

Important

These guides are intended to compliment the instructions given in the Operating Manuals supplied with the heat pump.

See page 2 for details of supply and installation
 See page 3 for wiring guide

The system must be filled with antifreeze mixture with freeze protection to -10degC. Premixed solution with inhibitors can be supplied by Omnie ready for use.

Start-up Guide Hydraulic Number 102



Pack 2 - LWD70A/SX + HMD1
 Drawn; WJ
 IN-HP-02.1
 Date; 10/12/18

E & OE

System Components

Items Included in the Pack

HP1 - Outdoor Heat Pump unit	1 x LWD 70A/SX
HMD1 Hydraulic Module HMD1	1 x HMD1
WM/FM- Wall or Floor Mounting Brackets	1 x Pair of either.
AT - Outdoor Air Temperature Sensor	1 x Included in HMD1
FH- Flexible Hoses	1 x IPW1"
B - Buffer Tank	1 x WPS61 Inc 1-1/2" x 1" reducers
C - DHW Cylinder Inc. Unvented Kit	1 x TIM xxx
C1 - DHW Safety Group Set	Inc. with DHW Cylinder
DV- 3 port Diverter Valve 28mm	1 x HP-066109 + HP-066061
BPV - By-Pass Valve 3/4"	1 x UVD3/4"
FB - Strainer Isolation Valve	1 x Filterball 1"

Essential items listed in Quote Options - available from Omnie or by others

WD - Wall Duct	1 x WDF (Wall Penetration Kit)
GC - Glycol Catcher	1 x SOL-DCVS

Essential Items Supplied By Others not by Omnie

- 1 - All interconnecting Pipe, fittings, clips and insulation
- 2 - DHW Secondary Return Pump (if needed)
- 3 - Drain Valve ¾ BSP
- 4 - Auto or manual Vent
- 5 - Defrost Drain Pipe 40mm plastic push fit with waterproof lagging

The list is not extensive and will vary depending on the project, refer to the Quote or Delivery note for full details of what is included.

Electrical Items/Voltage, terminals on the control PCB

Sensors

TA = AT Outdoor Ambient Temperature Sensor
TSR = TRL Return Temperature Sensor
TSD = TBW Temperature Sensor DHW

Pumps and Valves 230V

BUP = DV - Diverter Valve Actuation Terminal L/N/SL
ZIP = SECP - Secondary DHW Circulation pump L/N/PE

MCS Metering For Performance

Electricity meters are shown on both the compressor and the back-up heater. These can be supplied by Omnie and are recommended on all installations to allow the user to monitor their energy consumption.

Refer to the Operating Manuals for detailed information regarding installing the system. If the manuals are not available contact Customer Service at Omnie who will send them in either PDF format or printed copies.

Pipe sizes are provided for guidance only. The sizes given are for copper tube, if using an alternative use the equivalent bore size. If the runs are longer than 5m calculate the pressure drop using the Pa/m data provided. If the resultant total pressure drop is greater than 10kPa use the next size up i.e. 28mm. Avoid a large number of elbows and "T"s, use pulled bends where possible.

All pipework must be well lagged, use minimum 19mm wall thickness closed cell foam. Tape up slit pipe lagging, elbows and valves. Protect all external lagging from UV, rodent and bird damage. External lagging must be waterproof..

Enter the Hydraulic Diagram Number (102) in the Start up Guide at start-up.

Attention

This schematic is provided as a guide to the function of the heat pump system. It shows the general arrangement of the system components and is not a full system design. The installer is responsible for the final as installed design as fits the needs of the application and that the complete heating system complies with all statutory regulations and industry standards.

Isolating valves, pipe brackets, vents, filling flushing and drain points may have been omitted for clarity of function.

The safety devices shown are indicative only and the installer is responsible for ensuring that the system complies with all statutory regulations and that it functions in a safe and efficient manner.

Frost Protection and System Cleanliness are both vital to the longevity of the system. Fill the system initially with water to flush out debris and to hydraulically pressure and leak test. After disinfecting the system with biocide fill with premixed antifreeze solution. Omnie recommend a propylene glycol/demineralised water solution with inhibitors. This can be ordered from Omnie in 20ltr drums. System failures caused by scaling or freezing may invalidate the heat pump warrantee.

The logo for Omnie, featuring the word "OMNIE" in a bold, white, sans-serif font with a registered trademark symbol, set against a dark blue rectangular background.

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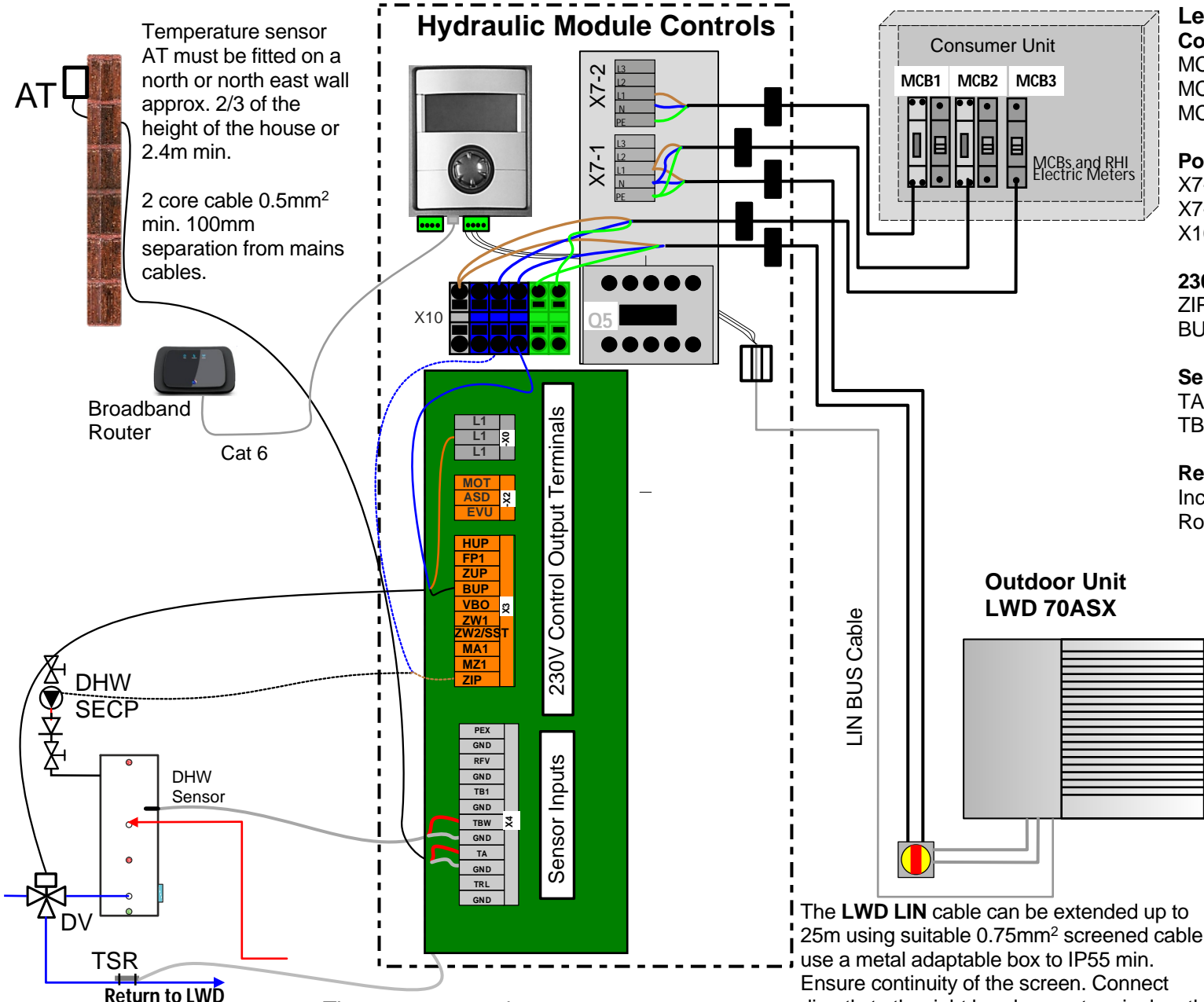
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Omnie Installation Guide



Temperature sensor AT must be fitted on a north or north east wall approx. 2/3 of the height of the house or 2.4m min.

2 core cable 0.5mm² min. 100mm separation from mains cables.

Broadband Router

Cat 6

DHW SECP

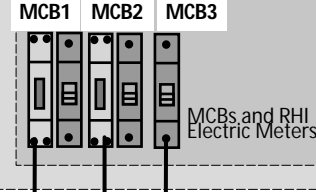
DHW Sensor

DV
TSR
Return to LWD

The return sensor is pre-wired on HMD

Hydraulic Module Controls

Consumer Unit



Legend

Consumer Unit

- MCB1 Back up Heater MCB 32A Type B
- MCB2 Compressor MCB 20A Type C
- MCB3 Control Circuit MCB 16A Type B

Power Terminal Blocks

- X7-1 HP1 Compressor Supply 230V 14A
- X7-2 Back up Heater Supply 230V 25A
- X10 Controls Supply 230V 230V 16A

230V Control Output Terminals

- ZIP - DHW SecP 230V 0.5A
- BUP - DV Diverter Valve SW live 230V 0.5A

Sensor Input Terminals

- TA/GND - AT - Outdoor Temp. Sensor
- TBW/GND - TSD - DHW Cylinder Temp.

Remote Monitoring

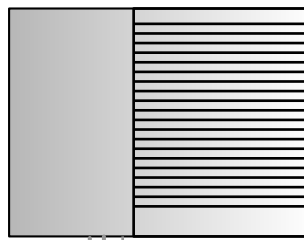
Include a Cat 6 Ethernet cable to the Broadband Router for connection to the remote server.

Note

All sensor cables must be run separate from mains cables with minimum separation 100mm. Sensor cables can be extended up to 30m using 0.5mm² 2 core flex.

The return sensor is prewired on the HMD, the DHW sensor is supplied loose. The Outdoor Temperature sensor is in a white IP67 box supplied with the HMD.

Outdoor Unit LWD 70ASX



The LWD LIN cable can be extended up to 25m using suitable 0.75mm² screened cable. use a metal adaptable box to IP55 min. Ensure continuity of the screen. Connect directly to the right hand green terminal on the control Interface, The numbers on the wires correspond with the numbers on the terminal



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