

IJD 370, 450, 620, 950, 1400

Chilled Water Air Handling Units

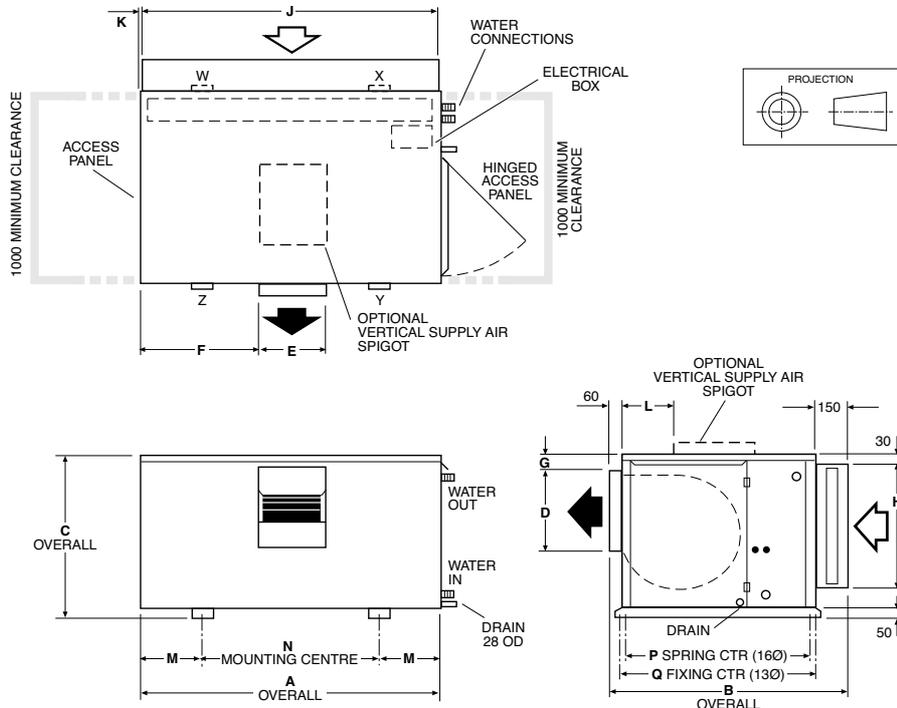
Installation & Maintenance

Dimensions (mm)

Not to Scale

Fig. 1

MODEL (4/1 Coil)	Wt (kg) incl. water	CORNER LOADS (kg)			
		W	X	Y	Z
IJD 370	180	40	52	50	38
IJD 450	217	61	74	47	35
IJD 620	245	69	83	54	39
IJD 950	316	95	103	64	54
IJD 1400	445	115	145	107	78



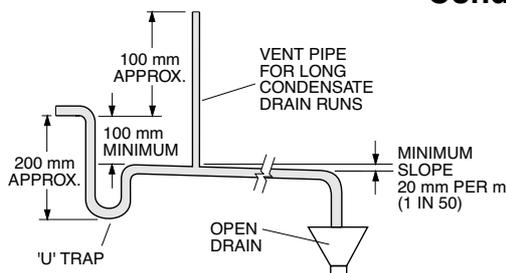
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
IJD 370	1270	1080	675	350	320	425	55	505	1200	15	215	310	655	832	882
IJD 450	1270	1200	775	410	335	420	60	630	1200	35	260	245	780	947	997
IJD 620	1520	1200	775	410	335	595	60	630	1500	10	255	310	904	947	997
IJD 950	1675	1200	1005	405	475	520	130	905	1500	55	245	308	1060	947	997
IJD 1400	2220	1330	1070	480	560	835	50	965	2000	75	290	430	1360	1066	1116

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



GENERAL

The IJD ducted air handling units must be installed in accordance with all national and local safety codes.

Optional Filters

ELECTRIC HEAT (Factory Fitted Option)

Refer to wiring diagram for size of elements supplied. A fan run-on timer for rapid heat dissipation is included with this option. A 24 hour power supply is essential for this timer to function correctly.

INSTALLATION

Positioning & Mounting

Provide 1 m minimum clearance to both ends of the unit.

The unit has a built-in sloping drain tray, therefore mount it level.

Fasten the unit down to a firm flat horizontal base using the four fixing holes provided in the mounting rails.

When the unit is being installed on a roof it is recommended that the unit is installed on a substantial structure with vibration isolating springs beneath the unit. These springs are not supplied with the unit.

Condensate Drain

The unit has an internal sloping condensate drain tray. The drain exit should be trapped outside the unit cabinet. The trap should have a vertical height of at least 100 mm. 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. (Refer Fig.2).

For long condensate pipe runs, fit a vent pipe near the drain trap. The top of the vent pipe must be at least 100 mm above the IJD unit's drain tray.

It is essential that the drainage system is checked by pouring water in the drain tray and seeing that it discharges at the end of the drain and does not overflow the drain tray.

ELECTRICAL WIRING

The electrical supply required (including voltage fluctuation limits) is: 3 phase 342-436 V a.c. 50 Hz with neutral and earth. The supply to have an isolation switch adjacent to the unit but not attached to the unit. Recommended external fuse size is shown on the wiring schematic.

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

UNITS WITH ELECTRIC HEAT

If electric elements have been included (factory fitted), a 24 hour power supply is required to power the fan run-on timer. Recommended external fuse size for a unit factory fitted with electric elements is shown on the relevant wiring schematic.

This electric heat kit includes both auto (90°C) and manual (120°C) high temp. safety thermostats. If the manual high temp. safety t/stat requires resetting and the auto high temp. safety t/stat does not reset, then the latter needs to be replaced.

FAN SPEED

The fan motor is fitted with a factory set adjustable pitch pulley. One revolution of adjustment is equal to approx. 7% change in air volume flow rate.

To change the fan speed loosen the motor mounting plate hold down screws, loosen the pulley grub screws and turn the pulley flange the desired amount. The pulley adjustment is locked by tightening the grub screws in the keyways.

When setting air flows ensure that the pulleys are in alignment. Tension the belt by adjusting the motor mounting plate.

COMMISSIONING

1. Check that the thermostat is correctly wired and set at the desired temperature.
2. Check that the air filter (if fitted) is clean.
3. Check that the fan runs freely without vibration.
4. Check the airflow at each air outlet (diffuser) and adjust if necessary.
5. Check condensate drain for free drainage.

MAINTENANCE

Weekly For First Four Weeks

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

Monthly

Check air filter (if fitted); 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, motor mountings, pulley and belt tension.

4. Check the tightness of the fan.
5. Check that fan motor is free running.
6. Check tightness of electrical connections.
7. Check air supply at diffuser outlets.

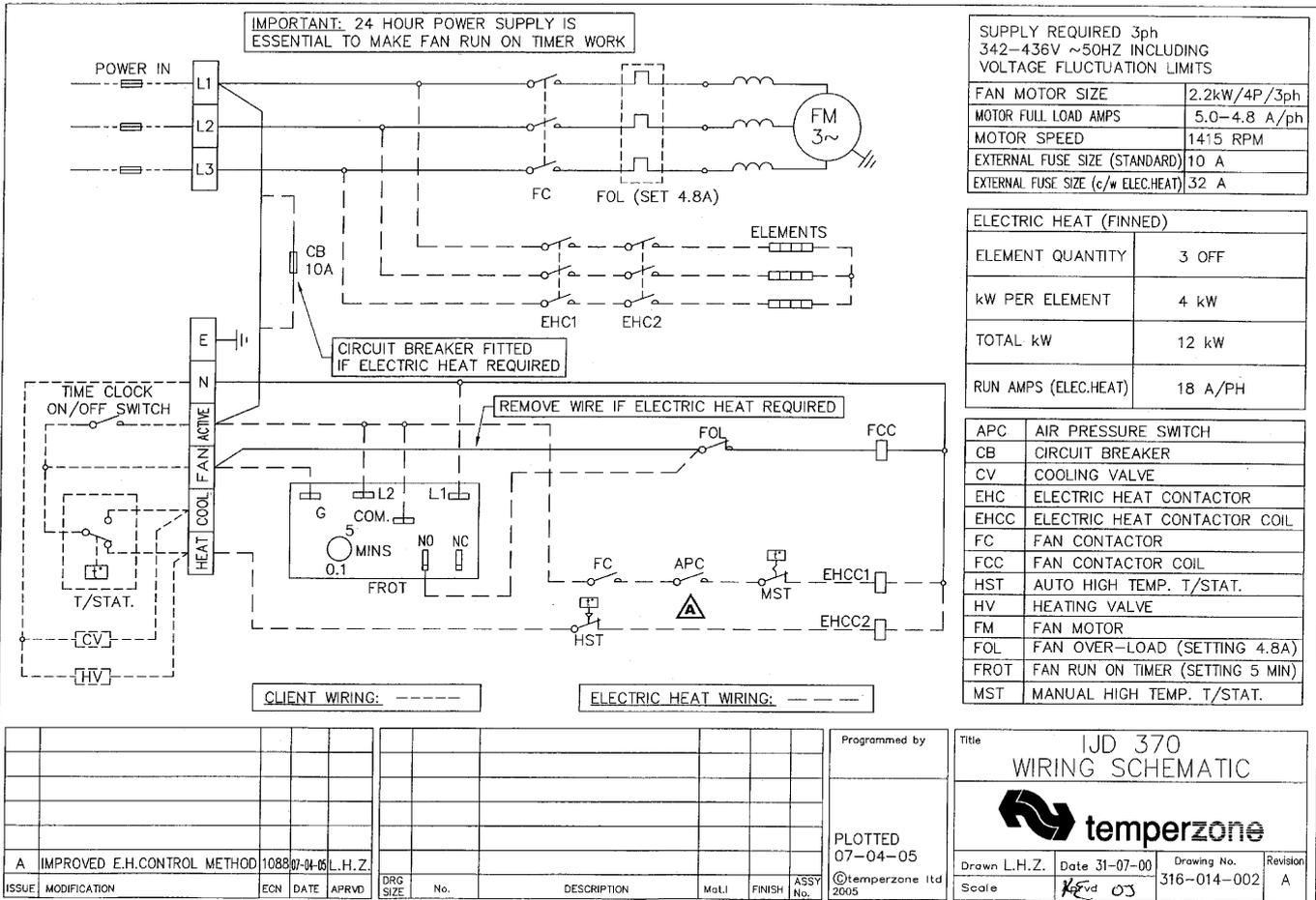
Yearly

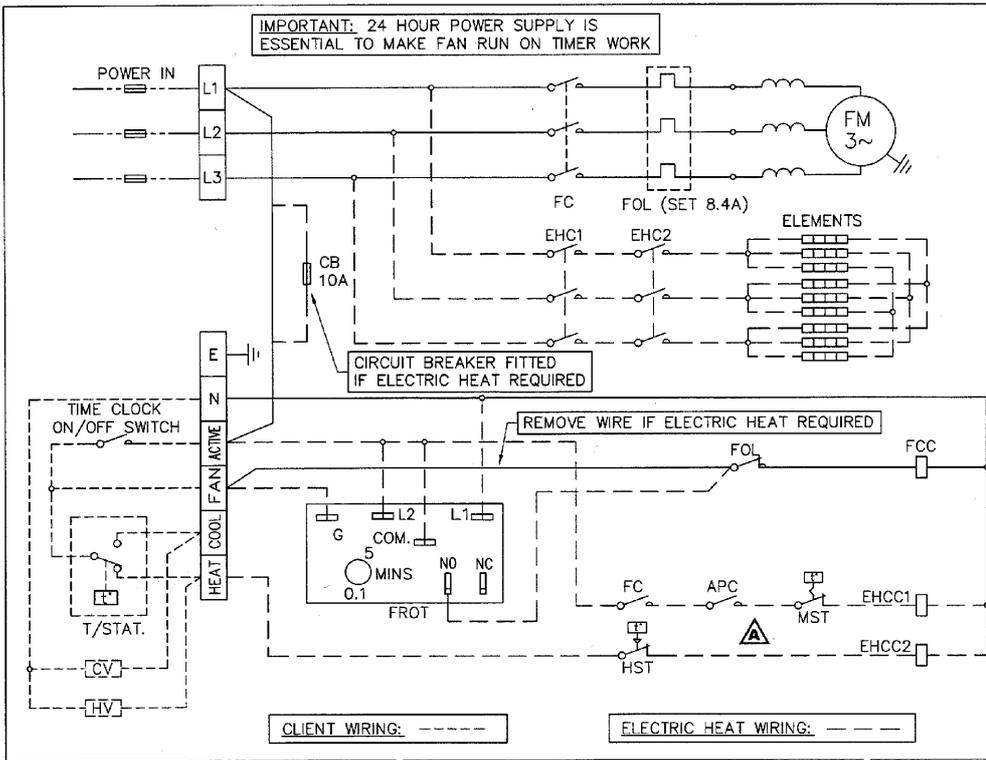
1. Check fan shaft bearings and lubricate with a lithium base grease.
2. If unit is installed outdoors, touch up any paintwork damage to prevent corrosion.

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This pamphlet replaces the previous issue no. 2016 dated 06/01. Wiring revisions A - electric heat.





SUPPLY REQUIRED 3ph
342-436V ~50HZ INCLUDING
VOLTAGE FLUCTUATION LIMITS

FAN MOTOR SIZE	4 kW/4P/3ph
MOTOR FULL LOAD AMPS	8.7-8.4 A/ph
MOTOR SPEED	1440 RPM
EXTERNAL FUSE SIZE (STANDARD)	16 A
EXTERNAL FUSE SIZE (c/w ELEC.HEAT)	63 A

ELECTRIC HEAT (FINNED)

ELEMENT QUANTITY	9 OFF
KW PER ELEMENT	3 kW
TOTAL KW	27 KW
RUN AMPS (ELEC.HEAT)	40 A/PH

APC	AIR PRESSURE SWITCH
CB	CIRCUIT BREAKER
CV	COOLING VALVE
EHC	ELECTRIC HEAT CONTACTOR
EHCC	ELECTRIC HEAT CONTACTOR COIL
FC	FAN CONTACTOR
FCC	FAN CONTACTOR COIL
HST	AUTO HIGH TEMP. T/STAT.
HV	HEATING VALVE
FM	FAN MOTOR
FOL	FAN OVER-LOAD (SETTING 8.4A)
FROT	FAN RUN ON TIMER (SETTING 5 MIN)
MST	MANUAL HIGH TEMP. T/STAT.

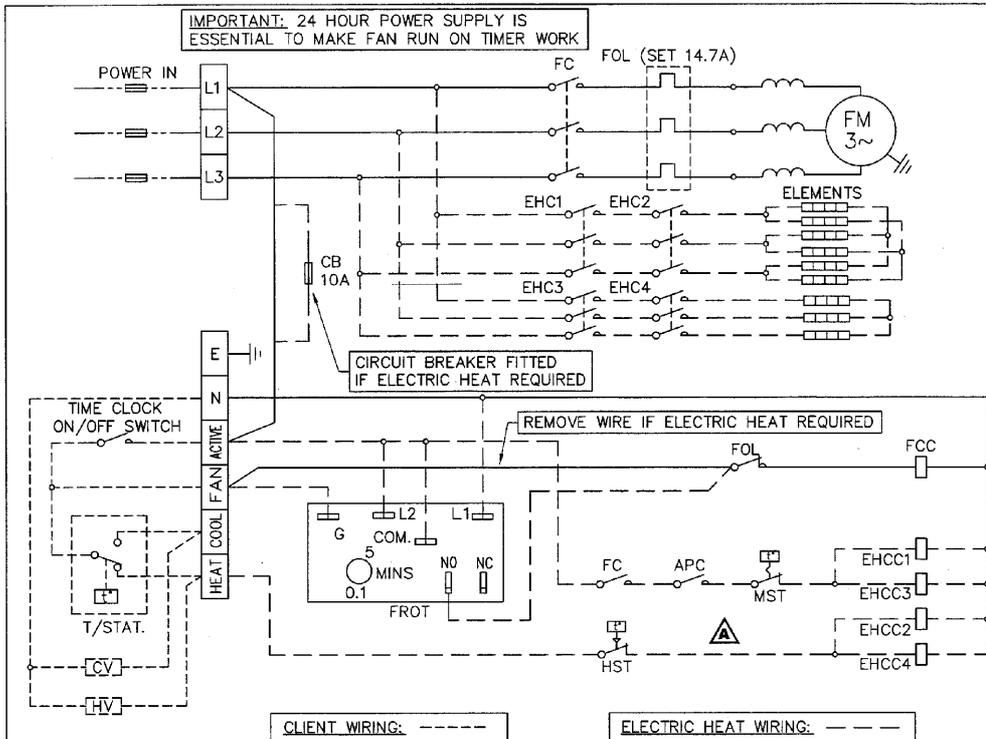
ISSUE	MODIFICATION	ECN	DATE	APRVD	DRG SIZE	No.	DESCRIPTION	Mat'l	FINISH	ASSY No.
A	IMPROVED E.H.CONTROL METHOD	1088	07-04-05	L.H.Z.						

Programmed by

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08-04-05
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2005

Title IJD 950
WIRING SCHEMATIC

Drawn J.S.L. Date 31-07-00 Drawing No. 316-434-002 Revision A
Scale 1:1



SUPPLY REQUIRED 3ph
342-436V ~50HZ INCLUDING
VOLTAGE FLUCTUATION LIMITS

FAN MOTOR SIZE	7.5kW/4P/3ph
MOTOR FULL LOAD AMPS	15.4-14.7 A/ph
MOTOR SPEED	1450 RPM
EXTERNAL FUSE SIZE (STANDARD)	25 A
EXTERNAL FUSE SIZE (c/w ELEC.HEAT)	87 A

ELECTRIC HEAT (FINNED)

ELEMENT QUANTITY	9 OFF
KW PER ELEMENT	4 kW
TOTAL KW	36 KW
RUN AMPS (ELEC.HEAT)	53 A/PH

APC	AIR PRESSURE SWITCH
CB	CIRCUIT BREAKER
CV	COOLING VALVE
EHC	ELECTRIC HEAT CONTACTOR
EHCC	ELECTRIC HEAT CONTACTOR COIL
FC	FAN CONTACTOR
FCC	FAN CONTACTOR COIL
HST	AUTO HIGH TEMP. T/STAT.
HV	HEATING VALVE
FM	FAN MOTOR
FOL	FAN OVER-LOAD (SETTING 14.7A)
FROT	FAN RUN ON TIMER (SETTING 5 MIN)
MST	MANUAL HIGH TEMP. T/STAT.

ISSUE	MODIFICATION	ECN	DATE	APRVD	DRG SIZE	No.	DESCRIPTION	Mat'l	FINISH	ASSY No.
A	IMPROVED E.H.CONTROL METHOD	1088	07-04-05	L.H.Z.						

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Title IJD 1400
WIRING SCHEMATIC

Drawn J.S.L. Date 31-07-00 Drawing No. 316-574-002 Revision A
Scale 1:1