

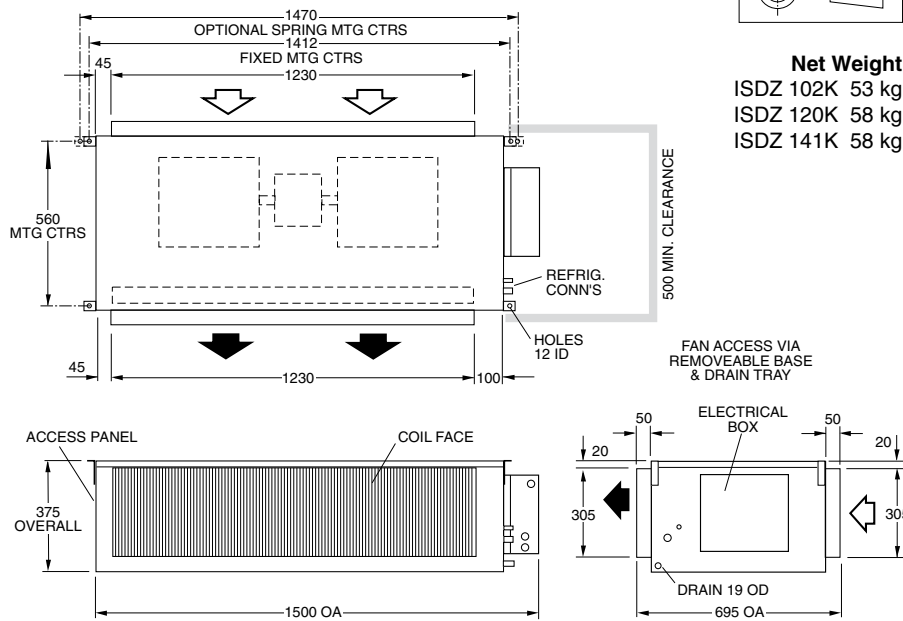
ISDZ 102/120/141 KFD (c/w RC-E3N Controller)

Ducted Split System R410A Indoor Units

Installation & Maintenance

Fig. 1 Dimensions (mm)

Not to Scale



NOTE

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

Fig. 2 Spring Mounting

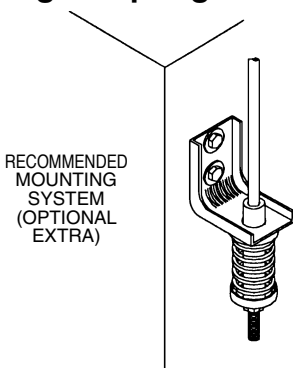


Fig. 3 Solid Mounting

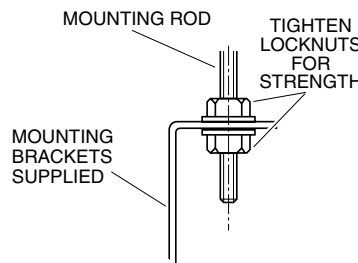
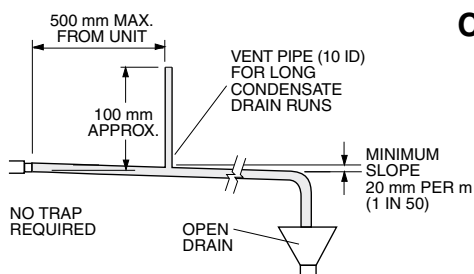


Fig. 4



GENERAL

These ISDZ*KFD indoor units are designed to be coupled with the OSA*RKSHF inverter outdoor units. The 'D' indicates the unit is supplied complete with RC-E3N room temperature controller.

Units must be installed in accordance with all national and local safety codes.

Combinations

- One ISDZ 102KFD with one OSA 102RKSHF
- One ISDZ 120KFD with one OSA 120RKSHF
- One ISDZ 141KFD with one OSA 141RKSHF

AIR FILTRATION / FILTER BOX (Option)

As air filtration requirements vary, filters are not supplied with the unit. Filters should ideally be installed on the return air side of the unit, no closer than 500mm from the back of the unit and easily accessible for cleaning. To maximise the efficiency of air flow, the return air filter should be twice the area of the ISDZ unit's return air spigot/s.

INSTALLATION

Positioning & Mounting

Provide 500 mm minimum clearance to both ends of the unit.

If low noise is a critical factor in the installation, refer to Figure 6 for noise isolation recommendations.

It is recommended that the unit be mounted using the spring mounting system, supplied as an optional extra (Fig.2). This system minimises transfer of vibration into the building structure.

If a more rigid installation can be tolerated, then suspend the unit from four threaded rods (not supplied) attached to the ceiling. Four 'L' shaped brackets are supplied on the unit to facilitate this method. These brackets must first be unscrewed, reversed and resecured to enable rod attachment.

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

When finally positioned, tighten the lock nuts on the mounting rods from above and below the mounting flange to give a firm installation (see Fig. 3).

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. (Refer Fig.4). Fit a vent pipe within 500 mm of the unit. Check the drain by pouring water into the drain tray and ensuring it clears.

Note: The built-in drain tray can be removed for cleaning (or fan access) by first removing the unit's base.

INDOOR-OUTDOOR UNIT CONNECTIONS

Refer to the relevant FDCVA Outdoor Unit 'Installation & Maintenance' pamphlet for piping instructions. For wiring connections, refer to the Outdoor Unit wiring diagram in conjunction with the ISDZ wiring diagram in this pamphlet.

REFRIGERATION PIPING Pipe Connection Sizes (mm OD) & Type

Liquid : 13 mm OD ($\frac{1}{2}$ ") flare

Suction : 19 mm OD ($\frac{7}{8}$ ") flare

Refer to the Outdoor Unit installation instructions 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 specification label).

RC-E1 CONTROLLER

Follow the instructions supplied with the RC-E3N Controller.

Important: There are two default function settings which are factory set and should be confirmed at the RC-E3N prior to final commissioning:

1. Remote Control Unit function 13.
Set 'I/U FAN SPEED' to '3 SPEED FAN'
2. Indoor Unit Function 01.
Set 'Hi CEILING SET' to...
for ISDZ 102KFD : 'STANDARD'
for ISDZ 120KFD : 'Hi CEILING 1'
for ISDZ 141KFD : 'Hi CEILING 1'

If the air returning to the indoor unit is regularly expected to be above 50%RH, then the coil face velocity should be limited to be 2.5 m/s or less.

High humidity levels can occur in tropical or subtropical conditions, and/or when heavily moisture laden fresh air is introduced. Select a fan speed that avoids water carry-over problems.

COMMISSIONING

Indoor Unit

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 condensate drain and safety drain tray for free drainage.

Refer to Outdoor Unit Installation Instructions in order to complete the start-up and commissioning procedure for the complete air conditioning system.

Demonstrate the RC-E3N Wall Control to the owner/user, after having first thoroughly familiarised yourself with the User's Manual. This manual is to remain with the owner/user.

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.
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 HFC-410A (R410A). 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.

NOTE

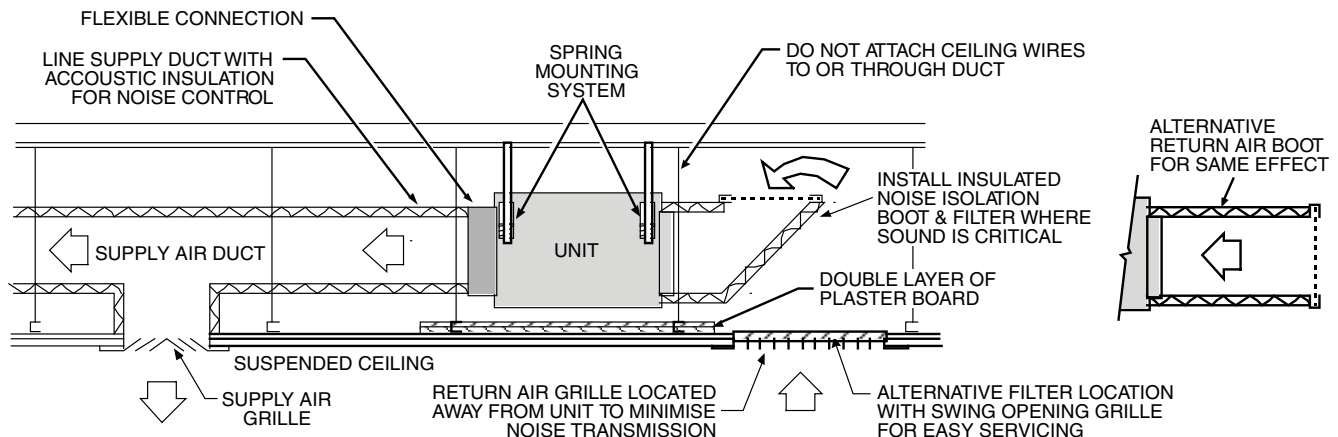
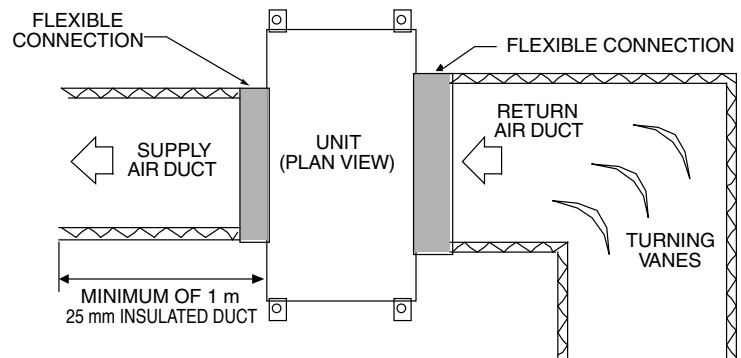
The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified dimensions available on request.

This pamphlet replaces the previous issue no. 2851 dated 02/08. OSA replaces FDCVA, RC-E3N replaces RC-E1.

Fig. 5 Application Considerations

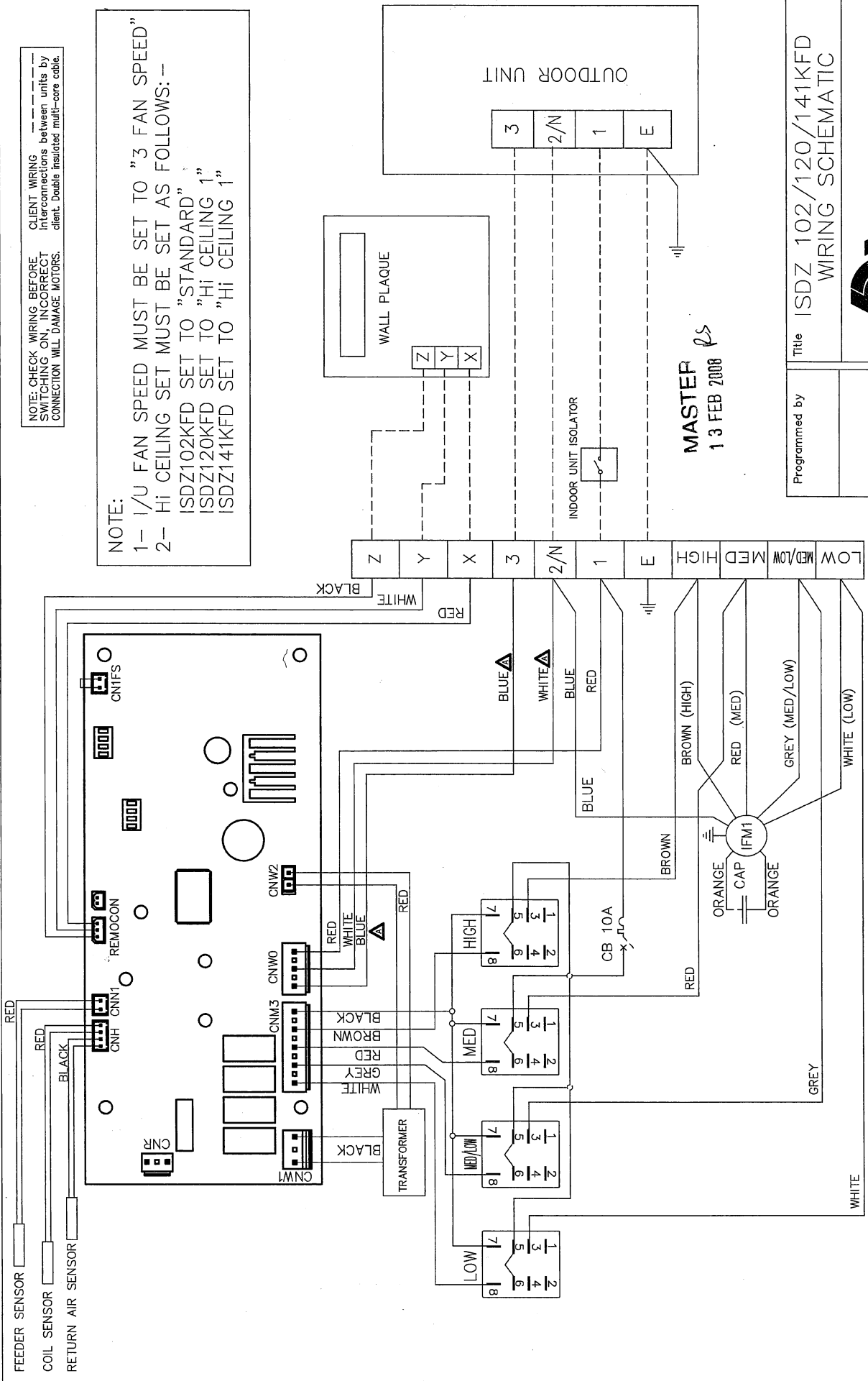
Recommendations for Noise Isolation - particularly for high static installations:

1. Avoid installing units, with non-ducted return air, directly above spaces where noise is critical.
2. Use flexible connections between unit and rigid ducting.
3. Use generously sized acoustically lined ducts.
4. If generous duct size is not possible, use turning vanes on bends to reduce air turbulence (regenerated noise).
5. Use 90° bends in ducting to significantly assist in noise reduction.



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

NOTE:
 1- 1/2 FAN SPEED MUST BE SET TO "3 FAN SPEED"
 2- HI CEILING SET MUST BE SET AS FOLLOWS: -
 ISDZ102KFD SET TO "STANDARD"
 ISDZ120KFD SET TO "HI CEILING 1"
 ISDZ141KFD SET TO "HI CEILING 1"



MASTER
 13 FEB 2008

Programmed by

Title ISDZ 102/120/141KFD
 WIRING SCHEMATIC

Plotted 03-02-08
 ©temperzone ltd 2004

Drawn KTT Date 12-10-07
 Scale 1:1

Revision Drawing No. 515-244-002
 A

ISSUE	MODIFICATION	ECN	DATE	APRVD	DRG SIZE	No.	DESCRIPTION	Mat.l	FINISH	ASSY No.
A	BLUE WAS WHITE/WHITE WAS BLUE		17/6/13-02-08	ROD						

