



J-IIS Heat Pump Quick Installation Guide

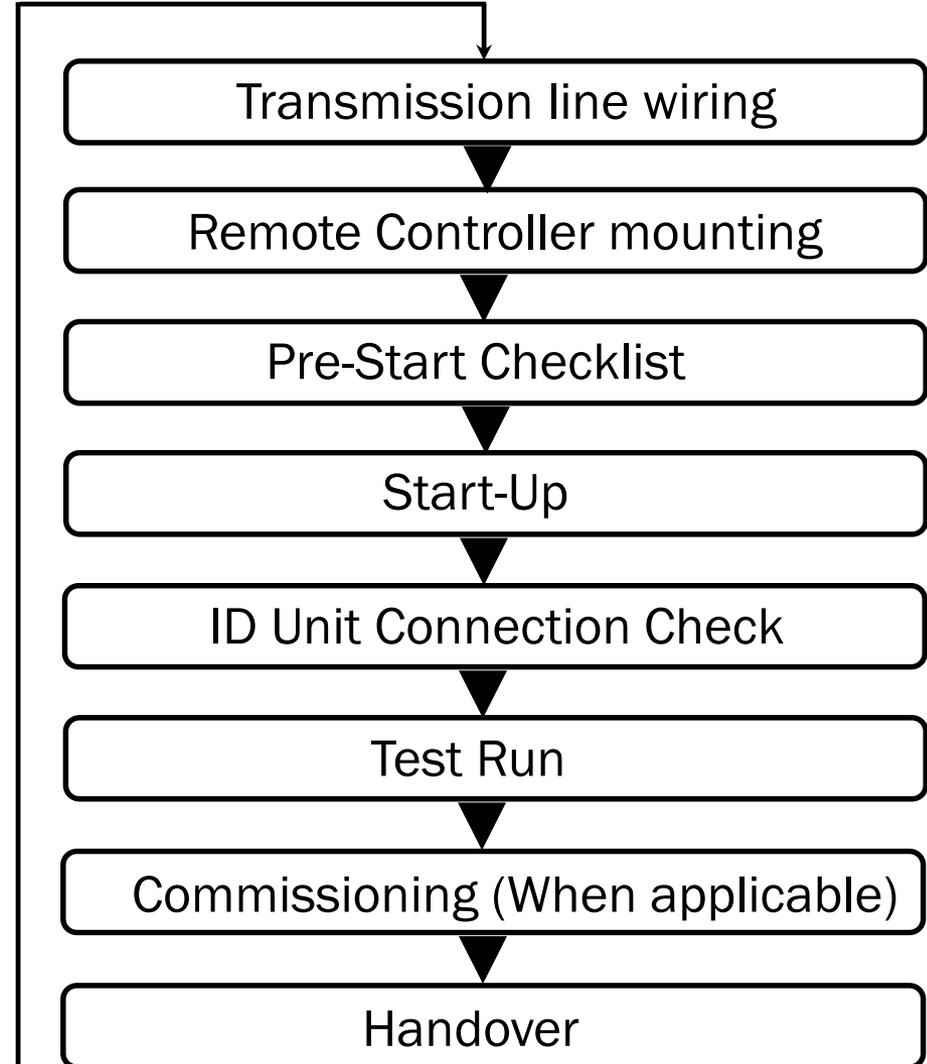
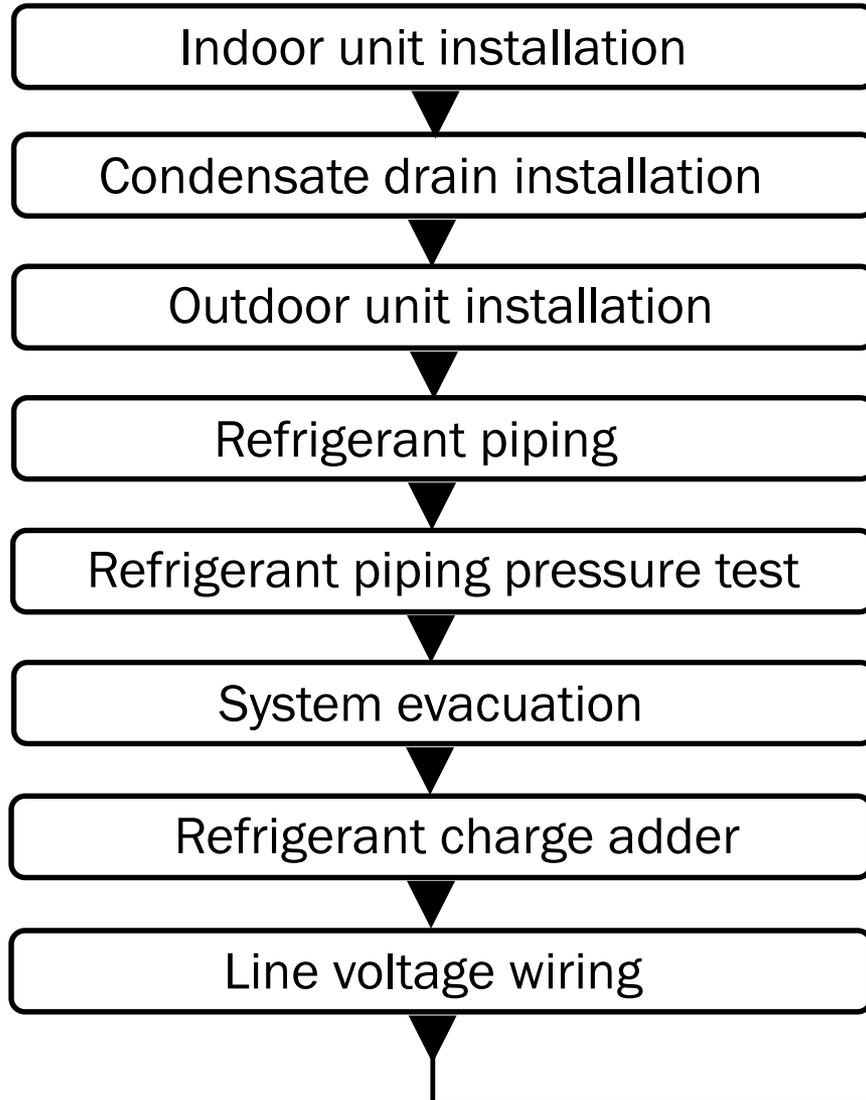
Outdoor Unit and Pipe Installation

WARNING: Do not attempt to install this equipment unless you've been properly trained.

- To obtain installation training, please contact your local Fujitsu Distributor.
- Use this Quick Installation Guide as an installation reference only. It does NOT replace the Installation Manual.
- Refer to the Installation Manual for complete installation requirements.
- When installing indoor units, always refer to the Installation Manual included with each indoor unit.
- All work must be performed by a qualified person certified under any local, regional, governmental or national regulations to conduct refrigeration piping work and the handling of R-410a refrigerant.
- The manufacturer shall in no way be responsible for improper installation, start-up, maintenance or service, including failure to follow all appropriate instructions within the Installation Manual.
- Do not power the indoor or outdoor units until all wiring, piping, evacuation and refrigerant charging work is completed.
- Carefully read the Installation Manual before commencing installation. Observe all local, state, province and or national codes.
- **For Technical Support, please contact:**
 - **Fujitsu Distributor Technical Service Advisor (TSA)**
 - **Fujitsu Service Department (973) 575-0381**

Refer to the Installation Manual for complete installation details.

Typical Installation Work Flow





Check List

1

- AOU36 & 48RLAVS Outdoor Unit
- 50-130% Connected Capacity Indoor Units
- Separation Tube Assemblies or Headers, if needed
- Correctly sized line sets (Insulated separately)
- Nitrogen & regulator capable of 600 PSIG
- Vacuum pump and digital micron gauge
- Flare kit and torque wrench
- Normal tools for installation



Things to Note

2

- This “Quick Installation Guide” is not intended to replace the Installation Manual shipped with each piece of equipment.
- Don’t take shortcuts and don’t follow any “Rule of Thumb”
- Conform to all Local, State & Federal codes during installation.
- Don’t apply power to the equipment until ready to start and test.
- Adhere to all safety and installation warnings within the Installation Manual for each unit.



J-IIS systems are CHARGED BY WEIGHING IN ADDITIONAL REFRIGERANT ONLY. Do not charge by subcooling, superheat, by pressures or any other alternative method.

Weight

3

Product Weight (LBS)

AOUA36RLAVS	194
AOUA48RLAVS	194



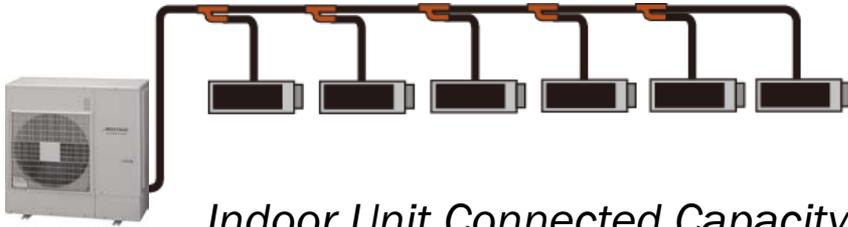
Dimensions

Height	39 5/16”
Width	38 3/16”
Depth	14 9/16”



Connected Capacity

4

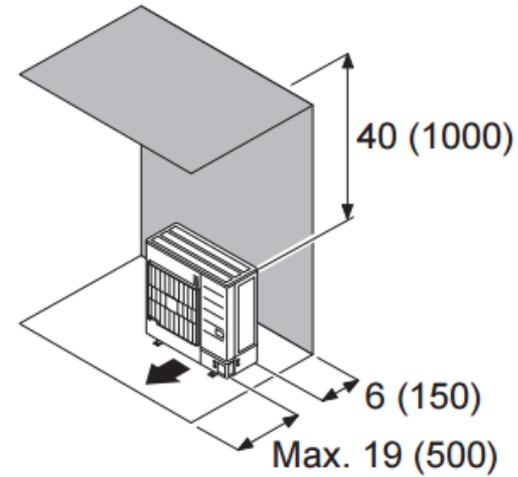


Indoor Unit Connected Capacity Range

3 ton- 1 to 6 IU's → 18,000 to 46,800 BTUH
 4 ton- 1 to 8 IU's → 24,000 to 62,400 BTUH

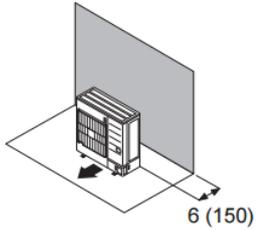
Unit Clearances

5

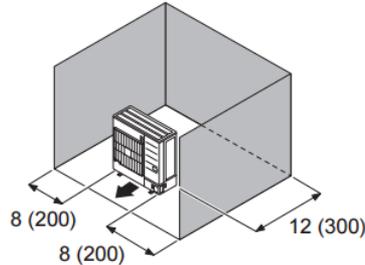


When the upward area is open Unit: in (mm)

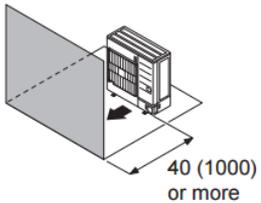
(1) Obstacles at rear only



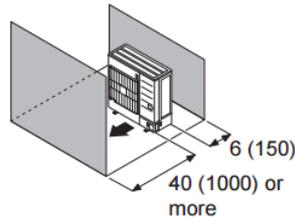
(2) Obstacles at rear and sides only



(3) Obstacles at front only

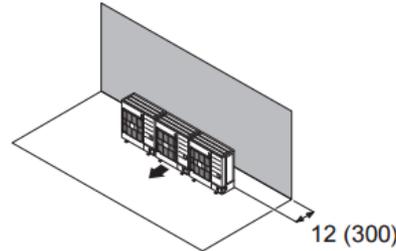


(4) Obstacles at front and rear only

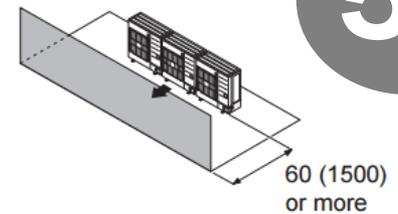


When the upward area is open Unit: in (mm)

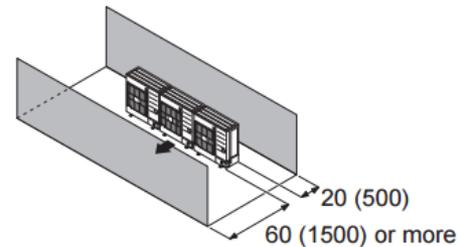
(1) Obstacles at rear only



(2) Obstacles at front only



(3) Obstacles at front and rear only



5a

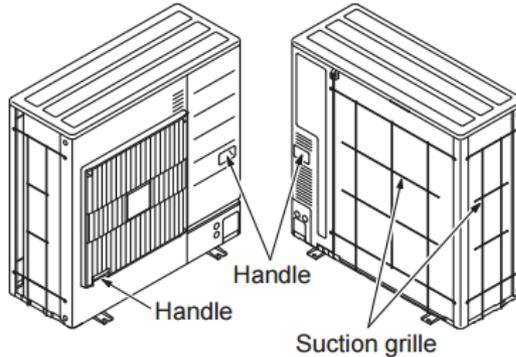
Setting the Outdoor Unit

6

CAUTION

When carrying the unit, hold the handles on the right and left sides and be careful. If the outdoor unit is carried from the bottom, hands or fingers may be pinched.

Be sure to hold the handles on the sides of the unit. Otherwise, holding the suction grille on the sides of the unit may cause deformation.



Outdoor unit must not be installed directly on the ground, as it may result in equipment failure.

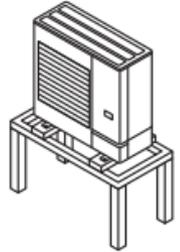
6a

Outdoor unit must be installed level, +/- 3°

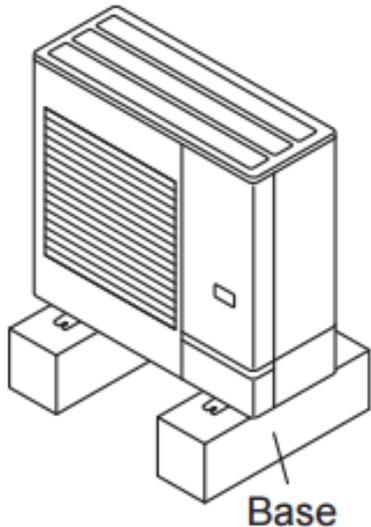
CAUTION

If the unit is installed in a region that is exposed to high winds, freezing conditions, freezing rain, snow fall or heavy snow accumulation, take appropriate measures to protect it from those elements.

To ensure stable operation, the outdoor unit must be installed on a raised stand or rack, at or above the anticipated snow depth for the region. The installation of snow hoods and drift prevention fencing is recommended when blowing and drifting snow is common to the region.



6b



Cold climates:

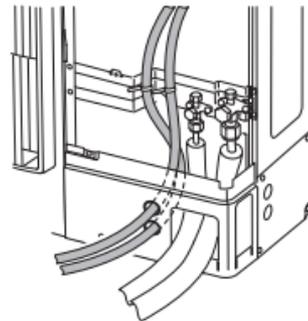
Outdoor unit must be installed on a base, at least 2" above anticipated snow depth.

Location considerations:

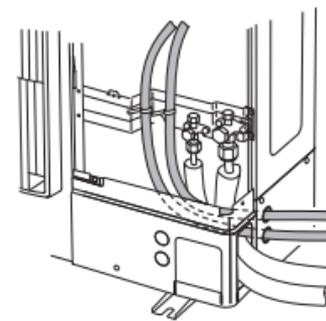
Refrigerant piping and electrical connections can be installed through (3) different locations into the outdoor unit.

NOTE: Bottom entry option is available for refrigerant piping

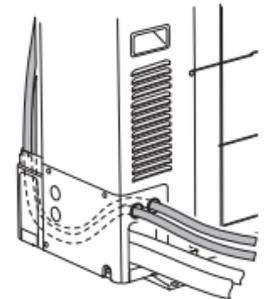
6c



Front connection



Lateral connection



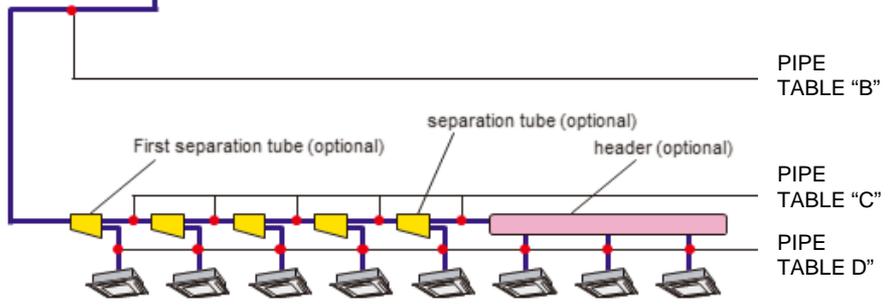
Rear connection

Refrigerant Line Sizing 7



Note Tables A, B and C

- Step 7b, Table B- OD unit to first Separation Tube
- Step 7c, Table C- Between Separation Tubes (or Header)
- Step 7d, Table D- Separation Tube (or Header) to IU unit



7b

Use of the Fujitsu “Design Simulator” software is highly recommended for pipe selection.

Refrigerant piping may be manually selected using these tables.

Alternate pipe sizing is not permitted

Table. B (Diameter of piping used between outdoor unit and first separation tubes or headers)

MODEL	Outdoor unit cooling capacity [Btu]	Diameter of piping [in (mm)]	
		Liquid pipe	Gas pipe
AOU36RLAVS	36,000	3/8 (9.52)	5/8 (15.88)
AOU48RLAVS	48,000	3/8 (9.52)	5/8 (15.88)

IMPORTANT NOTE:

- Use Separation Tube (or Header) when dividing refrigerant flow to indoor units.
- Use of “T” fittings is prohibited!

7c

Table. C (Diameter of piping used between separation tubes)

Outside diameter [in (mm)]		Separation tube *3	Header *3
Liquid pipe	Gas pipe		
3/8 (9.52)	5/8 (15.88)	UTP-AX054A	UTR-H0906L UTR-H0908L

*3: For the installation method, please refer to the installation manuals for indoor unit, separation tubes or headers.

7d

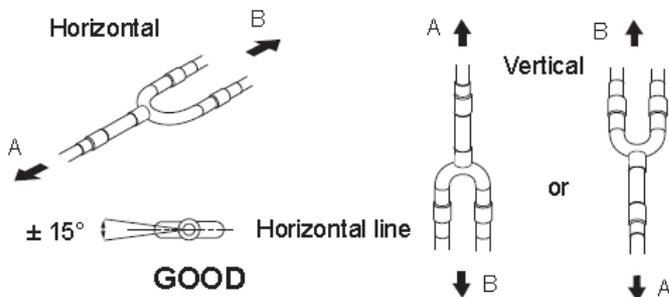
Table. D (Diameter of piping used between separation tube and indoor unit)

Cooling capacity of indoor unit [Btu]	Outside diameter [in (mm)]	
	Liquid pipe	Gas pipe
7,500 / 9,500 / 12,000 / 14,000	1/4 (6.35)	1/2 (12.70)
18,000 / 24,000 / 30,000	3/8 (9.52)	5/8 (15.88)
36,000 / 48,000 / 60,000 *4		3/4 (19.05)

*4: If pipe diameter Table D > Table C , using of pipe size from Table C is preferable. (Use reducer to change the diameter of connection pipe.)

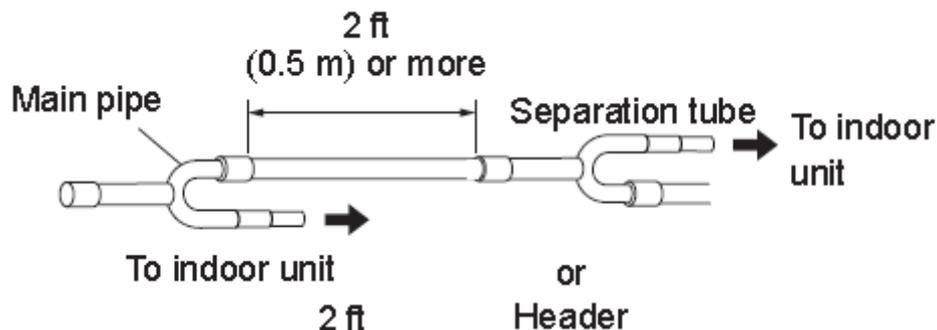
8

Separation Tube

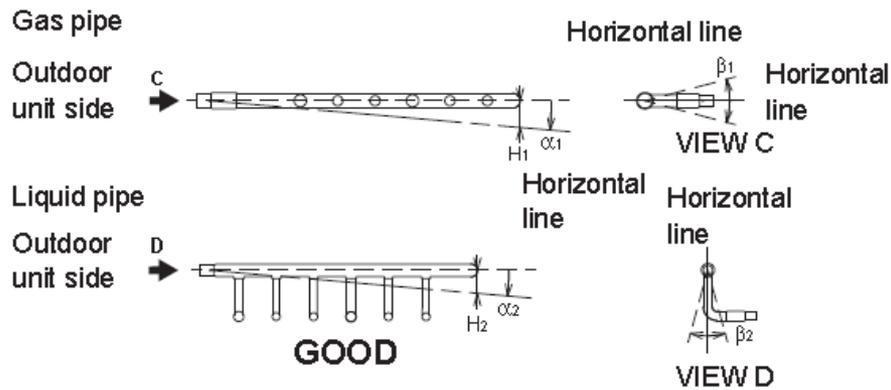


When installed horizontally, the Branch Kit MUST BE PARALLEL with the ground, within 15°

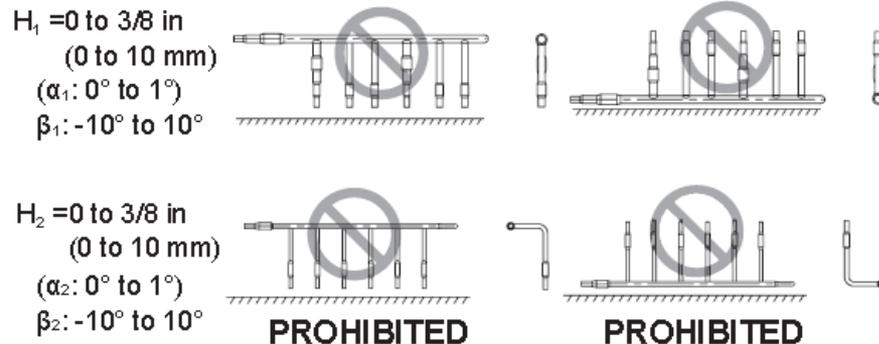
To avoid refrigerant turbulence and noise, maintain a minimum distance of 2' between Separation Tubes or Header(s)



Optional Header



Do not connect a Separation Tube downstream of a Header.



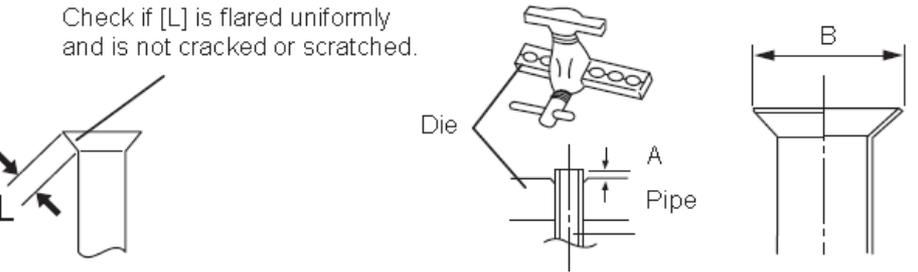
Outdoor Unit Pipe Connection

CAUTION

Do not use mineral oil on a flared part. Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.

While brazing the pipes, be sure to blow dry nitrogen gas through them.

The maximum lengths of this product are shown in the table. If the units are further apart than this, correct operation cannot be guaranteed.



10

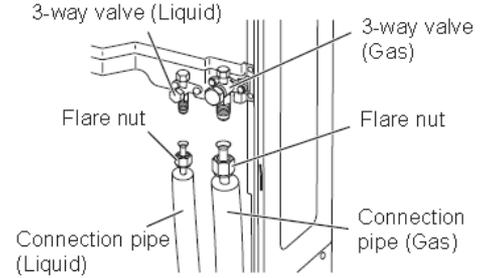
CAUTION

Be sure to install the pipe against the port on the indoor unit and the outdoor unit correctly. If the centering is improper, the flare nut cannot be tightened smoothly. If the flare nut is forced to turn, the threads will be damaged.

Do not remove the flare nut from the outdoor unit pipe until immediately before connecting the connection pipe.

After installing the piping, make sure that the connection pipes do not touch the compressor or outer panel. If the pipes touch the compressor or outer panel, they will vibrate and produce noise.

- (1) Detach the caps and plugs from the pipes.
- (2) Center the pipe against the port on the outdoor unit, and then turn the flare nut by hand.
- (3) Tighten the flare nut of the connection pipe at the outdoor unit valve connector.
- (4) After tightening the flare nut by hand, use a torque wrench to fully tighten it.



Flare Connections

CAUTION

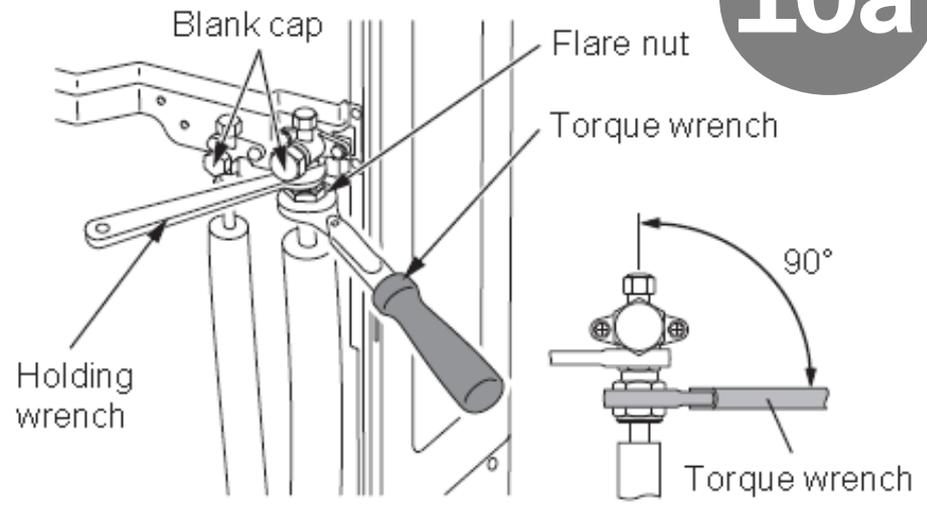
Hold the torque wrench at its grip, keeping it in a right angle with the pipe, in order to tighten the flare nut correctly.

Outer panel may be distorted if fastened only with a wrench. Be sure to fix the elementary part with a holding wrench (spanner) and fasten with a torque wrench (refer to below diagram). Do not apply force to the blank cap of the valve or hang a wrench, etc., on the cap. If blank cap is broken, it may cause leakage of refrigerant.

Flare nut [in (mm)]	Tightening torque [lbf-ft (N-m)]
1/4 (6.35) dia.	11.8 to 13.3 (16 to 18)
3/8 (9.52) dia.	23.6 to 31.0 (32 to 42)
1/2 (12.70) dia.	36.1 to 45.0 (49 to 61)
5/8 (15.88) dia.	46.5 to 55.3 (63 to 75)
3/4 (19.05) dia.	66.4 to 81.1 (90 to 110)

Refer to the Installation Manual for complete installation details.

10a



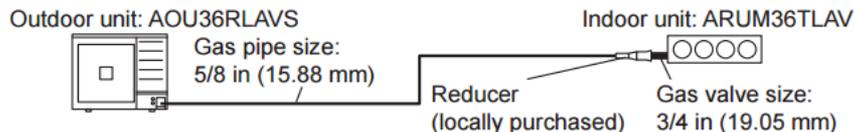
Single Indoor Unit Note

10b

When one indoor unit is connected to the outdoor unit.

- Please use a reducer (locally purchased) to match the piping diameter of the outdoor unit to the indoor unit valve. Attach the reducer to the indoor unit valve.
- For the valve size of the indoor unit, refer to the installation manual of the indoor unit or Design and Technical Manual.

Connection example



Cabinet Sealing

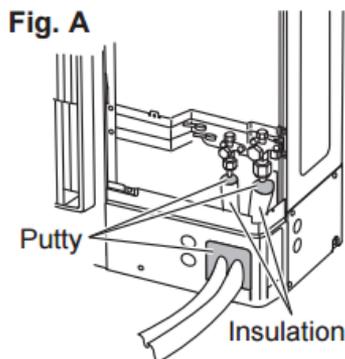
10c

WARNING

Fill the piping holes and wiring holes with putty (supplied locally) to avoid any gap (Fig A). If small animals such as insects enter the external unit, a short circuit may be caused near electrical components in the service panel.

If the outdoor unit is installed at a level that is higher than the indoor unit, water which has condensed on the Service Valve could travel to the indoor unit. Therefore, seal the space between the copper pipe and insulation to prevent water entry.

Fig. A



Pressure Test

11

SERVICE VALVES MUST NOT BE OPENED AT ANY TIME UP UNTIL AFTER REFRIGERANT LINE PRE-CHARGE HAS BEEN ADDED

Pressure test the refrigerant lines and indoor unit flare connections by introducing nitrogen into both liquid and vapor lines.

Pressurize to 600 PSIG (4.2 Mpa) Check all braze and flare connections.

PRESSURE MUST MAINTAIN FOR A MINIMUM (24) HOUR PERIOD!

NOTE: Test pressure may change up to 7.25 PSIG for every 9 degree change in outdoor temperature. Any pressure decrease beyond this allowance will require location and repair of a leak. (Nitrogen pressure must be slowly released before repair can be made.) Repeat this process until pressure is maintained for (24) hours.

Refer to the Installation Manual for complete installation details.

Evacuation

12



CAUTION

Do not turn on the power unless all operations are complete.

1. Remove all caps from the service valves and ensure both valves are closed.
2. Connect a vacuum pump, and digital micron gauge to your manifold gauges.
3. Connect manifold gauges to both liquid and vapor service valves.
4. Operate the vacuum pump for (2) hours, then carefully break vacuum with nitrogen to 7.25 PSIG (0.05MPa)
5. Depressurize, then vacuum down to 500 microns.
6. If vacuum does not reach 500 microns, repeat steps 4 and 5.
7. When 500 microns or lower is obtained, isolate to maintain vacuum level for (1) hour to ensure there are no leaks and no moisture is present.

Evacuation Problems? 12a

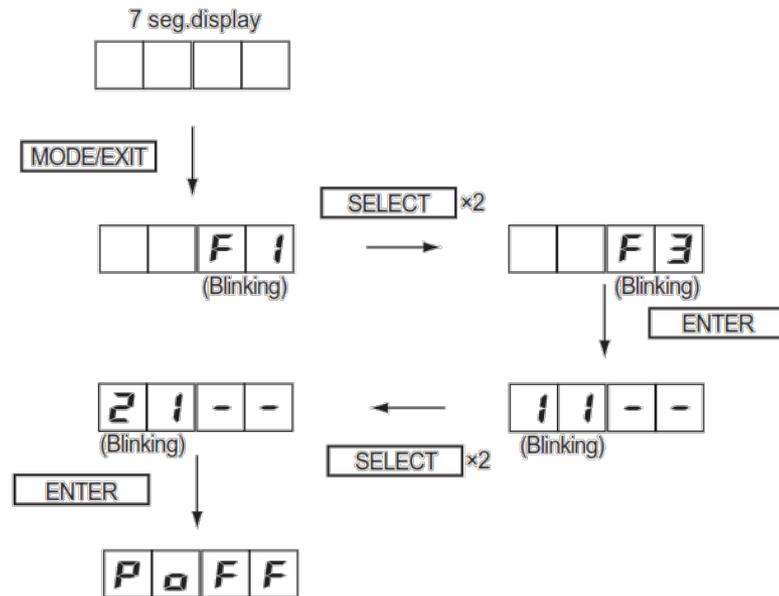
“Evacuation Mode” Function F3:21

If power was turned ON to the indoor unit(s) at any time prior to evacuation, the indoor unit electronic expansion valve (EEV) will close and inhibit system evacuation. In order to reopen the IU unit EEV's:

- Turn power ON to outdoor unit and indoor units.
- Press the "MODE/EXIT" button on the OD unit control board.
- Use the “SELECT” button to scroll to function F3.
- Press the "ENTER" button.
- Use the “SELECT” button to scroll to item code "21"
- Push and HOLD the "ENTER" button for about 5 seconds.
- Turn power OFF to all units when "PoFF" is displayed.
- Perform system evacuation.

You may also use these instructions to recover refrigerant if necessary.

For complete service instructions, please refer to the J-II “Service Manual” available on the Fujitsu Portal.



Refrigerant Charge 13

IMPORTANT! THE ONLY ACCEPTABLE METHOD TO CHARGE THE J-II SYSTEM IS BY WEIGHING IN THE ADDITIONAL REFRIGERANT!

CHARGE CALCULATION IS BASED UPON THE TOTAL LIQUID LINE LENGTH USED

R-410A ONLY! NO ALTERNATE REFRIGERANT USE IS PERMITTED!

ADD REFRIGERANT INTO LIQUID LINE ONLY!

- The amount of refrigerant charge to be added is the total value of the basic refrigerant charge amount and the value calculated from the length of the liquid pipe.
- Round up the value to 2 decimal places.

Model	“B” Factory charged amount [lb (kg)]	Diameter of liquid pipe [in (mm)]	“a” Additional amount for pipe length [lb/ft (kg/m)]
AOU36RLAVS	8.82 (4.0)	Ø 1/4 (6.35)	0.014 (0.021)
AOU48RLAVS	8.82 (4.0)	Ø 3/8 (9.52)	0.039 (0.058)

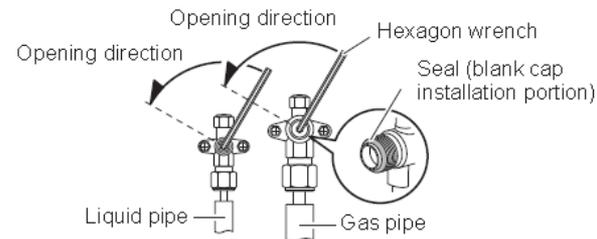
Opening Valves 14

Operating the valves

- Use a hexagon wrench (size 3/16 in (4 mm)).

Opening:

- (1) Insert the hexagon wrench into the valve shaft, and turn it counterclockwise.
- (2) Stop turning when the valve shaft can no longer be turned. (Open position)



NOTE: OPEN SERVICE VALVES ONLY AFTER WEIGHING IN ADDITIONAL REFRIGERANT

Refer to the Installation Manual for complete installation details.

High Voltage Wiring

15

MCA- Minimum Circuit Ampacity- For selecting wire gauge between circuit breaker panel and outdoor unit.

GFEB- Ground Fault Equipment Breaker- When required by applicable Code.

Electrical wiring must conform to all Local, State, National or Provincial Codes.

Use	Size	Remarks
Power supply cable	8 AWG (8.4 mm ²)	2 cable + Ground, ~, 208/230 V

Model	MCA	MAX. CKT. BKR	GFEB
AOU36RLAVS	33 A	40 A	30 mA 0.1 sec or less
AOU48RLAVS			

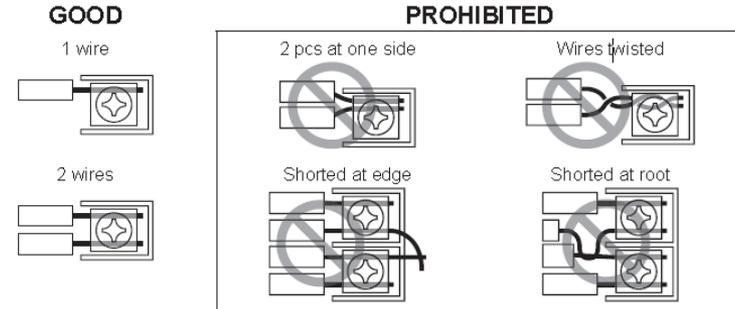
Transmission Line

16

“TL” or “transmission line” wiring is referred to as the communication cable between indoor and outdoor units.

IMPORTANT! THE ONLY ACCEPTIBLE TRANSMISSION LINE CABLE IS HONEYWELL PART NUMBER P/N 3254, CATALOG NUMBER K00250LW OR K00500LW. THE CABLE IS EASILY RECOGNIZED BY THE PINK COLORED SHEATHING.

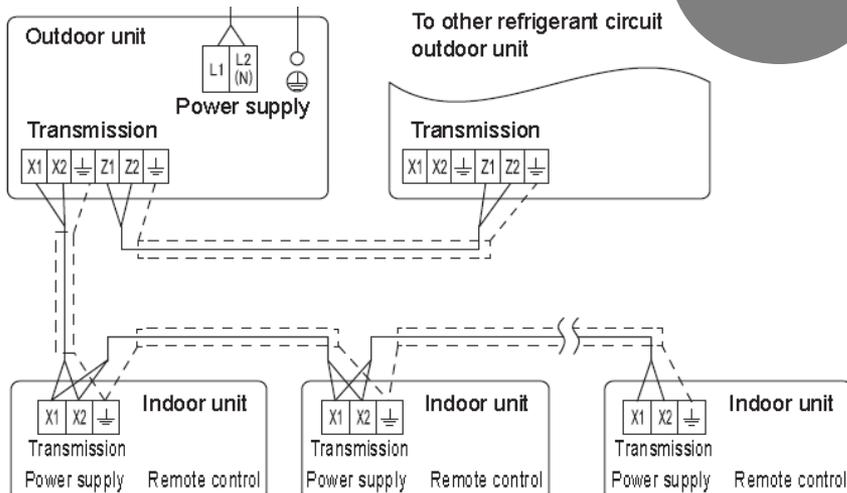
USE OF ANY ALTERNATE CABLE WILL RESULT IN A FORFEIT OF THE EXTENDED WARRANTY.



“TL” or “transmission line” cable is connected between the indoor and outdoor unit X1 and X2 terminal connections.

Cable ground wire **MUST BE CONNECTED** at each termination point.

16a



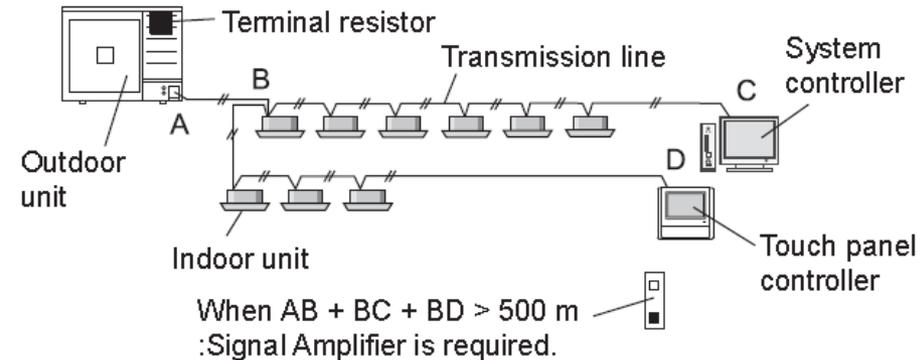
Refer to the Installation Manual for complete installation details.

TL wiring may be installed in either a parallel or series arrangement for “Manual” addressing method.

Refer to Section 6, “Wiring Rules” in the Installation Manual to ensure maximum wire lengths are not exceeded.

Connect outdoor unit terminals Z1 and Z2 **ONLY** when more than one outdoor unit is being connected to a communication network. (See QIG Step 16a)

16b



Addressing OU

17

Set the rotary switches in the OD to the desired address. You only need to change the address if there is more than (1) refrigerant system in a communications network.

REF AD MUST BE BETWEEN A RANGE OF 00 - 99.

Setting	Setting range	Type of switch	
Refrigerant circuit address	0-99	Setting example 63	
			
		REF AD × 10	REF AD × 1

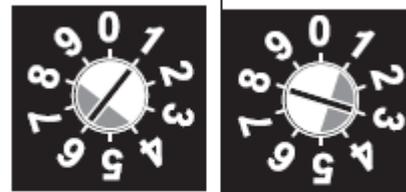
Rotary Switch (REF AD × 1): Factory setting "0"
 Rotary Switch (REF AD × 10): Factory setting "0"

Addressing the IU's

18

Indoor units physically piped together with the outdoor unit **MUST HAVE THE SAME REFRIGERANT ADDRESS.**

Please refer to the applicable indoor unit Installation Manual for rotary switch location and setting details.



REF AD × 10 | REF AD × 1

ALL INDOOR UNITS ARE SHIPPED WITH A DEFAULT REF AD OF 00.

IU AD MUST BE WITH THE RANGE OF 00 to 63

EXAMPLE REF AD OF 63 IS SHOWN.

Terminal Resistor

19

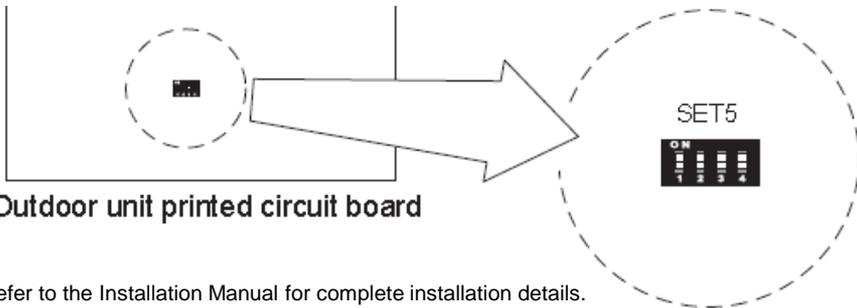
A "terminal resistor" is on board of every J-IIS unit.

DIP switch SET5-4 will enable or disable the onboard terminal resistor.

There must be (1) terminal resistor setting to ON for every network segment.

STAND ALONE J-IIS SYSTEMS- TURN DIP SWITCH SET 5-4 "ON"

POWER MUST REMAIN OFF WHEN SETTING ALL DIP AND ROTARY SWITCHES.



Refer to the Installation Manual for complete installation details.

BEFORE TURNING ON POWER:

- Resistance between X1 and X2 at the OU should be between 45 to 60 Ω.
- Check X1 and X2 resistance at farthest indoor unit, and compare with the resistance table below. IF THE RESISTANCE VALUE IS OUT OF RANGE, PLEASE CONFIRM THE TERMINAL RESISTOR SETTING IN QIG STEP 19.

19b

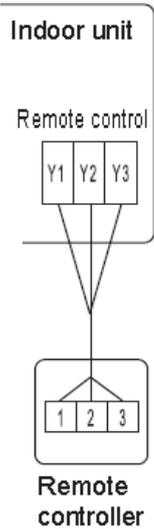
The resistance between the terminals of the transmission cable is 45 to 60 Ω. This value is an estimate.

Approximate resistance (Ω)	Distance from terminal resistor [ft (m)]				
	0 ~328 (0 ~100)	~656 (~200)	~984 (~300)	~1,312 (~400)	~1,640 (~500)
0 ~ 50	A short circuit somewhere or 2 or more terminal resistors are connected				
50					
60					
70					
80					
90					
100					
110					
120					
130					
140					
150					
160					
170					
180					
190 ~	Faulty contact or wiring length over 1,640 ft (500 mm)				
1K ~∞	Faulty contact, open circuit, or no termination resistor				

PLEASE REFER TO THE INSTALLATION MANUAL FOR COMPLETE TRANSMISSION LINE WIRING DETAILS!

Remote Control

20



Please refer to the applicable indoor unit and Remote Control Installation Manuals for complete details.

This is a summary of Remote controller wiring:

3 wire remote- Connect Y1, Y2 and Y3 as shown.

2 wire remotes ("T" series IU's only)- Connect only Y1 and Y2 terminals of the indoor unit to the 2 wire Remote control.

YOU ARE NOW READY TO APPLY POWER TO ALL INDOOR AND OUTDOOR UNITS.

PLEASE VERIFY REQUIRED VOLTAGE AT THE IU AND OU DISCONNECT BEFORE APPLYING POWER.

ALL AIRSTAGE IU'S REQUIRE 208/230 SINGLE PHASE POWER.

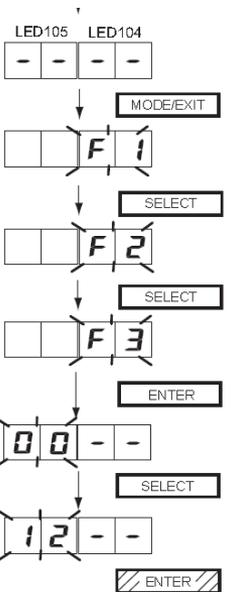
Connection Check

21

AFTER POWERING THE EQUIPMENT AND BEFORE THE SYSTEM IS OPERATED, AN "INDOOR UNIT CONNECTION CHECK" MUST BE PERFORMED!

THIS CHECK IS PERFORMED AT THE OUTDOOR UNIT.

-  : Press the "MODE/EXIT" button.
-  : Press the "SELECT" button.
-  : Press the "ENTER" button.
-  : Press the "ENTER" button for more than 3 seconds.



Set to Function mode [F3].

(When [F4] to [F9] are displayed, continue to press the "SELECT" button until [F3] is displayed.)

Press the "SELECT" button until "12" is displayed.

21a

Press the "ENTER" button for more than 3 seconds. → AFTER PRESSING "ENTER" FOR MORE THAN (3) SECONDS, PROCEED TO QIG STEP 21b.

Continued from Step 21a.



Press the "ENTER" button for more than 3 seconds.



When indoor unit connection check can not be performed



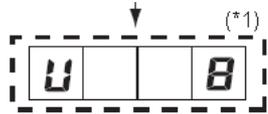
This will be displayed when the Indoor unit connection check starts.

21b

Refer to the Installation Manual for complete installation details.

Connection Check

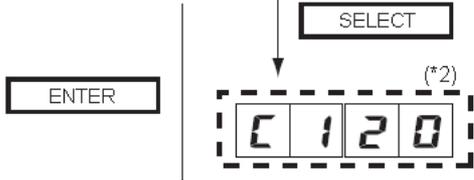
21c



Confirm the number of connected indoor units and the volume ratio of the indoor units connection.

(*1) The number of connected indoor units
Ex.) When 8 units are connected

(*2) Volume ratio of the indoor units connection
Ex.) When the ratio is 120%

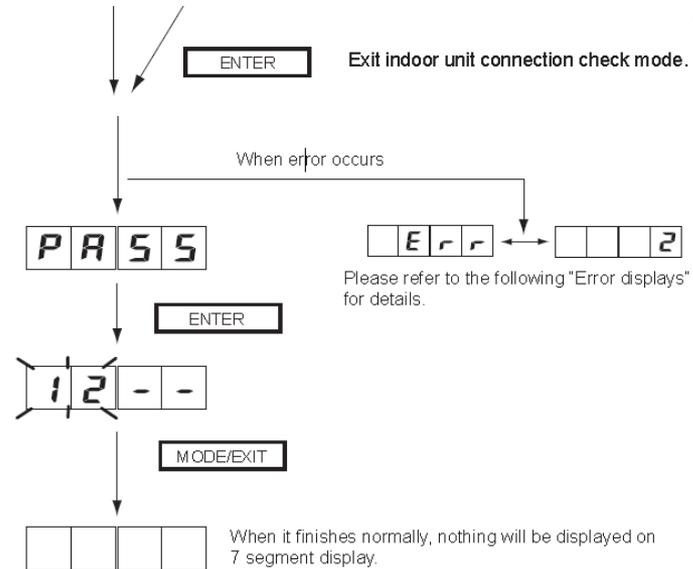


Example:

- U 8 indicates (8) indoor units are installed.
- C 120 indicates the total BTUH capacity of the indoor units is 120% of the outdoor unit. The maximum acceptable ratio is 130%.

AFTER POWERING THE EQUIPMENT AND BEFORE THE SYSTEM IS OPERATED, AN "INDOOR UNIT CONNECTION CHECK" MUST BE PERFORMED!

21d



OU Function Codes

22

Function Codes are built in set up options within Airstage IU and OU's.

Function Codes are also referred to as "Push Button Settings" in the J-IIS ODU Installation Manual. Most function codes may be left in their default settings; used at the discretion of the Installer, architect or engineer. However, regardless of installation, there is a function code which must be checked prior to system operation. (See QIG Step 22a)

Function 17- If any IU is below the OU, or if the height difference between any IU's is greater than 119 in. (3 m) the function option must be changed from the default of 00 to 02, "Height difference".

OPTIONAL- Function 21- If AUTO changeover mode is desired, the function option must be changed from the default of 00 to 02, "Priority Given to Administrative Indoor Unit". Also, (1) remote control must be configured as an "Administrative Unit". (Refer to remote control Installation Manual for details) Power must be cycled OFF to the indoor unit when the option value is changed.

POWER MUST REMAIN ON WHEN PERFORMING ALL OU FUNCTION CODE CHANGES.

Continued from QIG Step 22a.

Please set OU Function Code 17 the option value (02) whenever any indoor unit is installed below the outdoor unit, AND the height difference between indoor units is greater than 10'. (3 m)

22a

17	Height difference between indoor units	Standard	1	7	0	0	●
		Forbidden			0	1	
		Height difference			0	2	
		Forbidden			0	3	
		Forbidden			0	4	
If installing the indoor units (even only one set) to a lower floor than the outdoor unit, and the height difference between the indoor units is 119 in (3 m) or greater (i.e., if installing the indoor units on separate floors), set "02 (height difference)".							

Refer to the Installation Manual for complete installation details.

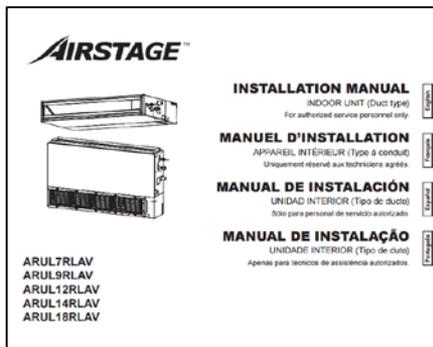
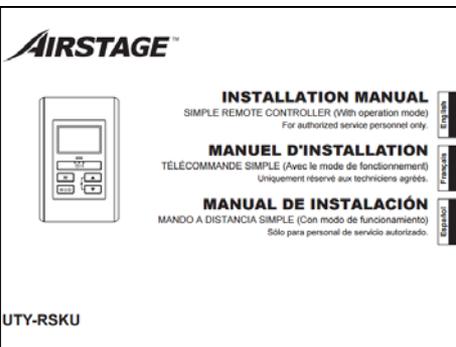
IU Function Codes

23

Function Codes are built in set up options within Airstage IU and OU's.

Many IDU function codes may be left in their default settings; used at the discretion of the Installer, architect or engineer. However, function codes for each IDU vary and must be checked.

Please refer to the IDU and Remote Installation Manual for complete function code details.



ARUL18TLAV- Function code example to change ESP (External Static Pressure) setting from 31 (.10" w.g. default) to option value 09 for .36" w.g.

23a

CAUTION

If the applicable static pressure does not match the static pressure mode, the static pressure mode may be changed to another mode manually.

RECOMMENDED RANGE OF EXTERNAL STATIC PRESSURE

AR7/9/12/14/18 0 and 0.36 in. WG (0 and 90 Pa)

It is necessary to set up a static pressure mode for each usage of static pressure. Static pressure can be set at site.

Relation between set values and static pressure are as the following table.

- FUNCTION SETTING can be performed with the wired or wireless remote controller. (The remote controller is optional equipment)
- Refer to the wired or wireless remote controller manual for detailed setting information.

Function Number	Setting Number	Setting Static Pressure
26	00	0 in. WG (0 Pa)
	01	0.04 in. WG (10 Pa)
	02	0.08 in. WG (20 Pa)
	03	0.12 in. WG (30 Pa)
	04	0.16 in. WG (40 Pa)
	05	0.20 in. WG (50 Pa)
	06	0.24 in. WG (60 Pa)
	07	0.28 in. WG (70 Pa)
	08	0.32 in. WG (80 Pa)
	09	0.36 in. WG (90 Pa)
	31	0.1 in. WG (25 Pa) (Factory setting)

Commissioning

24

In order to have the Fujitsu factory Extended Warranty of (10) years for both parts and compressor, an approved "Test Run" file obtained from Service Tool must be received within (120) days of start up.

Please refer to the "Extended Warranty Report" for documenting the installation of the J-IIS OU. You may also download the Extended Warranty Report from the scan code below (Adobe Acrobat Reader required)

The collection of "Test Run" data requires use of "Service Tool" software to document operation of the J-IIS system for (1) hour in either HEAT or COOL mode of operation.

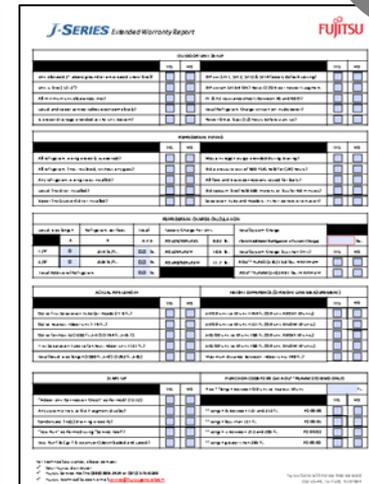
When the J-IIS Test Run data is collected, the system must completely installed, operational and error free.

See QIG Step 24a for a "System Performance Report" example.



For assistance with completing the J-Series "Extended Warranty Report", please contact Fujitsu General America at (973) 575-0380 and follow the voice menu for "Commissioning"

24a



Warning

Always use a licensed, qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion. Use only parts, accessories and controls supplied or specified by Fujitsu. Ask a licensed contractor to install all parts, accessories and controls. Use of unauthorized or improper installation of parts, accessories and controls can result in injury, major equipment repairs or property damage. Read the owner's operation manual carefully before using this product. The owners operation manual provides important safety instructions and warnings which should be followed closely. For any questions or concerns, please contact Fujitsu General America, Inc.

Trademarks

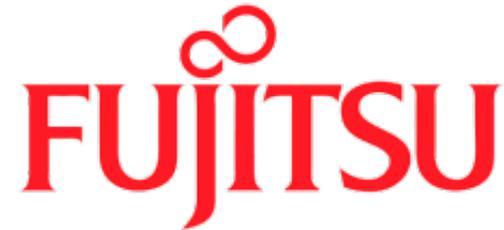
The Fujitsu logo is a registered trademark of Fujitsu Limited. The Airstage logo and name is a trademark of Fujitsu General America, Inc.

Copyright © 2017 Fujitsu General America, Inc.

Fujitsu's products are subject to continuous improvements. Fujitsu reserves the right to modify product design, specifications and information in this brochure without notice and without incurring any obligations.

Non-Internet Retail Policy

Internet sales are strictly prohibited and unauthorized. Any Fujitsu HVAC systems or components purchased on the Internet, from an online retailer or any similar e-tailing website, OR where the original factory serial numbers of the display have been removed, defaced, or replaced in any way **WILL NOT BE COVERED BY WARRANTY.**

The Fujitsu logo consists of a red infinity symbol above the word "FUJITSU" in a bold, red, serif font.The Airstage J-IIS logo features the word "AIRSTAGE" in a blue, italicized, sans-serif font, followed by "J-IIS" in a larger, blue, italicized, sans-serif font. Below the main text is the tagline "Variable Refrigerant Flow System" in a smaller, blue, sans-serif font.

Fujitsu General America, Inc.

353 Route 46 West

Fairfield, NJ 07004

Toll Free: (888) 888-3424

Local: (973) 575-0380

Fax: (973) 836-0447

Email: hvac@fujitsugeneral.com

www.fujitsugeneral.com

A subsidiary of

Fujitsu General Limited