



Carrier Toshiba VRF Installation Checklist

Site Name:

Address:

City, State:

Contact:

Zip:

Phone:

Carrier Enterprise Technical Services

NOTE: Please fill one checklist out per system to be started up and commissioned. Check boxes and fill in fields if applicable.

Heat Pump System:

Heat Recovery System:

Total number of VRF systems to be commissioned at time of request:

Centralized control type. If two, list both.

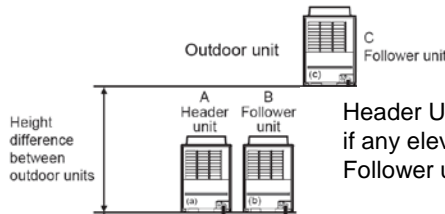
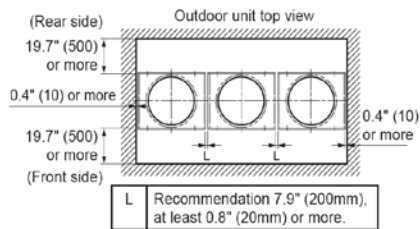
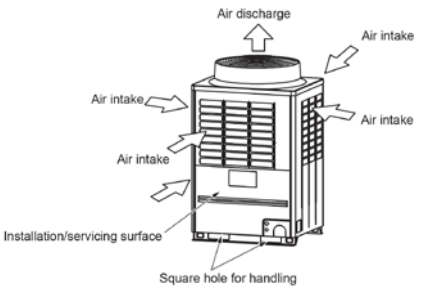
Use separate Centralized Control Checklist for startup request.

Prior to startup we recommend you walk the job site referencing the Refrigerant Piping and Control Wiring layout (from Selection Software), supplied by Carrier Enterprise. Note any changes on the selection software drawing and return the drawing to the designer for review. This is necessary to verify that any changes will not break the piping rules and/or alter the corrected capacity of the equipment. This is also what we will use to calculate the additional refrigerant charge for the system. After verification, a revised drawing will be provided. It is important to have the additional refrigerant charge calculation before the end of the evacuation process, see Section 9.3. Please plan accordingly.

1. Outdoor Unit – Placement:

Clearances - Enter actual measurements below:

Front	Inches	Back	Inches
≥ 40" service & air flow clearance.		≥ 20" service & air flow clearance.	
Sides	Inches	Top	Inches
≥ 8" service & air flow clearance.		> 80" clearance to any obstacle above unit.	
Between Unit(s):	Inches		
Recommend 8", Can be as little as 0.8".			
Wall around unit (If within 3FT of unit) – height	Inches		
Enter the height difference between the outdoor units: FT.			



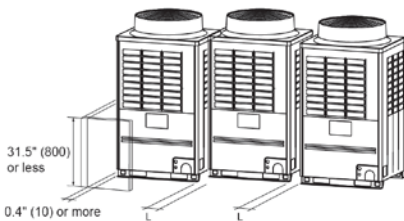
Header Unit must be the lowest unit, if any elevation difference from Follower unit(s).

Header Unit (A):

Follower Unit (B):

Follower Unit (C):

- The Header unit (A) is ≥ the capacity of the Follower unit (B).
- The Follower unit (B) is ≥ the capacity of the Follower unit (C).
- If there is an obstacle above the outdoor unit, leave a space of 78.7" or more to the top end of the outdoor unit.
- If there is a wall around the outdoor unit, make sure that its height does not exceed 31.5".





Carrier Toshiba VRF Installation Checklist

Contractor:

Address:

City, State:

Contact:

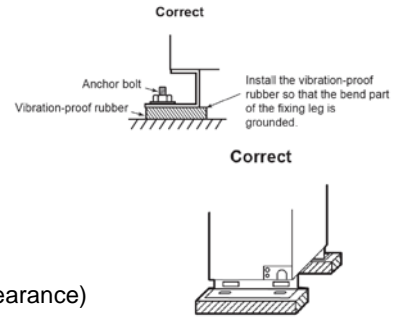
Zip:

Phone:



2. Outdoor Units – Mounting:

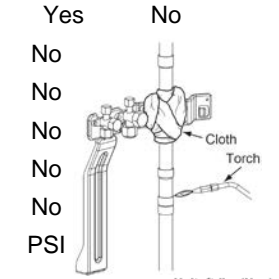
- The outdoor unit is level. Yes No
- The mounting base fully supports the unit across front and back. Yes No
- All four anchor bolts have been installed and secured. Yes No
- There is adequate water drainage, for defrost operation. Yes No
- The mounting base height is more than the expected snow level. Yes No
- Are the refrigerant lines installed underneath the outdoor unit. Yes No
- If YES, enter the mounting base height. inches (Recommended > 20" clearance)



3. General Refrigerant Piping:

Line voltage power has NOT been applied to the indoor units.
 When power is applied to the indoor units, the PMV's will begin to drive and could close completely blocking the flow of nitrogen through the system during brazing. See section 14. More detail can be found in the Service Manual (Heat Recovery Pub# SVM-16081 page 138; Heat Pump Pub# A11-019 page 101)

- There are NOT any added refrigerant components - driers, sight glasses, solenoid valves, etc. Yes No
- Full port ball valves may be used for component isolation during service. Yes No
- Were ball valves installed. Yes No
- If yes, verify all ball valves are in the open position. Yes No
- Ball valves are installed in the correct configuration per their installation instructions. Yes No
- Nitrogen was purged through the system during all brazing. Yes No
- Enter the pressure setting used to purge nitrogen. PSI
- 15% brazing rods must be used for all brazed joints. Yes No
- During brazing, a wet cloth was wrapped around valves. Yes No
- A R-410A rated flaring tool to form all flare connections. Yes No
- A back up wrench and torque wrench were used on all flare fittings. Yes No



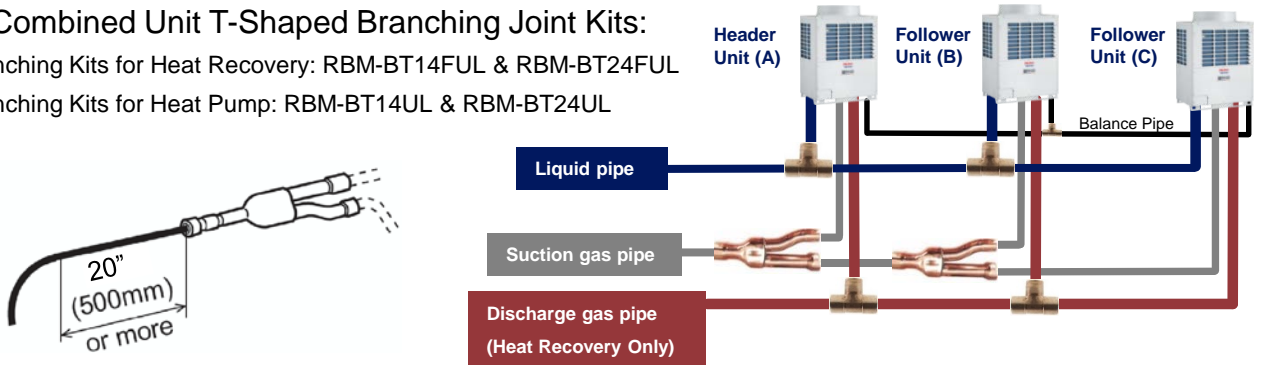
Outer dia. of copper pipe	Tightening torque
Ø1/4 (6.4 mm)	10 to 13 (14 to 18)
Ø3/8 (9.5 mm)	24 to 31 (33 to 42)
Ø1/2 (12.7 mm)	37 to 46 (50 to 62)
Ø5/8 (15.9 mm)	50 to 60 (68 to 82)
Ø3/4 (19.1 mm)	74 to 88 (100 to 120)

Unit: ft-lbs (N·m)

4. Combined Unit T-Shaped Branching Joint Kits:

Branching Kits for Heat Recovery: RBM-BT14FUL & RBM-BT24FUL

Branching Kits for Heat Pump: RBM-BT14UL & RBM-BT24UL





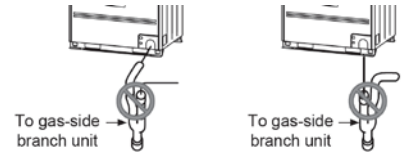
TOSHIBA
Carrier

Carrier Toshiba VRF Installation Checklist

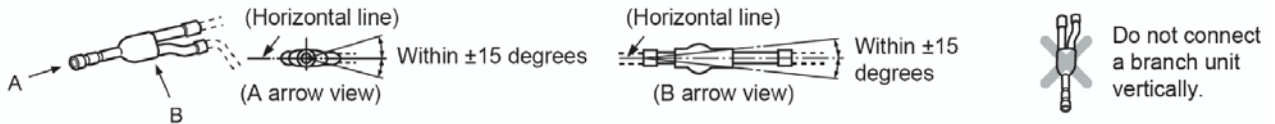
4. Combined Unit T-Shaped Branching Joint Kits (cont.):

Branching Kits for Heat Recovery: RBM-BT14FUL & RBM-BT24FUL

Branching Kits for Heat Pump: RBM-BT14UL & RBM-BT24UL

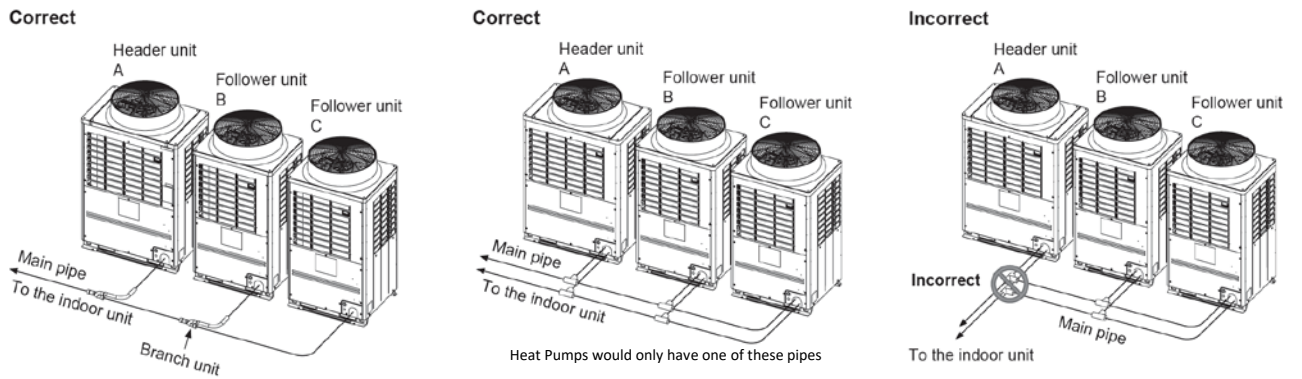


- When attaching a Y-shaped branch unit for the outdoor unit connection piping kit, attach it level with the ground (Be sure not to exceed ± 15 degrees.). Regarding a T-shape branch joints for the liquid side, there is no restriction for its angle.



- In case of using the Y-shaped branching joint for connecting between outdoor units (Discharge gas joint and Suction gas joint), please keep the straight part of at least 20" (500mm) at the inlet.

"Crooked" leg of suction gas joint is connected to the header unit.	Yes	No
Suction gas joint is installed horizontal within $\pm 15^\circ$ per instructions.	Yes	No
Liquid joint is installed in the correct configuration per instructions.	Yes	No
Discharge gas joint is installed in the correct configuration per instructions.	Yes	No
Sockets, joints and insulation were installed per instructions.	Yes	No



5. Outdoor Unit – Refrigerant Piping:

Piping can exits the unit from the FRONT or BOTTOM.

Bottom recommended on all installs, best for future service access.

If FRONT, enter the distance from unit to first turn.

Inches ≥ 20 " service clearance

If BOTTOM, (combined units only) enter the vertical line length of the balance pipe.

Ft. ≤ 16 Ft. vertical

Field installed refrigerant lines are connected per the outdoor unit Install Manual.

Yes No

Field installed refrigerant lines are within the allowable length & height differences.

Yes No

Outdoor Unit Install Instructions, H/P pages 20 thru 23, HR pages 24 thru 26.

The field installed refrigerant line sizes and lengths, match the Selection Report*

Yes No

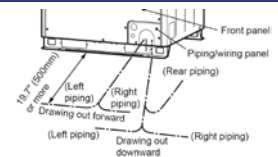
*If at anytime there is a change in the actual piping installation from the design layout, it must be reported back to the designer for verification.

All refrigerant lines are insulated separately with min. 3/4" insulation.

Yes No

Check local code, some municipalities require thicker insulation.

Yes No





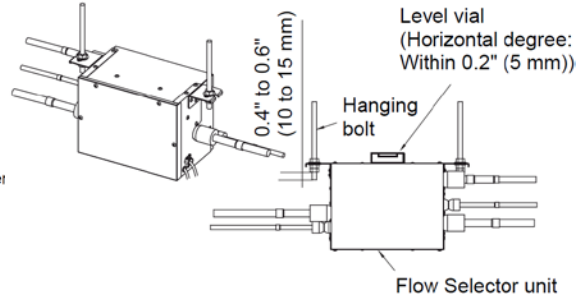
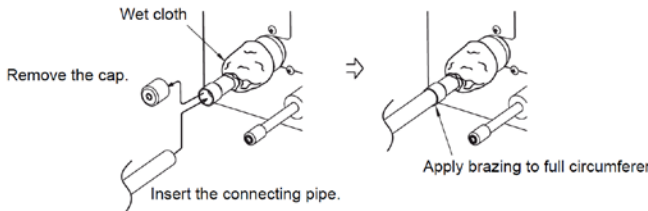
Carrier Toshiba VRF Installation Checklist

6.1 Flow Selector Units RBM-Y0383FUL, Y0613FUL, Y0963FUL:

Heat Recovery Systems Only – Heat Pumps Systems go to Section 7.

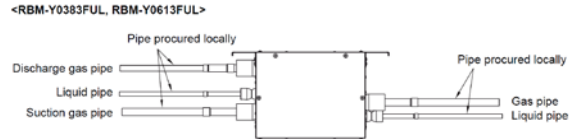
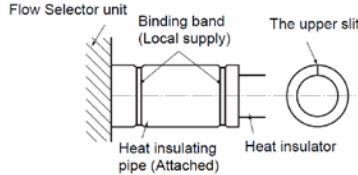
Unit is located in an area where the operating sound will not be objectionable.	Yes	No	<RBM-Y0383FUL (When accessory pipes are used)> 	
Unit is hanging in the horizontal position.	Yes	No		
Unit is installed with proper clearances and service access.	Yes	No		
Enter distance the flow selector unit is mounted from the indoor unit.				FT ≤ 49 Ft refrigerant piping length
The field installed refrigerant line sizes and lengths to the Flow Selector match the Selection Report.	Yes	No		
If at anytime there is a change in the actual piping installation from the design layout, it must be reported back to the designer for verification.			Yes No	
Nitrogen was purged through the system during all brazing.			Yes No	
A wet cloth was used during brazing to protect the unit's internal components from overheating/damage.			Yes No	
Refrigerant piping and connectors were installed correctly per the unit's Install Manual.			Yes No	

Be sure to wrap the pipe with wet cloth when applying brazing.



Pipe insulating process

- Insulate the gas and liquid pipes separately as show to avoid capacity loss and sweating.
- The insulation used on the discharge gas pipe must have a minimum temperature rating of 248°F (120°C).
- Use the insulation provided by the accessory to cover all of the joints between the locally procured piping and the FS unit as shown.
- All piping (accessory and locally procured) must be covered with insulation to avoid capacity loss and sweating.



Flow Selector Wiring:

Two cables are supplied with the flow selector to make the proper electrical connections for the power supply and control wiring from the indoor unit. One is high voltage and the other is low voltage. The high voltage cable must be installed in conduit per electrical code. If the Flow Selector Unit is less than 16' from the indoor unit, the supplied cables can be used. If more than 16' and up to 49' (maximum) an accessory cable kit will be required. Cable Kit Accessory - RBC-CBK15FUL.

Factory supplied Control cable has been connected from Indoor unit to Flow Selector.	Yes	No
Factory supplied High Voltage cable has been connected from indoor unit to Flow Selector.	Yes	No
Factory supplied High Voltage cable has been installed in conduit per electrical code.	Yes	No
Total capacity of installed Indoor units downstream of Flow Selector does not exceed capacity.	Yes	No

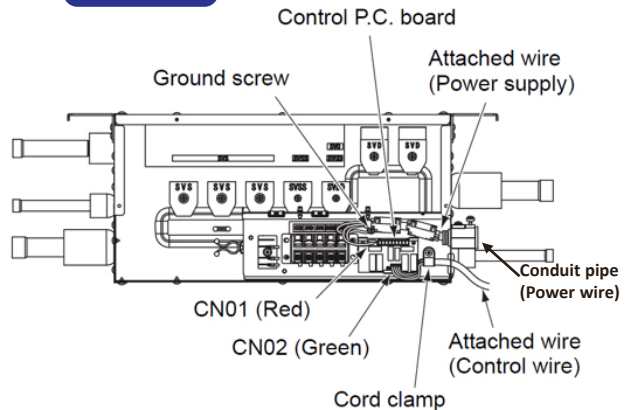
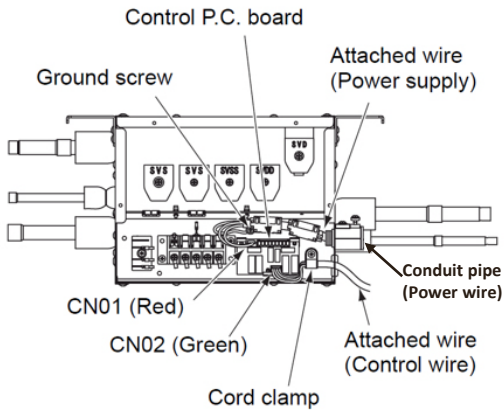
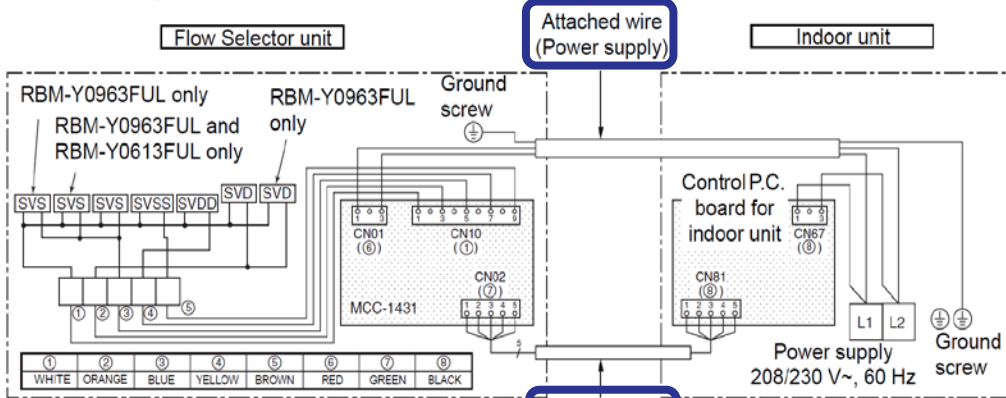
- RBM-Y0383FUL – 38,000 BTU's
- RBM-Y0613FUL – 61,000 BTU's
- RBM-Y0963FUL – 96,000 BTU's



Carrier Toshiba VRF Installation Checklist

6.1 Flow Selector Units RBM-Y0383FUL, Y0613FUL, Y0963FUL (cont.): Flow Selector Wiring Diagrams:

<RBM-Y0383FUL, RBM-Y0613FUL / RBM-Y0963FUL>



6.2 Multi-Port Flow Selector Units RBM-Y0611F4PUL (4-Port) & RBM-Y0611F6PUL (6-Port) Heat Recovery Systems Only.

Unit is located in an area where the operating sound will not be objectionable.

Yes No

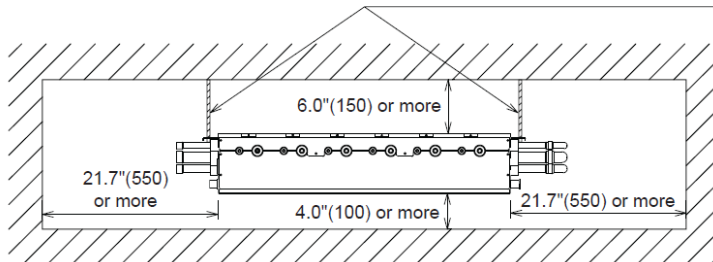
Unit is hanging in the horizontal position.

Yes No

Unit is installed with proper clearances and service access.

Yes No

Bolt size : 4-W3/8" (M10) (field supply)



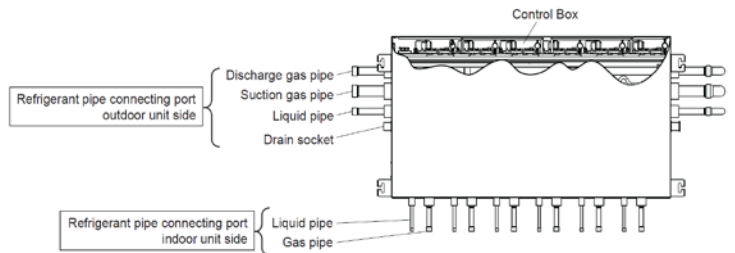
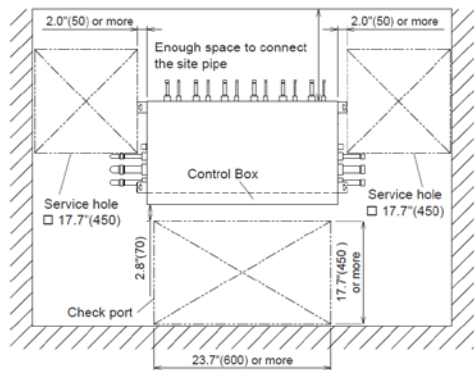


Carrier Toshiba VRF Installation Checklist

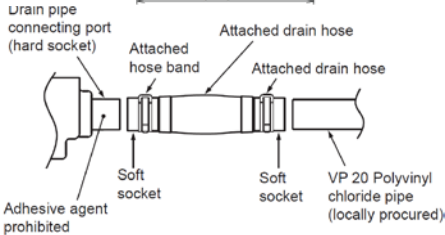
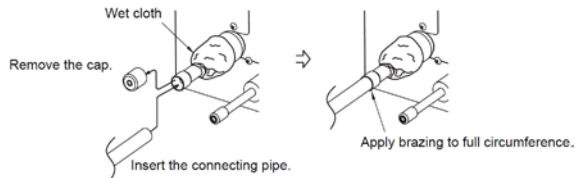
6.2 Multi-Port Flow Selector Units RBM-Y0611F4PUL (4-Port) & RBM-Y0611F6PUL (6-Port)

Heat Recovery Systems Only.

Enter distance the min and max distances from indoor unit(s).	MIN.	FT.	MAX.	FT.	
The field installed refrigerant line sizes and lengths to the Flow Selector match the Selection Report.	Yes				No
If at anytime there is a change in the actual piping installation from the design layout, it must be reported back to the designer for verification.					
Nitrogen was purged through the system during all brazing.	Yes				No
A wet cloth was used during brazing to protect the unit's internal components from overheating/damage.	Yes				No
Refrigerant piping and connectors were installed correctly per the unit's Install Manual.	Yes				No
Condensate drain connected.	Yes				No
Condensate drain piping insulated.	Yes				No



Be sure to wrap the pipe with wet cloth when applying brazing.

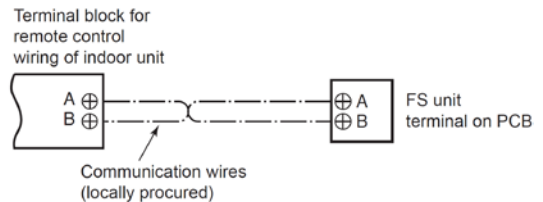


The following materials for piping work and insulating process are procured locally.

Pipe material	Hard vinyl chloride pipe VP20 (Nominal outer diameter Ø1.0" (26mm))
Insulator	Foamed polyethylene foam, thickness: 0.4" (10mm) or more

Flow Selector Wiring:

Is the flow selector wired to the same electrical circuit as the indoor units.			Yes	No
Enter circuit breaker size.	AMP			
L1, L2 wiring connected.	Yes	No		
Enter line voltage wire size.	AWG			
Ground wire connected.	Yes	No		
Communication wire size.	AWG			
Shielded wire used.	Yes	No		



Total capacity of installed Indoor units downstream of the Multi Flow Selector does not exceed capacity.			Yes	No
RBM-Y0611F4PUL – 244,000 BTU's – Max. 61,000 BTU's per port 1 thru 4				
RBM-Y0611F6PUL – 366,000 BTU's – Max. 61,000 BTU's per port 1 thru 6				
Verify refrigerant lines and Communication wires match correct ports on Multi Flow Selector.			Yes	No



Carrier Toshiba VRF Installation Checklist

7. Indoor Unit – Mounting:

All indoor unit locations have been verified by Model/Size, site plans & Selection Report.	Yes	No
All indoor units are mounted and secured per their installation instructions.	Yes	No
All indoor units are level.	Yes	No

8.1 Refrigerant Piping – Y & Header Branching Joints:

- Branching Joints Heat Recovery – RBM-BY55FUL, BY105FUL, BY205FUL
- Header Joints Heat Recovery – RBM-HY1043FUL, HY2043FUL, HY1083FUL, HY2083FUL
- Branching Joints Heat Pump – RBM-BY55UL, BY105UL, BY205UL
- Header Joints Heat Pump – RBM-HY1043UL, HY2043UL, HY1083UL, HY2083UL

Y type - Branching Joint



Header type - Branching Joint

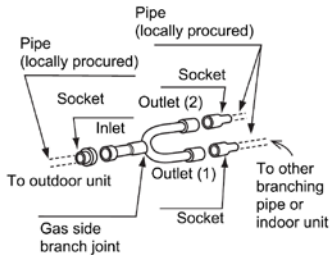


8.2 Refrigerant Piping – Y Joints:

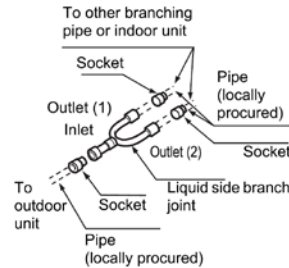
<Gas / Liquid side>

Install the branching pipes horizontally or vertically to make the flow split evenly.

<Gas side>

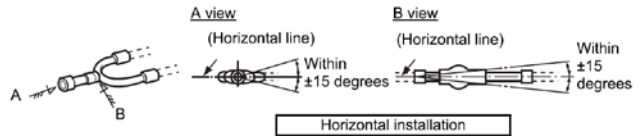


<Liquid side>



⚠ CAUTION

- When a branching pipe is installed horizontally, make its gradient within ± 15 degrees.



<Gas / Liquid side>

Install the branching pipes horizontally or vertically to make the flow split evenly.

Horizontal within $\pm 15^\circ$ per instructions.

Yes No

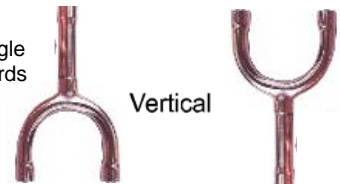
Are there any "Y's" installed vertically

Yes No.

"Y" joint is supported on both ends.

Yes No

"Y" joints are the correct size and match the locations as shown on the Selection Report.



Vertical

Yes No



- After heat insulators are applied to the branching pipes, set some hanging metals (locally procured) as support.



TOSHIBA
Carrier

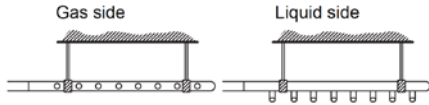
Carrier Toshiba VRF Installation Checklist

8.3 Refrigerant Piping – Header Joints:

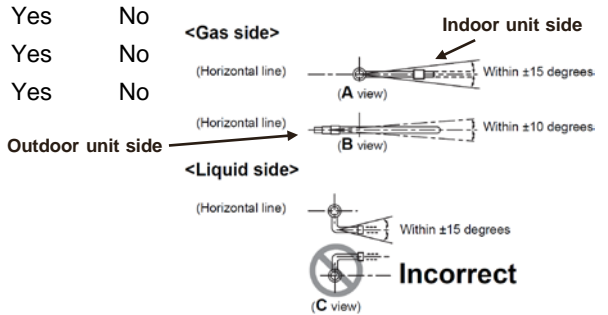
- Gas side installed horizontal within $\pm 15^\circ$ (indoor unit side).
- Liquid side installed horizontal within $\pm 10^\circ$ (outdoor unit side).
- Header is supported on both ends.

• **Supporting branching header**

After heat insulators are applied to the branching pipes, set some hanging metals (locally procured) as support.



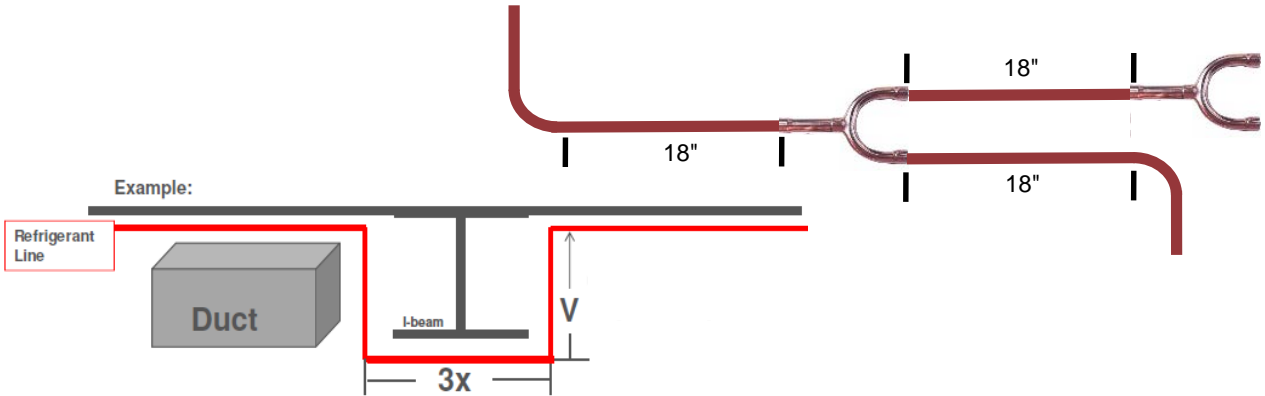
• Install the branching header so that it branches horizontally.



Header joints are the correct size and match the locations as shown on the Selection Report. Yes No

8.4 Refrigerant Piping – Min. Distances & Traps:

- Sockets, joints and insulation were installed per instructions. Yes No
- Maintain a minimum distance of 18" between branching joints, headers, elbows and equipment. Yes No
- Recommend horizontal to be 3 times that of the vertical when traps cannot be avoided. Yes No



9.1 Refrigerant Piping – Leak Check:

- If Heat Recovery System connect to all three main refrigeration stop valves at outdoor unit. Yes No
- If Heat Pump System connect to the two main refrigeration stop valves at outdoor unit. Yes No
- Only use Dry Nitrogen. Yes No
- Enter indoor temp/outdoor temps during 24hr Pressure Test start: Inside °F Outside °F
- Pressure tested for 24hrs. @ 600PSI. Yes No
- If not 600PSI enter your final pressure test. PSI

If the pressure test resulted in a loss of pressure, locate and repair the leak(s). Then re-test as above while taken in to account the following. Compare temperature differences above - there could be an approximate 2.6 PSI difference for every 1°F of temperature change. i.e. - If there was a 10°F temperature rise from start to end, the pressure would have increased approx. 26 PSI. Likewise, if there was a 10°F temperature fall the pressure would have decreased by approx. 26 PSI.



Carrier Toshiba VRF Installation Checklist

9.2 Refrigerant Piping – Evacuation:





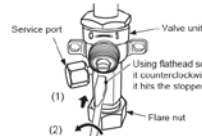
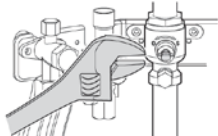
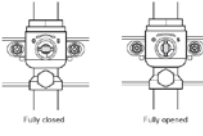
Note: Do NOT open service valves until the deep vacuum of 500 microns or below has been achieved and the additional charge has been added. See Section 10 for additional charge instructions.

If Heat Recovery System connect to all three main refrigeration stop valves at outdoor unit.	Yes	No
A micron gauge was used.	Yes	No
Verify that the micron gauge is connected at a point where it can read the system's pressure at all times during this process, even when the vacuum pump is not running during the hold test.		
All refrigeration piping has held below 500 microns for 1 hour. Enter final reading.	Yes	No
Enter Triple Evacuation readings and times below.		
Step 1 PSI		Day/Time
Step 2 PSI		Day/Time
Step 3 PSI		Day/Time
Vacuum was broke with additional refrigerant charge.	Yes	No
If not with what, please explain.		

9.3 Refrigerant Piping – Additional Refrigerant Charge:

Do NOT open unit service valves until additional refrigerant charge has been calculated, added and recorded. The selection software calculates the additional refrigerant charge based on the refrigerant piping layout. If at anytime there is a change in the actual piping installation from the design layout, it must be reported back to the designer for verification.

Has the updated copy of Refrigerant Piping & Wiring Layout been sent in to CE.	Yes	No
If not send your revised version to your sales representative for updating.		
Enter additional refrigerant charge amount - R410A.	Lbs.	Oz.
Above is the preferred method of determining the additional refrigerant charge. Refer to the outdoor unit installation instructions for an alternate method. If the alternate method is used, please use the notes page of this document to show how the above amount was calculated. With the system at 500 microns or less the majority (or all) of the additional refrigerant charge can be added at this time breaking the vacuum.		
Digital refrigerant scale used to weight in the additional charge on the liquid side of the system.	Yes	No
Was the total additional charge added at this time.	Yes	No
If NO, enter the amount of charge added at this time.	Lbs.	Oz.
The remainder of the additional charge can be added during the system start up process		
Record additional charge amount inside the outdoor unit using a permanent marker.	Yes	No
Open the unit service valves - Suction, Discharge, Liquid and Balance (if combined units).	Yes	No

Liquid side	<p>Ø1/2" packed valve Using a 4 mm-hexagonal wrench, fully open the valve shaft.</p> 	<p>Ø5/8" packed valve Using a 5 mm-hexagonal wrench, fully open the valve shaft.</p> 	
Discharge gas side	<p>Ball valve Using a flathead screwdriver, turn it counterclockwise by 90° until it hits the stopper. (Full open)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Position of screwdriver slot</p>  <p>Fully closed</p> </div> <div style="text-align: center;">  <p>Fully opened</p> </div> </div> <p>Using flathead screwdriver, turn it counterclockwise by 90° until it hits the stopper. (Full open)</p>  <p>Labels: Service port, Valve unit, Flare nut, Stopper</p> <p><small>* When opened fully, do not apply excessive torque after the screwdriver hits the stopper; otherwise a problem may be caused on the valve. (3.7 ft-lbs (5 Nm) or less)</small></p>		
Suction gas side	<p>Packed valve Using a 4 mm-hexagonal wrench, fully open the valve shaft.</p>  <p>Ball valve Using a wrench, turn the valve shaft counterclockwise by 90° until it hits the stopper. (Full open)</p>  <p>Labels: Fully closed, Fully opened</p>		

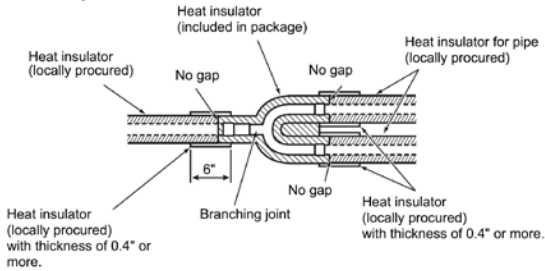


Carrier Toshiba VRF Installation Checklist

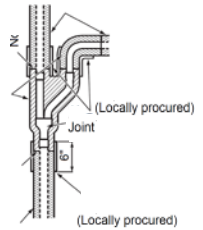
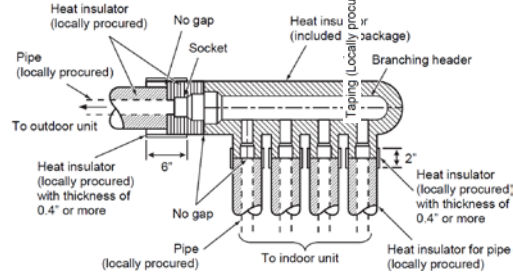
10. Refrigerant Piping – Insulation:

All refrigerant lines are insulated individually.	Yes	No
Pipe insulation has temperature rating > 248°F and ≥ 3/4" wall thickness.	Yes	No
Check local codes where job site is located, some areas by code require 1.5" thickness.		
Indoor unit line connections are insulated individually.	Yes	No
Heat insulators supplied with branching "Y" & Header joints are installed per their instructions.	Yes	No
Heat insulators supplied with indoor units are installed per their instructions.	Yes	No
There are no gaps between heat insulators and pipe insulation.	Yes	No

<Gas, liquid side>



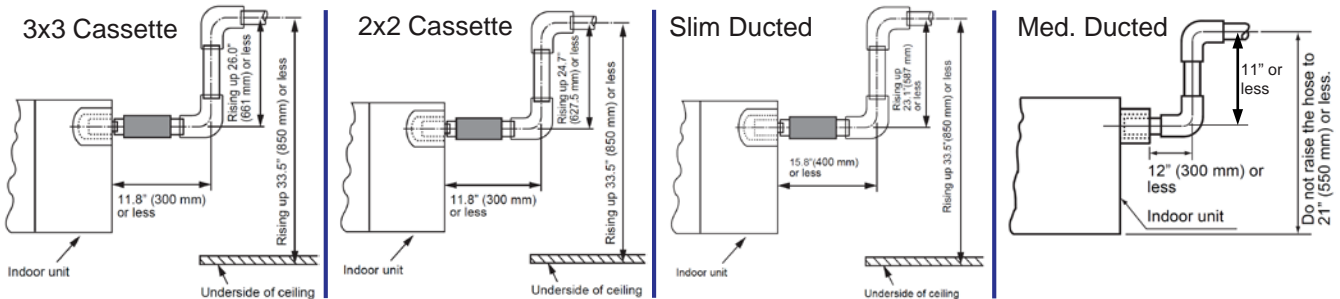
<Gas, liquid side>



11. Indoor Unit – Condensate Drain Lines:

The following units either have an internal trap or the drain is located on the positive side of the blower. High Wall; Compact 4 Way Cassette; 4 Way Cassette; Under Ceiling; Slim Duct; Concealed Duct; Outside Air and Floor Console Units - Do Not require an external condensate trap.

Verify there are no external traps on the above indoor units.	Yes	No
Condensate lift pump accessories are available for most indoor units.		
Were any accessory pumps required for this application.	Yes	No
If YES, verify these accessories have been installed per their instructions.	Yes	No
Are there condensate pump safety switch(s) wired to the indoor unit.	Yes	No
4 Way Cassette's; Slim Duct and Medium Duct units have a built in condensate lift pump.	Yes	No
Verify the drain line is install within the limitations shown in the installation instructions.		



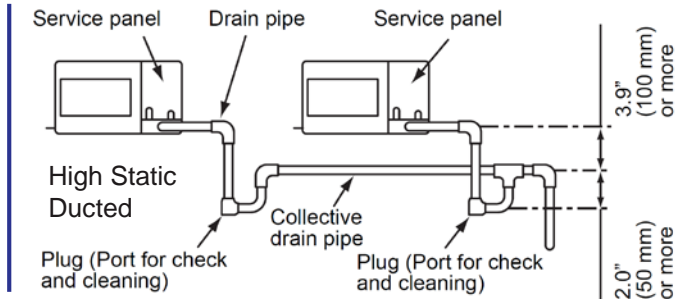
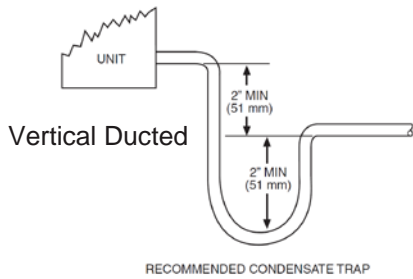


TOSHIBA
Carrier

Carrier Toshiba VRF Installation Checklist

11. Indoor Unit – Condensate Drain Lines (cont.):

Vertical Ducted Fan Coil & High Static Duct units - require an external trap
 The drain is located on the negative side of the blower.
 Verify the traps are formed per the unit installation instructions.

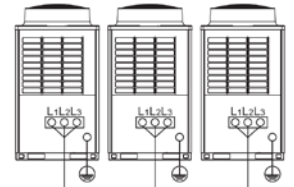


All drains have been insulated.	Yes	No	All drains are sloped properly.	Yes	No
All drains have been checked for leaks.	Yes	No	All drains are supported properly.	Yes	No
All drains installed per instructions and local codes.				Yes	No

12.1 Electric Wiring – Power Wiring Outdoor Unit:

Every outdoor unit must have a dedicated power supply.
 Power supply wiring shall be installed in compliance with NEC and local codes.

- Header Unit (A) circuit breaker size. AMP
- Follower Unit (B) circuit breaker size. AMP
- Follower Unit (C) circuit breaker size. AMP
- Header Unit (A) Wire Size. AWG
- Follower Unit (B) Wire Size. AWG
- Follower Unit (C) Wire Size. AWG



Use crimp style ring connectors for all wiring connections.

L1, L2, L3 wiring connected.	Yes	No
Ring crimp connectors used.	Yes	No
Ground wire connected.	Yes	No
Strain relief wire strap is tight.	Yes	No



Correct



Not Acceptable

12.2 Electric Wiring – Power Wiring Indoor Unit(s):

The power supply for the indoor units must be separate from the outdoor unit

Enter circuit breaker size.	AMP		L1, L2 wiring connected.	Yes	No	
Enter line voltage wire size.	AWG		Ground wire connected.	Yes	No	
Strain relief wire clamp is tight.		Yes	No	All indoor units on same circuit.	Yes	No



Carrier Toshiba VRF Installation Checklist

12.3 Electric Wiring – Control Wiring:

Reference the Selection Report's for Control Wiring layout drawing.

All Control wiring is stranded, 2-conductor, non-polarity, shielded wire 16 AWG.

Yes No

If not, enter what was used here.

Yes No

Wiring shield is connected to the "S" screw.

Yes No

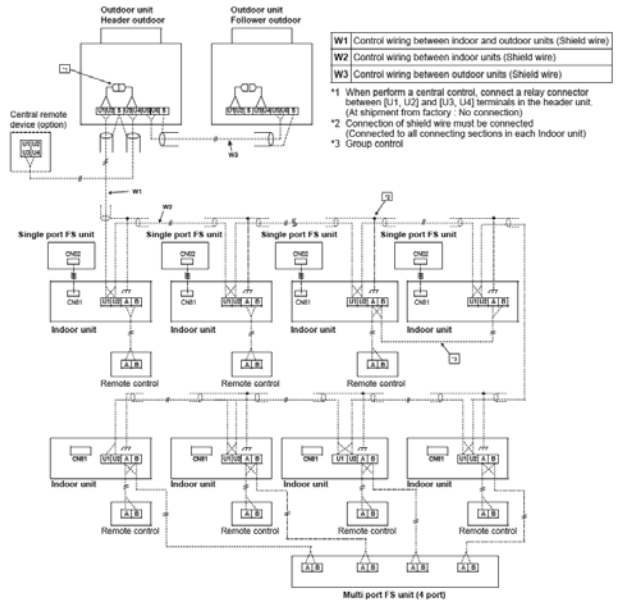
U1 & U2 control wiring is connected from the Header outdoor unit and daisy chained to each indoor unit and stopping at the last indoor unit on this refrigerant circuit.

Yes No

Twinned or Triple Outdoor Unit Combinations has control wiring is connected from the outdoor Header unit (A) U5 & U6 to the outdoor Follower unit (B) & (C).

Yes No

All shields are connected to the "S" screw.



12.4 Electric Wiring – Control Wiring Wired Remote Controller:

Reference the Selection Report's for Control Wiring layout drawing.

Remote Controller wiring is stranded, 2-conductor, non-polarity, 16 AWG wire.

Yes No

The remote controller does not have to be shielded.

If the remote controller wire is different then above, enter type of wire used.

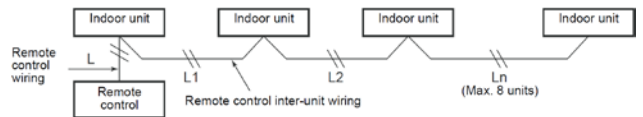
Yes No

Remote controller is connected to A & B on corresponding indoor unit.

For group control of indoor units, A & B wiring is connected to the header indoor unit of the group and daisy chained to the follower unit's A & B terminals.

Are there any group controlled.

Yes No



12.5 Electric Wiring – Control Wiring Outdoor Unit:

Indoor Unit daisy chain connected to U1, U2.

Yes No

Control wire shield connected to "S".

Yes No

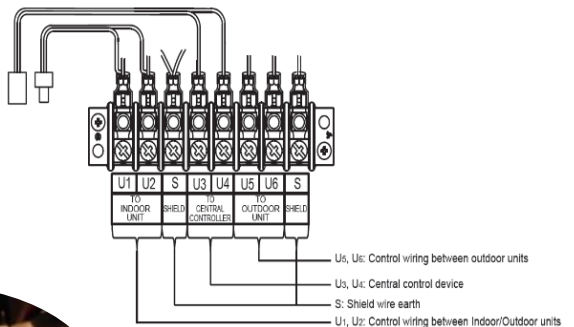
Follower Units B & C daisy chained to U5, U6.

Yes No

White Molex connector left unplugged.

Yes No

Note: Outdoor unit(s) - leave white plug connection disconnected as shipped, until addressing procedure has been completed. This is only used for Central Control applications.





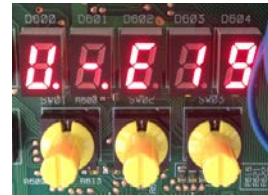
TOSHIBA
Carrier

Carrier Toshiba VRF Installation Checklist

13. Final Installation Checks:

All indoor units, flow selectors and outdoor units are installed per the installation instructions.	Yes	No
All condensate lines have been installed, insulated and supported per indoor unit installation instructions, local codes and state codes.	Yes	No
All refrigerant piping has been installed, insulated and supported per indoor unit, flow selector & outdoor unit installation instructions, local and state codes.	Yes	No
All control and power wiring has been installed and secured per indoor & outdoor unit installation instructions, local codes and national codes.	Yes	No
All wired controllers have been installed per the installation instructions.	Yes	No
All shipping supports (blue tape) have been removed from the indoor blower wheels.	Yes	No
All equipment covers and panels have been re-installed.	Yes	No
After the additional refrigerant charge has been added and all of the outdoor unit service valves have been fully opened, power should be applied to the outdoor unit only - for a minimum of 12 hours. If this is not done start up will not be able to be performed.	Yes	No

Do NOT apply power to the indoor units at this time.
Verify SW01, SW02 & SW03 are all in position 1.
The control should display - U.-E19.

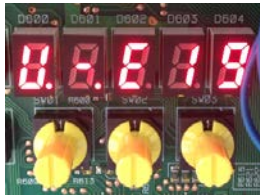


14. Evacuation Mode – Pulse Motor Valve (PMV) Forced Open Mode:

More detailed information can be found in the Service Manual.

This function is provided to open or close forcedly PMV for 2 minutes in all the indoor units by the switch operation on the interface P.C. board of the outdoor unit. This function is also used to open PMV fully when turning off the power and executing an operation.

<Operation>



[Open fully] Set the switches SW01 / SW02 / SW03 on the interface P.C. board of the outdoor unit to [2/3/1], and press SW04 for 2 seconds or more.(Display appears on 7-segment display for 30 seconds as follows.) [P.] [FF]

[Clear] After 30 seconds (1 minutes for “Close fully”) after setting up, the opening automatically returns to the normal opening.



Carrier Toshiba VRF Installation Checklist

15. Start Up Assistance Request:

For start-up assistance - coordinate with CE Technical Support a minimum of 2 weeks prior to the expected start-up date. Send us this fully completed form for each system requiring an assisted commissioning. If you have a Centralized Control such as a Touch Screen, BACnet or LonWorks, please fill out a Controls Installation Checklist as well and send both to:

1st Choice Scheduled Date:

2nd Choice Scheduled Date:

Once received our VRF Specialist will call to review these forms, once reviewed CE will confirm a date for commissioning.

Forms must be completed by Installing Contractor:

Today's Date:

Company Name:

Technician / Installer:

Signature:

By signing this the contractor confirms all information provided is correct. If CE arrives on site and system is not ready for commissioning additional fees may be charged.