



KYSOR

A Division of Bergstrom Inc.

Air Conditioning & Heating
Replacement Parts

Expansion Valves

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BUS



Solenoid Valves & Orifice Tubes

Freon Solenoid Valves

EXPANSION VALVES

<p>Part No. 1812004 5/8"-18 UNF-2A Thread For use with R-12 & R-134a</p>  <p>1 Ton, 12V 3/8" Male O-ring</p>	<p>Part No. 1899011 1/8"-27 NPT</p>  <p>12V</p>	<p>Part No. 1899017 5/8"-18 UNF</p>  <p>24V</p>	<p>Part No. 1899018</p>  <p>Solenoid Coil - 12V</p>
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<p>Part No. 1899020</p>  <p>R-134a Freon Solenoid Valve Assembly - 12V Solenoid No. 6 Female O-Ring Fitting</p>	<p>Part No. 1899032</p>  <p>Solenoid - 12V</p>	<p>Part No. 1899038</p>  <p>Solenoid 12V, use with R-134a 3/8" Male O-ring</p>	<p>Part No. 2175009 5/16"-24 UNF, Continuous Duty</p>  <p>12V, Continuous Duty</p>
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<p>Part No. 2175010 5/16"-24 UNF, Continuous Duty</p>  <p>24V, Continuous Duty</p>	<p>Part No. 2199075</p> <p>No Photo Available</p> <p>24V Solenoid Assembly</p>
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Orifice Tube Assortment Kit

Part No. 1899022


Kit Contents

Orifice Tube Assortment Kit

Qty.	Part No.	Description
5	1810003	GM CCOT White Orifice Tube with Black Neoprene O-Rings (R-12 & R-134a)
5	1811001	Blue Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)
5	1899003	Orifice Tube (Red)
5	1899002	Orange Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)
5	1899021	Brown Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)
5	1810002	Black & White Orifice Tube with Black Neoprene O-Rings (R-12 & R-134a)



Orifice Tubes*



<p>Part No. 1810002 Orifice Tube - Black & White</p>  <p>Black & White Orifice Tube with Black Neoprene O-Rings (R-12 & R-134a)</p>	<p>Part No. 1810003 Orifice Tube - White</p>  <p>White Orifice Tube with Black Neoprene O-Rings (R-12 & R-134a)</p>	<p>Part No. 1811001 Orifice Tube - Blue</p>  <p>Blue Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)</p>	<p>Part No. 1813008 Orifice Tube - Purple</p>  <p>Purple Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)</p>
<p>Part No. 1899002 Orifice Tube - Orange</p>  <p>Orange Orifice Tube with Green HNBR O-Rings (R-12 & R-134a)</p>	<p>Part No. 1899003 Orifice Tube - Red</p> 	<p>Part No. 1899013 Orifice Tube - Yellow/White</p> 	<p>Part No. 1899014 Orifice Tube - Retrofit</p>  <p>Standard Duty Condenser-mounted. Smart Valve</p>
<p>Part No. 1899015 Orifice Tube</p> 	<p>Part No. 1899021 Orifice Tube - Brown</p>  <p>Brown Orifice Tube with Green HNBR O-Rings (R-134a)</p>		

* All orifice tubes sold in quantities of 10.





Expansion Valves

Internally Equalized Expansion Valves

Part No. 1813002	Part No. 1817002
	
Tonnage: 1 1/2 ton	Tonnage: N/A
Inlet: No. 6 Male Flare	Inlet: M16
Outlet: No. 8 Male Flare	Outlet: M20
Capillary Tube Length: 9"	Capillary Tube Length: 16 1/2"

Externally Equalized Expansion Valves

Part No. 1813001	Part No. 1875003	Part No. 1899008	Part No. 1899026
	<i>No Photo Available</i>		
Tonnage: 2 ton	Tonnage: 2 ton	Tonnage: 1 1/2 ton	Tonnage: 1 1/2 ton
Inlet: No. 6 Male O-Ring	Inlet: 3/8" O-Ring	Inlet: No. 6 Male 45° Flare	Inlet: No. 6 Male O-Ring
Outlet: No. 8 Male O-Ring	Outlet: 1/2" O-Ring	Outlet: No. 8 Male 45° Flare	Outlet: No. 8 Male O-Ring
Equalizer Tube Length: 33"	Equalizer Tube Length: 14"	Equalizer Tube Length: 18"	Equalizer Tube Length: 33"
Nut: 1/4" Female O-Ring	Nut: 7/16"-20	Nut: 1/4" Female Flare	Nut: 1/4" Male O-Ring
Capillary Tube Length: 33"	Capillary Tube Length: 13"	Capillary Tube Length: 28"	Capillary Tube Length: 33"





Part No. 1899036	Part No. 1899037
	
Tonnage: 1 1/2 ton	Tonnage: 2 ton
Inlet: No. 6 Male O-Ring	Inlet: No. 6 Male O-Ring
Outlet: No. 8 Male O-Ring	Outlet: No. 8 Male O-Ring
Equalizer Tube Length: 11 4/5"	Equalizer Tube Length: 16 3/10"
Nut: 7/16" Male O-Ring	Nut: 7/16" Female O-Ring
Capillary Tube Length: 8"	Capillary Tube Length: 12"





EXPANSION VALVES



Block Type Expansion Valves

Part No. 1812005	Part No. 1812006	Part No. 1812007	Part No. 1812008
 <p>No. 10 No. 8 No. 6</p>	 <p>No. 12 No. 6 No. 8</p>	 <p>No. 10 No. 8 No. 6</p>	 <p>No. 10 No. 8</p>
Tonnage: 1 1/2 ton	Tonnage: 1 1/2 ton	Tonnage: 1 ton	Tonnage: N/A
Inlet: No. 6 Pad Mount	Inlet: No. 6 Pad Mount	Inlet: No. 6 Pad Mount	Inlet: 8
Outlet: No. 10 Pad Mount	Outlet: No. 12 Pad Mount	Outlet: No. 10 Pad Mount	Outlet: 12
Suction Inlet: No. 8 Pad Mount	Suction Inlet: No. 8 Pad Mount	Suction Inlet: No. 8 Pad Mount	Suction Inlet: 8
Suction Outlet: No. 10 Pad Mount	Suction Outlet: No. 10 Pad Mount	Suction Outlet: No. 10 Pad Mount	Suction Outlet: 10

Part No. 1812010	Part No. 1812011	Part No. 1812012	Part No. 1813005
 <p>No. 10 No. 6 No. 8</p>	 <p>No. 10 No. 8 No. 6</p>	 <p>No. 10 No. 8 No. 12</p>	 <p>No. 8 No. 8 No. 10 No. 6</p>
Tonnage: 1 1/2 ton	Tonnage: 1 1/2 ton	Tonnage: 1 ton	Tonnage: 1 1/2 ton
Inlet: 6	Inlet: 6	Inlet: 8	Inlet: No. 6 Female O-Ring
Outlet: 10	Outlet: 10	Outlet: 12	Outlet: No. 10 Female O-Ring
Suction Inlet: 8	Suction Inlet: 8A	Suction Inlet: 8	Suction Inlet: No. 8 Female O-Ring
Suction Outlet: 10	Suction Outlet: 10	Suction Outlet: 10	Suction Outlet: No. 8 Female O-Ring

Part No. 1813007	Part No. 1813010	Part No. 1813011	Part No. 1813012
 <p>No. 10 No. 6 No. 8</p> <p><i>w/Schrader Port</i></p>	 <p>No. 8 No. 8 No. 10 No. 6</p>	 <p>No. 12 No. 6 No. 10 No. 8</p>	
Tonnage: 2 ton	Tonnage: 1 1/2 ton	Tonnage: 2 ton	Tonnage: 2 ton
Inlet: No. 6 Female O-Ring	Inlet: 6	Inlet: No. 6 Female O-Ring	Inlet: N/A
Outlet: No. 10 Female O-Ring	Outlet: 10	Outlet: No. 12 Female O-Ring	Outlet: N/A
Suction Inlet: No. 8 Female O-Ring	Suction Inlet: 8	Suction Inlet: No. 8 Female O-Ring	Suction Inlet: N/A
Suction Outlet: No. 8 Female O-Ring	Suction Outlet: 8	Suction Outlet: No. 10 Female O-Ring	Suction Outlet: N/A

EXPANSION VALVES



Expansion Valves

Block Type Expansion Valves

EXPANSION VALVES

Part No. 1813013



Tonnage: **2 ton**
 Inlet: **N/A**
 Outlet: **N/A**
 Suction Inlet: **N/A**
 Suction Outlet: **N/A**

Part No. 1813014



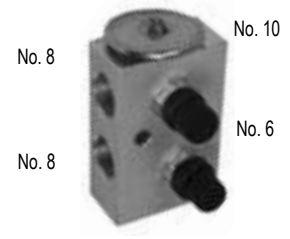
Tonnage: **1 1/2 ton**
 Inlet: **N/A**
 Outlet: **N/A**
 Suction Inlet: **N/A**
 Suction Outlet: **N/A**

Part No. 1813015

No. 8 No. 10
No Photo Available
 No. 8

Tonnage: **1/12 ton**
 Inlet: **6**
 Outlet: **8**
 Suction Inlet: **8**
 Suction Outlet: **10**

Part No. 1814002



No. 8 No. 10
 No. 8
 Tonnage: **2 ton**
 Inlet: **6**
 Outlet: **10**
 Suction Inlet: **8**
 Suction Outlet: **8**

Part No. 1817001



No. 8 No. 6
 No. 8 No. 10
 Tonnage: **2 ton**
 Inlet: **10**
 Outlet: **6**
 Suction Inlet: **8**
 Suction Outlet: **8**

Part No. 1817003

No. 8 No. 10
No Photo Available
 No. 8

Tonnage: **1 1/2 ton**
 Inlet: **6**
 Outlet: **10**
 Suction Inlet: **8**
 Suction Outlet: **8**

Part No. 1817004

No. 10 No. 8
No Photo Available
 No. 6

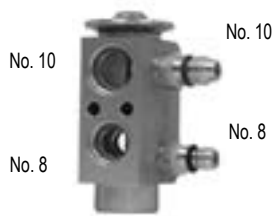
Tonnage: **2 ton**
 Inlet: **6**
 Outlet: **10**
 Suction Inlet: **8**
 Suction Outlet: **8**

Part No. 1817005



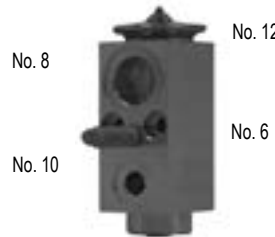
Tonnage: **1 1/2 ton**
 Inlet: **N/A**
 Outlet: **N/A**
 Suction Inlet: **N/A**
 Suction Outlet: **N/A**

Part No. 1817006



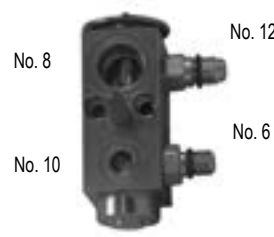
No. 10 No. 10
 No. 8 No. 8
 Tonnage: **2 ton**
 Inlet: **8**
 Outlet: **10**
 Suction Inlet: **8**
 Suction Outlet: **10**

Part No. 1817007



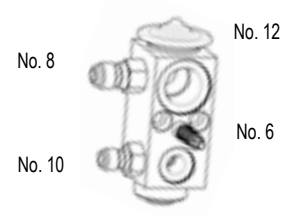
No. 8 No. 12
 No. 10 No. 6
 Tonnage: **1 1/2 ton**
 Inlet: **10**
 Outlet: **8**
 Suction Inlet: **12**
 Suction Outlet: **6**

Part No. 1817008







No. 8 No. 12
 No. 10 No. 6
 Tonnage: **2 ton**
 Inlet: **10**
 Outlet: **8**
 Suction Inlet: **12**
 Suction Outlet: **6**





Part No. 1817009




No. 8 No. 12
 No. 10 No. 6
 Tonnage: **2 ton**
 Inlet: **10**
 Outlet: **8**
 Suction Inlet: **12**
 Suction Outlet: **6**

Block Type Expansion Valves

Part No. 1818006	Part No. 1818007	Part No. 1818008	Part No. 1899010
 <p>No. 12 No. 6 No. 10 No. 8</p>			 <p>No. 10 No. 6 No. 8 No. 8</p> <p><i>w/Schrader Ports</i></p>
Tonnage: 2 ton	Tonnage: 1 1/2 ton	Tonnage: 1 ton	Tonnage: 1 1/2 ton
Inlet: No. 6 Female O-Ring	Inlet: N/A	Inlet: N/A	Inlet: No. 6 Female O-Ring
Outlet: No. 12 Female O-Ring	Outlet: N/A	Outlet: N/A	Outlet: No. 10 Female O-Ring
Suction Inlet: No. 8 Female O-Ring	Suction Inlet: N/A	Suction Inlet: N/A	Suction Inlet: No. 8 Female O-Ring
Suction Outlet: No. 10 Female O-Ring	Suction Outlet: N/A	Suction Outlet: N/A	Suction Outlet: No. 8 Female O-Ring

Part No. 1899028	Part No. 1899030	Part No. 1899031	Part No. 1899035
 <p>No. 10 No. 6 No. 10 No. 8</p>	 <p>No. 10 No. 6 No. 8 No. 8</p> <p><i>w/Schrader Ports</i></p>	 <p>No. 10 No. 6 No. 8 No. 8</p>	 <p>No. 10 No. 6 No. 8 No. 8</p>
Tonnage: 2 ton	Tonnage: 2 ton	Tonnage: 1 1/2 ton	Tonnage: 1 1/2 ton
Inlet: No. 6 Female O-Ring	Inlet: No. 6 Female O-Ring	Inlet: No. 6 Female O-Ring	Inlet: No. 6 Female O-Ring
Outlet: No. 10 Female O-Ring	Outlet: No. 10 Female O-Ring	Outlet: No. 10 Female O-Ring	Outlet: No. 10 Female O-Ring
Suction Inlet: No. 8 Female O-Ring	Suction Inlet: No. 8 Female O-Ring	Suction Inlet: No. 8 Female O-Ring	Suction Inlet: No. 8 Female O-Ring
Suction Outlet: No. 10 Female O-Ring	Suction Outlet: No. 8 Female O-Ring	Suction Outlet: No. 8 Female O-Ring	Suction Outlet: No. 8 Female O-Ring

Part No. 1899039

Tonnage: N/A
Inlet: N/A
Outlet: N/A
Suction Inlet: N/A
Suction Outlet: N/A



Expansion Valves

Expansion Valve Specifications

Description	Tonnage	Inlet	Outlet	Equalizer Tube Length	Nut	Capillary Tube Length	Part No.
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FREON SOLENOID VALVES

12V, No. 6 Male O-Ring, 5/8"-18 UNF-2A Thread, 1 Ton, For use with R-12 & R-134a							1812004
12V, 1/8"-27 NPT Threads							1899011
24V, 5/8"-18, 3/8 Tube O-Ring Fittings							1899017
Solenoid Coil, 12V							1899018
Freon Solenoid Valve Assembly - R-134a, 12V, Solenoid No. 6 Female O-Ring Fitting							1899020
Solenoid							1899032
12V, 3/8" Male O-Ring, use with R134a							1899038
12V, Continuous Duty, 5/16"-24 UNF Contact Screws							2175009
24V, Continuous Duty, 5/16"-24 UNF Contact Screws							2175010
Solenoid Valve Assembly-24V							2199075

INTERNALLY EQUALIZED EXPANSION VALVES

Internally Equalized	1 1/2 ton	No. 6 Male Flare	No. 8 Male Flare	N/A	N/A	9"	1813002
Internally Equalized	N/A	M16	M20	N/A	N/A	16.5"	1817002

EXTERNALLY EQUALIZED EXPANSION VALVES

Externally Equalized	2 ton	No. 6 Male O-Ring	No. 8 Male O-Ring	33"	1/4" Female O-Ring	33"	1813001
Externally Equalized	2 ton	3/8" O-Ring	1/2" O-Ring	14"	7/16"-20	13"	1875003
Externally Equalized	1 1/2 ton	No. 6 Male 45° Flare	No. 8 Male 45° Flare	18"	1/4" Female Flare	28"	1899008
Externally Equalized	1 1/2 ton	No. 6 Male O-Ring	No. 8 Male O-Ring	33"	1/4" Male O-Ring	33"	1899026
Externally Equalized	1 1/2 ton	No. 6 Male O-Ring	No. 8 Male O-Ring	11 4/5"	7/16" Male O-Ring	8"	1899036
Externally Equalized	2 ton	No. 6 Male O-Ring	No. 8 Male O-Ring	16 3/10"	7/16" Female O-Ring	12"	1899037

Description	Tonnage	Inlet	Outlet	Suction Inlet	Suction Outlet	Part No.
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BLOCK TYPE EXPANSION VALVES

Block Type	1 1/2 ton	No. 6 Pad Mount	No. 10 Pad Mount	No. 8 Pad Mount	No. 10 Pad Mount	1812005
Block Type	1 1/2 ton	No. 6 Pad Mount	No. 12 Pad Mount	No. 8 Pad Mount	No. 10 Pad Mount	1812006
Block Type	1 ton	No. 6 Pad Mount	No. 10 Pad Mount	No. 8 Pad Mount	No. 10 Pad Mount	1812007
Block Type	N/A	8	12	8	10	1812008
Block Type	1 1/2 ton	6	10	8	10	1812010
Block Type	1 1/2 ton	6	10	8A	10	1812011
Block Type	1 ton	8	12	8	10	1812012
Block Type Schrader Port	1 1/2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1813004
Block Type Schrader Ports	1 1/2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1813005
Block Type	2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1813007
Block Type	1 1/2 ton	6	10	8	8	1813010
Block Type	2 ton	No. 6 Female O-Ring	No. 12 Female O-Ring	No. 8 Female O-Ring	No. 10 Female O-Ring	1813011
Block Type	2 ton	N/A	N/A	N/A	N/A	1813012
Block Type	2 ton	N/A	N/A	N/A	N/A	1813013
Block Type	1 1/2 ton	N/A	N/A	N/A	N/A	1813014
Block Type	1 1/2 ton	6	8	8	10	1813015
Block Type	2 ton	10	6	8	8	1817001
Block Type	2 ton	6	10	8	8	1814002
Block Type	1 1/2 ton	6	10	8	8	1817003
Block Type	2 ton	6	10	8	8	1817004
Block Type	1 1/2 ton	N/A	N/A	N/A	N/A	1817005
Block Type	2 ton	8	10	8	10	1817006
Block Type	1 1/2 ton	10	8	12	6	1817007
Block Type	2 ton	10	8	12	6	1817008



Description	Tonnage	Inlet	Outlet	Suction Inlet	Suction Outlet	Part No.
Block Type	2 ton	10	8	12	6	1817009
Block Type	2 ton	No. 6 Pad Mount	No. 12 Pad Mount	No. 8 Pad Mount	No. 10 Pad Mount	1818006
Block Type	1 1/2 ton	N/A	N/A	N/A	N/A	1818007
Block Type	1 ton					1818008
Block Type Schrader Port	1 1/2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1899010
Block Type R-134a Compatible	2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 10 Female O-Ring	1899028
Block Type Schrader Ports	2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1899030
Block Type	1 1/2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1899031
Block Type	1 1/2 ton	No. 6 Female O-Ring	No. 10 Female O-Ring	No. 8 Female O-Ring	No. 8 Female O-Ring	1899035
Block Type	N/A	N/A	N/A	N/A	N/A	1899039

Service Tips

The expansion valve acts as a refrigerant metering device that creates a temperature/pressure decrease. This device also divides the system into two zones; high-pressure and low-pressure.



Capillary Tube Design



Block Design

Expansion Valve Service Tips

Block Valve Failure	The most common block valve failure is due to the loss of gas pressure inside the Power Head.
Plugged Expansion Valve	Plugged expansion valves cannot be flushed out, they must be replaced.
Capillary Tube	Verify the capillary tube is properly attached and insulated.
Refrigerant Check	Ensure that refrigerant is flowing to the expansion valve prior to removing.



