

ISD/L-K Series

Split System Indoor Units

GENERAL

This Tandem Kit is designed to facilitate this arrangement by pairing one ISD/L unit c/w SAT-1 Controller (Master unit) and one ISD/L unit without controller (Slave unit).

This kit must be installed by a qualified electrician and in accordance with all national and local safety codes.

COMBINATIONS

ISDL 55/56K-D + ISDL 55/56K with one OSA 95
 ISDL 55/56K-D + ISDL 55/56K with one OSA 110
 ISDL 80K-D + ISDL 80K with one OSA 160
 ISDL 80K-D + ISDL 80K with one OSA 160
 ISDL 83K-D + ISDL 83K with one OSA 160
 ISDL 83K-D + ISDL 83K with one OSA 160

ISDL 95K-D + ISDL 95K with one OSA 200
 ISDL 95K-D + ISDL 95K with one OSA 200
 ISDL 96K-D + ISDL 96K with one OSA 200
 ISDL 96K-D + ISDL 96K with one OSA 200
 ISDL 110K-D + ISDL 110K with one OSA 230
 ISDL 110K-D + ISDL 110K with one OSA 230
 ISD 80K-D + ISD 80K with one OSA 160
 ISD 80K-D + ISDL 80K with one OSA 160
 ISD 83K-D + ISD 83K with one OSA 160
 ISD 83K-D + ISDL 83K with one OSA 160
 ISD 95K-D + ISDL 95K with one OSA 200
 ISD 95K-D + ISDL 95K with one OSA 200
 ISD 96K-D + ISDL 96K with one OSA 200
 ISD 96K-D + ISDL 96K with one OSA 200
 ISD 110K-D + ISDL 110K with one OSA 230
 ISD 110K-D + ISDL 110K with one OSA 230

Tandem Kit

Installation Instructions

COMPONENTS

1. Interconnecting cable 12.5 m
2. Wiring schematic label

INSTALLATION

Determine whether the units are supplied with or without electric heat installed.

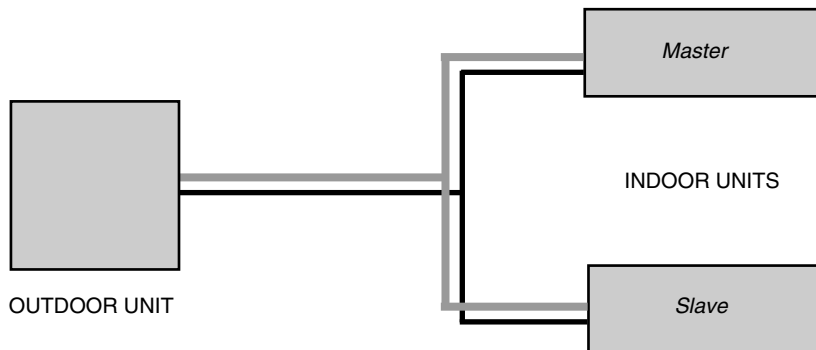
ISDL units without Electric Heat:

1. Remove the electrical panels from the ISDL Indoor Units
2. Use the interconnecting cable supplied to complete the wiring as per the Wiring Loom table below and as per wiring diagram overleaf.
3. Replace the existing wiring diagram on the ISDL Master Unit with the self-adhesive label supplied.
4. Replace electrical box covers.

ISDL units with Electric Heat:

1. Remove the electrical panels from the ISDL Indoor Units.
2. Use the interconnecting cable supplied to complete the wiring as per the Wiring Loom table below and as per wiring diagram overleaf.
3. If the Slave unit has electric heat, upgrade the external fuse of the outdoor unit to take account of this. Check the power supply cable to the outdoor unit is sufficiently sized to take the extra electric heat load.
 Note: Wiring diagram shows optional electric heat. The interconnecting wire is not supplied. Heater 'ACTIVE' must come from Outdoor Unit's 'L1' terminal.
4. Install a two or three pole isolator between the ISDL Master unit and the Outdoor Unit.
5. Apply the self-adhesive label wiring diagram supplied to the ISDL Master Unit.
6. Replace electrical box covers.

Tandem Refrigeration Piping



Wiring Loom

Item	Length (mm)	Colour	From	To
1	12500	Green/Yellow	Earth stud (Slave)	Earth stud (Master)
2	12500	Black	terminal N (Slave)	terminal N (Master)
3	12500	Orange	terminal 7 (Slave)	terminal 7 (Master)
4	12500	White	terminal 9 (Slave) *	terminal 9 (Master) *
5	12500	Red	terminal 11 (Slave)	terminal 11 (Master)
6	12500	Brown	terminal 12 (Slave)	terminal 12 (Master)
7	12500	Violet	terminal 18 (Slave)	terminal 18 (Master)

* Terminal 10 for four speed motors

Note

The manufacturer reserves the right to change specifications at any time without notice or obligation.

This pamphlet replaces the previous issue no. 3226 dated 11/09. ISDL 83/96K & ISD 83/96K added; wiring rev. D.

REFRIGERATION PIPING

When connecting two indoor units in tandem to a single circuit outdoor unit ensure the following:

1. Maximum line length specified for the outdoor unit must include both tandem legs.
2. Tandem legs must be as close as possible to equal, after leaving the common leg.
3. Ensure each 'T' joint connection is the same size as the common leg's pipe size, downsizing if necessary from there to each indoor unit's designated pipe size.

MODEL	ISDL 55	ISDL 56	ISDL 80	ISDL 83 & 95	ISDL 96 & 110
HIGH	0.87	0.94	0.94	1.03	1.3
MED	0.6	0.7	0.7	0.75	1.0
LOW	0.51	0.58	0.58	0.65	0.88
CAPACITOR	5.0 MFD	5.0 MFD	5.0 MFD	5.0 MFD	3.5 MFD (75W MOTOR) 5.0 MFD (150W MOTOR)

MODEL	ISD 80	ISD 83 & 95	ISD 96 & 110
HIGH	1.52	1.6	1.8
MED	1.01	1.1	1.59
MED/LOW	0.91	1.07	1.4
LOW	0.86	0.95	1.1
CAPACITOR	8 MFD	8 MFD	8 MFD



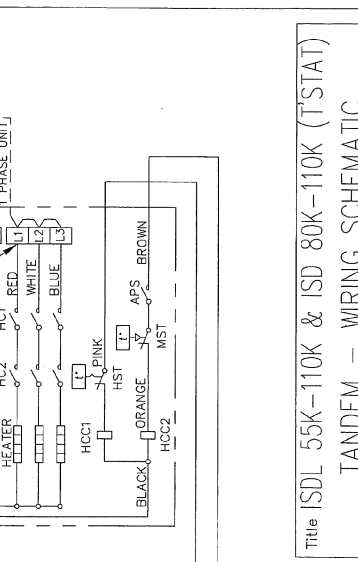
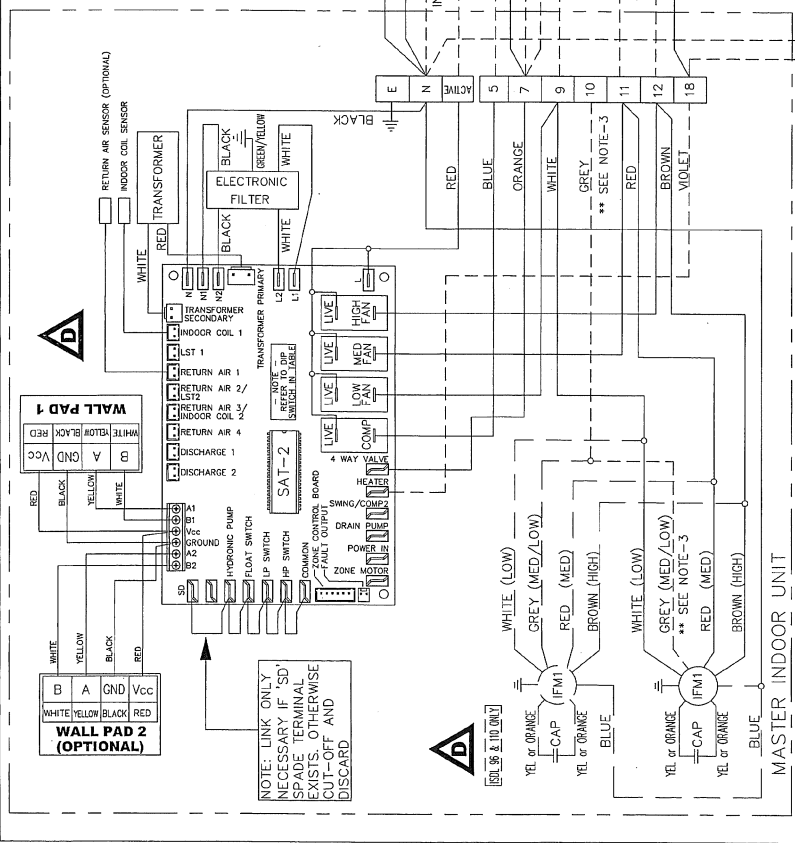
NOTE-3 (FOR ISD UNITS ONLY)
FOR 4 SPEED MOTOR CONNECT MED/LO TO TERMINAL 10

DIPSWITCH SETTINGS

DIPSWITCH	OFF	ON
1	COOL ONLY NO ELECTRIC HEATERS	HEAT PUMP
2	1.5°C DIFFERENTIAL CONTROL	ELECTRIC HEATERS
3	NO OUTDOOR BOARD	1.0°C DIFFERENTIAL CONTROL
4	FAN RUNS IN COOL CYCLE DEAD BAND (RECOMMENDED FOR IN-DUCT SPRINKLERS)	OUTDOOR BOARD FITTED
5	AIR COOLED	INDOOR FAN OFF - IN COOL CYCLE DEAD BAND
6		DO NOT USE

WHEN FITTING A 3 ELEMENT HEATER KIT TO A SINGLE PHASE OUTDOOR UNIT, LINK BETWEEN L1, L2, L3 AS SHOWN BELOW. OTHERWISE

IF THE OUTDOOR UNIT IS A THREE PHASE MODEL, DO NOT FIT THE L1, L2, L3 LINKS SHOWN. INSTEAD, RUN WIRES TO THE CORRESPONDING L1, L2 AND L3 TERMINALS IN THE OUTDOOR UNIT.



NOTE-2
HEATER KIT OPTION ONLY AVAILABLE WHEN USED WITH MASTER UNIT & TZ SAT-1 T/STAT.

Title ISDL 55K-110K & ISD 80K-110K (T/STAT)
TANDEM - WIRING SCHEMATIC



Drawn G.J.R.	Date 23-10-07	Revision
Scale	525-104-003	D

CLIENT WIRING
Interconnections between units by client. Double insulated multi-core cable.

NOTE: CHECK WIRING BEFORE SWITCHING ON, INCORRECT CONNECTION WILL DAMAGE MOTORS.

ISSUE	MODIFICATION	ECN	DATE	APPRVD
D	ISD/ISDL 83 & 95 ADDED TO DATA TABLES & NOTE'S. NOW SAT-2 N2402 30-11-09			D.A.B
C	56 ADDED TO DATA TABLE			D.A.B
B	WAS FOR ISDL 55-110K ONLY - NOW ISD 80-110K INCLUDED.			B.P
A	UPDATE WITH WIRE LOOM COLOURS N176813-02-08			DMW

PLOTTED
30-11-09
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