FUJITSU

Hybrid Flex Inverter System

48,000 BTU 8-Zone Mix & Match Flexibility

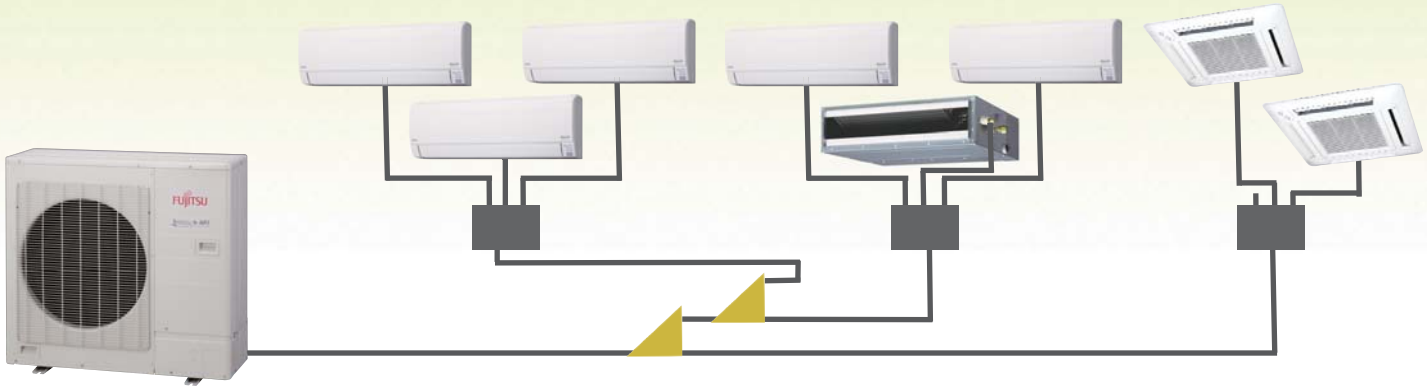
Mini-Split Air Conditioners and Heat Pumps

Wall Mounted

Slim Duct

Compact Cassette

For over 35 years, Fujitsu has been making the hottest places cool and the coolest places more comfortable.



Halcyon HFI
Hybrid Flex Inverter

What is a Hybrid?

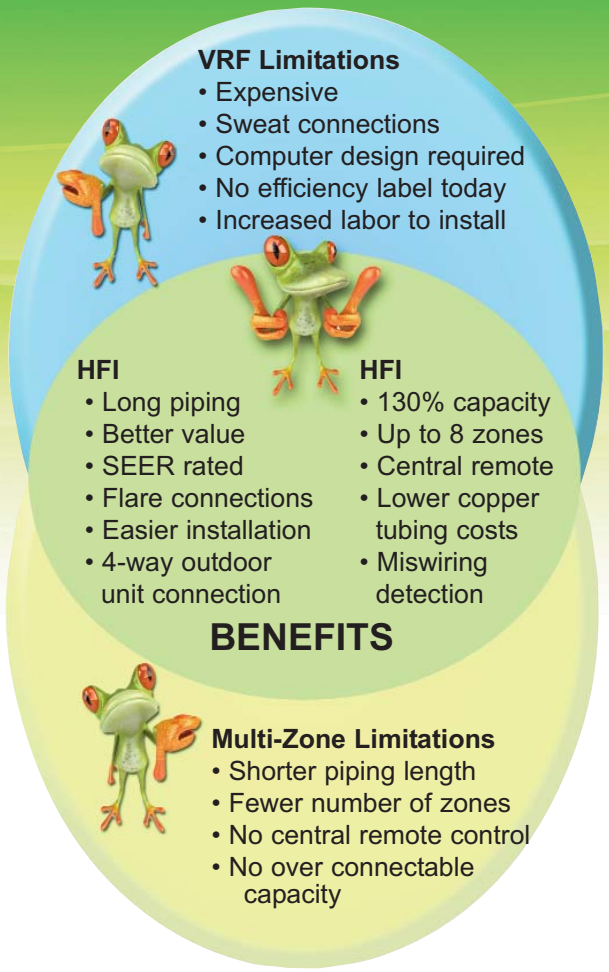
The blending of a complex VRF system with the simplicity of a multi-zone system to create a new hybrid solution that shares the best of both systems.

Why Flex?

The ability to create the right combinations, the right quantity (up to 8-zones), the right style indoor units, and the right capacity. It's the right choice for your home or business.

Why Inverter?

An Inverter is a system that controls the rotational speed (not just an ON/OFF signal) of an electric motor by adjusting the frequency of the electrical power supplied to the motor. The inverter constantly regulates the compressor speed to its optimum energy usage, producing higher refrigerant performance with less power consumption.



130% Connectable Capacity (Halcyon Hybrid Flex Inverter (HFI) System Only)

The HFI system is rated at 48,000 BTUs but you can connect up to 130%, or 62,000 BTUs of rated evaporator capacity to the AOU48RLXFZ. All indoor units can operate at once, however if all the evaporators are calling for cooling or heating at the same time it will decrease the capacity of each evaporator not to exceed the condenser's capacity. As zones meet desired set point the system's other evaporators increase output up to the evaporator's rated capacity.

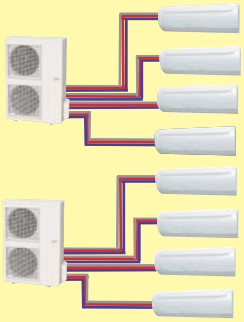
For example: The load on a small 2-story office building with a business downstairs and worker apartments upstairs is 62,000 BTUs (38,000 BTUs downstairs and 24,000 BTUs upstairs) but the workers aren't upstairs and downstairs at the same time, therefore not all units will be running simultaneously allowing 100% heating or cooling to occupied spaces.

HFI vs. Multi vs. VRF

AHRI defines VRF as having three main features: (1) a variable speed compressor, (2) a computerized control individual zoning system and (3) optimized refrigerant path of installation.

INVERTER MULTI-ZONE

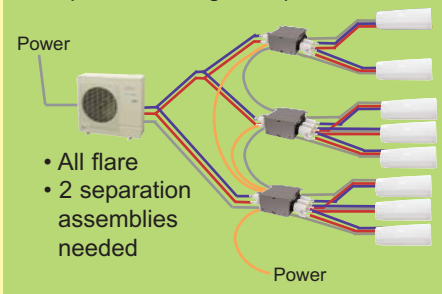
- Variable speed compressor
- Computerized zone control
- With the expansion valves mounted in the outdoor unit, it does not have an optimized refrigerant path.



- 2 outdoor units needed
- No separation tube assemblies needed

Halcyon Hybrid Flex Inverter

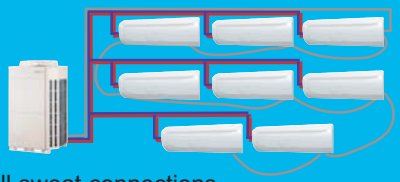
- Variable speed compressor
- Computerized zone control
- Remotes expansion valves from the outdoor unit to mid-stream in the refrigerant piping, creating a semi-optimized refrigerant path.



- All flare
- 2 separation assemblies needed

INVERTER VRF SYSTEM

- Variable speed compressor
- Computerized zone control
- Expansion valves are mounted either within or near the indoor unit, and engineered piping maximizes compressor efficiency to create an optimized refrigerant path.



- All sweat connections
- 7 separation assemblies needed

Outdoor Unit 48,000 BTUs

AOU48RLXFZ

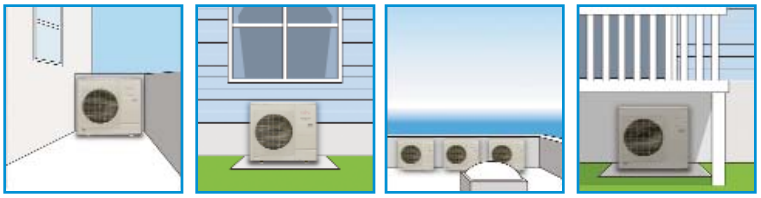
- Connect 2 to 8 indoor units
- 80 to 130% connectable capacity
- Connect 39,000 to 62,000 BTU

2 Indoor Units
18k BTU/h + 24 k BTU/h = 42k BTU/h ··OK
12k BTU/h + 24 k BTU/h = 36k BTU/h ··Not Allowed (below 80%)

8 Indoor Units
7k BTU/h × 8 units = 56k BTU ··OK
9k BTU/h × 8 units = 72k BTU ··Not Allowed (over 130%)

Compact Size

The compact size of outdoor unit AOU48RLXFZ allows for many installation opportunities.

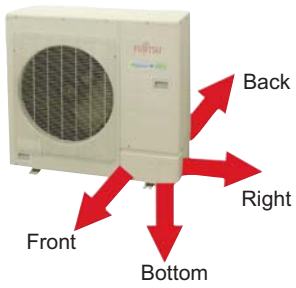


Self Diagnostic Feature

This printed circuit board provides thrree modes of diagnostics - setting, monitoring and function mode. It also provides a pre-commissioning check function. Setting mode allows optional functions to be selected.
Monitoring mode provides temperature for each thermistor, compressor operation and other functions. Function mode provides cooling test run, heating test run and pump down operation.

Piping Flexibility

Contractors can choose the best direction for piping from the outdoor unit.



DC Twin Rotary Compressor

A high performance, low noise, large capacity DC twin rotary compressor is used.

	AOU48RLFXZ Heat Pump
Connectable Indoor Unit *Number*	2 to 8
Connectable Indoor Unit *Capacity*	80 to 130% Nominal (39,000 - 62,000 BTU)
Connectable Branch Box *Number*	1 to 3
Nominal Cooling *BTU/h*	48,000
Max Cooling *BTU/h*	51,100
Nominal Heating *BTU/h*	54,000
Low Temp. Heating 17°F *BTU/h*	TBA
Max Heating *BTU/h*	57,000
Clg. Operating Range °F(°C)	25-115 (-5-46)
Htg. Operating Range °F(°C)	5-75 (-15-24)
Input Power: Cooling Rated kW*	5.52 / 5.19 / 5.35
Input Power: Heating Rated kW*	22.3 / 21.7 / 22.0
Voltage/Frequency/Phase	208-230/60/1
Current: Clg Outdoor Max. *(A)*	24.5 / 23.0 / 23.7
Current: Htg Outdoor Max. *(A)*	22.3 / 21.7 / 22.0
Recommended Fuse Size *(A)*	40
Outdoor Fan Speed *RPM (Clg/Htg)*	TBA
Fan: Type x Quantity	Propeller x 1
Fan Motor Output W	111
Sound Power Level Cooling *dB(A)*	TBA
Sound Pressure Level Cooling *dB(A)*	56
Sound Pressure Level Heating *dB(A)*	58
Max. Pipe Length Total *Ft (m)*	377 (115)
Max. Pipe Length Between Box & Farthest Indoor Unit *Ft (m)*	49 (15)
Max. Pipe Height Difference Between Outdoor Unit & Branch Box *Ft (m)*	98 (30)
Max. Pipe Height Difference Between Indoor Units *Ft (m)*	98 (30)
Max. Pipe Height Difference Between Outdoor Unit & Farthest Indoor *Ft (m)*	98 (30)
Connection Method	Flare
Conn. Pipe Diameter *Inch*	3/8 (Liq.) 5/8 (Suc.)
Net Weight *lbs. (kg)*	216 (98)
Dimensions: Height *Inch*	36
mm	914
Width *Inch*	38-1/4
mm	970
Depth *Inch*	14-5/8
mm	370
Refrigerant	R410A

*Ducted / Non-Ducted / Mixed

	SEER	HSPF	EER**
Ducted	14.7	9.3	8.7
Non-Ducted	17.0	9.8	9.25
Mixed	15.8	9.5	8.97

**Cooling

Halcyon HFI Hybrid Flex Inverter

7 Year Compressor 5 Year Parts WARRANTY

INVERTER

Refrigerant R410A

Wall Mounted 7, 9, 12, 18 and 24,000 BTUs

ASU7RLF, ASU9RLF, ASU12RLF, ASU18RLF, ASU24RLF

ASU7, 9, 12RLF

ASU18, 24RLF

	ASU7RLF Heat Pump	ASU9RLF Heat Pump	ASU12RLF Heat Pump	ASU18RLF Heat Pump	ASU24RLF Heat Pump
Nominal Cooling *BTU/h*	7,000	9,000	12,000	18,000	24,000
Nominal Heating *BTU/h*	8,100	10,200	13,500	20,000	27,000
Low Temp. Heating 17°F *BTU/h*	TBA	TBA	TBA	TBA	TBA
Voltage/Frequency/Phase	208-230/60/1	208-230/60/1	208-230/60/1	208-230/60/1	208-230/60/1
Air Circ. *C.F.M. (m³/h)*: Hi	560 (330)	600 (353)	660 (388)	920 (542)	1,100 (647)
Medium	500 (294)	520 (306)	560 (330)	740 (436)	900 (530)
Low	430 (253)	450 (265)	450 (265)	620 (365)	740 (436)
Quiet	340 (200)	340 (200)	340 (200)	550 (324)	620 (365)
Noise Level *dB(A)* (Clg/Htg): Hi	36/36	37/37	40/40	43/44	49/48
Medium	32/32	33/33	36/36	37/37	42/42
Low	29/29	29/29	30/31	33/33	37/37
Quiet	25/25	25/25	25/25	31/31	33/33
Running Current *Rated (A)*: Cooling	0.20	0.20	0.30	0.40	0.70
Heating	0.20	0.20	0.30	0.40	0.70
Power Use *Rated (w)*: Cooling	46	46	69	92	161
Heating	46	46	69	92	161
Fan Speeds Stage	4+auto	4+auto	4+auto	3+auto	3+auto
Air Direction: Horizontal	No	No	No	Yes	Yes
Vertical	Yes	Yes	Yes	Yes	Yes
Air Filter	Disposable	Disposable	Disposable	Disposable	Disposable
Ion Deodorizing Filter	Yes	Yes	Yes	Yes	Yes
Apple-Catechin Filter	Yes	Yes	Yes	Yes	Yes
Connection Method	Flare	Flare	Flare	Flare	Flare
Conn. Pipe Diameter *Inch*	suc 3/8 dis 1/4	suc 3/8 dis 1/4	suc 3/8 dis 1/4	suc 1/2 dis 1/4	suc 5/8 dis 1/4
Net Weight *lbs. (kg)*	18 (8)	18 (8)	18 (8)	31 (14)	31 (14)
Dimensions: Height *Inch (mm)*	11-1/16 (280)	11-1/16 (280)	11-1/16 (280)	12-5/8 (320	12-5/8 (320
Width *Inch (mm)*	31-1/16 (790)	31-1/16 (790)	31-1/16 (790)	39-1/4 (998)	39-1/4 (998)
Depth *Inch (mm)*	8 (203)	8 (203)	8 (203)	9 (228)	9 (228)
Refrigerant	R410A	R410A	R410A	R410A	R410A

+ The filter can be used for approximately 3 years if it is washed under water to restore its surface action when it is dirty.

Built In Filtration

Long-life+ Ion Deodorization Filter
The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.

Apple-Catechin Filter
Dust, mold spores and microorganisms are absorbed onto the filter by static electricity and growth is inhibited and deactivated.

Easy Maintenance

Front panel is easily removed for cleaning.

Standard Features

- Apple Catechin Filter
- Ion Deodorizing Filter
- Sleep Timer
- 24-Hour Timer
- Dry Mode
- Auto Louver: Up/ Down
- Auto Louver: 4-way*
- Long Piping Length (165'+)
- Auto Mode
- Minimum Heat Mode
- Quiet Mode
- Auto Restart/Reset
- Auto Changeover
- Low Ambient
- Power Diffuser*

*Feature of models ASU18, 24RLF only.

7 Year Compressor 5 Year Parts WARRANTY

INVERTER

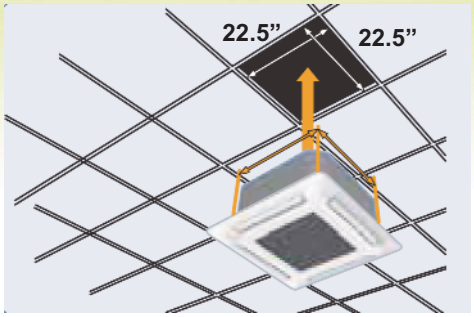
Refrigerant R410A

Compact Cassettes 9, 12, and 18,000 BTUs

AUU9RLF, AUU12RLF, AUU18RLF

Easy Installation

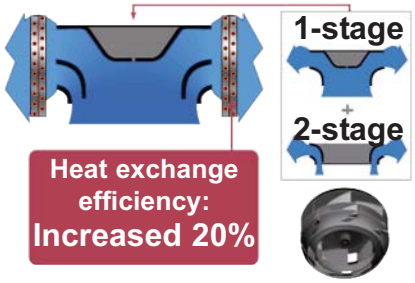
Fits into a standard ceiling tile*.
Compact cassette and slim duct models can be networked.



*Dimensions of outer grille are 27-9/16” x 27-9/16” and may overlap adjacent tiles.

2-Stage Turbo Fan

Air distribution is evenly spread across the heat exchanger by the new 2 stage turbo fan which produces two separate airflow streams.



Standard Features

- Weekly Timer
- Dry Mode
- Auto Louver: Up/ Down
- Quiet Mode
- Auto Restart/Reset
- Auto Changeover
- Low Ambient
- Long Piping Length (165’+)
- Remote Temperature Sensor
- High Ceiling Mode
- Condensate Pump
- 2-Stage Turbo Fan
- Fresh Air Intake**

	AUU9RLF Heat Pump	AUU12RLF Heat Pump	AUU18RLF Heat Pump
Nominal Cooling *BTU/h*	9,000	12,000	18,000
Nominal Heating *BTU/h*	10,200	13,500	20,000
Low Temp. Heating 17°F *BTU/h*	TBA	TBA	TBA
Voltage/Frequency/Phase	208-230/60/1	208-230/60/1	208-230/60/1
Air Circ. *C.F.M. (m³/h)*: Hi	540 (318) Clg or Htg	610 (359) Clg or Htg	750 (441) Clg 800 (471) Htg
Medium	490 (288) Clg or Htg	530 (312) Clg or Htg	610 (359) Clg 710 (418) Htg
Low	440 (259) Clg or Htg	470 (277) Clg or Htg	520 (306) Clg 600 (353) Htg
Quiet	390 (230) Clg or Htg	410 (241) Clg or Htg	410 (241) Clg 450 (265) Htg
Noise Level *dB(A) Clg/Htg*: Hi	33/34	37/37	42/44
Medium	31/32	33/33	37/40
Low	29/29	31/31	33/37
Quiet	27/27	28/28	29/30
Running Current *Rated (A)*: Cooling	0.20	0.20	0.40
Heating	0.20	0.20	0.40
Power Use *Rated/Max (W)*: Clg	46	46	92
Heating	46	46	92
Fan Speeds *Stage*	4+auto	4+auto	4+auto
Air Direction: Vertical	Automatic	Automatic	Automatic
Air Filter	Washable	Washable	Washable
Front Grille	UTG-CCGF*	UTG-CCGF*	UTG-CCGF*
Connection Method	Flare	Flare	Flare
Conn. Pipe Diameter *Inch*	suc 3/8 dis 1/4	suc 3/8 dis 1/4	suc 1/2 dis 1/4
Net Weight *lbs. (kg)*	33 (15)	33 (15)	33 (15)
Chassis Dim: Height *Inch (mm)*	9-11/16 (245)	9-11/16 (245)	9-11/16 (245)
Width *Inch (mm)*	22-7/16 (570)	22-7/16 (570)	22-7/16 (570)
Depth *Inch (mm)*	22-7/16 (570)	22-7/16 (570)	22-7/16 (570)
Grille Dim: Height *Inch (mm)*	1-15/16 (49)	1-15/16 (49)	1-15/16 (49)
Width *Inch (mm)*	27-9/16 (700)	27-9/16 (700)	27-9/16 (700)
Depth *Inch (mm)*	27-9/16 (700)	27-9/16 (700)	27-9/16 (700)
Refrigerant	R410A	R410A	R410A

**Requires Fujitsu’s Optional Fresh Air Kit part #UTZ-VXAA. Allows for a 4-inch flex duct connection and a field supplied duct booster capable of 60 CFM at a .2” W.C. or 90 CFM at .4” W.C. For fan curve, see installation manual.

* Compact Cassette Grille UTG-CCGF sold separately. Must order one with each compact cassette.

Fresh Air Kit**
UTZ-VXAA
mixes room air then passes through a heat exchanger.

Halcyon HFI Hybrid Flex Inverter

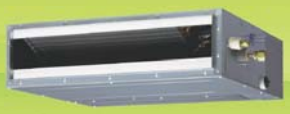
7 Year Compressor 5 Year Parts WARRANTY

INVERTER

Refrigerant R410A

Slim Duct 9, 12, 18 and 24,000 BTUs

ARU9RLF, ARU12RLF, ARU18RLF, ARU24RLF



ARU9, 12RLF

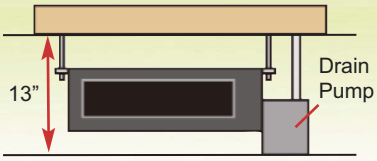
ARU18, 24RLF

	ARU9RLF Heat Pump	ARU12RLF Heat Pump	ARU18RLF Heat Pump	ARU24RLF Heat Pump
Nominal Cooling *BTU/h*	9,000	12,000	18,000	24,000
Nominal Heating *BTU/h*	10,200	13,500	20,000	27,000
Low Temp. Heating 17°F *BTU/h*	TBA	TBA	TBA	TBA
Voltage/Frequency/Phase	208-230/60/1	208-230/60/1	208-230/60/1	208-230/60/1
Recommended Static Pressure *In. W. C.*	0 ~ 0.36	0 ~ 0.36	0 ~ 0.36	0 ~ 0.20
Air Circ. *C.F.M. (m^3/h) Clg/Htg*: Hi	600 (353)	650 (383)	940 (554)	1,330 (783)
Medium	550 (324)	600 (353)	880 (518)	1,240 (730)
Low	500 (294)	550 (324)	820 (483)	1,100 (648)
Quiet	450 (265)	480 (283)	750 (442)	1,030 (607)
Noise Level *dB(A)* (Clg/Htg): Hi	28/28	28/28	31/31	35/35
Medium	27/27	27/27	29/29	32/32
Low	26/26	26/26	27/27	29/29
Quiet	25/25	25/25	25/25	26/26
Running Current *Rated (A)*: Cooling	0.69	0.72	0.87	1.17
Heating	0.69	0.72	0.87	1.17
Power Use *Rated (W)*: Cooling	159	166	200	269
Heating	159	166	200	269
Fan Speeds *Stage*	3 + Auto	3 + Auto	3 + Auto	3 + Auto
Air Filter	Washable	Washable	Washable	Washable
Connection Method	Flare	Flare	Flare	Flare
Conn. Pipe Diameter *Inch*	suc 3/8 dis 1/4	suc 3/8 dis 1/4	suc 1/2 dis 1/4	suc 5/8 dis 1/4
Net Weight *lbs. (kg)*	41 (19)	41 (19)	50 (23)	59 (27)
Dimensions: Height *Inch (mm)*	7-25/32 (198)	7-25/32 (198)	7-25/32 (198)	7-25/32 (198)
Width *Inch (mm)*	27-9/16 (700)	27-9/16 (700)	35-7/16 (900)	43-5/16 (1,100)
Depth *Inch (mm)*	24-13/16 (620)	24-13/16 (620)	24-13/16 (620)	24-13/16 (620)
Supply Duct Flange Dimensions: Height *Inch (mm)*	6 (152)	6 (152)	6 (152)	6 (152)
Width *Inch (mm)*	25-9/16 (649)	25-9/16 (649)	33-7/16 (849)	41-5/16 (1,049)
Depth *Inch (mm)*	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
Return Duct Flange Dimensions: Height *Inch (mm)*	6-1/8 (155)	6-1/8 (155)	6-1/8 (155)	6-1/8 (155)
Width *Inch (mm)*	21-15/16 (557)	21-15/16 (557)	29-15/16 (760)	37-1/16 (941)
Depth *Inch (mm)*	3/4 (19) (Flat)	3/4 (19) (Flat)	3/4 (19) (Flat)	3/4 (19) (Flat)
Refrigerant	R410A	R410A	R410A	R410A

Slim Duct

Adaptable when ceiling cavity is small and there is no slope for drain.

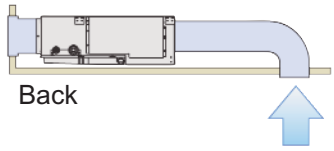
Traditional

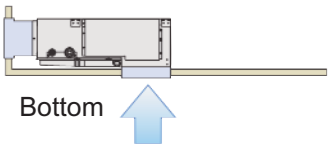


Slim Duct

Return Air-intake

Air intake direction can be selected to match the installation site.





Standard Features

- Dry Mode
- Weekly Timer
- Sleep Timer*
- 24-Hour Timer*
- Minimum Heat Mode*
- Auto Mode
- Quiet Mode
- Auto Restart/Reset
- Auto Changeover
- Low Ambient
- Long Piping Length (165'+)
- Condensate Pump
- Fresh Air Intake

*Available only with optional wireless remote control.

7 Year Compressor 5 Year Parts WARRANTY

INVERTER

Refrigerant R410A

Branch Boxes

UTP-PU03A, UTP-PU03B

UTP-PU03A

UTP-PU03B

	UTP-PU03A Primary	UTP-PU03B Secondary
Connectable Indoor Unit	1 ~ 3	1 ~ 3
Max. Combination *BTU/h*	62,000 Nom.*	62,000 Nom.*
Min. Combination *BTU/h*	7,000 Nom.*	7,000 Nom.*
Clg. Operating Range °F(°C)	25-115 (-5-46)	25-115 (-5-46)
Htg. Operating Range °F(°C)	5-75 (-15-24)	5-75 (-15-24)
%RH	80 or less	80 or less
Voltage/Frequency/Phase	208-230/60/1	208-230/60/1
Maximum Current Ampacity *(A)*	15	15
Running Current *Rated (A)*: Cooling	0.050	0.050
Heating	0.050	0.050
Power Use *Rated (W)*: Cooling	10	10
Heating	10	10

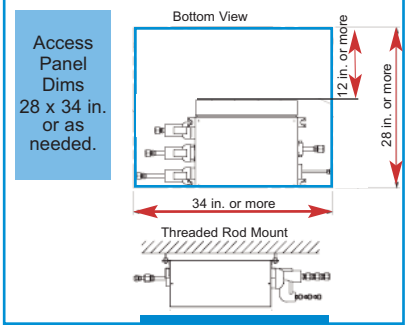
*So long as the total system nominal capacity is between 39,000 and 62,000 BTUs.

	UTP-PU03A Primary	UTP-PU03B Secondary
Dimensions: Gross (Flare to Flare):		
Height x Width x Depth *Inch*	10 x 36-5/8 x 17-1/8	10 x 36-5/8 x 17-1/8
Height x Width x Depth *mm*	255 x 929 x 434	255 x 929 x 434
Dimensions: Net (Metal Box Only):		
Height x Width x Depth *Inch*	7-5/8 x 17 x 14-5/8	7-5/8 x 17 x 14-5/8
Height x Width x Depth *mm*	195 x 433 x 370	195 x 433 x 370
Net Weight *lbs. (kg)*	20 (9)	20 (9)
Conn. Pipe Diameter - Main *Inch*	(3/8 Liq. x 5/8 Suc.)	(3/8 Liq. x 5/8 Suc.)
Conn. Pipe Diameter - Branch *Inch*	(1/4 Liq. x 1/2 Suc.) 3 pair	(1/4 Liq. x 1/2 Suc.) 3 pair
Connection Method	Flare	Flare
Connection Adapter Included *Inch*	(1/2MF x 3/8FF) x 3 (1/2MF x 5/8FF) x 3 No adapter needed for 18k BTU	(1/2MF x 3/8FF) x 3 (1/2MF x 5/8FF) x 3 No adapter needed for 18k BTU

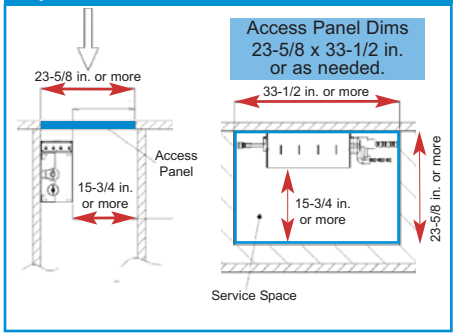
Warning: Branch boxes are not weather tight enclosures and cannot be mounted outdoors or in damp environments exceeding 80% relative humidity.

Clearances

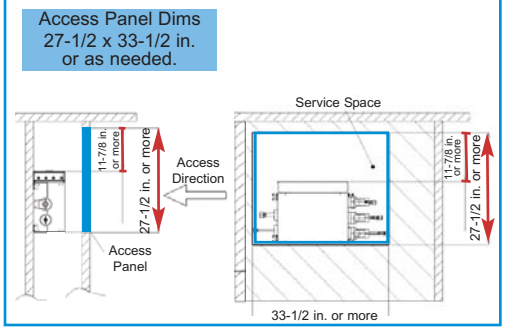
Btm. Access Panel, Horiz. Box Mount



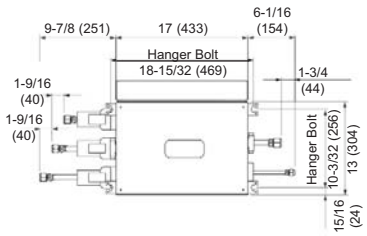
Top Access Panel, Vertical Box Mount

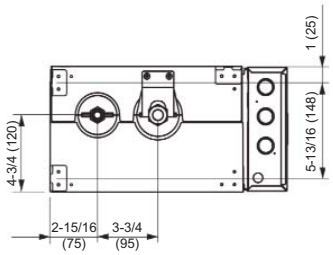


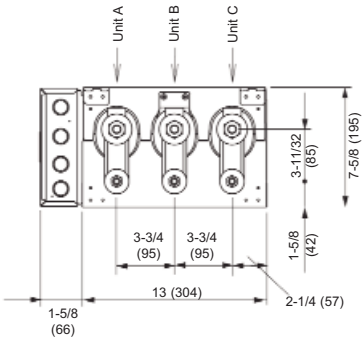
Side Access Panel, Vertical Box Mount



Dimensions *In (mm)*

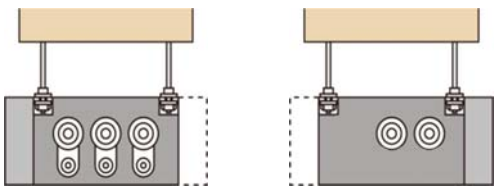






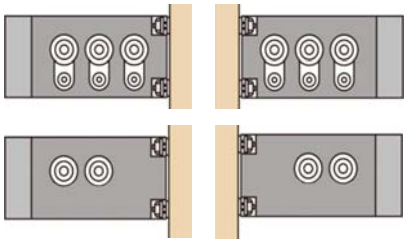
Allowed Branch Box Mounting Direction

Threaded Rod Mount



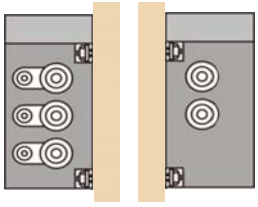
By reversing the electrical box position you *can* orient the inlet and outlet pipes into a left hand or right hand configuration.

Horizontal Wall Mount



By reversing the electrical box position you *can* orient the inlet and outlet pipes into a left hand or right hand configuration.

Vertical Wall Mount



You *cannot* reverse the electrical box position when mounting the branch box vertically.

Halcyon HFI Hybrid Flex Inverter

Allowable Combinations

156 Combinations Based on BTU (3,266 Combo's Based on Indoor Type and BTU)

ASU7RLF
ASU9RLF
ASU12RLF
ASU18RLF
ASU24RLF

ARU9RLF
ARU12RLF
ARU18RLF
ARU24RLF

AUU9RLF*
AUU12RLF*
AUU18RLF*

AOU48RLXFZ

BTU Capacity | 7,000 | 9,000 | 12,000 | 18,000 | 24,000

2 INDOOR UNITS

18	24						42
24	24						48

3 INDOOR UNITS

7	9	24					40
7	12	24					43
7	18	18					43
7	18	24					49
7	24	24					55
9	9	24					42
9	12	18					39
9	12	24					45
9	18	18					45
9	18	24					51
9	24	24					57
12	12	18					42
12	12	24					48
12	18	18					48
12	18	24					54
12	24	24					60
18	18	18					54
18	18	24					60

4 INDOOR UNITS

7	7	7	18				39
7	7	7	24				45
7	7	9	18				41
7	7	9	24				47
7	7	12	18				44
7	7	12	24				50
7	7	18	18				50
7	7	18	24				56
7	7	24	24				62
7	9	9	18				43
7	9	9	24				49
7	9	12	12				40
7	9	12	18				46
7	9	12	24				52
7	9	18	18				52
7	9	18	24				58
7	12	12	12				43
7	12	12	18				49
7	12	12	24				55
7	12	18	18				55

4 INDOOR UNITS

7	12	18	24				61
7	18	18	18				61
9	9	9	12				39
9	9	9	18				45
9	9	9	24				51
9	9	12	12				42
9	9	12	18				48
9	9	12	24				54
9	9	18	18				54
9	9	18	24				60
9	12	12	12				45
9	12	12	18				51
9	12	12	24				57
9	12	18	18				57
12	12	12	12				48
12	12	12	18				54
12	12	12	24				60
12	12	18	18				60

5 INDOOR UNITS

7	7	7	7	12			40
7	7	7	7	18			46
7	7	7	7	24			52
7	7	7	9	9			39
7	7	7	9	12			42
7	7	7	9	18			48
7	7	7	9	24			54
7	7	7	12	12			45
7	7	7	12	18			51
7	7	7	12	24			57
7	7	7	18	18			57
7	7	9	9	9			41
7	7	9	9	12			44
7	7	9	9	18			50
7	7	9	9	24			56
7	7	9	12	12			47
7	7	9	12	18			53
7	7	9	12	24			59
7	7	9	18	18			59
7	7	12	12	12			50
7	7	12	12	18			56
7	7	12	12	24			62

5 INDOOR UNITS

7	7	12	18	18			62
7	9	9	9	9			43
7	9	9	9	12			46
7	9	9	9	18			52
7	9	9	9	24			58
7	9	9	12	12			49
7	9	9	12	18			55
7	9	9	12	24			61
7	9	9	18	18			61
7	9	12	12	12			52
7	9	12	12	18			58
7	12	12	12	12			55
7	12	12	12	18			61
9	9	9	9	9			45
9	9	9	9	12			48
9	9	9	9	18			54
9	9	9	9	24			60
9	9	9	12	12			51
9	9	9	12	18			57
9	9	12	12	12			54
9	9	12	12	18			60
9	12	12	12	12			57
12	12	12	12	12			60

6 INDOOR UNITS

7	7	7	7	7	7		42
7	7	7	7	7	9		44
7	7	7	7	7	12		47
7	7	7	7	7	18		53
7	7	7	7	7	24		59
7	7	7	7	9	9		46
7	7	7	7	9	12		49
7	7	7	7	9	18		55
7	7	7	7	9	24		61
7	7	7	7	12	12		52
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7	7	7	9	9	9		48
7	7	7	9	9	12		51
7	7	7	9	9	18		57
7	7	7	9	12	12		54
7	7	7	9	12	18		60
7	7	7	12	12	12		57

6 INDOOR UNITS

7	7	9	9	9	9		50
7	7	9	9	9	12		53
7	7	9	9	9	18		59
7	7	9	9	12	12		56
7	7	9	9	12	18		62
7	7	9	12	12	12		59
7	7	12	12	12	12		62
7	9	9	9	9	9		52
7	9	9	9	9	12		55
7	9	9	9	9	18		61
7	9	9	9	12	12		58
7	9	9	12	12	12		61
9	9	9	9	9	9		54
9	9	9	9	9	12		57
9	9	9	9	12	12		60

7 INDOOR UNITS

7	7	7	7	7	7	7	49
7	7	7	7	7	7	9	51
7	7	7	7	7	7	12	54
7	7	7	7	7	7	18	60
7	7	7	7	7	9	9	53
7	7	7	7	7	9	12	56
7	7	7	7	7	9	18	62
7	7	7	7	7	12	12	59
7	7	7	7	9	9	9	55
7	7	7	7	9	9	12	58
7	7	7	7	9	12	12	61
7	7	7	9	9	9	9	57
7	7	7	9	9	9	12	60
7	7	9	9	9	9	9	59
7	7	9	9	9	9	12	62
7	9	9	9	9	9	9	61

8

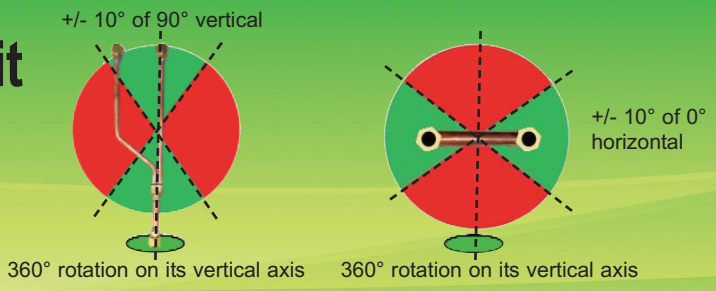
7	7	7	7	7	7	7	7	56
7	7	7	7	7	7	7	9	58
7	7	7	7	7	7	7	12	61
7	7	7	7	7	7	9	9	60
7	7	7	7	7	9	9	9	62

Allowed "Connectable = Capacity" combinations between 100 and 130%

* Compact Cassette Grille UTG-CCGF sold separately. Must order one with each compact cassette.

Separation Tube Assembly Kit

UTP-SX248A



Size	Liquid *Inch*	3/8 x 3/8 x 3/8
	Suction *Inch*	5/8 x 5/8 x 5/8

Optional Accessories

Central Remote Control
#UTY-DMMUM

This remote controls up to 8 individual indoor units on a Hybrid Flex Inverter (HFI) system. Set temperatures on timers to best meet individuals' needs. The sleek design includes a large backlit LCD and 4-way navigation pad. Remote connects in daisy chain to branch boxes.

Simple Remote Control
#UTY-RSNUM

Suitable when only basic operations are required for hotels, offices and other places where there is frequent arrival and departure of occupants. To be used with all HFI indoor models.

External Switch
#UTY-TEKX

Allows system to be operated by third party control such as key card switch or remote sensor. External switch controller can provide access to On/Off, Temperature, Fan speed, and Operation mode. To be used with all HFI indoor models.

Wired Remote Control for Wall Mounts
#UTY-RNNUM

The wired remote controller with its unique lock function and sleek design provides full feature access to property managers, building owners, and facility maintenance, as well as providing basic comfort features to tenants, employees, and teachers. Requires interface kit UTY-XCBXZ1.

Receiver Unit
#UTY-LRHUM

Includes a wireless remote control. For use on slim duct Halcyon HFI indoor units

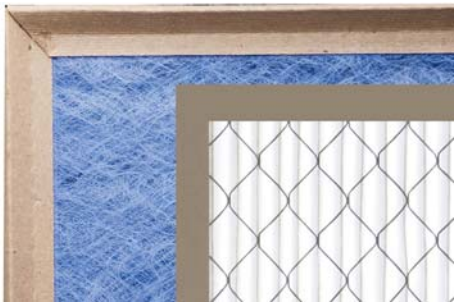
Wireless Remote Controller
#UTY-LNHUM

For spaces where there is just no place to mount the wired remote. For use only with HFI compact casstte s.

Field Supplied Filters Used With Slim Duct Units

Slim Duct Units require field supplied filters. They can be installed at the unit or for more convenient servicing, in filter grilles. The chart to the right provides guidelines for determining filter sizes.

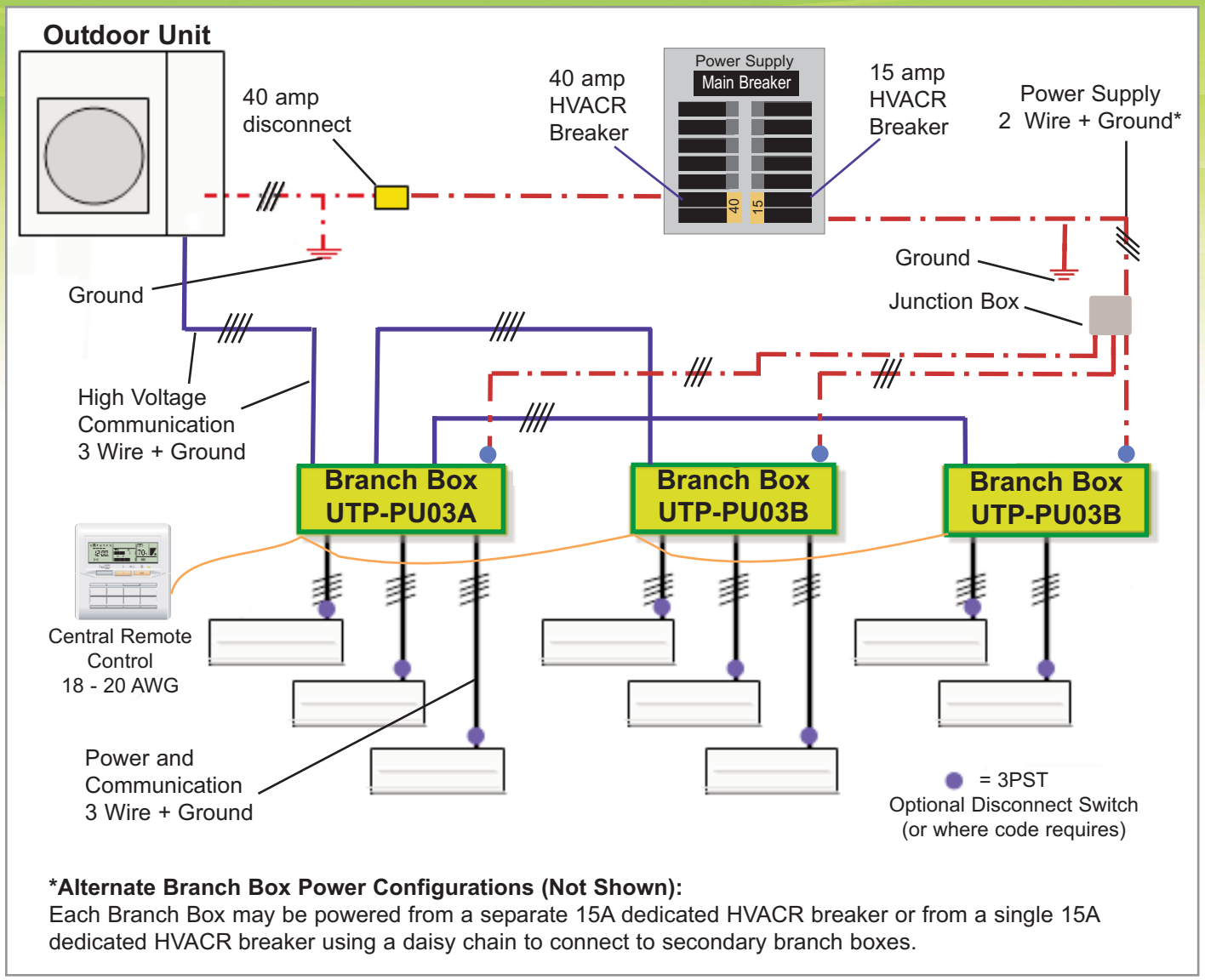
The chart includes CFM, external static pressure capability and a typical filter size for each model. Filters are sized to keep velocities and static pressure loss low. This will insure sufficient static pressure is available for ductwork, fittings and supply and return grilles. Alternative filter sizes with equivalent face areas can be used. After deducting filter loss, available static pressure values are shown.



A fiberglass filter is shown in blue to the left. A MERV pleated filter is shown in white.

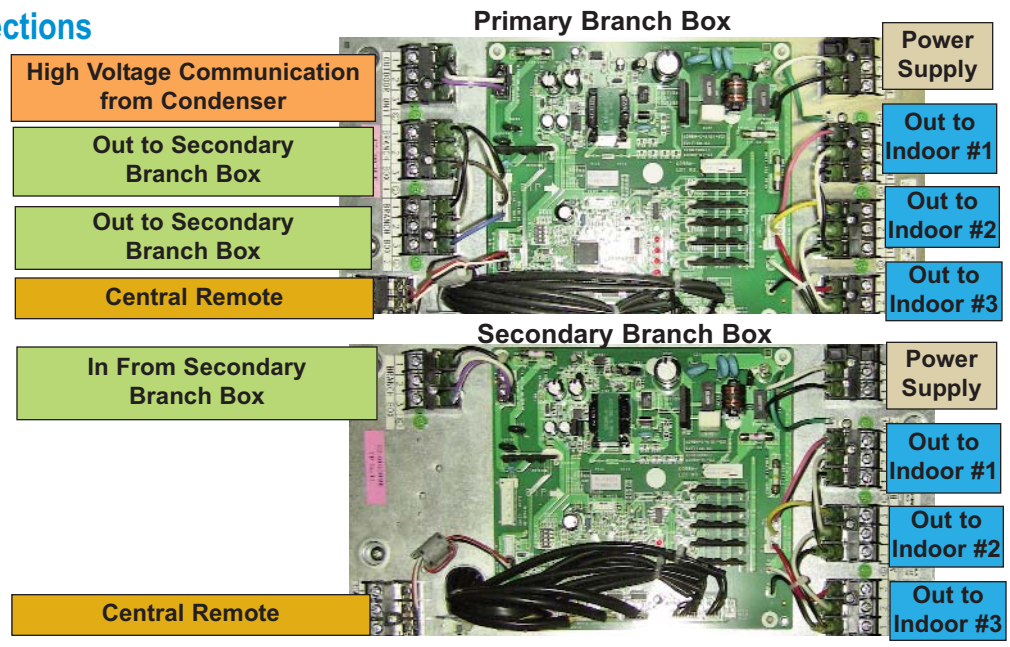
	ARU 9RLF	ARU 12RLF	ARU 18RLF	ARU 24RLF
CFM	353	353	547	806
Typical Filter Size	12 x 20	12 x 20	14 x 25	18 x 30
Velocity, FPM	212	212	225	215
Unit External SP, in. W.C.	0.36	0.36	0.36	0.20
1" Fiberglass Filter				
SP Loss, in. W.C.	0.04	0.04	0.04	0.04
Available Static Pressure	0.32	0.32	0.32	0.16
1" MERV 8 Pleated Filter				
SP Loss, in. W.C.	0.12	0.12	0.14	0.13
Available Static Pressure	0.24	0.24	0.22	0.07
2" MERV 8 Pleated Filter				
SP Loss, in. W.C.	0.07	0.07	0.08	0.07
Available Static Pressure	0.29	0.29	0.28	0.13

Wiring



***Alternate Branch Box Power Configurations (Not Shown):**
Each Branch Box may be powered from a separate 15A dedicated HVACR breaker or from a single 15A dedicated HVACR breaker using a daisy chain to connect to secondary branch boxes.

Branch Box Terminal Connections

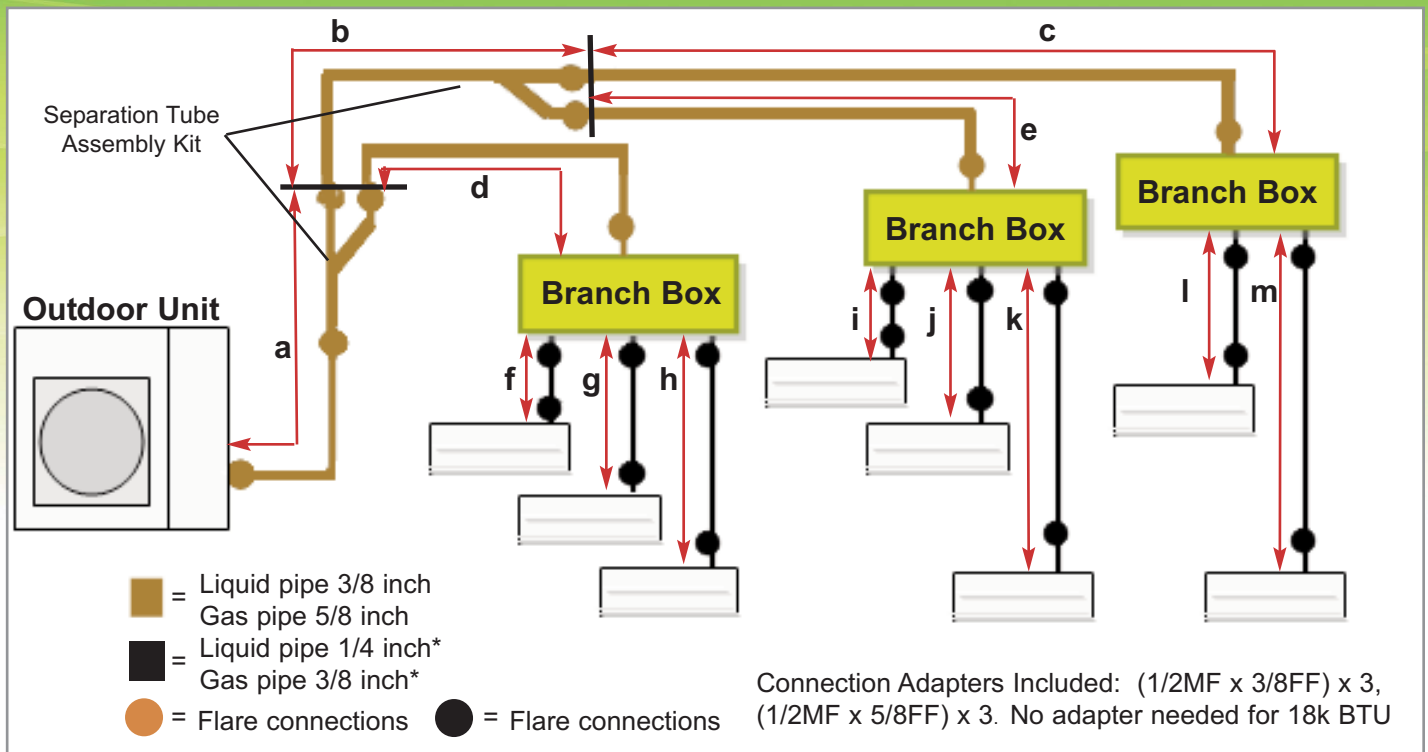


Miswiring Detection

Errors Detected For...

- Miswired terminals
- Incorrect indoor unit
- Less than 2 or more than 8 indoor units
- Less than 39,000 or more than 62,000 BTUs

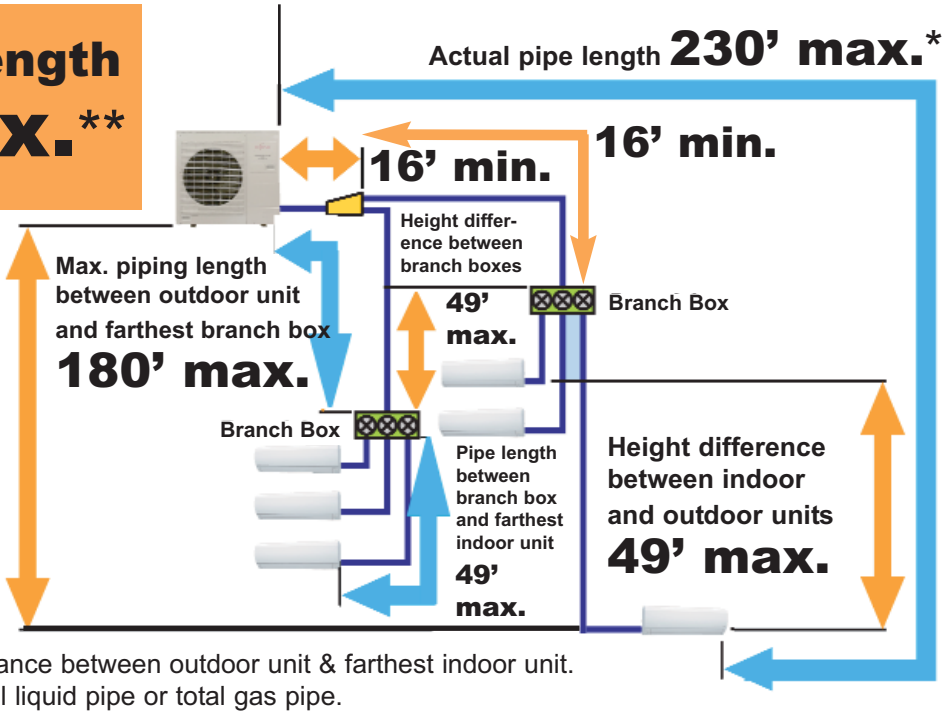
Piping



		Liquid pipe	Gas pipe
Branch Box to Indoor	7,000 BTU	1/4 inch	3/8 inch
	9,000 BTU		
	12,000 BTU		
	18,000 BTU		1/2 inch
	24,000 BTU		5/8 inch

Calculate Refrigerant Charge Factory Charge 7.6 lb (3450 g) Unit pre-charged to 0 feet	Pipe Diameter	Location	Additional Refrig. (oz./3.3ft.)
	3/8”	Outdoor to Branch Box	2 oz. / 3.3 ft.
	1/4”	Branch Box to Indoor Unit	.74 oz. / 3.3 ft.
	(Total length of 3/8” liquid line × 2.0 oz.) + (Total length of 1/4” liquid line × .74 oz.)		
	(a+b+c+d+e) × 2.0 oz. + (f+g+h+i+j+k+l+m) × .74 oz.= additional refrigerant		

Total Pipe Length
377’ max.**

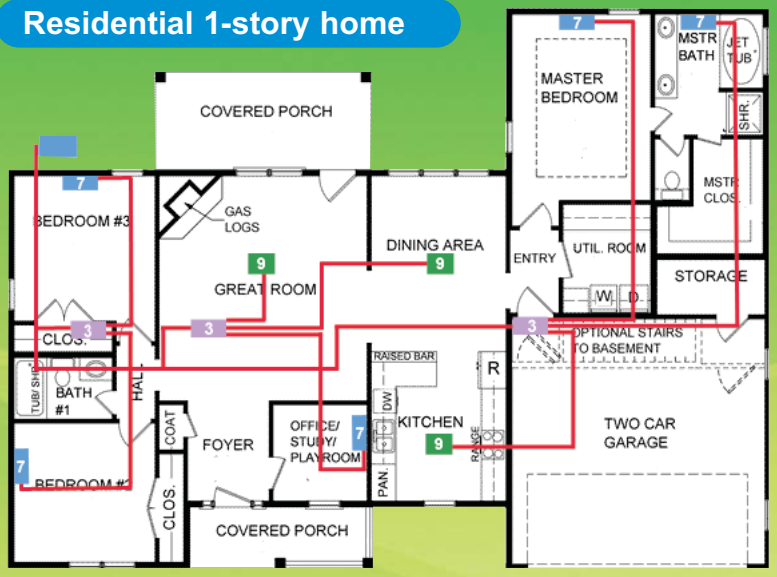


Height difference between outdoor and indoor units
98’ max.

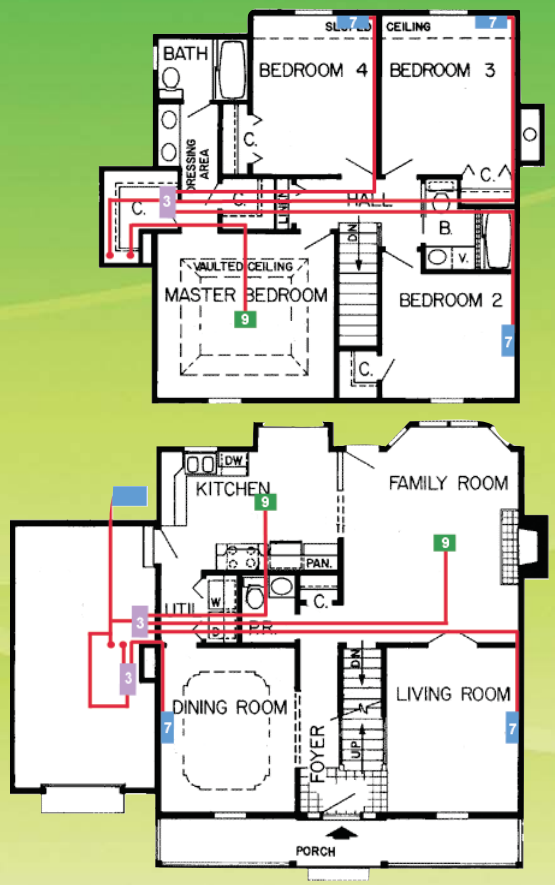
* Distance between outdoor unit & farthest indoor unit.
** Total liquid pipe or total gas pipe.

Examples

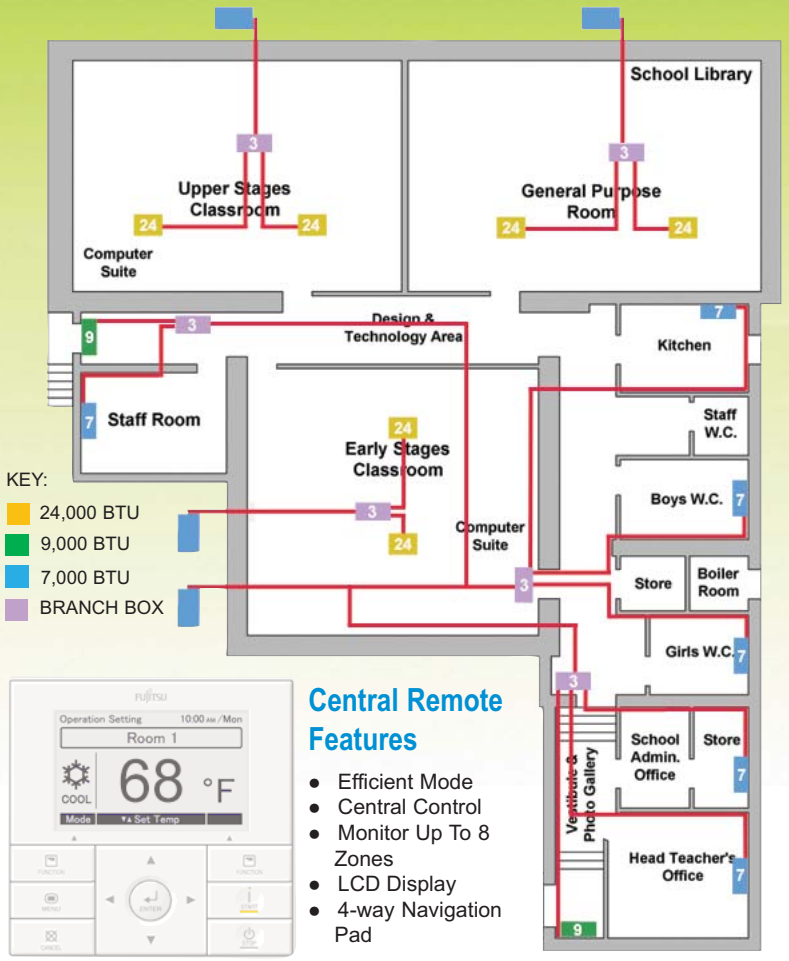
Residential 1-story home



Residential 2-story home



Church/School



KEY:
- 24,000 BTU
- 9,000 BTU
- 7,000 BTU
- BRANCH BOX

Central Remote Features

- Efficient Mode
- Central Control
- Monitor Up To 8 Zones
- LCD Display
- 4-way Navigation Pad

Halcyon HFI
Hybrid Flex Inverter
FUJITSU

Printed in the USA Rev. 6/10
Part #6-26-FG2034

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