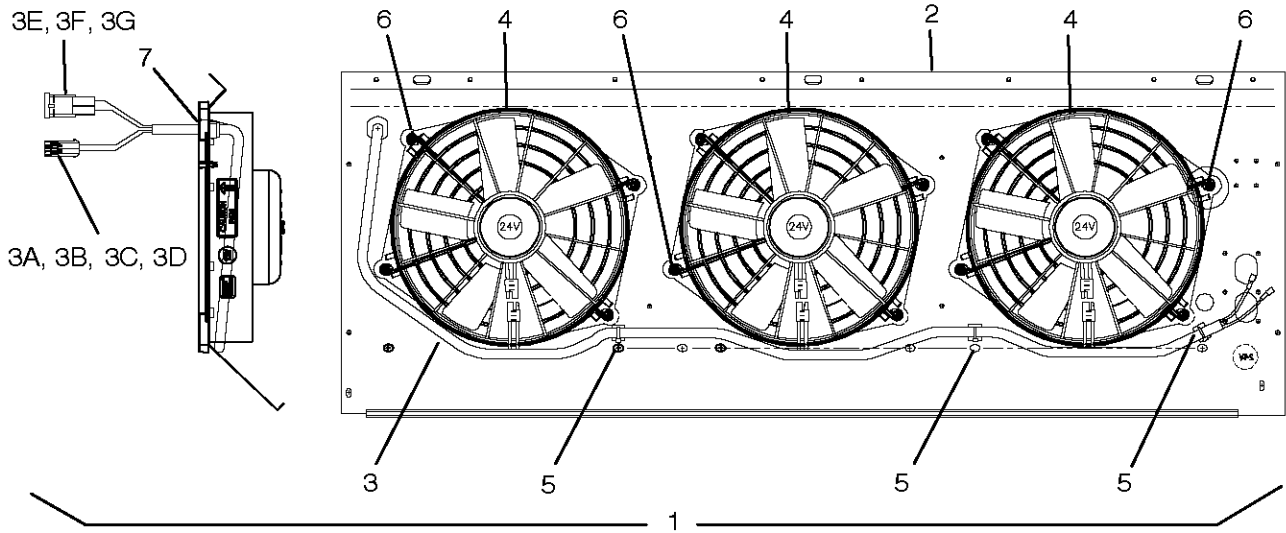


CONDENSER, CM-3, MCHX, VENTURI ASSEMBLY

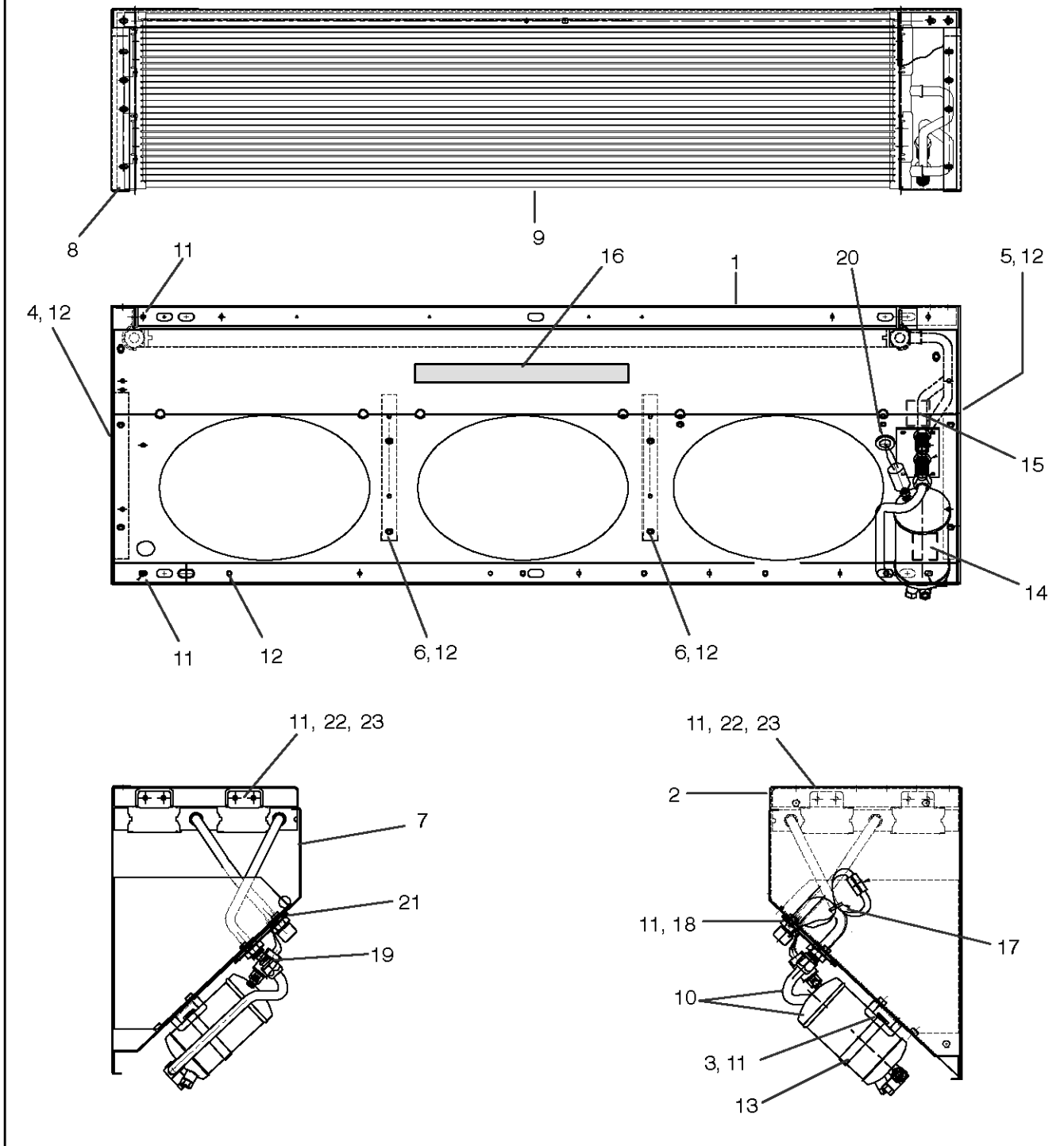


REFERENCE CHASSIS KIT 77-01277-00

Item	Part Number	Description	Qty
1	79-62022-04	Venturi Assembly, CM-3 12VDC - Includes:	1
2	68-62501-00	...Panel, Venturi. Painted Black	1
3	22-62205-00	...Harness, Connector, CM-3 - Includes:	1
3A	22-50078-72	.....Connector, Male	1
3B	22-50078-46A	.....Terminal, Male	2
3C	22-50078-50A	.....Seal, Cable	2
3D	22-50078-72A	.....Lock, Secondary	1
3E	22-50098-67	.....Connector, 2 Pin Black	1
3F	22-50098-67B	.....Terminal, Male	2
3G	22-50098-67D	.....Seal, Cable	2
4	54-00618-01	...Fan & Motor Assembly, Vector, 12V With Fuse (No Replacement Motor)	3
5	66U1-3882	...Wire Tie, Self-Locking, 7.00 Inches, Black	3
6	34-62011-00	...Screw, Hex Head, With Lock & Flat Washers, 1/4-20 x 1 Inch Long, SST	12
7	58-62019-00	...Bushing, Strain Relief	1

Note: When Ordering Replacement Parts, Prefix Vendor Part Number with " CDU"

CONDENSER, CM-3, MCHX, REPLACEMENT CHASSIS (77-01277-50)



Note: When Ordering Replacement Parts, Prefix Vendor Part Number with "CDU"

CONDENSER, CM-3, MCHX, REPLACEMENT CHASSIS (77-01277-50)			
Item	Part Number	Description	Qty
-	77-01277-50	CM-3 Service Chassis Kit - Includes:	1
1	86-62221-00	...Top Panel Assembly, Painted Black	1
2	68-15397-00	...Bracket, Coil, Painted	1
3	AC033-115	...Channel, Drier Mounting, Painted Black	1
4	AC033-203	...Pane Assemblyl, Left Side, Painted Black	1
5	AC033-204	...Panel Assembly, Right Side, Painted Black	1
6	AC033-211	...Baffel, Condenser, Painted Black	2
7	68-62501-00	...Panel, Venturi, Painted Black	1
8	68-15398-00	...Bracket, Coil	1
9	NSS	...Coil, Condenser, CM-3, MCHX (08-00312-00)	1
10	65-00193-00	...Receiver, With Filter Drier	1
11	AC701-400	...Rivet, Pop, 3/16, Steel	19
12	AC701-401	...Rivet, Pop, 3/16, Steel	31
13	44-00045-19	...Clamp, Hose, Worm Type, Range: 2.56-3.50 Inches	1
14	62-62042-15	...Label, " Liquid Out "	1
15	62-62042-14	...Label, " Hot Gas In "	1
16	62-62045-00	...Label, " Warning- Fan Blades "	1
17	66U1-3882	...Wire Tie, Self-Locking, 7.00 Inches, Black	4
18	68-08106-00	...Plate, Retainer, Fittings	1
19	AC201-414	...Switch, Pressure, 400 - 300	1
20	58-04764-00	...Grommet, .25 ID x .84 Groove	1
21	34-06088-07	...Nut, Hex, Jam, 3/4-16	2
22	58-04026-75	...Protector, Mylar, Coil Mounting	4
23	34-06053-12	...Washer, Mylar	8

Note: When Ordering Replacement Parts, Prefix Vendor Part Number with " CDU"



TAC-SER07-001
01-25-07

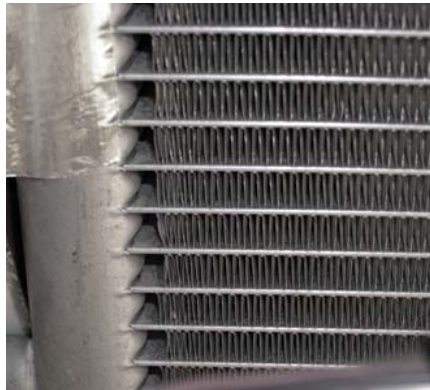
SUBJECT: NEW CONDENSER COIL DESIGN

Carrier Transport Air Conditioning has introduced a new "Micro-Channel Heat Exchanger" (MCHX) condenser coil into the skirt-mounted CM-3 & CM-2 series condensers. The construction and appearance of this new coil is similar to the radiator and air conditioning coils found in most automotive applications.

Benefits:

- **Decreased head pressure**
Approximately 10 PSI (extends compressor life)
- **Weight reduction**
Original design CM-3 RTPF (Round Tube Plate Fin) coil at 18 pounds vs. CM-3 MCHX at 7.5 pounds, yields and approximately 60% weight savings
- **Improved corrosion resistance**
Eliminates Cu/Al (copper/aluminum) galvanic couple.
- **Ease of maintenance**
MCHX coil construction is more robust and will allow the use of high pressure cleaning, unlike conventional RTPF.
- **Refrigerant charge reduction**
One or two pounds (or more) charge reduction per condenser.

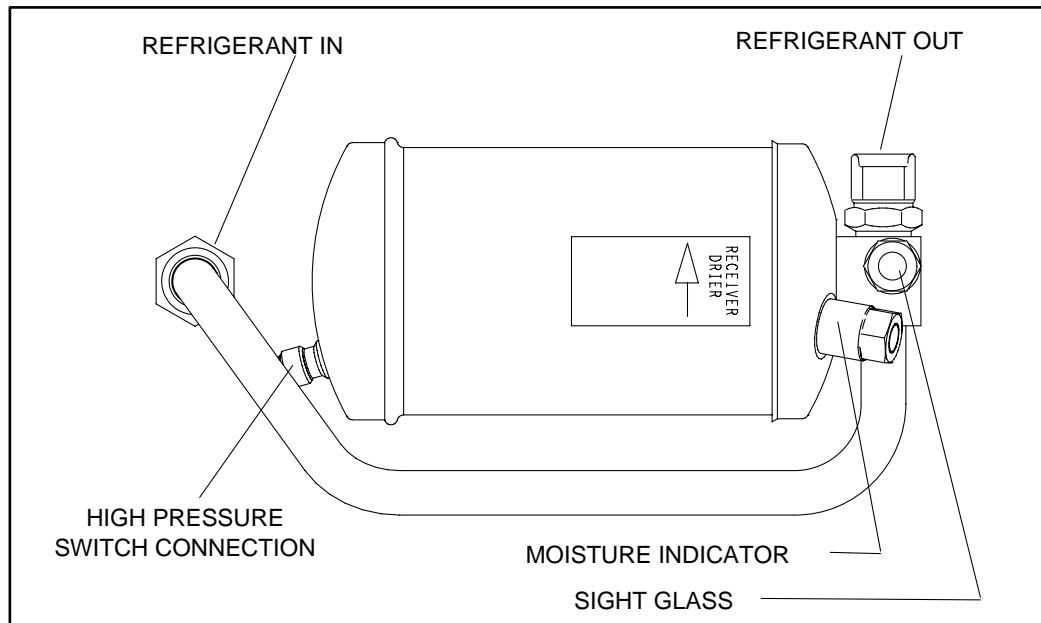
Service:



As shown in the above illustration, the micro-channel condenser construction is different than what you have seen and serviced in the past.

The MCHX coil is more open and therefore much easier to clean compared to the RTPF coils.

The heat exchange rate of a MCHX coil is higher, resulting in lower head pressures, and the internal volume is lower, resulting in less charge. Also, to ensure sufficient liquid refrigerant volume for differing operating conditions, MCHX units are fitted with a new receiver/dryer assembly. This new component, the shown in the following illustration, has the ability to store the required reserve liquid.



Until a new chart is published, utilize the current R-134A Split System Refrigerant and Oil Charging table in Service manual #T-299 RevA found on Page 4-6 and reduce the recommended *initial* charge amounts by 2.0 lbs.

To trim the charge, use the "rule of thumb" System Performance chart in the Service manual except, in step 3, add 37 degrees instead of 40. This is due to the approximately 10 psi lower discharge pressures experienced in the field with the new MCHX coils (i.e. 10 psi delta = about only 3 degrees in saturated temp delta for R-134A not 10 as suggested).

The oil charge should also be adjusted to reflect the lower amount of refrigerant in the system at a ratio of approximately 2oz oil per lb of R-134A. Therefore, if the charge is reduced by 2 lbs, the oil charge would be reduced by 4 oz.

Under no circumstances should the installed receiver/dryer be valved off, or replaced with a conventional filter-dryer as it is specifically designed to store the reserve refrigerant. In addition, the High Pressure Safety Switch must be re-installed on the replacement receiver/dryer in order to prevent system damage and possible injury. If the system is serviced, the receiver/dryer is to be replaced in the same manner as the original dryer. These are available from service parts as P/N 65-00193-00.

If a Carrier TAC system containing a micro-channel condenser arrives at your location please do not hesitate to call our technical service hot line (800) 450-2211 for assistance.

Richard Cook

Service/Warranty Manager
Carrier Transport Air Conditioning

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