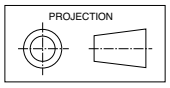
ISDL 29Q - 100Q c/w HAN-L6 Controller

Ducted Split System Indoor Units

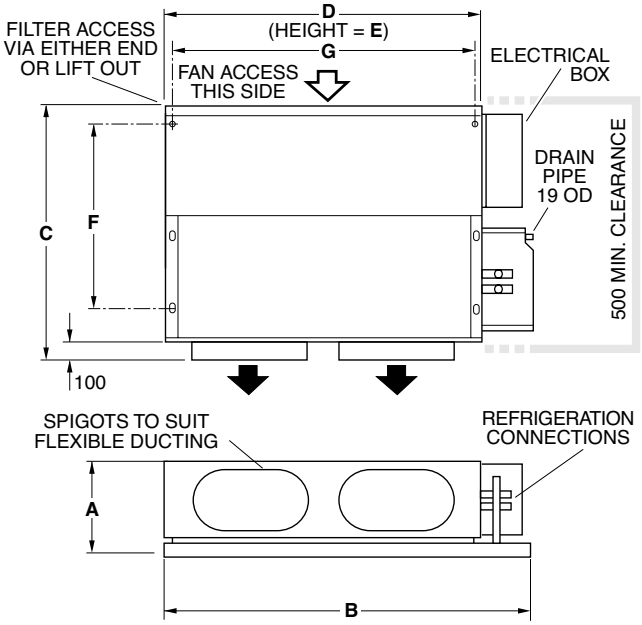
Installation & Maintenance

Fig. 1 Dimensions (mm)

Allow adequate clearance for the filter to be removed.
Note: ISDL 100Q has two half length filters



Not to Scale



MODEL	A	B	C	D	E	F	G	Net Weight	Supply Air Spigots
ISDL 29Q	250	680	715	550	245	470	525	21 kg	200 dia. (x2)
ISDL 45Q	250	930	715	795	245	470	775	28 kg	250 dia. (x2)
ISDL 71Q	260	1195	755	1050	255	510	1025	35 kg	250 dia. (x3)
ISDL 84Q	260	1195	755	1050	255	510	1025	35 kg	250 dia. (x3)
ISDL 100Q	260	1595	755	1445	255	510	1425	50 kg	250 dia. (x4)

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

Fig. 2 Condensate Drain

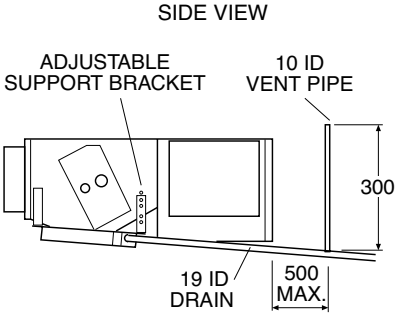
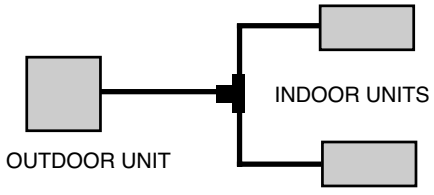


Fig. 3 ISDL Tandem Piping



Maximum line length specified for the outdoor unit must include both tandem legs.

Tandem legs must be as close as possible to equal, after leaving the common leg.

GENERAL
The ISDL 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.

Note: This ISDL is not designed to accomodate the HAN-L6 Zone Control option. If zone control is a requirement, refer to **temperzone**.

Combinations
One ISDL 29Q with one OSA 29
One ISDL 45Q with one OSA 45
One ISDL 71Q with one OSA 73
One ISDL 84Q with one OSA 85
One ISDL 100Q with one OSA 100/101

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

Two ISDL 29Q with one OSA 45
Two ISDL 45Q with one OSA 73
Two ISDL 45Q with one OSA 85
Two ISDL 71Q with one OSA 126/127
Two ISDL 84Q with one OSA 147/148
Two ISDL 84Q with one OSA 150
Two ISDL 100Q with one OSA 180/181

Note: Indoor units connected in tandem require a Tandem Kit (supplied separately). Some piping restrictions apply – refer Fig.3.

ISDL c/w ELECTIC HEAT OPTION (Factory Fitted)
Units supplied with electric boost heat are designed to conform to AS/NZS 3350.2.40 1997.

ISDL 29Q: 1 kW element, 4.4 A
ISDL 45Q: 1.5 kW element, 6.6 A
ISDL 71Q: 2 kW element, 8.8 A
ISDL 84Q: 2 kW element, 8.8 A
ISDL 100Q: 3 kW element, 13.2 A

Note: Reverse Cycle systems fitted with electric heat require an Outdoor Unit low limit t/stat (supplied separately).

INSTALLATION
Positioning & Mounting
Provide 500 mm minimum clearance to the electrical box end of the unit. Allow adequate clearance for the filter to be withdrawn to its full length from either end of the unit. Alternatively the filter may be lifted out of its track.

If the Electric Heat Kit option is to be used, allow adequate clearance for servicing.

Install the unit suspended on threaded rods or bolts and locking nuts (not supplied). Alternatively mount each unit on vibration isolators on a suitable platform.

The unit must be installed level with the drain tray tilted about 10 mm along its length so that the drain connection is at the lowest point. Use the adjustable support bracket (see figure 2) to lower the drain pipe corner of the drain tray.

Condensate Drain
The drain should have a slope of at least 1 in 50 and must not be piped to a level above the unit drain tray. Fit a vent pipe within 500 mm of the unit (see Fig.2). Check the drain by pouring water into the drain tray and ensuring that it clears.

INDOOR–OUTDOOR UNIT CONNECTIONS
Refer to the relevant OSA Outdoor Unit 'Installation & Maintenance' pamphlet for piping instructions.
For wiring connections, refer to the Outdoor Unit wiring diagram in conjunction with the ISDL wiring diagram in this pamphlet.
An interconnecting lead (12.5 m or 25 m, 7 core) is available as an optional extra.

REFRIGERATION PIPING
Pipe Connection Sizes (mm OD)

Model	Liquid	Suction
ISDL 29Q	6 ($^1/_4$")	13 ($^1/_2$")
ISDL 45Q	6 ($^1/_4$")	13 ($^1/_2$")
ISDL 71Q	10 ($^3/_8$")	16 ($^5/_8$")
ISDL 84Q	10 ($^3/_8$")	16 ($^5/_8$")
ISDL 100Q	10 ($^3/_8$")	16 ($^5/_8$")

ISDL units are supplied with flare nut connections and a pressurised holding charge of dry nitrogen.

Refer to the Outdoor Unit 'Installation & Maintenance' pamphlet for evacuation procedure and piping requirements.

ELECTRICAL WIRING
The electrical supply required (via the Outdoor 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.

In a free blow or low resistance application, beware of exceeding the fan motor's full load amp limit (refer Outdoor Unit's wiring diagram).

Note: The HAN-L6 Controller automatically switches the indoor fan off during de-ice, therefore no additional wiring is required to achieve this result.

HAN-L6 CONTROLLER
The following components are supplied in a box beside the ISDL electrical box:
1. HAN-L6 Wall Control plaque, including wall mounting plate and screws.
2. 10 m interface lead (plaque-to-electrical box).
3. *User's Operating Instructions* booklet.
4. HAN-L6 Installation Instructions.

Optional
1. Remote return air temperature sensor on lead; 5 m or 10 m.
2. Remote wall mounted air temp. sensor on lead; 5 m or 10 m.
3. 20 m extended interface lead (electrical box-to-plaque).
4. ISDL electrical box–to–OSA outdoor unit interconnecting lead; 12.5 m or 25 m; 7 core.
5. Additional HAN-L6 Wall Control plaques (Note: maximum of 4 plaques in total).

Installation
The HAN-L6 Controller board is supplied pre-installed inside the ISDL unit's electrical box.

1. Isolate the ISDL unit from power supply, then remove electrical box cover.
2. Remove the items supplied lose in the electrical box.
3. Connect one end of the interconnecting cable (supplied separately) to the unit's terminals and the other end to your OSA outdoor unit as per wiring diagram, page 4.
4. Remove the Wall Control's interface lead from its box and connect one end of the interface lead to the colour coded terminal block on the HAN-L6 Controller board. Trace the remaining length of the lead to the wall thermostat's intended location.
5. Ensure all interface and sensor wires are run separately and away from main power supply wires, including the interconnecting cable.
6. Replace the electrical box cover.

HAN-L6 Wall Control
Refer to the separate Installation Instructions supplied with the HAN-L6 Wall Control.

Remote Air Temperature Sensor/s (option)
The air temperature sensor is by default located in the Wall plaque. Optional remote air temperature sensors are available so that the measurement of the room temperature can be taken away from the wall plaque, eg. elsewhere in the room or in the return air duct.

If plugging the remote sensor into the Wall Control (TH1R) a jumper (JP1) must be repositioned to switch the active sensor to the remote location (refer separate HAN-L6 Installation Instructions).

Remote sensors can be plugged directly into the Controller board (PCB). This board accepts up to four sensors which are designated as 'zones' two to five. The first zone will always be the Wall Control itself. The Controller will always use the average of the zones selected. Refer to the separate installation instructions supplied with the PCB for further details.

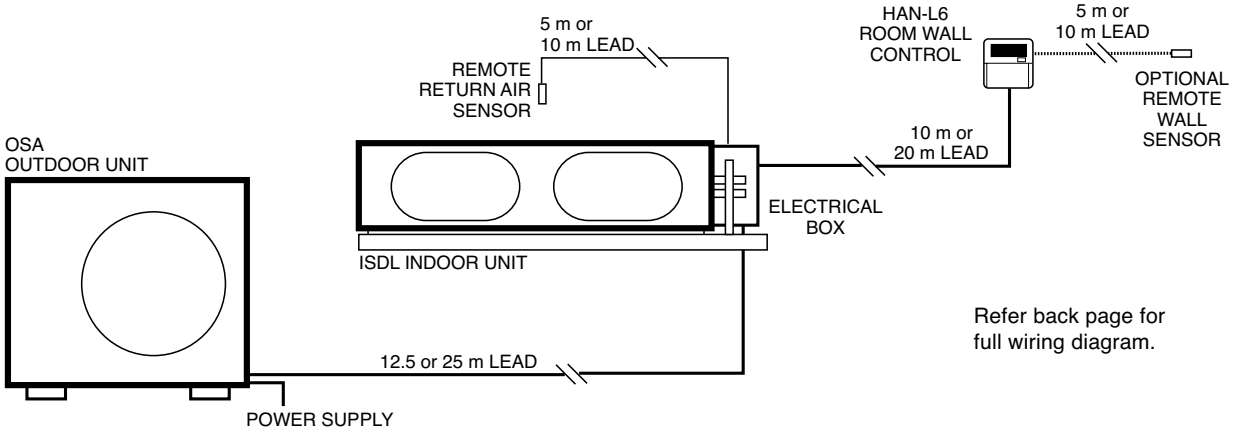
ISDL/OSA SYSTEMS WITH ELECTRIC HEAT
Replace the systems external fuse with the size recommended in the table below and mark the change on the Outdoor Unit's wiring diagram.

Outdoor Unit	Replacement Fuse Size
OSA 29	20 A
OSA 45	25 A
OSA 73	32 A
OSA 85	32 A
OSA 100	40 A
OSA 101	25 A

Note: Tandem indoor units with electric heat may require greater fuse sizes on the power supply.

COOLING OPERATION
An outdoor unit HP Fan Speed Controller, (available from **temperzone**) is recommended where indoor cooling is required at ambient conditions below 20°C.

Fig. 4 HAN-L6 Control Wiring



Refer back page for full wiring diagram.

COMMISSIONING

Indoor Unit

1. Check that the wall thermostat is correctly wired and set at the desired temperature.
2. Check that the air filter is clean.
3. Check that the fan runs freely without vibration.
4. Check condensate drain for free drainage.
5. Refer to Outdoor Unit Installation Instructions to complete the start-up and commissioning procedure for the complete air conditioning system.

   This procedure will require a demonstration of the Wall Thermostat to the owner/user, after having first thoroughly familiarised yourself with the *User's Operating Instructions*

MAINTENANCE

Weekly For First Four Weeks

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

Monthly

Check air filter; vacuum clean as necessary.

Six Monthly

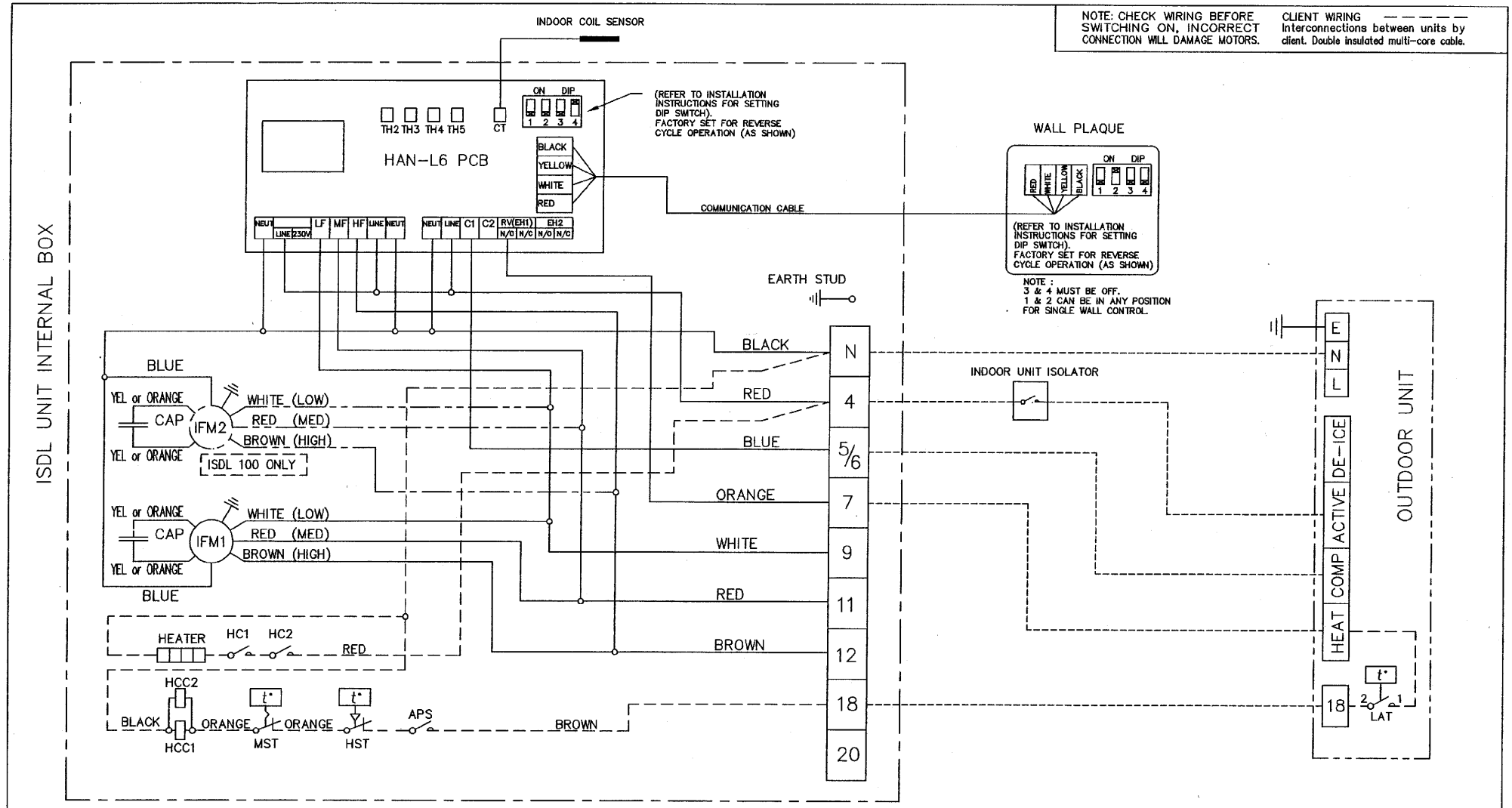
1. Check condensate drain for free drainage.
2. Check heat exchanger coil; vacuum or brush clean as necessary.
3. Check the tightness of the fan.
4. Check that fan motor is free running.
5. Check tightness of electrical connections.
6. Check air supply at diffuser outlets.

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.

This pamphlet replaces the previous issue no. 2444 dated 12/04.
Wiring revision B.



B	CHANGE TO TH2/TH3/TH4/TH5	1180	22-06-05	ROD
A	20 ADDED TO TERMINAL BLOCK L ADDED TO OUTDOOR UNIT TB	1082	16-12-04	D.A.B.
ISSUE	MODIFICATION	ECN	DATE	APRVD

MODEL		ISD 29	ISD 45	ISD 71	ISD 84	ISD 100
INDOOR FAN MOTOR RUNNING AMPS	HIGH	0.40	0.70	1.15	1.20	1.70
	MED	0.35	0.48	0.95	1.05	1.45
	LOW	0.30	0.40	0.85	0.90	1.30

DRG SIZE	No.	DESCRIPTION	Mat.l	FINISH	ASSY No.

Programmed by

PLOTTED 15-12-05

Title: ISDL 29-100 WITH T/STAT HAN-L6 WIRING SCHEMATIC

temperzone

Drawn D.W.H	Date 01-12-04	Drawing No. 325-004-006	Revision B
Scale	Aprvd OJ