



INSTALLATION INSTRUCTIONS FOR LLD TYPE LIQUID LINE FILTER-DRIERS

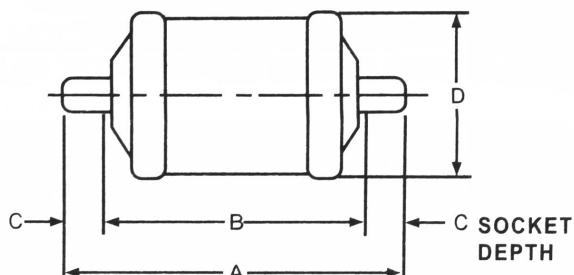
INSTALLATION INSTRUCTIONS

1. The system must be pumped down and lines de-pressurized before attempting to install. Failure to do so could result in bodily injury.
2. Do not remove seal caps until ready for installation. Install immediately to minimize contamination.
3. This filter-drier may be installed in any position. For best results locate as close as possible to the inlet of the expansion device. If using a liquid line solenoid or moisture-liquid indicator, locating the filter-drier upstream will provide protection for the solenoid and the liquid-moisture indicator will measure the effectiveness of the drier. Refer to Table 1 for rough-in dimensions.
4. Warning: The arrow on the label must point in the direction of refrigerant flow. Reverse flow reduces the filtering ability.
5. When soldering divert flame away from filter-drier to avoid possible internal damage. Use chill blocks, wet rags or other suitable heat protection for the filter-drier.
6. To prevent twisting the refrigerant line, use a back-up wrench on the flats supplied on each SAE connection.
7. Warning: Thoroughly leak-test system after installation. Failure to do so could result in loss of refrigerant.

SERVICE HINTS

1. On new installations, the use of a liquid line filter-drier with a suction line filter is recommended. This will provide the complete system with overall protection from chips, scale, dirt, etc.
2. For clean-up of any system after a burnout, or when unsure of system cleanliness use an oversized filter-drier in the liquid line and a suction line filter-drier in the suction line.

DIMENSIONAL DATA



MODEL	TABLE 1. DIMENSIONS			
	A	B	C	D
LLD-032	4-3/8	-	-	1-3/4
LLD-032S	3-7/8	2-3/4	1/2	
LLD-033	4-11/16	-	-	
LLD-033S	4	2-27/32	5/8	
LLD-052	4-13/16	-	-	2-5/8
LLD-052S	4-1/8	3-1/4	7/16	
LLD-053	5-1/8	-	-	
LLD-053S	4-7/16	3-7/32	5/8	
LLD-082	5-5/8	-	-	2-5/8
LLD-082S	4-15/16	4-1/32	7/16	
LLD-083	5-15/16	-	-	
LLD-083S	5-1/4	4-1/32	5/8	
LLD-084	6-5/32	-	-	
LLD-084S	5-5/16	4-1/32	5/8	
LLD-162	6-1/2	-	-	2-5/8
LLD-162S	5-29/32	5	7/16	
LLD-163	6-13/16	-	-	
LLD-163S	6-7/32	4-31/32	5/8	
LLD-164	7-1/16	-	-	
LLD-164S	6-9/32	5	5/8	
LLD-165	7-7/16	-	-	
LLD-165S	6-17/32	5-1/32	3-1/4	
LLD-167S	6-19/32	5	1-1/16	3-5/32
LLD-303	9-9/16	-	-	
LLD-303S	8-29/32	7-21/32	5/8	
LLD-304	9-13/16	-	-	
LLD-304S	8-15/16	7-11/16	5/8	
LLD-305	10-3/16	-	-	
LLD-305S	9-7/32	7-11/16	3/4	
LLD-306S	9-5/8	7-23/32	15/16	
LLD-307S	9-13/16	7-11/16	1-1/16	3-21/32
LLD-309S		7-23/32	1-1/32	
LLD-413	9-11/16	-	-	
LLD-414	9-15/16	-	-	
LLD-414S	9-3/32	7-27/32	5/8	
LLD-415	10-11/32	-	-	
LLD-415S	9-3/8	7-27/32	3/4	
LLD-417S	9-31/32	7-27/32	1-1/16	
LLD-419S		7-7/8	1-1/32	
LLD-757S	14-29/32	13-5/16	13/16	3-21/32
LLD-759S	15-7/16	13-3/8	1-1/32	

SELECTION

1. Given the proper liquid line size and style connection, select from Table 2 the filter-drier unit size having sufficient water capacity to reduce the moisture content of the system to a safe level. Considerations should be given to the factors of freeze up, corrosion and protection of the formation of harmful acids and contaminants.
2. The filter-drier should also have sufficient flow capacity for the required flow rate at a minimum pressure drop.
3. OEM applications usually permit the selection of smaller models within the flow capacity limits based on known conditions. Field installed systems with unknown moisture quantities generally require larger models.
4. This filter-drier is intended for use on R134a, R-404A, R-507, R12, R22, R500 and R502. CAUTION: Do not use on unlisted gases or fluid media without prior approval. Use on unlisted gases or fluids could result in product deterioration or personal injury.
5. Be sure filter-drier is not required to operate at conditions exceeding the maximum working pressure.

NOTE: Products, specifications and data in this literature are subject to change without notice.

TABLE 2. QUICK SELECTION GUIDE											
Unit Size	Model	Connections		Water capacity (Drops) (1) (2)							
				R-134a		R-404A/R-507		R-22		R-502	
		Size	Style	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
3	LLD-032	1/4	SAE	44	40	42	40	43	37	32	25
	LLD-032S		ODF								
	LLD-033	3/8	SAE								
	LLD-033S		ODF								
5	LLD-052	1/4	SAE	76	66	75	65	73	58	61	58
	LLD-052S		ODF								
	LLD-053	3/8	SAE								
	LLD-053S		ODF								
8	LLD-082	1/4	SAE	121	105	119	103	115	92	99	77
	LLD-082S		ODF								
	LLD-083	3/8	SAE								
	LLD-083S		ODF								
	LLD-084	1/2	SAE								
	LLD-084S		ODF								
16	LLD-162	1/4	SAE	242	209	238	205	230	184	182	152
	LLD-162S		ODF								
	LLD-163	3/8	SAE								
	LLD-163S		ODF								
	LLD-164	1/2	SAE								
	LLD-164S		ODF								
	LLD-165	5/8	SAE								
	LLD-165S		ODF								
30	LLD-167S	7/8	ODF								
	LLD-303	3/8	SAE	453	374	424	367	412	330	347	291
	LLD-303S		ODF								
	LLD-304	1/2	SAE								
	LLD-304S		ODF								
	LLD-305	5/8	SAE								
	LLD-305S		ODF								
	LLD-306S	3/4	ODF								
	LLD-307S	7/8	ODF								
41	LLD-309S	1-1/8	ODF								
	LLD-413	3/8	SAE	591	512	583	502	564	450	472	395
	LLD-414	1/2	SAE								
	LLD-414S		ODF								
	LLD-415	5/8	SAE								
	LLD-415S		ODF								
75	LLD-417S	7/8	ODF								
	LLD-419S	1-1/8	ODF								
	LLD-757S	7/8	ODF	1,171	975	1,184	942	1,091	826	1,126	942
	LLD-759S	1-1/8	ODF								

- (1) Water Capacities are based on:
EPD of 50 ppm for R-134a
EPD of 50 ppm for R-404A, R-507
EPD of 60 ppm for R-22
EPD of 30 ppm for R-502

(2) 20 drops of water = 1 gram = 1 cc.

NOTE: Per ARI Standard 710-86, flow rates are based on:

- 1.) 86 °F liquid refrigerant temperature
- 2.) 5 °F saturated temperature
- 3.) 4.0 lbs/min./ton for R-134a
2.9 lbs/min./ton for R-22
4.4 lbs/min./ton for R-502, R-404A, R-507

* Products are listed in U.L. File SA32376 control number 20T4 for 600 psig max. working pressure and 3000 psig. burst pressure.