

EZ Clip to 5400 Series

Hose assembly instructions

Get to know EZ Clip

Danfoss' EZ Clip system is designed for assembly with Danfoss multi-refrigerant hose GH001. It's engineered connection exceeds SAE J3062 and J2064 and has been vibration and impulse tested.

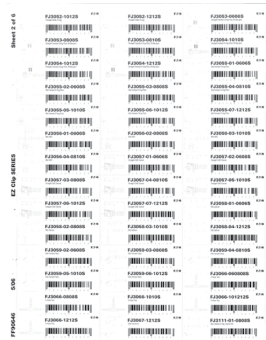
EZ Clip system kit FF12139



Marketing materials

Label Set FF90646

Also available on Danfoss' custom bin label tool on PowerSource.



Repair broken or leaking A/C hose in a few EZ steps:

EZ Step 1: Cut the hose. Cut the hose to proper length with an appropriate cutting tool. Be sure the cut is made square to the hose length.

EZ Step 2: Slip on two clips. Install two proper-sized clips onto the cut end of the hose. Danfoss recommends both clips have the same orientation.



NOTE: Failure to slide the clips over the hose at this time will require the clips to be stretched over the hose or fitting later. This may permanently damage the clip.

EZ Step 3: Oil the nipple. Lubricate the nipple with a generous amount of the refrigeration or A/C system's compressor lubricating oil. This **MUST** be done to lower the force of nipple insertion.



EZ Step 4: Insert the nipple into the hose.

EZ Step 5: Snap on the cage. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove.



This step **MUST** be performed to ensure:

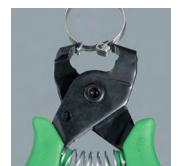
1. The clips will be located over the O-rings on the nipple.
2. The connection will be compatible with the connection's pressure rating.

EZ Step 6: Slide the clips. Slide the clips over the cage arms and into the channels on each arm. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple.

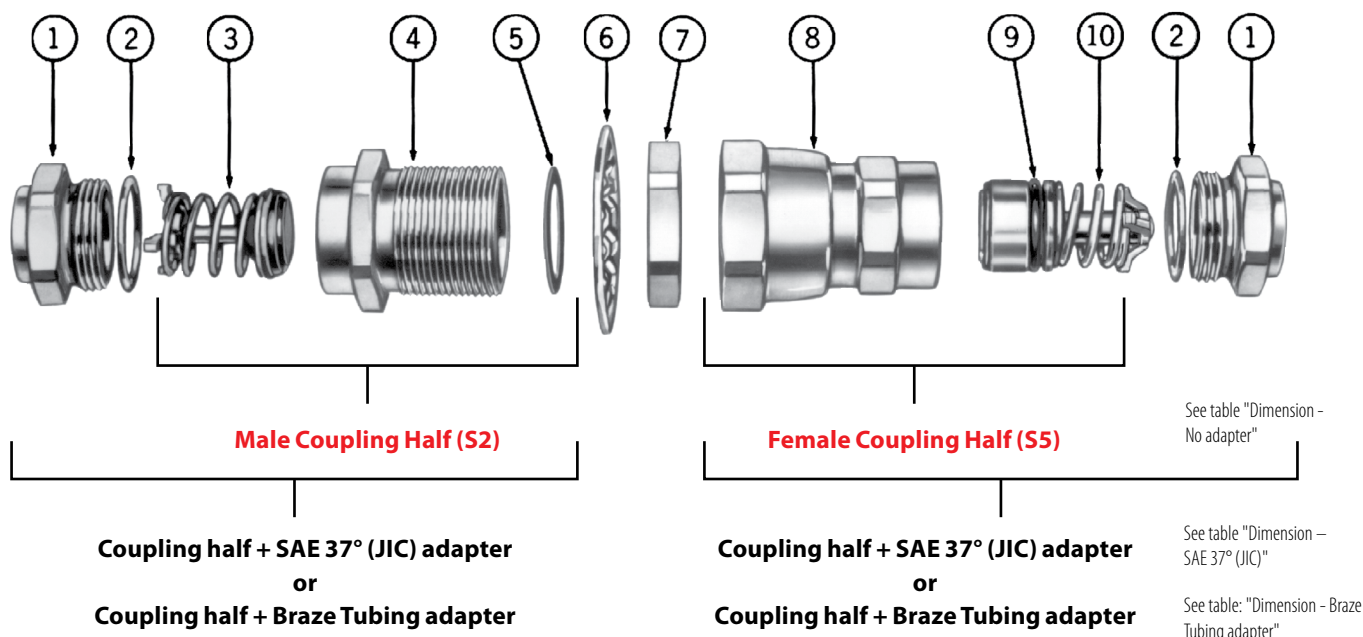


EZ Step 7: Close the clips. Use the **FT1357** pliers

to close the clips. The pliers should be positioned squarely on the clip connection points and should remain square during the closing of the clip. The nose of the pliers should be firmly seated under the assembly bump and lock latch. If the pliers are not kept square during closing of the clip, the clasp may have an offset. Use the pliers to correct the clasp alignment. EZ Clip components should not be reused.



5400 Series Assembly Instructions/Component Part Numbers



Item number/ adapters	1 Tubing adapter	2 Adapter O-ring	3 Poppet valve assembly	4 Male body	5 Gasket seal	6 Lock washer	7 Jam nut	8 Union nut and female body assembly	9 Piston O-ring	10 Female valve assembly
SAE 37° (JIC)	202208-Y-X									
Braze tubing	202208-Y-XB	22546-Z-X	5400-S20-X	5400-17-XS	22008-X	5400-54-XS	5400-52-XS	5400-S16-X	FF91178-Z'	5400-S19-X
Hose fitting SAE 100R5	487-Y-XS									

Note 1: Replace "X", "Y" and "Z" by size number chosen in below tables.

Note 2: "B" stands for Brass and "S" stands for Steel material – availability is presented in below tables.

Assembly Instructions

Steps:

- After tubing or hose has been connected to adapters ① and ②, install O-Rings ③ and ④ on adapters. Be sure O-Rings are not twisted.
- Oil O-Rings ③ and ④ liberally with system fluid to prevent them from scuffing and tearing when coupling body is threaded on adapter.
- S2 Half—Lubricate poppet face with system fluid. Insert poppet valve assembly ③ into body ④. Tighten body ④ on adapter ①. After body and adapter make metal-to-metal contact, tighten by rotating body ④ 1/8".
S5 Half—Oil O-Ring ⑨ liberally with system fluid. Insert valve and sleeve assembly ⑩ into body ⑧. Tighten body ⑧ on adapter ②. After body and adapter make metal-to-metal contact, tighten by rotating body ⑧ 1/8".
- Coupling Connection—Lubricate gasket seal ⑤ on male half with system fluid. Thread lubricated union nut ⑧ on 5400-S2 half. Tighten union nut to torque values shown in table. Be sure male part and female part bodies do not rotate during connection.

Note: POE refrigeration oil for lubrication is recommended

Note: Operating temperature: -40°C to 121°C / -104°F to -249,8°F

Bulkhead Mounting—Male half (S2)

Install lock washer ⑥ on S2 half. Insert S2 half through bulkhead, and tighten jam nut ⑦ so that lock washer teeth are fully compressed.

NOTE: Lock washer 6 must be between hex of S2 half and bulkhead.

Maximum Bulkhead Thickness

Body Size	Lock Washer Installed (in)	Lock Washer Not Used (in)
1/4	.206	.256
1/2	.136	.203
3/4	.232	.292
1	.101	.161

Torque Values

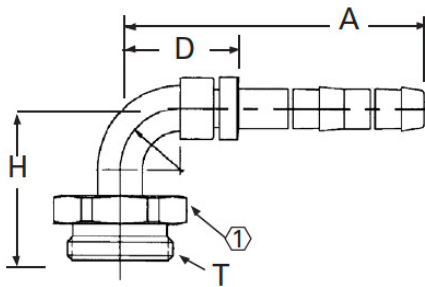
Recommended torque values in ft. lbs., are listed below.

Dash Size	Adapter to Body		S2 Half to S5 Half
	Braze Type or Aluminum	Non-braze Type Steel or Brass	
-4	6-8	12-15	10-12
-8	15-20	35-45	35-37
-12	35-40	45-55	45-47
-16	50-60	55-65	65-67

*IMPORTANT: Generous lubrication is required for all gaskets and O-Rings. Use refrigeration oil only when used in refrigerant system.

EZ Clip GH001 Fittings with 5400 Coupling Thread

FJ3914

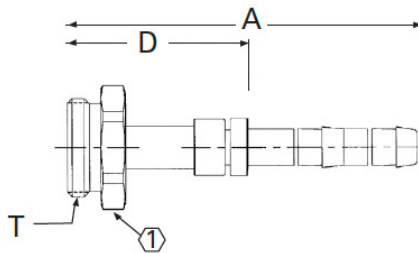


90° elbow – 5400 coupling thread

Part #	TH'D "T"	Hose Size	A Ref	D Ref	F Ref	H Ref	① Ref
FJ3914-03-1210S	1-1/4-18	10	3.08	1.53	—	1.73	1.38
FJ3914-04-0806S	7/8-20	6	2.50	0.98	—	1.23	1.00
FJ3914-02-1212S*	1-1/4-18	12	3.08	1.53	—	1.73	1.38

* MTO (made to order)

FJ3970



Straight – 5400 coupling thread

Part #	TH'D "T"	Hose Size	A Ref	D Ref	F Ref	H Ref	① Ref
FJ3970-0606S	7/8-20	6	3.14	1.82	—	—	1.00
FJ3970-0808S	7/8-20	8	3.19	1.65	—	—	1.00
FJ3970-1212S	1-1/4-18	12	3.50	1.93	—	—	1.38
FJ3970-1616S	1-19/32-20	16	3.66	1.98	—	—	1.75

Torque Values for 5400 Series Couplings

Recommended Torque Values in ft. lbs. are listed below.

Dash Size	Non-Braze Type Steel or Brass
-4	12-15
-8	35-45
-12	45-55
-16	55-65

5400 Series Adapters

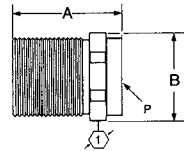


Figure 1

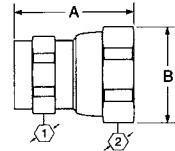


Figure 2

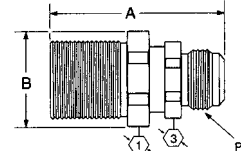


Figure 3

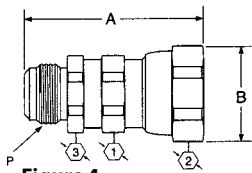


Figure 4

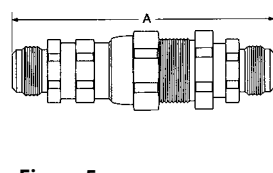


Figure 5

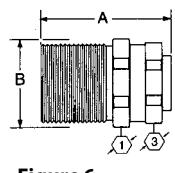


Figure 6

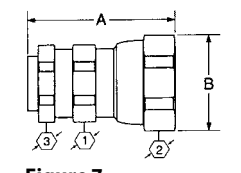


Figure 7

Dimensions – No Adapter

Part Number Neoprene	Coupling Type	Body Size	Type	Fig.	Dimensions A		B		Hex ①		Hex ②		Hex ③	
					(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
5400-S2-4	Male	1/4	No Adapter	1	(27.4)	(1.08)	(21.1)	(.83)	(19.1)	(.75)	-	-	-	-
5400-S5-4	Female	1/4	No Adapter	2	(28.7)	(1.13)	(21.1)	(.83)	(16.0)	(.63)	(19.1)	(.75)	(19.1)	(.75)
5400-S2-8	Male	1/2	No Adapter	1	(34.8)	(1.37)	(32.0)	(1.26)	(29.0)	(1.14)	-	-	-	-
5400-S5-8	Female	1/2	No Adapter	2	(40.6)	(1.60)	(33.0)	(1.30)	(26.0)	(1.02)	(30.0)	(1.18)	(30.0)	(1.18)
5400-S2-12	Male	3/4	No Adapter	1	(44.2)	(1.74)	(46.4)	(1.83)	(41.0)	(1.64)	-	-	-	-
5400-S5-12	Female	3/4	No Adapter	2	(55.1)	(2.17)	(45.0)	(1.77)	(35.0)	(1.38)	(41.0)	(1.61)	(41.0)	(1.61)
5400-S2-16	Male	1	No Adapter	1	(46.5)	(1.83)	(53.0)	(2.10)	(48.0)	(1.89)	-	-	-	-
5400-S5-16	Female	1	No Adapter	2	(61.1)	(2.41)	(56.0)	(2.20)	(45.0)	(1.77)	(50.0)	(1.97)	(50.0)	(1.97)

Dimensions – SAE 37° (JIC)

Part Number Buna-N	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions A		B		Hex ①		Hex ②		Hex ③	
							(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
5400 S2-4	Male	1/4	7/16	7/16-20	202220-4-4	3	(47.8)	(1.88)	(21.1)	(.83)	(19.1)	(.75)	-	-	(16.0)	(.63)
5400 S5-4	Female	1/4	7/16	7/16-20	202220-4-4	4	(49.0)	(1.93)	(21.1)	(.83)	(16.0)	(.63)	(19.1)	(.75)	(15.7)	(.62)
5400 S2-4	Male	1/4	9/16	9/16-18	202220-6-8	3	(48.0)	(1.89)	(21.1)	(.83)	(19.1)	(.75)	-	-	(16.0)	(.63)
5400 S5-4	Female	1/4	9/16	9/16-18	202220-6-8	4	(49.3)	(1.94)	(21.1)	(.83)	(16.0)	(.63)	(19.1)	(.75)	(15.7)	(.62)
5400 S2-8	Male	1/2	9/16	9/16-18	202220-6-8	3	(55.4)	(2.18)	(31.8)	(1.25)	(28.7)	(1.13)	-	-	(25.4)	(1.00)
5400 S5-8	Female	1/2	9/16	9/16-18	202220-6-8	4	(61.7)	(2.43)	(33.3)	(1.31)	(25.4)	(1.00)	(30.2)	(1.19)	(25.4)	(1.00)
5400 S2-8	Male	1/2	3/4	3/4-16	202220-8-8	3	(57.9)	(2.28)	(31.8)	(1.25)	(28.7)	(1.13)	-	-	(25.4)	(1.00)
5400 S5-8	Female	1/2	3/4	3/4-16	202220-8-8	4	(64.3)	(2.53)	(33.3)	(1.31)	(25.4)	(1.00)	(30.2)	(1.19)	(25.4)	(1.00)
5400 S2-12	Male	3/4	7/8	7/8-14	202220-10-12	3	(69.9)	(2.75)	(46.5)	(1.83)	(41.4)	(1.63)	-	-	(35.1)	(1.38)
5400 S5-12	Female	3/4	7/8	7/8-14	202220-10-12	4	(80.3)	(3.16)	(45.7)	(1.80)	(35.1)	(1.38)	(41.1)	(1.62)	(35.1)	(1.38)
5400 S2-12	Male	3/4	1 1/16	1 1/16-12	202220-12-12	3	(72.6)	(2.86)	(46.5)	(1.83)	(41.4)	(1.63)	-	-	(35.1)	(1.38)
5400 S5-12	Female	3/4	1 1/16	1 1/16-12	202220-12-12	4	(83.1)	(3.27)	(45.7)	(1.80)	(35.1)	(1.38)	(41.1)	(1.62)	(35.1)	(1.38)
5400 S2-16	Male	1	1 5/16	1 5/16-12	202220-16-16	3	(75.9)	(2.99)	(53.3)	(2.10)	(47.8)	(1.88)	-	-	(44.5)	(1.75)
5400 S5-16	Female	1	1 5/16	1 5/16-12	202220-16-16	4	(89.7)	(3.53)	(56.9)	(2.24)	(44.5)	(1.75)	(50.8)	(2.00)	(44.5)	(1.75)

Note: See Adapter SAE 37° (JIC) table for corresponding O-ring and adapter material