

6-6 Example of connection

Example of connection (Connection of 5 indoor units)		Branch with REFNET joint (A-D)	Branch with REFNET joint and REFNET header	Branch with REFNET header																	
<p>Maximum allowable length</p> <p>Actual pipe length</p> <p>Between outdoor and indoor units</p> <p>Equivalent length</p> <p>Total extension length</p> <p>Difference in height</p> <p>Difference in height</p> <p>Allowable length after the branch</p>	<p>Branch with REFNET joint (A-D)</p> <p>Outdoor unit REFNET joint (A-D)</p> <p>Indoor units (1-5)</p>	<p>Branch with REFNET joint and REFNET header</p> <p>Outdoor unit REFNET header REFNET joint (A • B)</p> <p>Indoor units (1-5)</p>	<p>Branch with REFNET header</p> <p>Outdoor unit REFNET header</p> <p>Indoor units (1-5)</p>																		
<p>Refrigerant branching kit selection</p> <p>Refrigerant branching kits can only be used with P410A.</p>	<p>Outdoor unit capacity type RXYMQ36,48 type</p> <p>Refrigerant branching kit name KHRP26M22T</p>	<p>Outdoor unit capacity type RXYMQ36,48 type</p> <p>Refrigerant branching kit name KHRP26M22H (Max. 4 branch) KHRP26M33H (Max. 8 branch)</p>	<p>Outdoor unit capacity type RXYMQ36,48 type</p> <p>Refrigerant branching kit name KHRP26M22H (Max. 4 branch) KHRP26M33H (Max. 8 branch)</p>																		
<p>Pipe size selection (Caution on selecting connection pipes)</p> <ul style="list-style-type: none"> When the equivalent piping length between the outdoor unit and the indoor units is 295 ft. or more, make sure to use a thicker pipe as the main pipe on the gas line. When the air-conditioning capacity is reduced due to the refrigerant piping distance, a thicker pipe may be used also as the main pipe. <p>[Gas side] RXYMQ36,48 type $\phi 5/8" \rightarrow \phi 3/4"$</p> <p>The first refrigerant branching kit</p> <p>Caution) In brazing connection in the size increase area in the piping, use a different-diameter joint for connection. (The different-diameter joint should be procured in the field.) The connection area is located near the outdoor unit (usually after the first bending outside the unit).</p>	<p>Piping between outdoor unit and Refrigerant branching kit</p> <ul style="list-style-type: none"> Match to the size of the connection piping on the outdoor unit. <p>Outdoor unit connection pipe size (Unit: in.)</p> <table border="1"> <tr> <th colspan="2">Piping size (outer diameter)</th> </tr> <tr> <td>Gas pipe</td> <td>$\phi 5/8$</td> </tr> <tr> <td>Liquid pipe</td> <td>$\phi 3/4$</td> </tr> </table>	Piping size (outer diameter)		Gas pipe	$\phi 5/8$	Liquid pipe	$\phi 3/4$	<p>Piping between Refrigerant branching kits</p> <ul style="list-style-type: none"> Use the pipe size from the following table. <p>Connection pipe size (Unit: in.)</p> <table border="1"> <tr> <th colspan="2">Piping size (outer diameter)</th> </tr> <tr> <td>Gas pipe</td> <td>$\phi 5/8$</td> </tr> <tr> <td>Liquid pipe</td> <td>$\phi 3/8$</td> </tr> </table>	Piping size (outer diameter)		Gas pipe	$\phi 5/8$	Liquid pipe	$\phi 3/8$	<p>Between Refrigerant branching kit and indoor unit</p> <ul style="list-style-type: none"> Pipe size for direct connection to indoor unit must be the same as the connection size of indoor unit. <p>Indoor unit connection pipe size (Unit: in.)</p> <table border="1"> <tr> <th colspan="2">Piping size (outer diameter)</th> </tr> <tr> <td>Gas pipe</td> <td>$\phi 1/2$</td> </tr> <tr> <td>Liquid pipe</td> <td>$\phi 3/8$</td> </tr> </table>	Piping size (outer diameter)		Gas pipe	$\phi 1/2$	Liquid pipe	$\phi 3/8$
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<p>How to calculate the additional refrigerant to be charged</p> <p>Additional refrigerant to be charged R (lb.) R should be rounded off in units of 0.1 (lb.).</p>	<p>Example for refrigerant branch using REFNET joint and REFNET header</p> <p>The piping lengths are as at right</p> <table border="1"> <tr> <td>a: $\phi 3/8 \times 100$ ft.</td> <td>d: $\phi 1/4 \times 30$ ft.</td> <td>g: $\phi 1/4 \times 30$ ft.</td> </tr> <tr> <td>b: $\phi 3/8 \times 30$ ft.</td> <td>e: $\phi 1/4 \times 30$ ft.</td> <td>h: $\phi 1/4 \times 70$ ft.</td> </tr> <tr> <td>c: $\phi 1/4 \times 30$ ft.</td> <td>f: $\phi 1/4 \times 30$ ft.</td> <td>i: $\phi 3/8 \times 30$ ft.</td> </tr> </table> <p>$R = [a+b+h \times 0.036] + [c+d+e+f+g+h \times 0.015] = 9.06 \Rightarrow 9.1$</p>	a: $\phi 3/8 \times 100$ ft.	d: $\phi 1/4 \times 30$ ft.	g: $\phi 1/4 \times 30$ ft.	b: $\phi 3/8 \times 30$ ft.	e: $\phi 1/4 \times 30$ ft.	h: $\phi 1/4 \times 70$ ft.	c: $\phi 1/4 \times 30$ ft.	f: $\phi 1/4 \times 30$ ft.	i: $\phi 3/8 \times 30$ ft.											
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