



47A York St. Portland, ME 04101
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Structural Engineering
Mechanical Engineering
Electrical Engineering
Civil Engineering
Controls Engineering
Architecture

Project:
Ecomaine Scalehouse

Contractor:
Jewett Construction Inc

Date Received
May 19, 2017

Date Reviewed:
May 19, 2017

Submittal Title:
15400-001 Heat Pump Product Data

Reviewed by:
Mike Fask

Shop Drawing / Submittal Review

- | | |
|--|--|
| <input checked="" type="checkbox"/> Reviewed without comment | <input type="checkbox"/> Reviewed with comments, See Below
No resubmission required |
| <input type="checkbox"/> Revise and Resubmit, See Below | <input type="checkbox"/> Not Reviewed |

Comments:

Submittal Review Notes:

1. Submittal was reviewed for design conformity and general conformance to the contract documents only. The contractor and their sub-contractors are responsible for confirming and correlating dimensions at the project site for tolerances, clearances, quantities, fabrication processes, and techniques of construction.
2. Contractor Coordination: The contractor shall be responsible for the coordination of this submittal with related building elements. The contractor and their sub-contractors are responsible for coordination of the work with other trades and full compliance with contract documents.
3. Submittal and/or shop drawing reviews and approvals of items which are not considered the architect's or engineer's 'Basis of Design' shall not alleviate the contractor of their responsibility to coordinate all aspects of the proposed item into the construction. These aspects shall include, but not be limited to, physical installation (fit up), power requirements, mechanical requirements, weather proofing and warranties.
4. Reviews and approval of items with this submittal pertain to drawings M-001, M-002, M-101, M-102, M-501, and M-601. Unless otherwise stated, all other parts of this submittal shall be considered reference information to be submitted for approval under separate cover.
5. Review and approval of items within this submittal shall not constitute approval of any changes to the scope, schedule, or budget of the project.

Submittal

Job: 1708
ECOMAINE SCALE HOUSE
64 Blueberry Road
Portland, ME 04102


Spec Section No: 15400
Submittal No: 001
Revision No: 0
Sent Date: 5/15/2017

Spec Section Title:

Submittal Title: Heat Pump Product Data

Contractor:

Jewett Construction Co., Inc.

 <p>Reviewed for general conformance with the contract documents. The Subcontractor/Supplier submitting this information remains responsible for all details, accuracy, dimensions, quantities, fabrication and installation methods. The submitting Subcontractor/Supplier is required to comply with all local, state and federal laws, regulations and Jewett Construction Co., Inc.'s general provisions during the execution of their contract.</p>	
<p>To Architect/Engineer:</p> <p><input checked="" type="checkbox"/> For Approval <input type="checkbox"/> For Record</p> <p>By <u>JH</u> Date <u>5/15/17</u></p>	<p>To Subcontractor/Supplier:</p> <p><input type="checkbox"/> Approved <input type="checkbox"/> Approved as Noted <input type="checkbox"/> Resubmit <input type="checkbox"/> Reviewed <input type="checkbox"/> Rejected <input type="checkbox"/> Revise and Resubmit</p> <p>By _____ Date _____</p>

Other:

Colby Company Engineering
Brian Beaulieu

Architect's Stamp

Engineer's Stamp

RIVERSIDE MECHANICAL INC.

MECHANICAL CONTRACTORS
27 REBECCA WAY
FALMOUTH, ME. 04105
ROB@RIVERSIDEMECHANICALINC.COM

HVAC
PLUMBING
PROCESS PIPING
TEL. (207) 874-1992
FAX (207) 874-2283

DATE: 5/12/2017
PROJECT: Ecomaine Scale House Replacement
SUBMITTAL DATA: Split Heat Pump System
Owner: Ecomaine
Mechanical Engineer: Colby Company Engineering
General Contractor: Jewett Construction

(PLEASE INITIAL AND DATE ANY NOTATIONS ON THE SUBMITTAL SHEET)

GENERAL CONTRACTOR	ARCHITECT
ENGINEER	RIVERSIDE MECHANICAL INC. <input checked="checked" type="checkbox"/> Reviewed <input type="checkbox"/> Make Corrections noted <input type="checkbox"/> Amend & Resubmit <input type="checkbox"/> Rejected / Resubmit By <u>RW</u> Date <u>5/12/2017</u>

Submittal Data: 18RLXFZH Inverter Driven Heat Pump **18,000 BTU Multi-Zone System**

Job Name: _____
 Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Date: _____
 Approval: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____

General Features

- Wired or wireless remote
- Apple catechin filter
- Ion deodorizing filter
- Auto louver: up/down
- Auto louver: 4-way
- Low ambient cooling
- Cold prevention
- Blue fin coating
- Standard Warranty: 5 years parts, 7 years compressor. Applies to systems purchased before June 1st 2015*
- Extended Warranty: 10 years parts, 10 years compressor. Systems that have been installed on or after June 1st 2015 by licensed contractors and the online Product Registration has been submitted.**
- Elite Contractor Extended Warranty: 12 years parts, 12 years compressor. Systems that have been installed on or after June 1st 2015 by contractors who have met requirements and have been approved for elite contractor status plus, the online Product Registration has been submitted.***

Model Information

Condenser..... AOUI8RLXFZH
 Evaporator*1..... (ASU) / (ARU) / (AGU) (AUU) 7.9,12RLF(1)
 Connectable indoor units..... 2
 Total capacity range..... 14,000 – 21,000 Btu/h

Electrical
 Available Voltage Range..... 208/230V AC 1ph-60Hz
 Minimum Circuit Ampacity..... 19.7 A
 Max Fuse Size..... 20 A
 Max Starting Current..... 7.9 A

Input Power

Cooling..... (non-duct) 1.33 kW / (ducted) 1.45 kW / (mix) 1.39 kW
 Heating..... (non-duct) 1.70 kW / (ducted) 1.79 kW / (mix) 1.74 kW

Current

Cooling..... (non-duct) 5.8 A / (ducted) 6.4 A / (mix) 6.1 A
 Heating..... (non-duct) 7.5 A / (ducted) 7.9 A / (mix) 7.7 A

Capacity

Nominal Cooling..... 18,000 Btu/h
 Min-Max Cooling..... 6,100 – 21,000 Btu/h
 Nominal Heating..... 22,000 Btu/h
 Min-Max Heating..... 6,800 – 24,400 Btu/h

Compressor

Motor Output..... Rotary (inv x1) 1,100 W
 Refrigerant..... R410a
 Charge..... 4 lbs. 3 oz
 Oil..... RB68

Fan Motor

(Condenser) Type: DC..... Propeller x1
 (Condenser) Motor Output..... 100 W
 (Evaporator) Type: DC..... (wall-mount) Cross flow
 (compact cassette) Turbo
 (ducted) Sirocco x2 (18 k x3)
 (floor) Cross flow x2

(Evaporator) Motor Output..... (wall) 30W-42W (compact cassette) 54W (ducted) 80-81W
 (floor) 16W

Heat Exchanger

Dimensions
 (H x W x D) in. (mm)..... 31-7/16 x 35-7/16 x 1-7/16 (798x900x36.38)
 Fin Pitch..... 20 FPI
 Rows x Stages..... 2 x 38
 Pipe Type (Material)..... Copper
 Fin Type (Material)..... Aluminum (Blue fin)



Operation Temperature Range

Cooling..... 14°F - 115°F (-10°C - 46°C)
 Heating..... -15°F - 75°F (-26°C - 24°C)

Efficiency

SEER*2..... (wall-mount) 21.5 (duct) 19 (mix) 20.3
 EER (cooling)..... (wall-mount) 13.5 Btu/W (duct) 12.4 Btu/W (mix) 13 Btu/W
 COP (heating)..... (wall-mount) 3.79 W/W (duct) 3.60 W/W (mix) 3.70 W/W
 HSPF (heating)..... (wall-mount) 10.3 (duct) 9 (mix) 9.7

Enclosure

(condenser)
 Material..... Painted galvanized steel
 Color..... Beige (10 YR 7.5/1.0 NN)

Sound Pressure Level

Condenser..... 48 dB(A)

Dimensions

H x W x D
 Condenser
 Net in. (mm)..... 32-11/16 x 35-7/16 x 13 (830x900x330)
 Gross in. (mm)..... 38-3/16 x 41-5/16 x 17-1/2 (970x1,050x445)

Connection Pipe

Liquid..... 1/4" x2
 Gas..... 3/8" x2
 Method (Liquid/Gas)..... Brazing
 Max Length (Pre-charge)..... 164ft. (50m) / (98 ft. {30m})
 Max Height Difference..... 49 ft. (15m)

Weight

Condenser..... 134 lbs. (61 kg)
 Evaporators..... (wall-mount) 19 lbs. - 31 lbs.
 (compact cassette) 33 lbs.
 (ducted) 37 lbs. - 49 lbs.
 (floor) 31 lbs.

Accessories

Wired Remote Controller..... UTY-RVNUM
Wired Remote Controller..... UTY-RNNUM
 Simple Remote Controller..... UTY-RSNUM

Intertek®ETL Number

AOUI8RLXFZH..... 91987

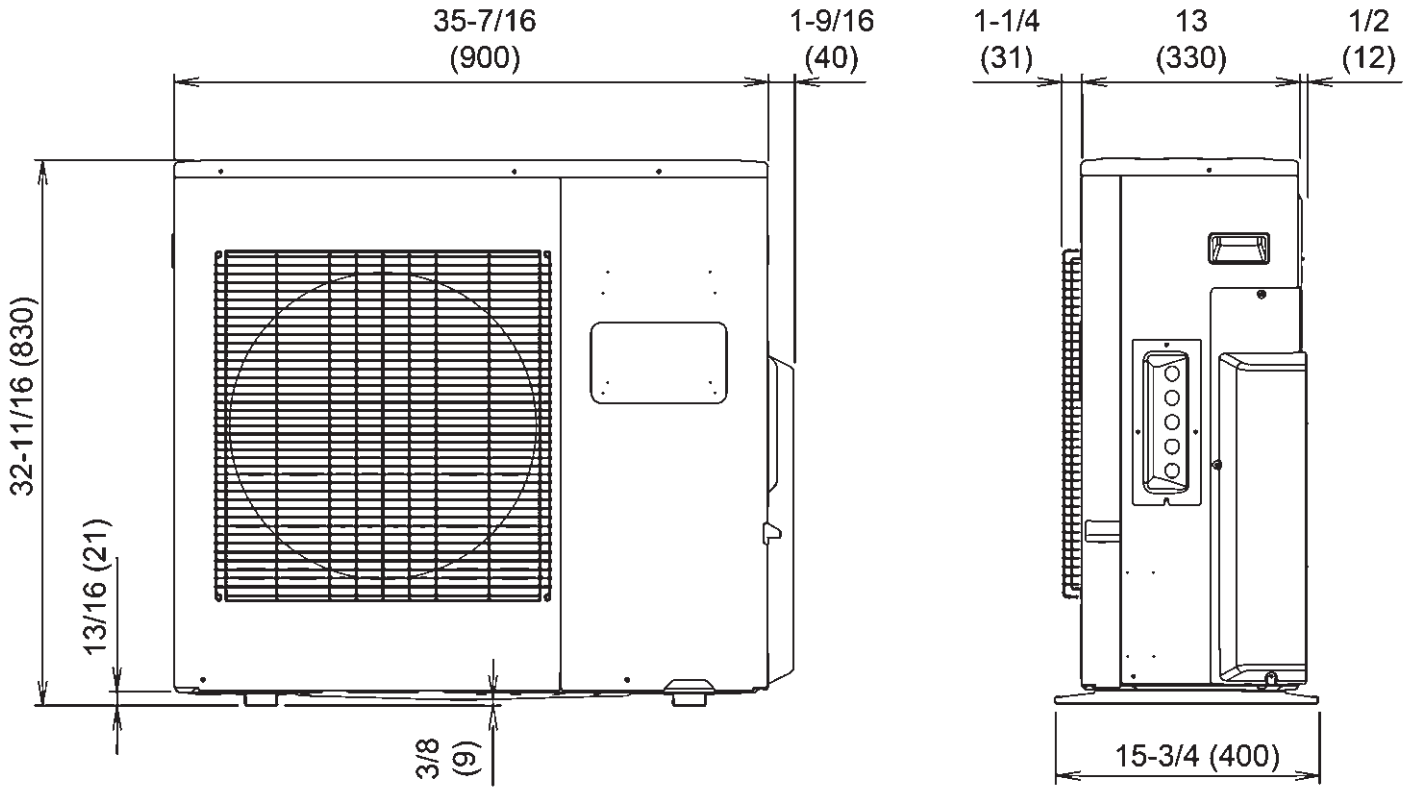
*1 Reference brochure for approved combinations. *2 Test conditions are based on AHRI 210/240. Note: Specifications are based on the following conditions: Cooling: Indoor temperature of 80°F (26.7°C) DB/67°F (19.4°C) WB, and outdoor temperature of 95°F (35°C) DB/75°F (23.9°C) WB. Heating: Indoor temperature of 70°F (21.1°C) DB/59°F (15°C) WB, and outdoor temperature of 47°F (8.3°C) DB/43°F (6.1°C) WB. Pipe length: 24ft. 7in. (7.5m). Height difference: 0ft. (0m) (Outdoor unit – indoor unit)

1 of 2

Fujitsu General America, Inc.
 353 Route 46 West
 Fairfield, NJ 07004
 Toll Free: 1-888-888-3424
 Fax: (973) 836-0447
www.fujitsugeneral.com

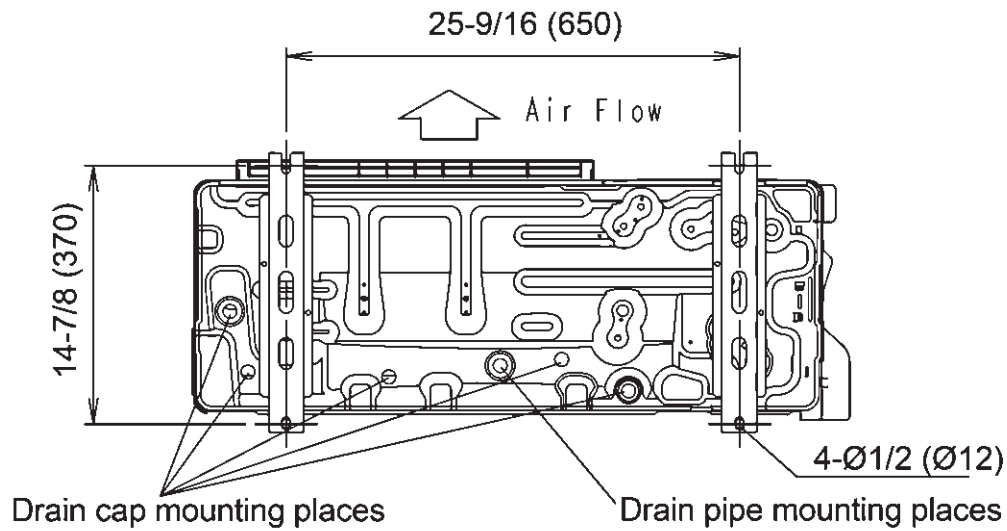
Dimensions: 18RLXFZH

[Unit: in. (mm)]



Front view

Side view



Bottom view

Submittal Data: AUU7RLF Inverter Driven Heat Pump **7,000 BTU Compact Cassette**

Job Name: _____ Date: _____

Location: _____ Approval: _____

Engineer: _____ Construction: _____

Submitted to: _____ Unit #: _____

Submitted by: _____ Drawing #: _____

Reference: _____

General Features

- Refrigerant Type R410A
- Wired and wireless remote controller
- Auto changeover
- Weekly timer
- Removable open panel
- Super quiet operation
- Removable intake grille
- Mildew-resistant filter
- Swing operation
- 5 years standard parts warranty
- Eligible for 10 year or 12 year parts warranty. See warranty statement for details.

Model Information

Evaporator..... AUU7RLF
 Condenser compatibility..... AOU18RLXFZ, AOU18RLXFZH
 AOU24RLXFZ, AOU24RLXFZ
 AOU36RLXFZ, AOU36RLXFZ1, AOU36RLXFZH
 AOU45RLXFZ, AOU48RLXFZ, AOU48RLXFZ1

Electrical 208/230V AC 1ph-60Hz
 Available Voltage Range..... 208/230 +/- 10%
 Input Power..... 18W
 Running Current..... 0.15 A

Capacity 7,000 Btu/h

Fan Motor
 Type: DC Turbo fan x1
 Motor Output..... 54 W
 Fan Motor Protection..... off: 212 ±18°F (100 ±10°C)
 on: 203 ±18°F (95 ±10°C)

Airflow Rate
 Cooling (High / Medium / Low / Quiet)
 318 CFM (540 m3/h) / 288 CFM (490 m3/h) / 259 CFM (440 m3/h) / 230 CFM (390 m3/h)
 Heating (High / Medium / Low / Quiet)
 318 CFM (540 m3/h) / 288 CFM (490 m3/h) / 259 CFM (440 m3/h) / 230 CFM (390 m3/h)

Heat Exchanger
 Dimensions
 (H x W x D) in. (mm)..... 8-9/32 x 51-9/16 x 17/32 + 8-9/32 x 49-7/32 x 17/32
 (210x1310x13.3 + 210x1250x13.3)
 Fin Pitch..... 21 FPI
 Rows x Stages..... 2 x 1
 Pipe Type (Material)..... Copper
 Fin Type..... Aluminum



Temperature Setting Range

Cooling..... 64°F - 90°F (18°C - 32°C)
 Heating..... 60°F - 88°F (16°C - 30°C)

Enclosure

Material..... Galvanized Steel Sheet

Sound Pressure Level

Cooling
 High/Medium/Low/Quiet..... 33 dB (A) / 31 dB (A) / 29 dB (A) / 27 dB (A)
 Heating
 High/Medium/Low/Quiet..... 34 dB (A) / 32 dB (A) / 29 dB (A) / 27 dB (A)

Dimensions

H x W x D
 in. (mm)..... 9-21/32 x 22-7/16 x 22-7/16 (245x570x570)
 Cassette Grille..... UTG-CCGF (sold separately)
 H x W x D
 in. (mm)..... 1-15/16 x 27-9/16 x 27-9/16 (49x700x700)

Connection Pipe

Liquid..... 1/4" in. (6.35 mm)
 Gas..... 3/8" in. (9.52 mm)
 Method (Liquid/Gas)..... Flare
 Drain hose
 Material..... Hard PVC
 Size..... Ø3/4 (I.D.), Ø1-1/16 (O.D.) [Ø20.7 (I.D.), Ø26.6 (O.D.) mm]

Internal Drain Pump

Internal lift..... 27-9/16"

Weight

Net..... 33 lbs. (15 kg)
 Gross..... 40 lbs. (18 kg)
 Cassette Grille..... 5.7 lbs. (2.6 kg) Net / 10 lbs. (4.5 kg) Gross

Accessories

- Wired Remote Controller..... UTY-RNNUM
- Backlit Display..... UTY-RVNUM
- Simple Remote Controller..... UTY-RSNUM
- Wireless Remote Controller..... UTY-LNNUM
- Dry Contact Wire Kit..... UTY-XWZX
- High Humidity Insulation Kit..... UTZ-KXGC
- Air Outlet Shutter Plate..... UTR-YDZB
- Fresh Air Intake..... UTZ-VXAA

Intertek®ETL Number

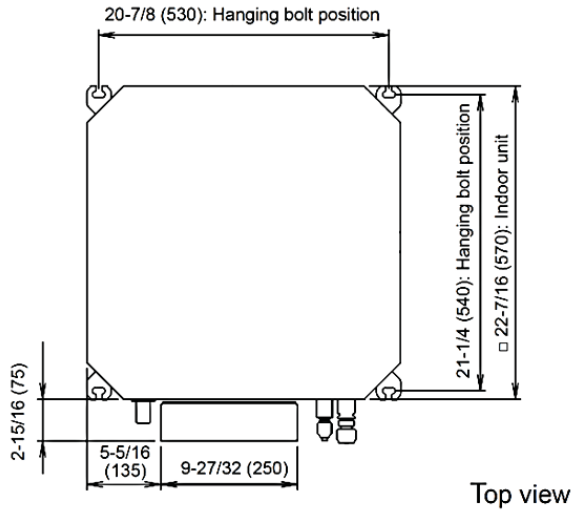
AUU7RLF..... 3170288

Note: Specifications are based on the following conditions.
 Cooling: Indoor temperature of 80°F (26.7°C) DB/67°F (19.44°C) WB, and outdoor temperature of 95°F (35°C) DB/75°F (23.9°C) WB.
 Heating: Indoor temperature of 70°F (21.11°C) DB/59°F (15°C) WB, and outdoor temperature of 47°F (8.33°C) DB/43°F (6.11°C) WB.
 Pipe length: 24ft. 7in. (7.5m). Height difference: 0ft. (0m) (Outdoor unit – indoor unit)



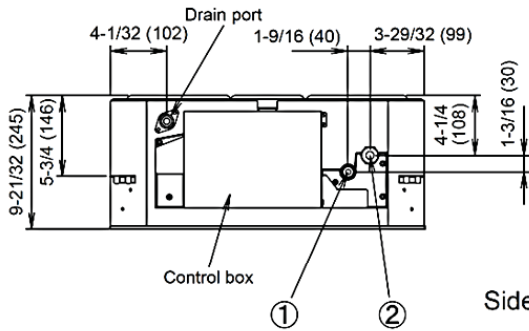
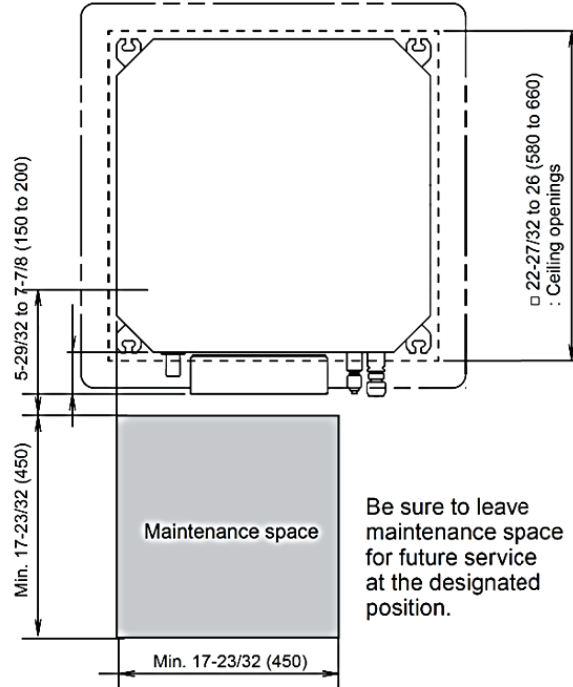
Dimensions: AUU7RLF

[Unit: in. (mm)]

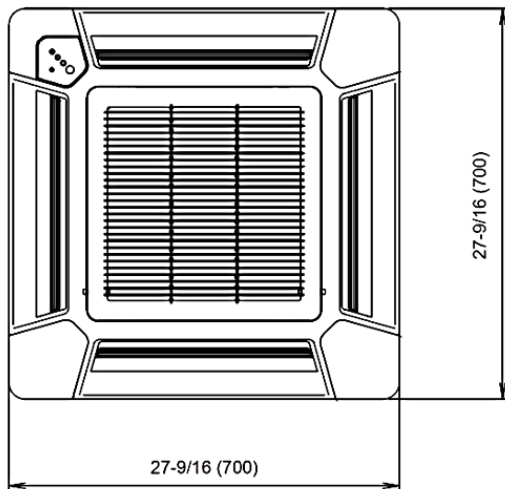
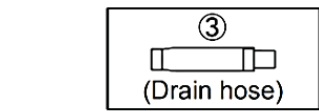
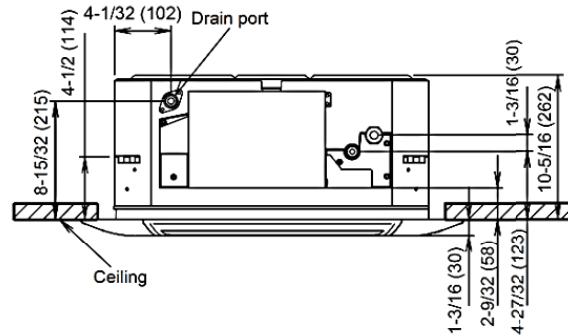


Top view

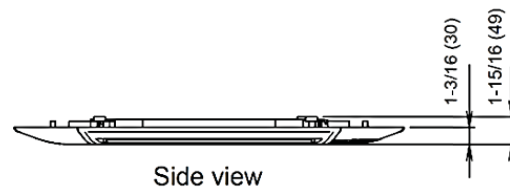
• Cassette grille mounting state



Side view



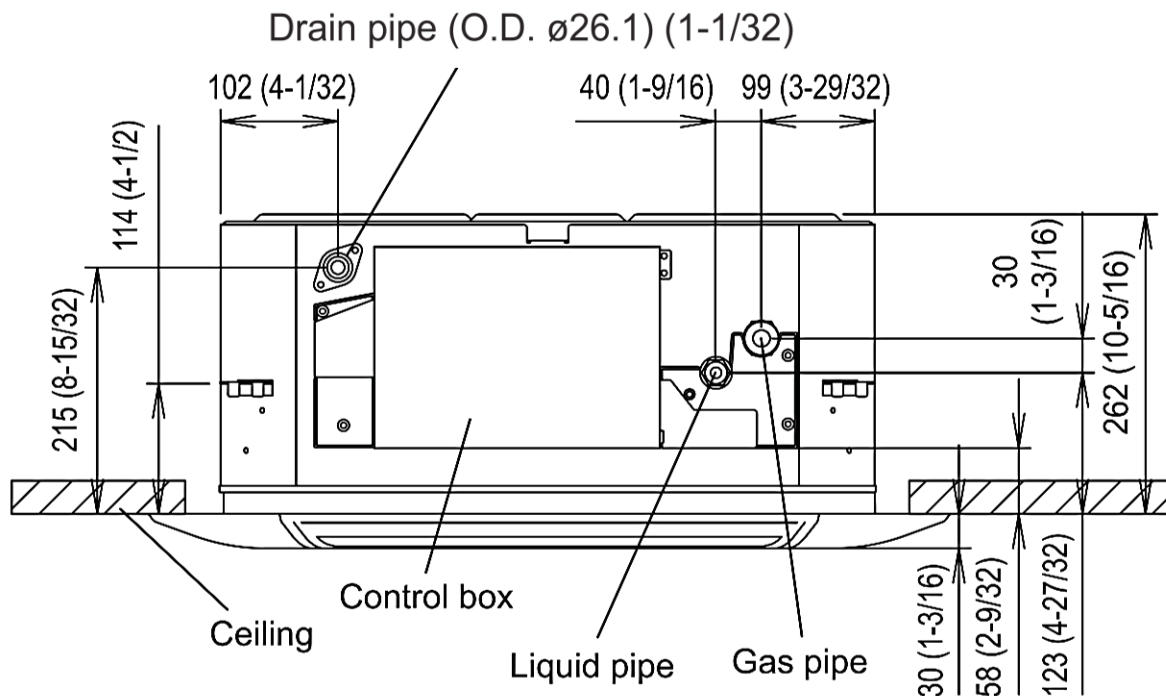
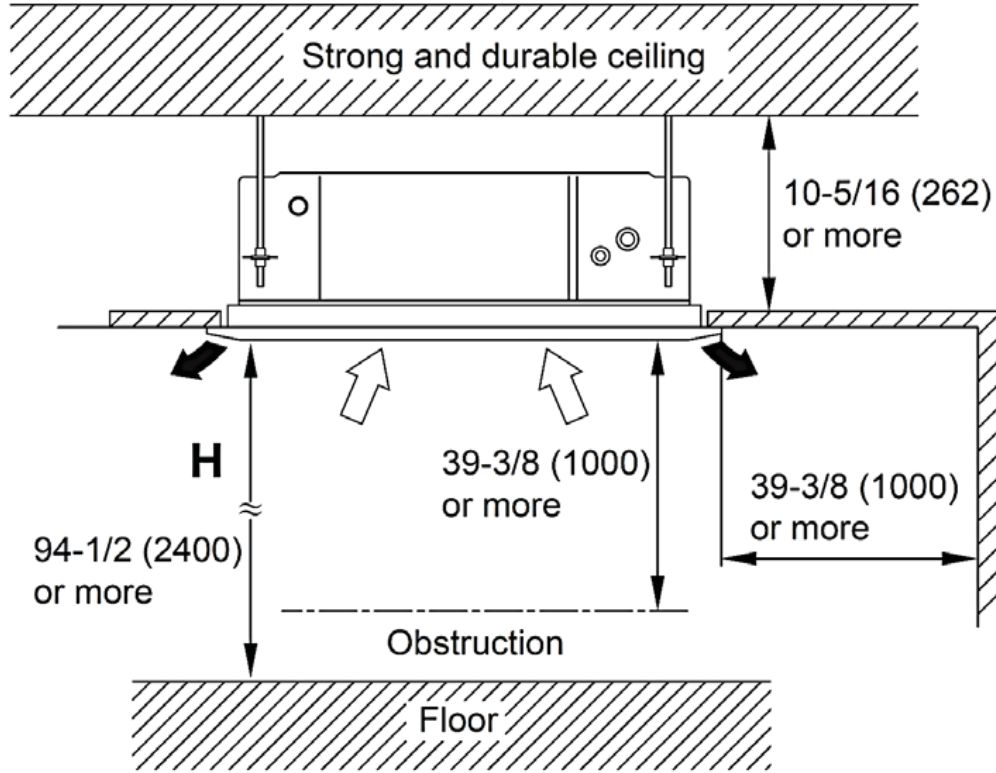
Bottom view



Dimensions: AUU7RLF

■ Installation Place

[Unit: in. (mm)]



Submittal Data: UTY-RNNUM **Wired Remote Controller**

Job Name: _____
 Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Date: _____
 Approval: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____

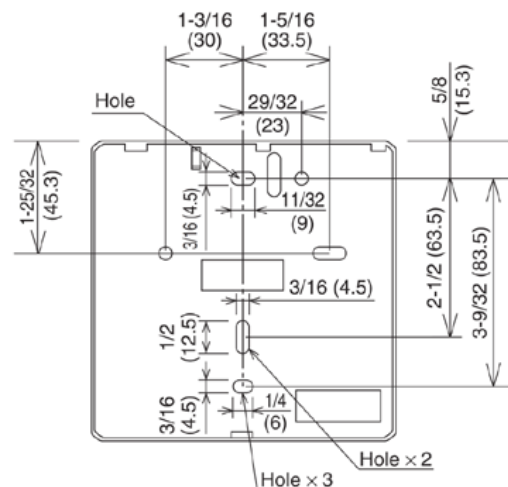
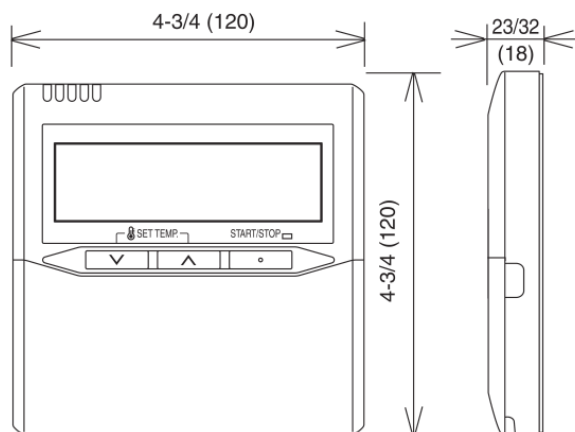


Input Power..... 12v DC
Dimensions H x W x D
 (in.) 4-3/4 x 4-3/4 x 11/16
 (mm)..... 120 x 120 x 18
Weight..... 5.6 oz

Compatible with most wall mounted, ducted, small cassette, and floor mounted models. For compatibility listings, see full line brochure which lists which indoor units are compatible with this wired remote.








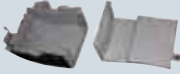
General Features:

- Operation modes: Auto/Cool/Dry/Fan/Heat
- Various timer setup (On / Off / Weekly) are possible.
- Off Timer
 - Used to stop air conditioner operation. The timer operates and air conditioner operation stops after the set time has passed. Timer can be set up to 24 hours in advance.
- On Timer
 - Used to start the air conditioner operation. Timer operates and air conditioner operation starts after the set time has passed. Timer can be set up to 24 hours in advance.
- Weekly Timer
 - Start / Stop function is twice per day for a week.
 - Operating time can be set in 30-minute increments only.
 - The off time can be carried over to the next day.
- Temperature Set Back Timer
 - Used to change the set temperature in the operation times set for each day of the week. This can be used together with other timer settings.
- When setting up a timer, start/stop and a temperature setup can be changed.
- When a failure occurs, the error code is displayed.
- Thermo Sensor
 - Temperature detection of the room can be selected at the indoor unit or on the wired controller by initiating the Thermo Sensor feature.
- Auto restart.
 - Emergency function setting for power failure, etc.
- 33 feet of connectable thermostat wire.
- User-friendly operation
 - Large backlit screen
 - Large easy to use operation panel
- Multiple Function Settings
 - See Owner's Manual
- Filter Lamp Reset
 - Some indoor unit models are equipped with a filter lamp in the indoor unit's display to indicate when it is time to clean the air filters.



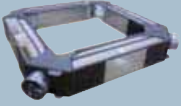
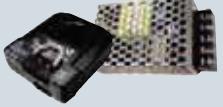


Note: Specifications are based on the following conditions.
 Cooling: Indoor temperature of 80°F (26.7°C) DB/67°F (19.44°C) WB, and outdoor temperature of 95°F (35°C) DB/75°F (23.9°C) WB.
 Heating: Indoor temperature of 70°F (21.1°C) DB/59°F (15°C) WB, and outdoor temperature of 47°F (8.33°C) DB/43°F (6.11°C) WB.
 Pipe length: 25ft. (7.5m), Height difference: 0ft. (0m) (Outdoor unit – indoor unit)
 Built-in protective functions may limit capacity or shut off unit if unit is operated outside of design operating temperature ratings.


Interface Kits

<p>Dry Contact Wire Kit* UTY-XWZX/UTY-XWZXZ5</p>  <p>Turns system on or off using a normally open circuit. For example in home automation, BMS integration of only On/Off operation, occupancy sensor, key card switch, or lead-lag control of other heating/cooling devices.</p>	<p>Interface Kit UTY-XCBXZ2</p>  <p>Required to connect ASU7RLF1, 9RLF1, and 12RLF1 to Wired Remotes UTY-RNNUM and UTY-RVNUM, Dry Contact Wire Kit UTY-XWZX, and Simple Remote Control UTY-RSNUM.</p>	<p>Interface Kit UTY-TWBXF1</p>  <p>Required to connect the ASU15RLS2/H* and ASU9, 12, 15RLS3/H to Wired Remotes UTY-RNNUM and UTY-RVNUM, Dry Contact Wire Kit UTY-XWZXZ5, and Simple Remote Control UTY-RSNUM.</p>
<p>Slim Duct Connector Kit UTD-ECS5A</p>  <p>Comes with 5 sets of wires. Can be used to turn unit on/off, wire in float switch, AUX heater, turn on an external device (Fan), or show if the unit is running.</p>	<p>Outdoor Unit Input/Output Connector UTY-XWZXZ3</p>  <p>Gives the ability to limit the noise of the unit*, stop the outdoor unit, limit power consumption*, control the operating mode (Htg/Clg), or use output status to see if the compressor is running. You will need to order a kit for each option.</p> <p><small>*Will reduce capacity.</small></p>	<p>Outdoor Unit Base Heater Connector UTY-XWZXZ4</p>  <p>Used to hook up an AUX base pan heater to the outdoor unit. Heater will stop ice from forming in the outdoor unit. Base heater will operate when outdoor temperature is below 36°F. Heater is field supply. Heaters greater than 25W can't be fed directly from the board, but have to be powered from another source.</p>
<p>Interface Kit UTY-XCSXZ1</p>  <p>Required to connect ASU30RLE to Wired Touch Panel Remote UTY-RNRUZ1, Wired Remote UTY-RVNUM, Wired Remote UTY-RNNUM, Simple Remote UTY-RSNUM, Dry Contact Wire Kit UTY-XWZX, and Lead Lag Control function^.</p>	<p>Interface Kit Box UTZ-GXXB</p>  <p>Used to conceal Interface Kit UTY-XCSXZ1.</p>	<p>^ Wired remotes cannot be used when using this feature. This includes UTY-RNRUZ1, UTY-RVNUM, UTY-RNNUM, UTY-RSNUM.</p>

Fresh Air Intake Kits

<p>High Humidity Insulation Kit UTZ-KXGC</p>  <p>Additional insulation for compact cassette units, which may be needed when they are installed in high humidity areas.</p>	<p>Air Outlet Shutter Plate UTR-YDZB</p>  <p>In a 3-way air flow configuration an Air Outlet Shutter Plate kit is required to block air flow of 1 louver.</p>	<p>Fresh Air Intake Kit UTZ-VXAA</p>  <p>Mixes room air then passes it through a heat exchanger. Allows for a 4-inch flex duct connection. Requires a field supplied duct booster fan capable of 60 CFM at .2"W.C. or 90 CFM at .4"W.C. For fan static pressure requirements, see installation manual.</p>	<p>Fresh Air Intake Kit KHRS940-25</p>  <p>Kit contains current sensor with built-in relay (Split Core Fixed Threshold Current Status Sensor with Command Relay) and Switching Power Supply. Duct and Fan are field supply. A fan capable of generating 15 CFM at a static pressure of approximately .26 inches W.C. required.</p>
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Miscellaneous

<p>3-Pole Single Throw Safety Switch K3PST</p>  <p>For use where code requires a disconnect at the indoor unit.</p>	<p>R410A Swivel Adapter K9R410A55</p>  <p>In order to minimize incorrect charging of systems with R22 Fujitsu uses a different access port. Contractors will need this 55-degree swivel access fitting.</p>	
<p>Condensate Pump UTR-DPB24T</p>  <p>OEM design plugs into factory harness for ease of installation. Rated for 11.8" of vertical lift. Only used with System 36RSLX.</p>	<p>18+18 Combo Fittings Kit K9FZ1818 <i>(For AOU36RLXFZ1 only)</i></p>  <p>Allows two 18,000 BTU indoor units to be used. Requires special piping; limited to only 18,000 BTU models. Total BTU capacity is limited to 31,600 BTU in cooling. The kit upsizes linesets to 3/8" and 1/2".</p>	<p>Auto Louver Grille Kit* UTD-GXSA-W (for ARU7/9/12) UTD-GXSB-W (for ARU18) UTD-GXSC-W (for ARU24)</p>  <p>Auto Louver provides comfortable airflow and blends in with various interiors. Grille can be connected either directly to indoor unit or through the rectangular duct.</p>

* Only compatible with ARU models with serial numbers greater than 2000.

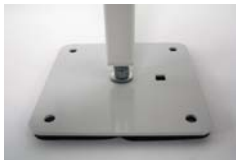
The safe & affordable install

Applicable for residential or light commercial installations



Mini Split 1200/1201 SPECS

A Close Up:



Each foot is slotted to receive 1/4"/20 hardware, which allows the stand to bolt to concrete, cement, or wood for security and stability.



Our Mini Split Stand is made of 14-gauge square, steel tubing.

Holds up to 400 lbs.

*Powder Coated.



4 points of anti-vibration isolation washers are provided while using four 50-derometer rubber pads on each foot.



Available in 2 depths:
QSMS1200-Thin QSMS1201-Wide
Adjustable in length from 34" to 40" in 1" increments.
Our 12" high Mini Split Stand fits all units on the market.
See compatibility charts at www.quick-sling.com. All necessary hardware is provided.



Quick-Sling's Mini Split stand provides an elevated platform that is quick, safe, stable, and affordable.

Quick-Sling 391 West Water Street Taunton, MA 02780

P:1.800.699.0453 F:1.800.699.0423
www.Quick-Sling.com