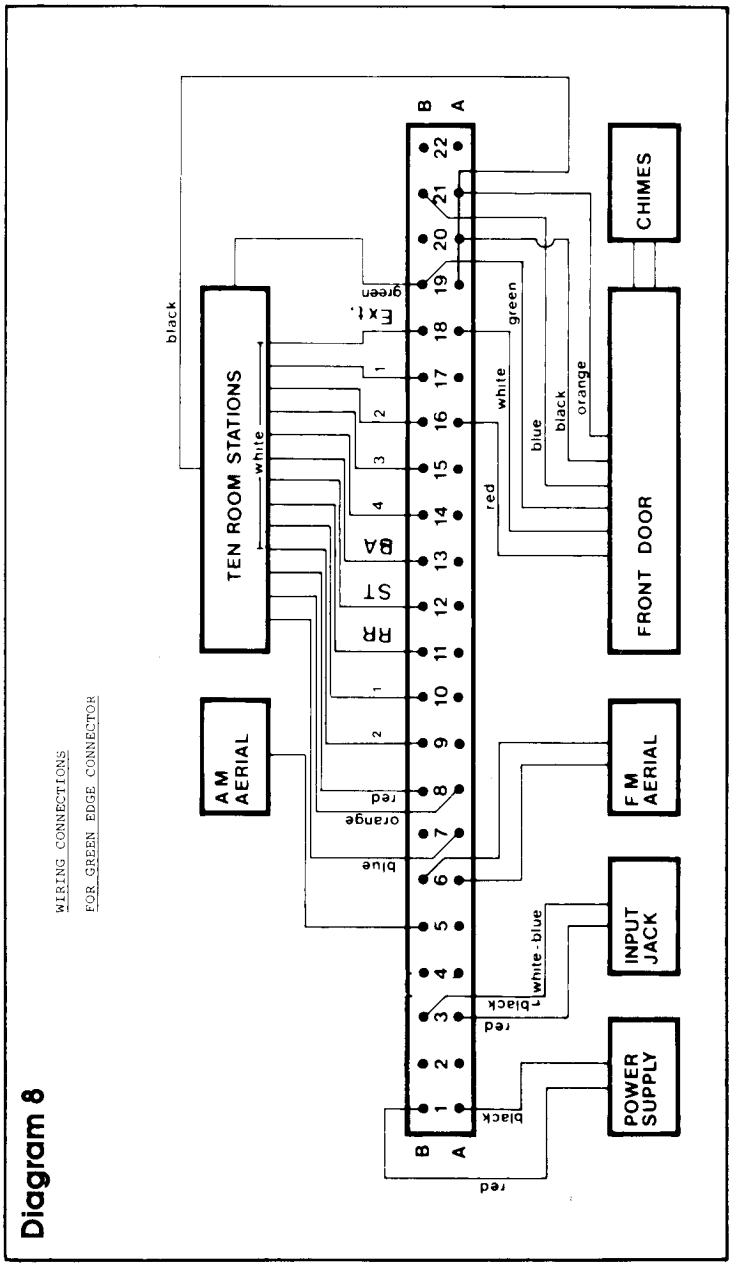


Diagram 8
WIRING CONNECTIONS
FOR GREEN EDGE CONNECTOR
TEN ROOM STATIONS
A M AERIAL
F M AERIAL
INPUT JACK
POWER SUPPLY
FRONT DOOR
CHIMES
black
white
green
red
blue
orange
white-blue
Ext
RR
ST
BA
B
A
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

B. Connections at room stations

The following diagram shows the method of connection of the six wires at each deluxe room station.

C. Front door station

The following diagram shows location of connections of the three pair telephone cable at the front door station together with connections for the door chime.

D. Din socket

The following diagram shows the correct method for connection.

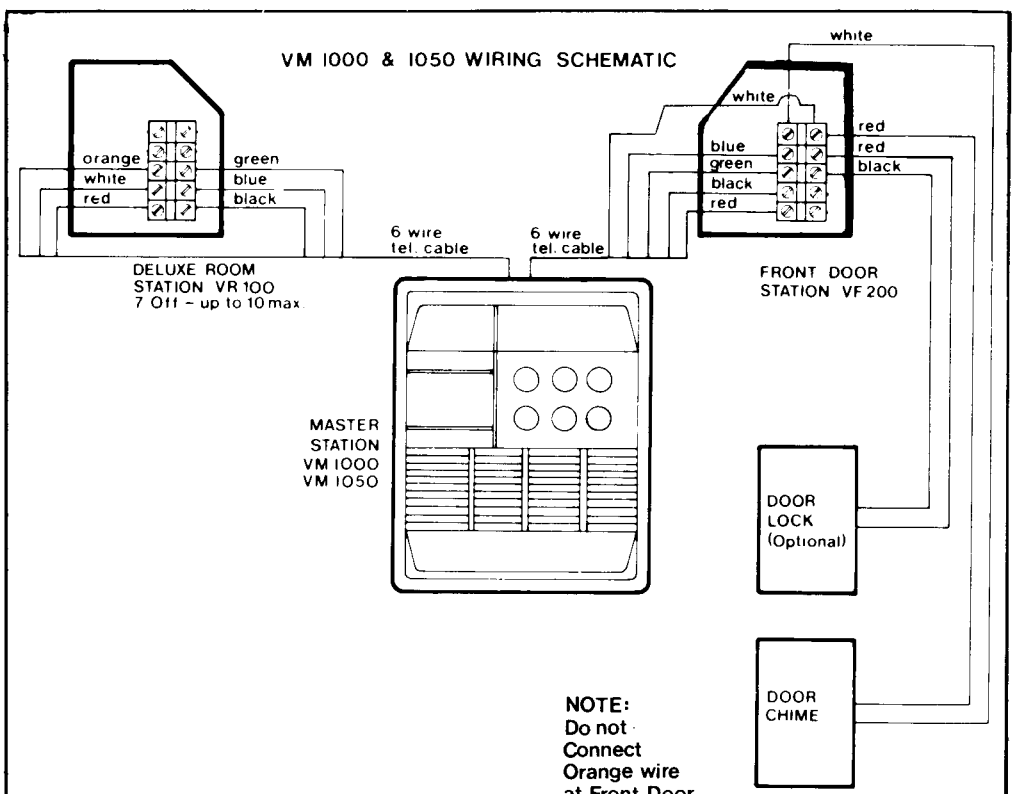


Diagram 10

VM1000 & 1050

The **VM1000 Home Communication System** is designed to allow an intercom function between both the master station and the room stations **as well as** between room stations themselves. The system allows for a **hands free reply** by a room station for a call from the master station, but calls between individual room stations require each room station to be operated individually. The system allows for answering the front door from each station and also provides a facility of unlocking an electric latch (optional extra), if required. The system is designed to allow monitoring of any number of stations from all other stations. Radio and/or music may be played through to all stations or to selected stations. The individual room station control switches allow each room station to be programmed to receive either music and intercom or intercom by itself programmed so as to allow any one of the following –

- **Radio and intercom**
- **Intercom only**
- **Off**
- **Monitoring.**

The system also allows for a private call to be made from the master unit to any selected room station.

Master station

The master station is the control centre of the whole system and has the following controls – **See Diagram 11**

A. Music radio controls

1. Selector switch. The selector switch allows for the selection of any one of the following functions – **Intercom, AM radio, FM radio, auxiliary** (din socket into which stereo, etc., can be plugged), **tape** (allows for the connection of the optional cassette mechanism).

2. Master volume. The master volume switch controls the total system volume of the radio/music functions throughout the whole system. It does not control the intercom volume.
3. Local Volume. The local volume control controls the radio music volume at the master unit itself.
4. Bass. Self explanatory.
5. Treble. Self explanatory.
6. Tuning. Tuning control selects the required radio station.
7. To turn radio off select intercom only on function switch

B. Intercom controls

1.House. The house control is the talk/speak control for the intercom system when speaking within the house. The normal position for the house switch is in the upward position marked **"Reset".** This switch should be placed in the **down position** when wishing to speak to any station inside the house. The switch is to be held in the **downwards position** while speaking and then released in order to listen to the reply. When released the switch will return to the centre position. It should then be again depressed to the downwards position for any further talking. While in either the talk or listen positions the red LED indicator light will show, indicating that the system is in the intercom mode and that the radio and/or music has been disconnected. On completion of the intercom conversation, the switch should be returned to the upwards reset position at which time the red LED light will go out and the radio and/or music will again be connected.

2.Master Monitor. The master monitor switch is used in the situation where the master station itself is required to be monitored i.e., monitor the room in which the master station is located. A red LED light will show when the master monitor switch is being engaged i.e., in the upwards direction.

3. Door lock. The door lock switch is used to activate an electric lock at the front door (optional accessory). The normal position is the centre position and a red LED light will show at such time as the switch is put in the upwards direction (to open door).
4. Front door. The front door switch has exactly the same operation as the house switch except that instead of speaking to the rest of the house, it connects the system to the front door. The upwards or reset position is the standard or normal position, while the bottom position is for talk and the centre position is for listening. On completion of the conversation, the switch is pushed to the upwards position at which time the red LED light will go out and radio or music will be reconnected.

C. Selector or programming switches

There are **ten selector switches** for each of up to ten room stations that allow each room station to be individually programmed in any one of the following four modes –

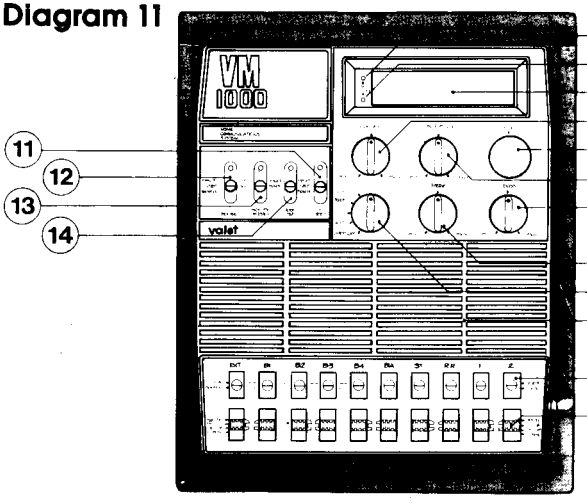
1. Radio/intercom. This is the normal **"on"** position where the room station will receive any intercom and/or music/radio.
2. Intercom only. In this position, the room is left connected to the intercom circuit but will not receive any radio and/or music.
3. Monitor. In this position, a room will not receive any incoming intercom/ radio or music. The room, however, in this position is being monitored or **"listened to"** such that any noise within the room e.g., baby crying, will be transmitted to all other rooms that –
(a) Are programmed in either the intercom and/or intercom radio position; and
(b) Where the volume control is turned on.
4. Off. The **"off"** position will prevent any incoming radio and/or intercom to the room, i.e., silence the room.

D. Intercom volume

The basic system intercom volume is set by a preset adjustment at the rear of the master station.

See back page 18

Diagram 11



Master Station
VM 1000 & 1050

1. Power "ON" Indicator
2. Tuning Indicator
3. Radio Dial Scale
4. Local Volume-Control
5. System Volume-Control
6. Tuning Knob
7. Function Selector System
8. Treble Control
9. Bass Control
10. Speaker
11. Speak to Front Door-Switch
12. Speak to House-Switch
13. Monitor Switch
14. Door Lock
15. Program Switches
16. Private/Normal Mode Switch

E. Deluxe room station

The controls on the deluxe room station are as follows –

1. Volume control. The volume control determines the level of both the radio and the intercom in the room.

2. Call switch. The call switch is the talk switch and should be depressed in order to initiate a call to the master station. The switch is depressed to talk and released to listen.

3. Door lock switch. The door lock switch is used to open the lock (optional extra).

4. Front door. The front door station is a locking switch (i.e., remains depressed) and should be pressed in when wishing to communicate to the front door. Once depressed, the call button is used to actually speak to the front door. The call button is released in order to listen to the reply.

5. Privacy switch. The privacy switch is used to disconnect both the intercom and the radio to the room and to prevent a room being monitored.

See Diagram 12

F. Input jack

The input jack allows external inputs to be played throughout the system. A required signal sensitivity is approximately 50mV. The socket consists of a din socket with five pins. The earth should be connected to pin No. 2 **black** and the signal to pin No. 1 **red.**

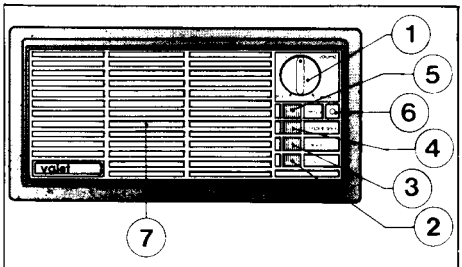
G. Door chimes

Standard door chimes will create a **ding dong** sound when illuminated button at the front door station is depressed.

H. Front door station

By depressing the illuminated switch at the front door station, the door chimes will ring. A visitor, once contacted by someone in the house, does not need to activate any switch in order to reply.

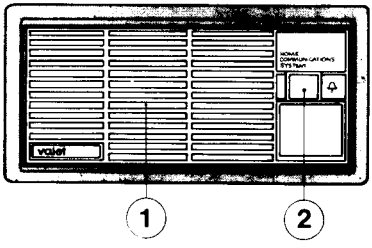
See Diagram 13



Deluxe Room Station

1. Volume Control 2. Call Switch 3. Door Lock
4. Front Door 5. Privacy Button
6. Privacy Indicator Button 7. Speaker

Diagram 12



Front Door Station

1. Speaker
2. Call Button

Diagram 13

H 12hr LED clock module (optional) VM1050 or VM550

The clock module is designed to allow the radio to be used as an alarm and by setting the alarm on the clock module, the radio will be turned on at the selected time in all rooms that are programmed in the **"music and intercom"** position. The clock also has a sleep function that allows for the clock to be programmed to turn the radio off up to 59 minutes after being set e.g., after going to bed. The diagram below shows the six controls on the clock module.

(a) To set "time" of day - Press **"time"** button simultaneously with **"fast"** button. When approaching current time of day, release **"fast"** button and press **"slow"** button until correct time appears on readout.

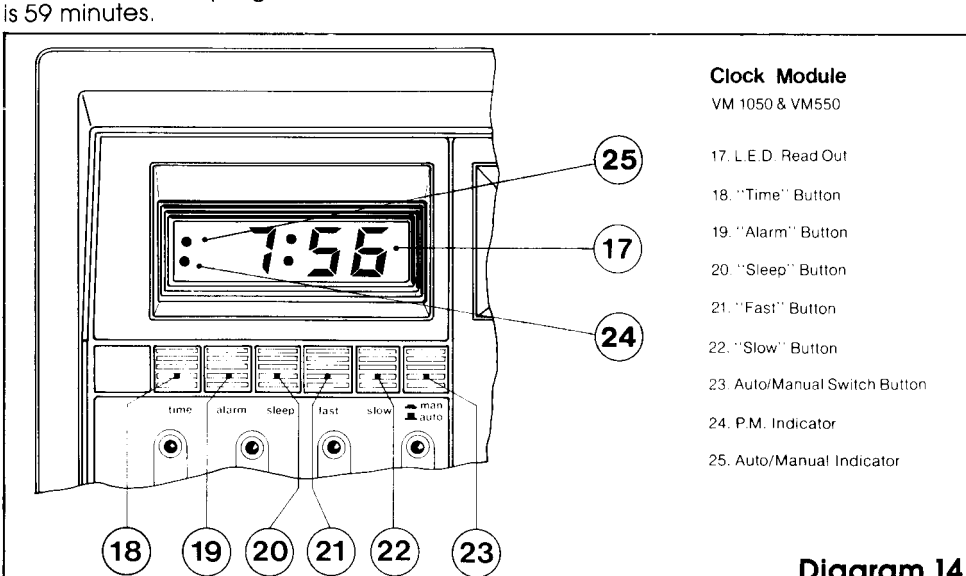
(b) To set "alarm" - Follow above procedure in conjunction with **"alarm"** button.

(c) To set "sleep" - Follow above procedure in conjunction with **"sleep"** button. Maximum programmable time is 59 minutes.

(d) Manual/automatic function
- **Automatic:** To allow for automatic operation of clock to switch the radio on at the programmed time (alarm) the man./auto. button must be in the **"up"** position indicated by the **"top hat".** This will allow the radio to function for a pre-set period of 60 minutes and then automatically switch itself off again. The programme will repeat daily unless changed or some function other than AM or FM radio is selected.

- **Manual:** If man./auto. button is in depressed position then radio will play continuously.

N.B. When the radio switches off automatically after the one hour period, the man./auto. button must be depressed to switch the radio on again. This will not cancel the programmed time for **"alarm"** or **"sleep"**, but the man./auto. button must be again re-set to "auto" for automatic operation.
See Diagram 14



Clock Module
VM 1050 & VM550

17. L.E.D. Read Out
18. "Time" Button
19. "Alarm" Button
20. "Sleep" Button
21. "Fast" Button
22. "Slow" Button
23. Auto/Manual Switch Button
24. P.M. Indicator
25. Auto/Manual Indicator

Diagram 14

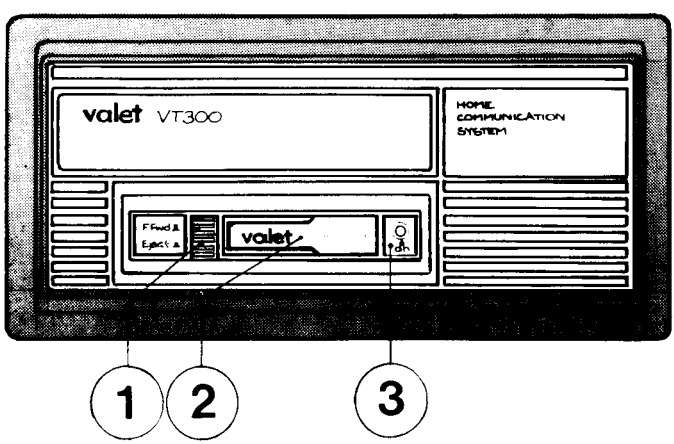
I. Cassette mechanism (optional)

The cassette mechanism is powered by a separate transformer if the unit is more than 1.5 metres from the master station. It is designed to allow cassettes to be inserted in the mechanism and played throughout the whole intercom system. (Recording facility is not available in this model. **See Diagram 15**

1. Play - In order to play the cassettes –
(a) Turn **"selector switch"** on master station to **"tape"** position.
(b) Programme rooms you want the music to be heard in.
(c) Insert **"cassette"** through flap on front of unit until it clicks into position (horizontal). The tape deck will now automatically start playing the tape. The red LED indicator should glow when playing.

2. Fast forward - To wind the tape forward at a faster speed, push button on front, half way in. The deck will now wind the tape at a faster speed.

3. Eject - To stop playing, depress button fully and the mechanism will eject the cassette out half way for easy removal.



Cassette Mechanism

1. Fast Forward/Eject Button
2. Flap
3. On/Off Indicator Lamp

Diagram 15

Useful hints on using a soldering iron

Here are some useful hints on how to use a soldering iron successfully by just observing a few simple rules.

There is nothing really difficult in making a good joint, just observing a few straightforward rules.

1. Make sure that both surfaces to be soldered are clean. In the case of wires, this can be done by pulling the wire a couple of times through the blades of a pair of side cutters as though one was stripping the insulation.

2. Terminals and tags can be scraped with a screwdriver blade. In most cases, wires and terminals will be already tinned, but do not rely too much on it. Next, both surfaces should be tinned. This is done by applying the iron tip to the surface so that it runs easily over it as in Figure 17. If the solder is thick and slow to run, the bit temperature is too low, either because the iron has not been switched on for long enough, or the iron is too small for the job.

3. The solder may not run over the surface readily at first because insufficient heat has been transferred from the bit, and it is just not hot enough to melt the solder. This could be due to bad contact between the bit and the surface, but a little solder introduced at the junction of the two will give a good thermal conduction, and the surface should then quickly attain sufficient temperature to itself to melt solder when applied.

When both surfaces have been tinned, they are brought together in mechanical contact, and the iron applied again to both. More solder is then applied so that it runs freely over both surfaces, then the iron is withdrawn. Do not move the work until the solder has solidified, otherwise a weak joint will result, this will only take a second or so. Where possible, the joint should be mechanically sound before soldering.
NO EXTERNAL FLUX SHOULD BE USED as these are often corrosive and will give trouble in the future. Resin cored solder, preferably 60/40 intended for electronic wiring, should be used of which sufficient of the correct type of flux is contained in the cores of the solder to do the job.
Do not use too much solder as this is not only unnecessary, but could cause a short to adjacent terminals. In appearance the joint should be bright and smooth. A lumpy or pitted joint shows that the solder was not hot enough. It should be a 'mound' rather than a blob. Figure 18 is a dry joint showing a blob of solder due to insufficient heat or dirty surfaces. Figure 19 is a good joint, showing smooth flow of solder over jointed surfaces.
If the solder comes down and curls under, as shown in Figure 18, it has not taken to the surface and we have a dry joint.
By observation of these points, and a little practice, perfect joints can be made every time.

N.B. Use resin core solder only

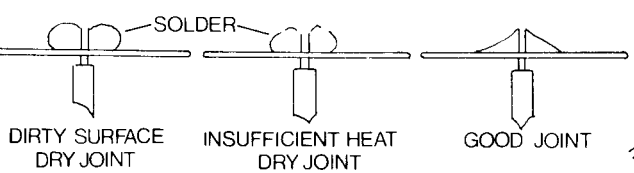


FIG 18 FIG 19

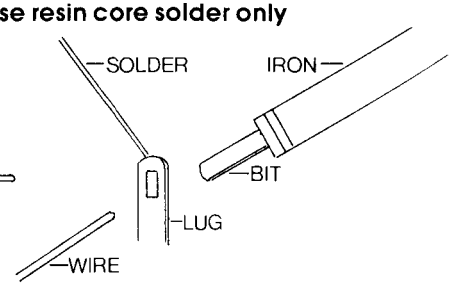
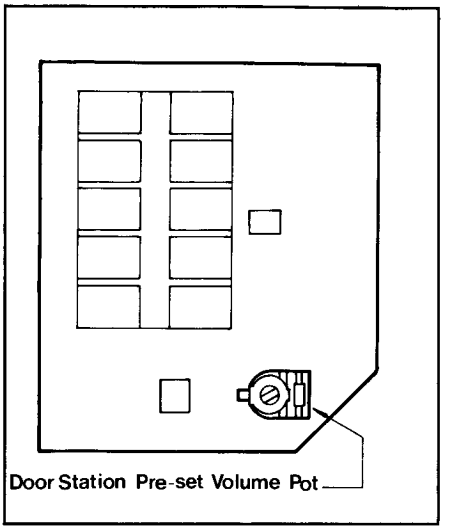


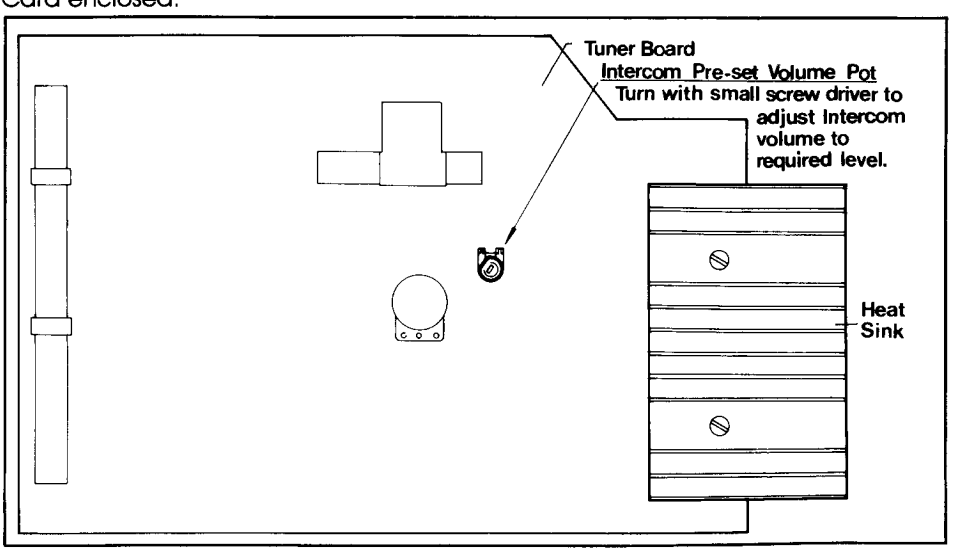
FIG 17

WARRANTY

Valet Systems are warranted for a full twelve month period against defects in workmanship and materials. The warranty is limited to the repair and replacement by the manufacturer of any component part which is found to be defective. The warranty does not cover damage caused by misuse, abuse, neglect, accident or accidents, shipping, damage or normal wear and tear. The warranty is a factory warranty and covers the cost of repair in the factory but does not cover the cost of either labour or travelling time outside the factory and does not cover the cost of freight in returning any part to the factory.
The manufacturer specifically excludes from the warranty any contingent liability in regard to any damage caused during the installation or removal of the system from any installation.
Valet Manufacturing Pty. Ltd. also specifically excludes from its warranty any liability whatsoever in regard to defects caused by incorrect installation whether performed by an authorised distributor or any other person or persons.



For full details refer to Warranty Card enclosed.



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