



Mobile Climate Control

INDUSTRIES INC.

Mass Transit Division • Off-Road Division • Military Division



**HEAVY DUTY HEATING AND
AIR CONDITIONING SYSTEMS
UNITS AND REPLACEMENT PARTS
REGISTERED ISO 9001 MANUFACTURER**

VOLUME **2**

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MCC Coil Manufacturing and Oil Coolers

Mobile Climate Control

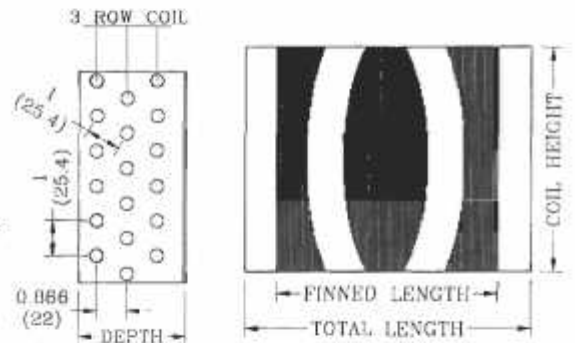
MCC Coil Manufacturing

To ensure product quality MCC decided very early to invest in a tube and fin production line. As a result of this decision it has been proven early that MCC's customers enjoy a higher degree of design flexibility. Additionally MCC decided to adapt the machinery to produce rough coils for the heavy-duty vehicle market. This meant low fin density, thick fins and heavy duty mounting brackets. With the realization by most off-road vehicle manufacturers that coils designed for the on-road and light vehicle markets would not stand up to the off-road environment, the MCC coils soon became a winner. At MCC coils are designed to fulfill each customer's individual needs.

Design Specifications

The tube spacing selected for MCC coils are 1" (25.4mm) x 0.866" (22mm) staggered 30°. The coils can be produced with a height of even inches (25.4mm) and with a depth of multiples of .866" (22mm). The width can be made to any dimension.

Copper tubes with a burst pressure of 1790 PSI or 12.3 MPa are the preferred choice for refrigeration and water. Headers and connectors can be changed to fit each customer's unique requirements. Tubes are brazed and can therefore be easily customized.



The most common fin material for coils is aluminum. Copper is also used in difficult high corrosion and abrasive environments. Copper enjoys a higher degree of heat transfer but is also heavier and more costly. Fins can be produced to a maximum thickness of 0.02" or 0.5 mm. MCC has two common fin shapes. An aggressive sinus waved shape with high heat transfer and high pressure drop makes it possible to reduce fin density for dirty conditions. The corrugated fin shape has a lower heat transfer and pressure drop than the sinus waved fin. Wet paint, dry powder coating and several other special anti-corrosive coatings are available for the MCC coils.

The copper tubes, end plates and fins are mechanically expanded together to ensure a strong and effective coil. The tube is expanded against the aluminum collar of the fin, which results in a very strong assembly. Headers and fittings are then brazed on the open side of the copper tubes. Every coil is pressure tested to confirm its integrity.

Oil Coolers

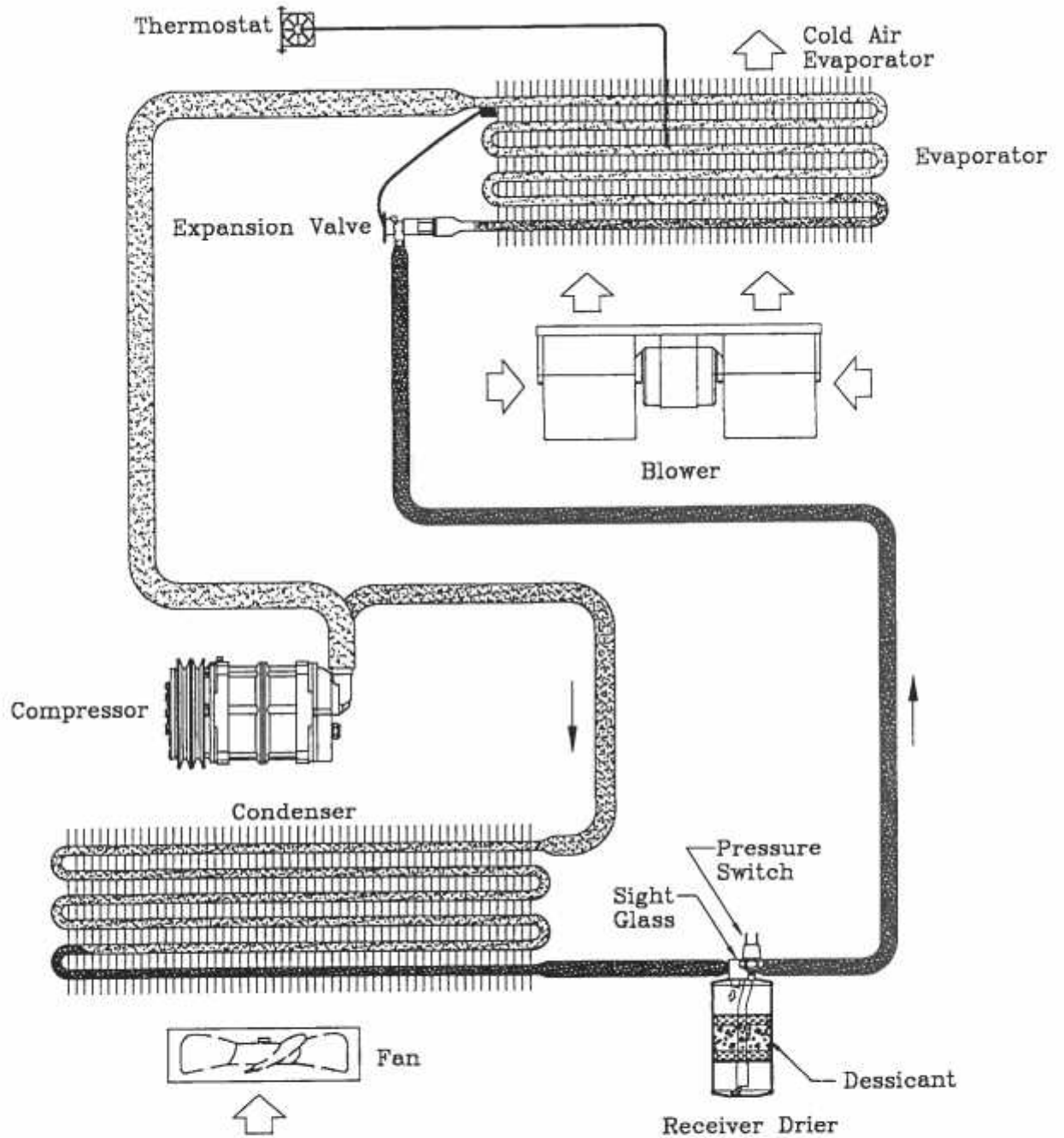
A primary difference between a refrigeration/water coil and an oil cooler coil is the turbulator. Due to the boundary layer effects of oil, customized turbulators are used in each tube of the MCC oil cooler. The turbulator improves heat transfer greatly and can be designed to modify the degree of pressure drop. The MCC designed and manufactured turbulators are highly effective and produce a high liquid pressure drop. The liquid pressure drop is adjusted through header design. Generally copper tubes with a burst pressure of 2310 PSI or 15.9 MPa are used for oil coolers.

Environmental Test Chambers

MCC Toronto has installed a set of test chambers in which very accurate heat transfer and equipment trials are performed. The chamber can produce a wide variety of climate conditions. MCC's test chambers were designed to accept a large size off road cab. One chamber has the ability to achieve 10—50°C or 50—120°F and a relative humidity of 30 - 95%. The second chamber can produce temperatures of -40—10°C or -40—50°F. Prototype systems and cabs are frequently tested and proved. A state of the art, computer-based, 300+ channel data acquisition system records temperatures, humidity, fluid flows, airflows and pressures. Analogue and digital process control elements are used for monitoring and controlling the environmental chambers.

Air Conditioning/Refrigeration Cycle

Mobile Climate Control



Status Of R134a

 High Pressure Gas	 Low Pressure Liquid
 High Pressure Liquid	 Low Pressure Gas

R-134a Temperature Pressure Chart

Mobile Climate Control

NORMAL EVAPORATOR RANGE	
TEMP °F.	PSIG
16	15.69
18	17.04
20	18.43
22	19.87
24	21.35
26	22.88
28	24.47
30	26.10
32	27.79
34	29.52
36	31.32
38	33.17
40	35.07
42	37.03
44	39.05
45	40.09
50	45.48
55	51.27
60	57.47
65	64.10
70	71.19
75	78.75
80	86.80
85	95.40
90	104.40
91	106.30
92	108.20

NORMAL CONDENSER RANGE	
TEMP °F.	PSIG
93	110.20
94	112.10
95	114.10
100	124.30
102	128.50
104	132.90
106	137.30
108	141.90
110	146.50
112	151.30
114	156.10
116	161.10
118	166.10
120	171.30
122	176.60
124	182.00
126	187.50
128	193.10
130	198.90
135	213.70
140	229.40
145	245.80
150	263.00
155	281.10
160	300.10
165	320.00
170	340.80

The numbers above represent boiling points for R-134a. All values are rounded two places.

EVAPORATOR

Pressures represent gas temperatures inside the coil, and not the coil surfaces. Add to temperature for coil air-off temperatures (8-10°F).

CONDENSER

Temperatures are not ambient temperatures. Add to ambient (35-40°F) for proper heat transfer, then refer to pressure chart.

Example: 90°F ambient temperature
 +40°F
 130°F condenser temperature = 200 PSIG*
 *(Based on 30 MPH air flow)

Conditions will vary for different system configurations. Refer to manufacturers specifications.

Wiring Schematics

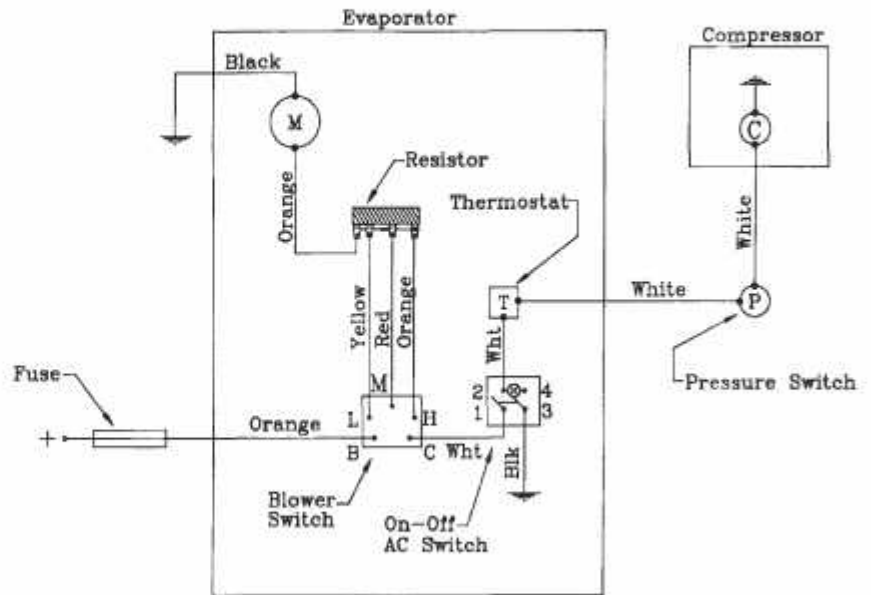
Mobile Climate Control

HEATER - AC SYSTEM WITH RADIATOR MOUNT CONDENSER

BLOWER SWITCH

- Off - Off
- L - Low Speed
- M - Medium Speed
- H - High Speed

The "C" circuit will close when the blower is on.



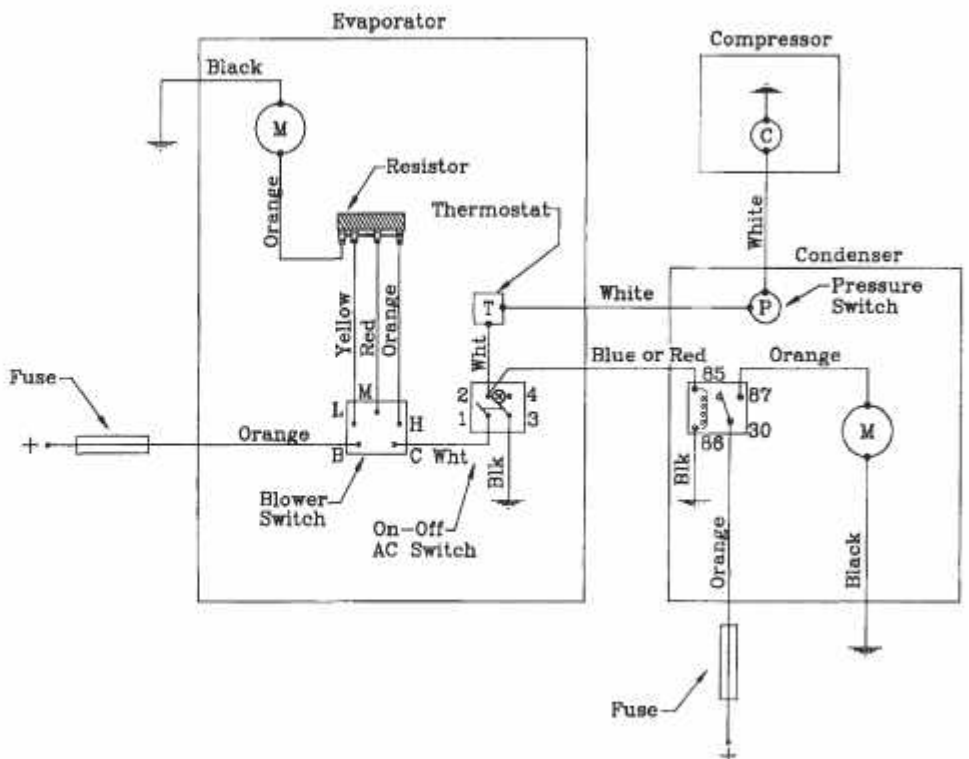
Wiring Schematics

HEATING-AC SYSTEM WITH FAN CONDENSER

BLOWER SWITCH

- Off - Off
- L - Low Speed
- M - Medium Speed
- H - High Speed

The "C" circuit will close when the blower is on.



Operating Instructions For AC Systems

Mobile Climate Control

HOT CLIMATE

1. Turn on AC mode.
2. Close heater control valve.
3. Set air recirculation to maximum for the first 5-10 minutes to assure rapid cool down.
4. Set AC thermostat to maximum.
5. Turn blower switch to high.

When desired cab temperature has been reached, increase fresh air blend by adjusting air recirculation towards minimum. Adjust AC thermostat setting and fan speed as desired.

MODEST CLIMATE

1. Turn off AC and close heater control valve.
2. Set air recirculation to minimum.
3. Adjust blower as desired.

HIGH HUMIDITY AND DEMISTING

Even though the ambient temperature is in your comfort zone, the air humidity might reach unacceptable levels. The HVAC system can also be used as a dehumidifier.

1. Turn on AC mode.
2. Set air recirculation to medium position.
3. Set AC thermostat to minimum.
4. Turn blower switch to low/medium.
5. Adjust heater control valve as desired.

COLD CLIMATE

1. Turn off AC mode.
2. Open heater control valve to maximum.
3. Set air recirculation to maximum for the first 5-10 minutes to assure rapid warm-up.
4. Turn blower switch to high.

When desired cab temperature has been reached, increase fresh air blend by adjusting air recirculation towards minimum. Adjust heater control valve setting and blower speed as desired.

MAINTENANCE

The fresh air filter must be cleaned sometimes as often as twice a day, depending on the operating environment. This is done by removing the filter and shaking it. Air pressure can also be used to blow out dust. The filter will clean outside air when pressurizing the cab. The filter should be replaced when required.

The recirculation air filter is made of aluminum mesh or open cell foam and should be cleaned with water. A mild detergent may also be used. It does not require cleaning as frequently as the fresh air intake filter.

The AC system must be turned on for at least 5 minutes weekly throughout the year to lubricate internal components.

Inspect the sight glass on the Receiver Drier (RD) weekly, or if the AC system does not perform to its fullest capacity. Bubbles indicate that the system is due for recharging. This occurs approximately every second year. If the RD is equipped with a moisture indicator, make sure the color is blue (OK). If beige, the system needs to be recharged and refrigeration oil replaced. Please see AC installation instructions.

If recharging is required more frequently, a complete system leak test should be performed.

It is a good rule to regularly inspect (weekly) the compressor drive belt tension and wear. The condenser should be kept clean and the function of the electrical motors on the remote condensers (if any) should be checked frequently.

To minimize compressor damages and repair costs, do not use the AC system when recharging is due or when the system is not operating adequately.

AC Installation Instructions

Mobile Climate Control

FOR MCC DESIGNED SYSTEMS USING THE SELTEC TM13HD, TM15HD AND TM16HD COMPRESSORS.

CONDENSER:

The larger condenser inlet fitting (#8 hose) which is connected to the compressor discharge side, should be located at the top of the radiator mounted condensers. The refrigerant condenses to a liquid in the condenser. The outlet (#6 hose) which is connected to the receiver drier, should be located at the bottom. **The condenser can be installed flat, but must never be installed with the liquid outlet higher than the inlet.**

RECEIVER DRIER:

Do not open seals on fittings until the system is ready to be vacuumed. The desiccant material in the receiver drier is very moisture sensitive. It is designed to attract moisture in the refrigerant. Nitrogen (N) is injected into the receiver drier to prevent moisture from using up the desiccant material prior to installation. Some receiver driers from MCC are equipped with a moisture indicator. A blue "dot" on a screw threaded into the tank will turn beige when the moisture content reaches an unacceptable level. If this occurs, follow the procedures under "Leaking Systems and Replacing Components".

REFRIGERANT HOSE WITH FITTINGS:

When performing leak testing on a refrigerant hose, pay special attention to pin pricking and hose ends. A double braided hose is used for refrigerant systems. The hose is pin pricked down to the braiding for evacuation of air when the hose is under pressure. Do not confuse a refrigerant leak with the purging of air. Use an electronic refrigerant leak detector to determine refrigerant leaks. A thermoplastic inner-liner installed inside of the braiding will break if the hose radius is less than 4 times the hose OD.

Lubricate O-rings with mineral or ester oil prior to installation. There are two different types of fittings used in A/C systems: All steel for heavy duty applications like construction machinery and aluminum for lighter duty applications like agricultural machinery. A steel ferrule and nut are also used on aluminum fittings.

The following torque specifications should be used for the various fittings. Use the table as follows:

If steel fittings are installed on a receiver drier, cast iron compressor connection or charge fitting, use the "steel to steel" column. If installed on an aluminum block valve or brass condenser connection, use the "one side aluminum or brass" column.

For aluminum fittings, use the "one side aluminum or brass" column.

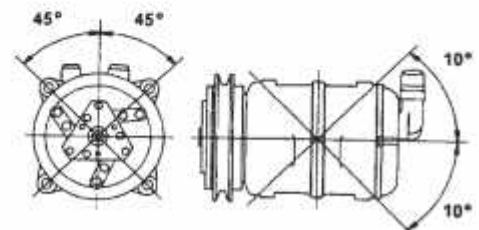
Metal tube OD	Thread size	Steel to Steel		One side Alu or Brass	
		lb. ft.	Nm	lb. ft.	Nm
0.375	5/8	30-35	41-48	11-13	15-18
0.5	3/4	30-35	41-48	15-20	20-27
0.625	7/8	30-35	41-48	21-27	29-37
0.75	1-1/16	30-35	41-48	28-33	38-45

Note: Do not connect hoses to moisture sensitive parts like the receiver drier and compressor if the system cannot be vacuumed and charged within 1 hour.

COMPRESSOR: SEE ALSO THE COMPRESSOR SERVICE MANUAL.

Do not open seals on fittings until the system is ready to be vacuumed. The compressor is filled with refrigeration PAG oil (which is very moisture sensitive) and with nitrogen (N). Unlike engine oil, it is not necessary to check or change the compressor oil. Never leave the compressor upside down for periods longer than 30 seconds. The permissible compressor speed is 700-6000 RPM. It is important that the compressor speed is adapted to the performance of other components in the system.

The compressor must be positioned within the range indicated in the picture.



AC Installation Instructions

Mobile Climate Control

REFRIGERANT CHARGE:

Vacuum the system for 30 minutes, preferably with a two stage pump. There are two methods in determining the correct refrigerant charge. Run the system at maximum capacity and the blower at highest speed with the cab doors fully open for 5 minutes after the initial charge.

1. Have one person inspecting the sight glass on the receiver drier at all times. Remove the protective foil covering the glass. Pre-charge the system with an amount below correct estimated charge. The bubbles will make the glass grayish. Charge with 3 oz (0.09 kg) of refrigerant and allow the system to stabilize for 2 minutes. Repeat until sight glass clears. Liquid will be present at the receiver drier when the glass clears. Add 8 oz (0.23 kg) of refrigerant to top up the receiver drier.
2. Charge the system with an amount estimated to be the correct amount. Add 3 oz (0.09 kg) of refrigerant and allow to stabilize for 2 minutes. Repeat until the high pressure increases rapidly. The receiver drier contains 100% liquid at this time. Remove 8 oz (0.23 kg) of refrigerant.

REFRIGERATION OIL CHARGE:

The compressor is pre-filled with PAG (Poly Alkelene Glycol) oil, Selttec type ZXL 100. The pre-filled amount will support an A/C system charged with up to 2 lb. 14 oz or 1.3 kg of refrigerant. This amount represents the size of an A/C system in a passenger car. Most off-road A/C systems are considerably larger and require an additional oil charge as listed below.

To retain a valid warranty, Selttec ZXL 100 oil must be used. Add oil to the suction port of the compressor prior to vacuuming, or use the automatic oil injector on the charge station (if available). Add an estimated correct amount of oil to the system when initially determining the refrigeration charge.

Note: If the amount of refrigeration oil used is lower than recommended, the life expectancy of the compressor will be reduced.

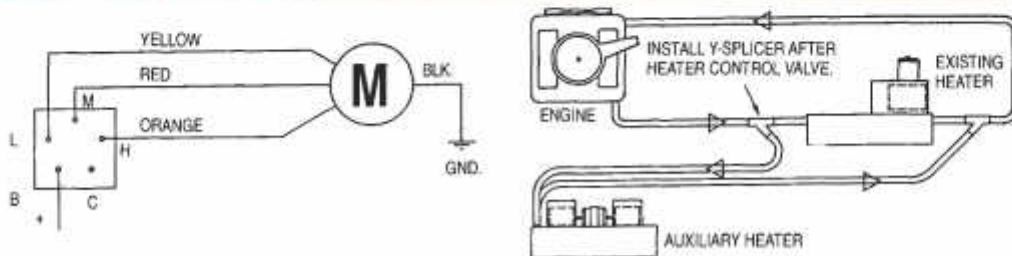
REFRIGERANT CHARGE (WEIGHT)						ADD PAG OIL (VOLUME)					
lb.	oz	-	lb.	oz		kg	-	kg	fl oz	dl	cm ³
2	14	-	3	5		1.3	-	1.5	2.0	0.6	60
3	5	-	3	11		1.5	-	1.7	2.4	0.7	70
3	11	-	4	3		1.7	-	1.9	3.0	0.9	90
4	3	-	4	10		1.9	-	2.1	4.1	1.2	120
4	10	-	5	2		2.1	-	2.3	5.0	1.4	140

LEAKING SYSTEMS AND REPLACING COMPONENTS:

Refrigerant leaks and component replacement require the oil and receiver drier to also be replaced.

1. Drain the oil in the compressor through the drain plug, suction and discharge fittings while rotating clutch simultaneously.
2. Replace the oil in the compressor with the original amount (printed on the compressor) plus the add on amount established for the system, minus one fl oz (30 cm³).
3. Replace the receiver drier.

Heater Installation Schematics

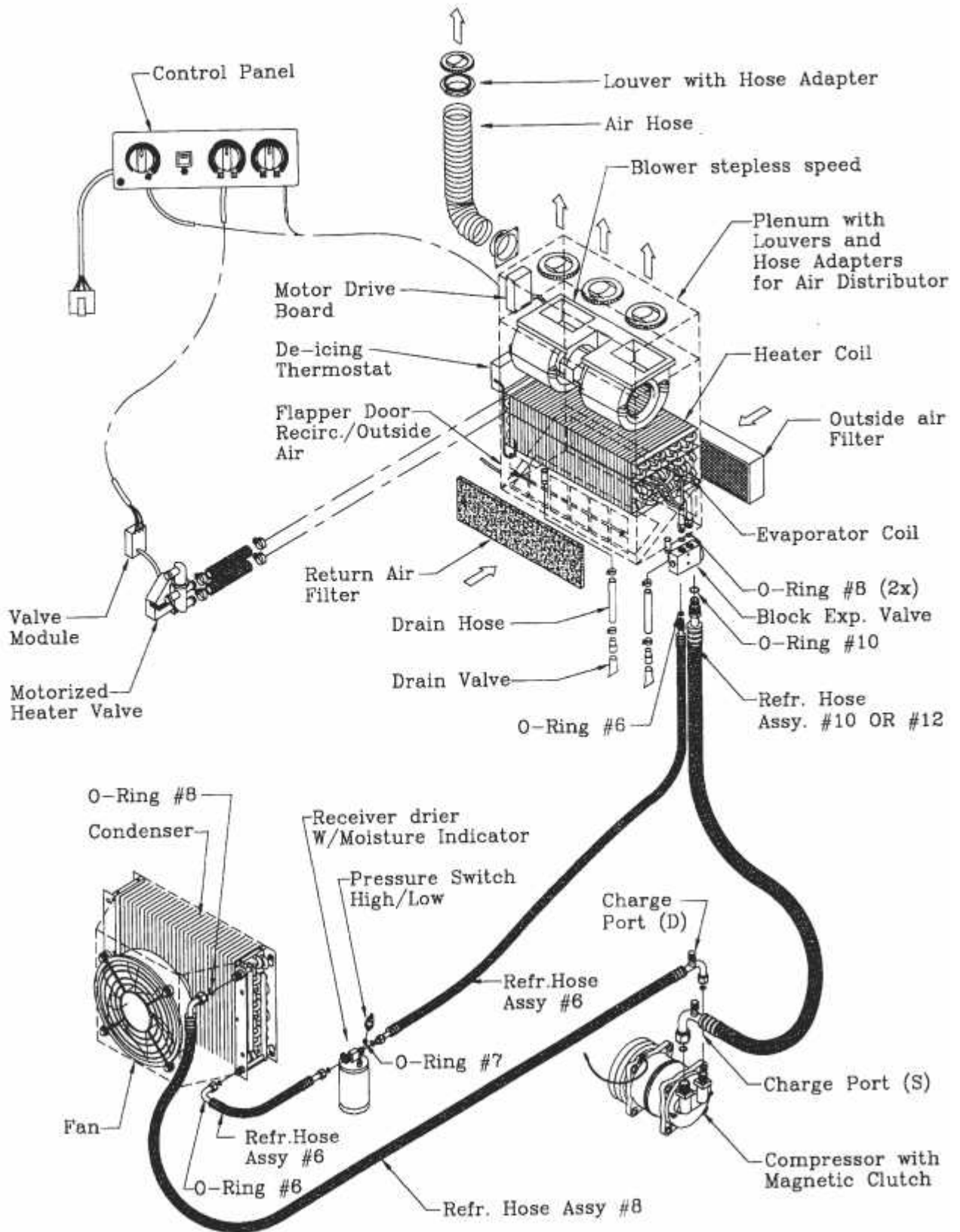


POWER SUPPLY B+ MUST BE FUSED. USE 15 - 20 AMP FUSE. L = LOW SPEED M = MEDIUM SPEED HIGH = HIGH SPEED

The hose clamp torque specification for the 5/8" ID heater hose varies from 16 lb. ft. or 22 Nm to 35 lb. ft. or 47.6 Nm. It is essential to re-tighten non constant torque clamps regularly. For ducted units, use air hose to connect to louvers. Avoid running blower with all louvers closed as this will reduce motor life.

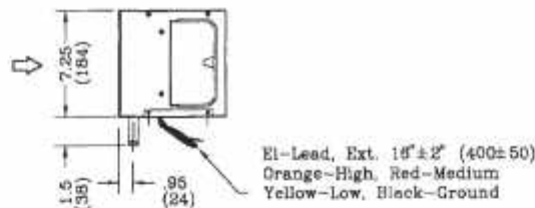
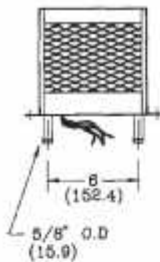
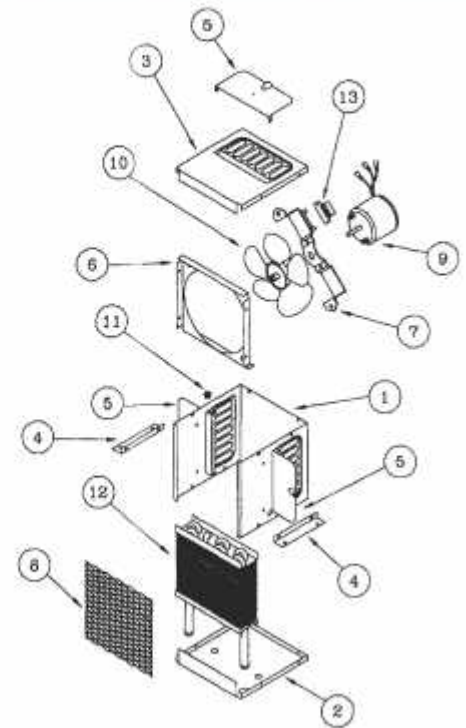
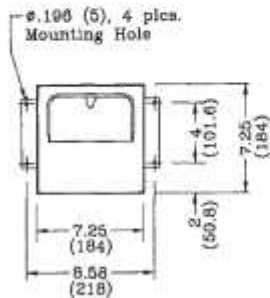
Air Conditioning Installation Schematic

Mobile Climate Control



MCC Fan Heater Model 201

Mobile Climate Control



Part Descriptions: Specifications

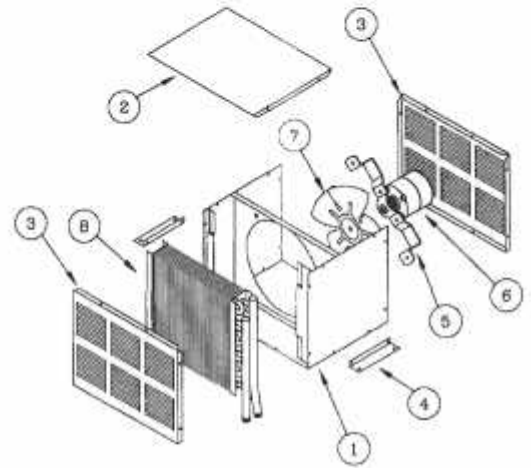
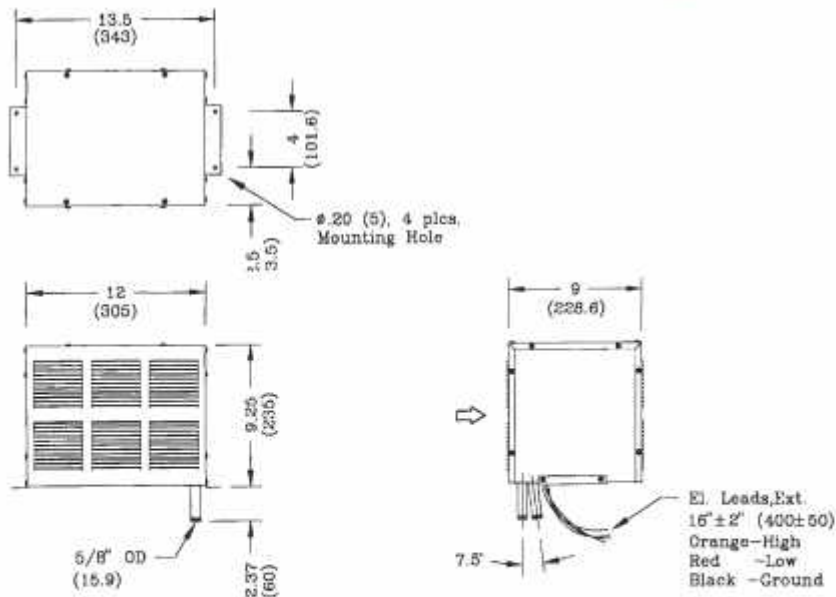
Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
12-0103	Heater 12V	1	24-0135	Casing	8	24-0172	Coil Protector
12-0102	Heater 24V	2	24-0136	Cover	9	25-0105	Motor 12V
		3	24-0137	Cover		25-0107	Motor 24V
		4	24-0133	Mounting Bracket	10	25-0023	Fan
		5	23-0009	Door (3 Pcs.)	11	28-0014	Grommet
		6	24-0138	Venturi	12	22-0042	Heater Coil
		7	24-0113	Motor Bracket	13	25-0095	Resistor
Specifications							
Heating	-13500 Btu/h (3960 W)						
Air Flow	-185 CFM (315 m ³ /h)						
Current	-5.8 Amps/12V -2.9 Amps/24V						
Weight	-7.5 lbs. (3.4 kg)						
3-Speed operated motor.							

FEATURES

The compact design of the 201 is ideal for dash or under seat mounting. Air is delivered to sides of unit and can be controlled by air doors.

MCC Fan Heater Model 209

Mobile Climate Control



Part Descriptions: Specifications

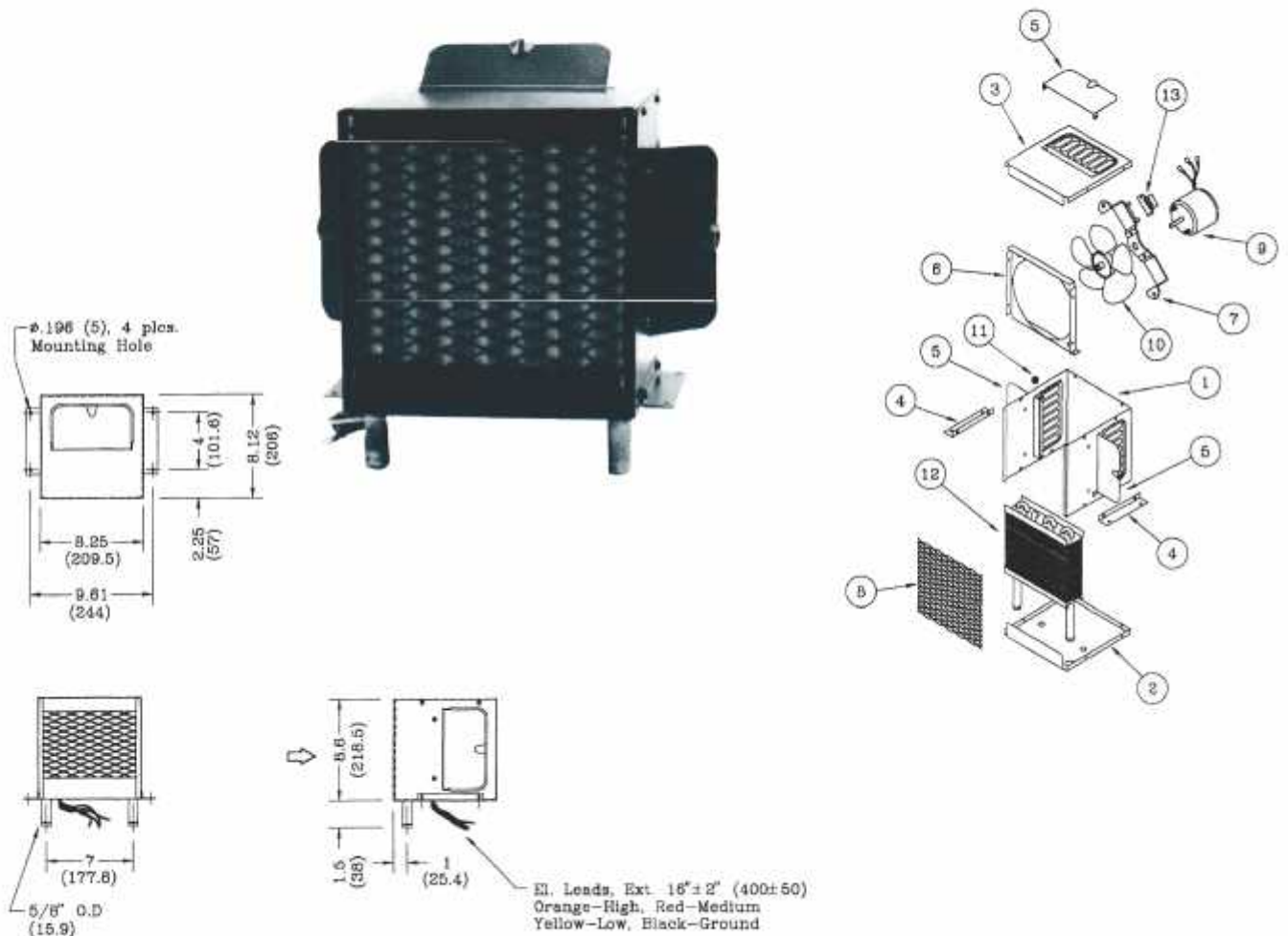
Part No.		No.	Part No.	Description
12-0903	Heater 12V	1	24-0353	Casing
12-0904	Heater 24V	2	24-0354	Cover
		3	24-0355	Grill
		4	24-0133	Mounting Bracket
		5	24-0223	Motor Bracket
		6	25-0344	Motor 12V
			25-0107	Motor 24V
		7	25-0121	Fan C.W. (8")
		8	22-0029	Heater Coil
Specifications				
Heating	- 32000 Btu/h (9380 W)			
Air Flow	- 350 CFM (595 m ³ /h)			
Current	- 12 Amps/12V			
	- 6 Amps/24V			
Weight	- 25.5 lbs. (11.5 kg)			
2-Speed motor.				

FEATURES

High capacity design can be used as auxiliary heater for bus, or as stand alone cab heater.

MCC Fan Heater Model 211

Mobile Climate Control



Part Descriptions: Specifications

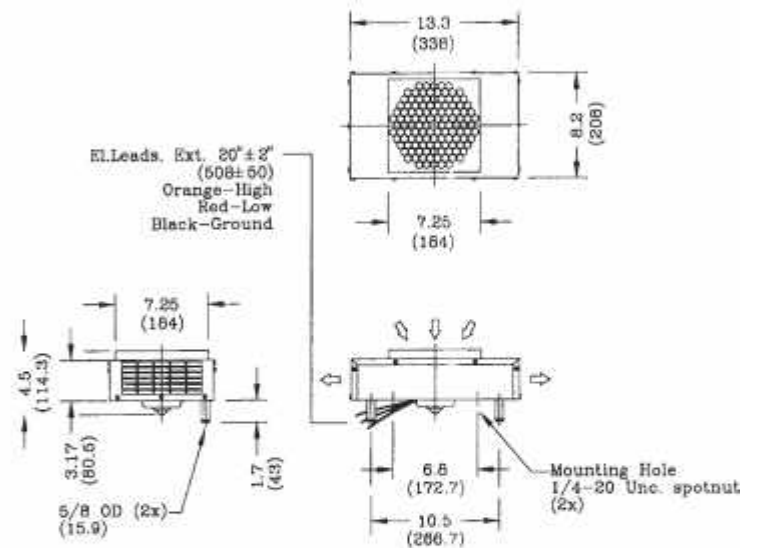
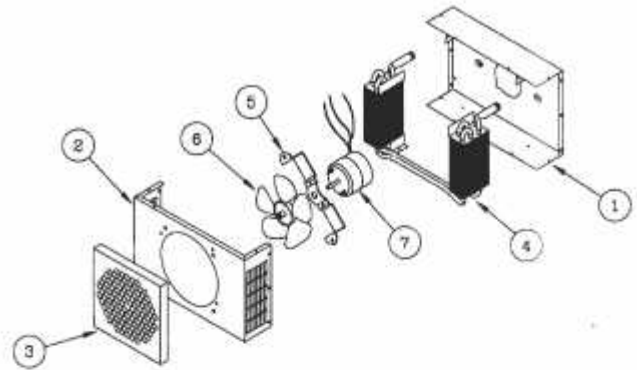
Part No.		No.	Part No.	Description	No.	Part No.	Description
12-1103	Heater 12V	1	24-0140	Casing	9	25-0105	Motor 12V
12-1104	Heater 24V	2	24-0142	Cover		25-0107	Motor 24V
		3	24-0143	Cover	10	25-0023	Fan
		4	24-0133	Mounting Bracket	11	28-0014	Grommet
		5	23-0009	Door (3 Pcs.)	12	22-0023	Heater Coil
		6	24-0141	Venturi	13	25-0095	Resistor
		7	24-0113	Motor Bracket			
		8	24-0171	Coil Protector			
Specifications							
Heating	-21000 Btu/h (6150 W)						
Air Flow	-265 CFM (450 m ³ /h)						
Current	-5.8 Amps/12V						
	-2.9 Amps/24V						
Weight	-9 lbs. (4 kg)						
3-Speed motor.							

FEATURES

Similar design as our popular 201. The 211 offers a higher quality heater with controllable air doors.

MCC Fan Heater Model 213

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-1301	Heater 12V	1	24-1120	Casing
12-1302	Heater 24V	2	24-1121	Cover
		3	25-1122	Fan Guard
		4	22-0196	Heater Coil
		5	24-0110	Motor Bracket
		6	25-0023	Fan
		7	25-0105	Motor 12V
			25-0107	Motor 24V

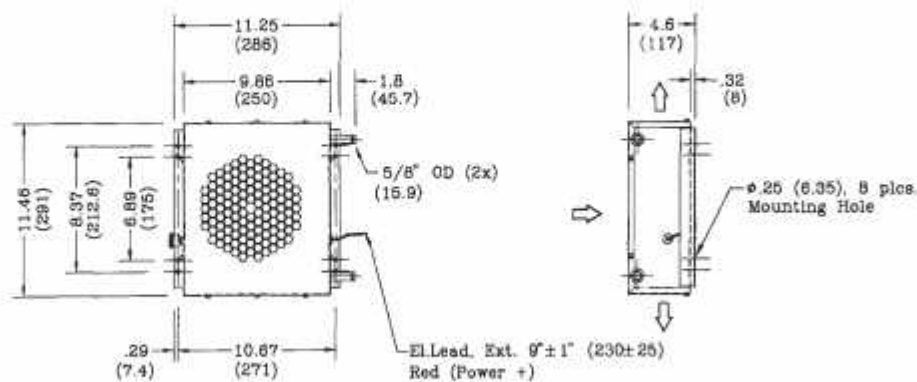
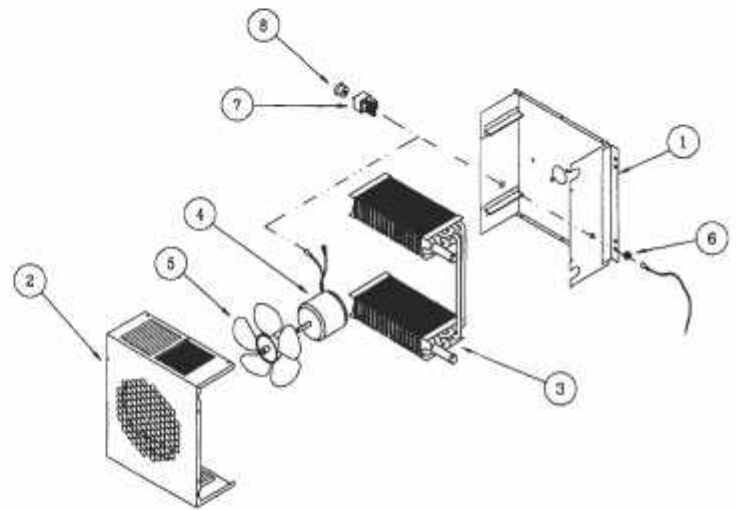
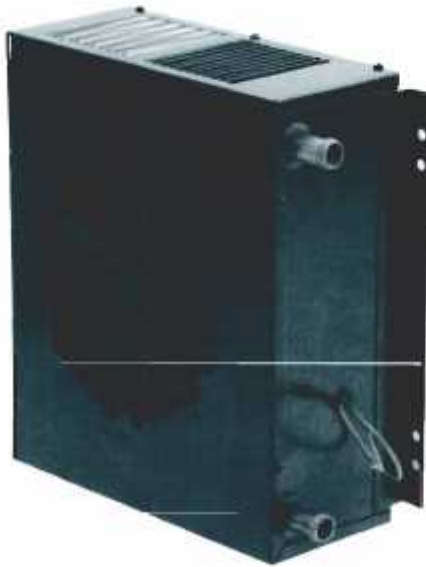
Specifications	
Heating	-12500 Btu/h (3660 W)
Air Flow	-150 CFM (255 m ³ /h)
Current	- 5.8 Amps/12V - 2.9 Amps/24V
Weight	- 7 lbs. (3.2 kg)
2-Speed motor.	

FEATURES

Slim design allows for mounting in tight spots. Can be wall mounted with heater connectors exiting the back of the unit.

MCC Fan Heater Model 214

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-1411	Heater 12V	1	24-0042	Casing
12-1412	Heater 24V	2	24-0043	Cover
		3	22-0073	Heater Coil
		4	25-0039	Motor 12V
			25-0043	Motor 24V
		5	25-0015	Fan
		6	28-0014	Grommet
		7	25-0028	Switch
		8	25-0067	Knob

Specifications	
Heating	-18500 Btu/h (5420 W)
Air Flow	-175 CFM (300 m ³ /h)
Current	-4.4 Amps/12V -2.2 Amps/24V
Weight	-9 lbs. (4 kg)

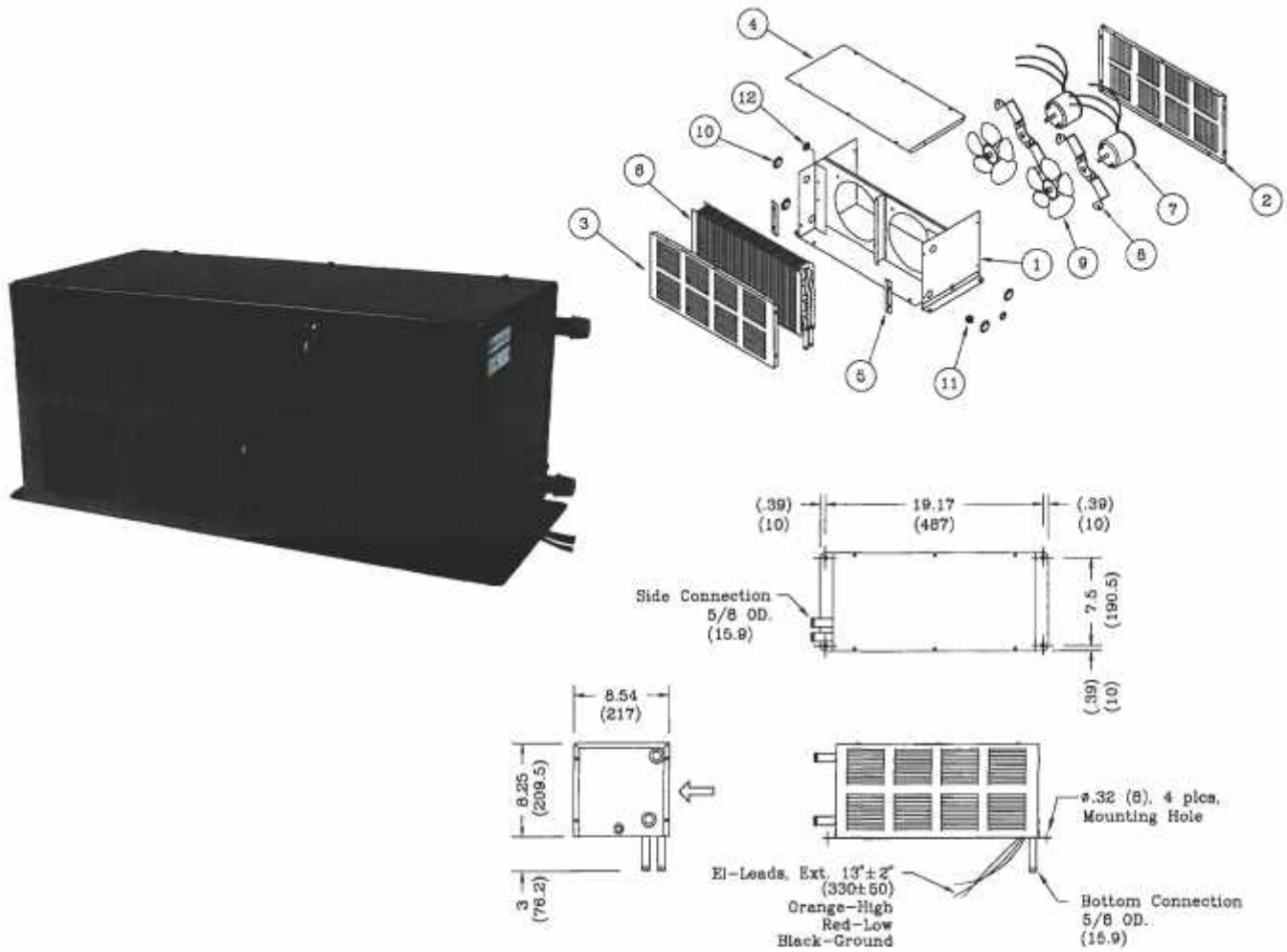
3-Speed motor and internally grounded.

FEATURES

With a larger capacity than the 213, the 214 offers flexible mounting solutions for wall mount situations. Fittings exit the side of the 214.

MCC Fan Heater Model 216

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No	Part No.	Description	No	Part No.	Description
12-1601	Heater 12V -R.H.C.	1	24-0130	Casing	7	25-0105	Motor 12V
12-1602	Heater 24V -R.H.C.	2	24-0131	Grill (Inlet)		25-0107	Motor 24V
12-1621	Heater 12V -B.C.	3	24-0132	Front (Outlet)	8	24-0110	Motor Bracket
12-1622	Heater 24V -B.C.	4	24-0105	Cover	9	25-0023	Fan
		5	24-0146	Coil Support	10	28-0010	Snap-in Plug
			24-0162	Coil Support (B.C.)	11	28-0004	Grommet
			24-0163	Coil Support (B.C.)	12	28-0011	Snap-in Plug
		6	22-0038	Heater Coil			
			22-0039	Heater Coil (B.C.)			

Specifications

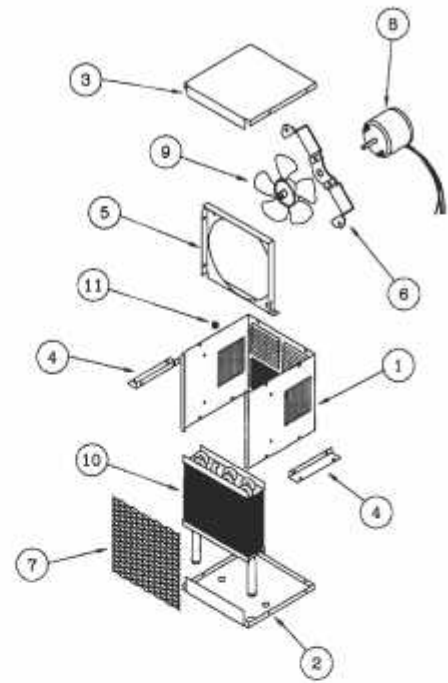
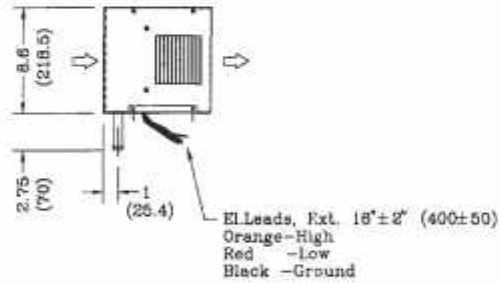
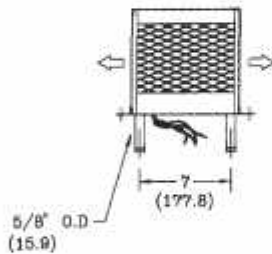
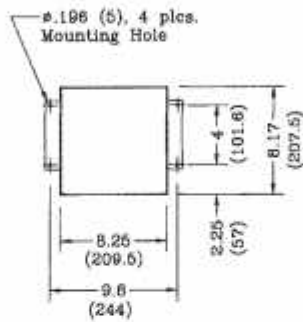
Heating	-42000 Btu/h (12300 W)
Air Flow	-500 CFM (850 m ³ /h)
Current	-11.6 Amps/12V -5.8 Amps/24V
Weight	-18.5 lbs. (8.4 kg)
2-Speed motor.	

FEATURES

High capacity heating solution for buses, fire trucks and truck bodies. The 216 delivers maximum performance for large capacity heating requirements.

MCC Fan Heater Model 222

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-2251	Heater 12V	1	24-0167	Casing
12-2252	Heater 24V	2	24-0142	Cover
		3	24-0161	Cover
		4	24-0133	Mounting Bracket
		5	24-0141	Venturi
		6	24-0110	Motor Bracket
		7	24-0171	Coil Protector
		8	25-0105	Motor 12V
			25-0107	Motor 24V
		9	25-0023	Fan
		10	22-0033	Heater Coil
		11	28-0014	Grommet

Specifications

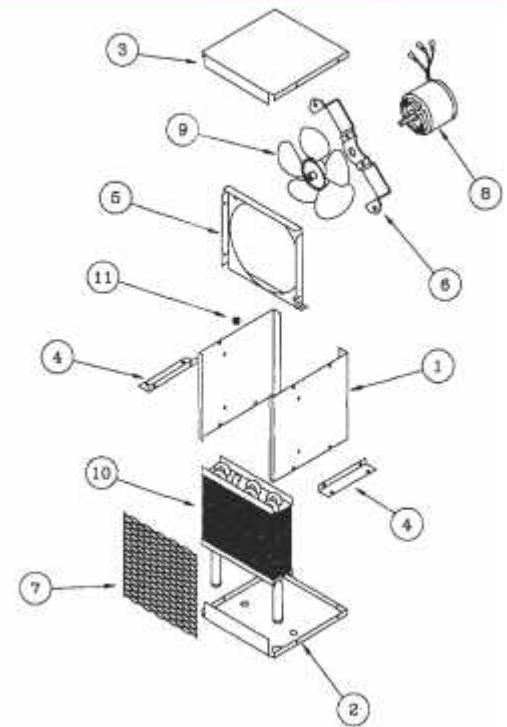
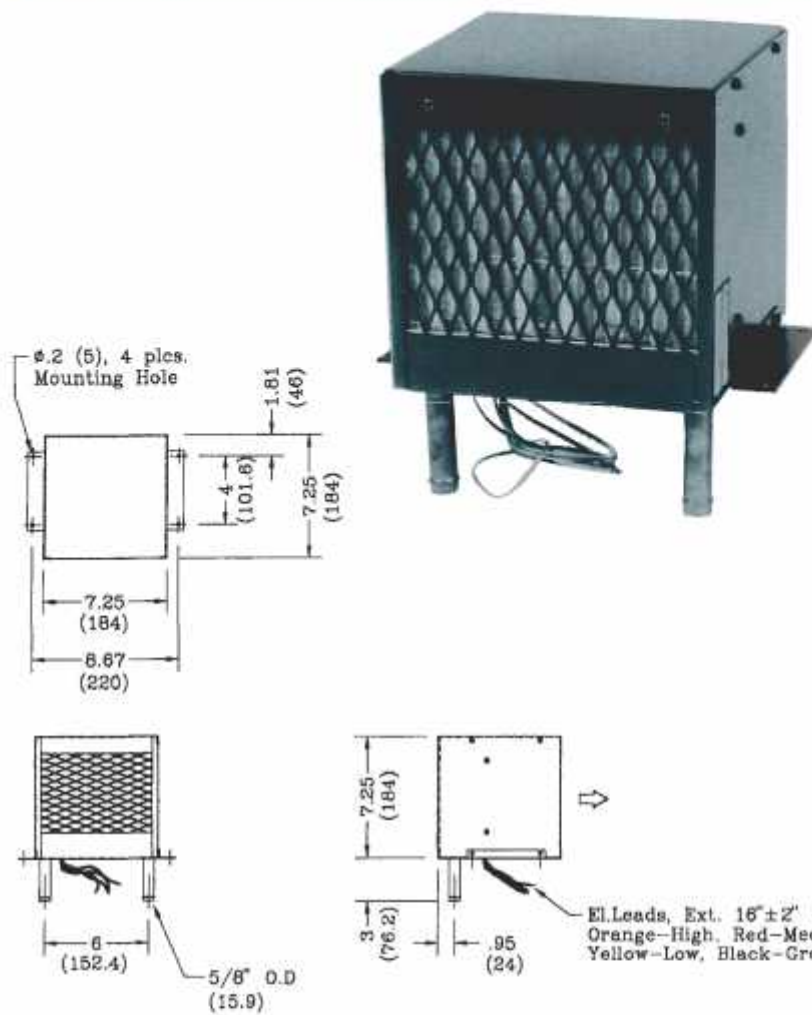
Heating	-21000 Btu/h (6150 W)
Air Flow	-265 CFM (450 m ³ /h)
Current	-5.8 Amps/12V
	-2.9 Amps/24V
Weight	-9 lbs. (4 kg)
2-Speed motor.	

FEATURES

The compact design of the 222 is ideal for dash or under seat mounting.

MCC Fan Heater Model 226

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-2611	Heater 12V	1	24-0173	Side Plate
		2	24-0136	Cover
		3	24-0160	Cover
		4	24-0133	Mounting Bracket
		5	24-0138	Venturi
		6	24-0110	Motor Bracket
		7	24-0172	Coil Protector
		8	25-0105	Motor 12V
		9	25-0023	Fan
		10	22-0052	Heater Coil
		11	28-0014	Grommet

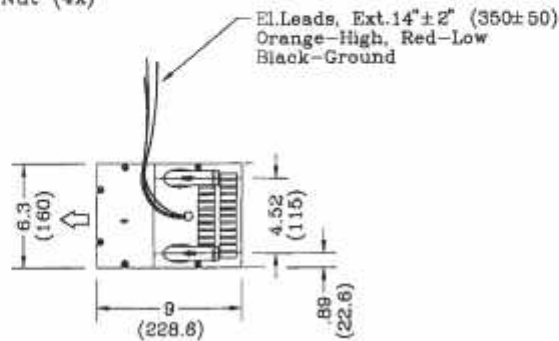
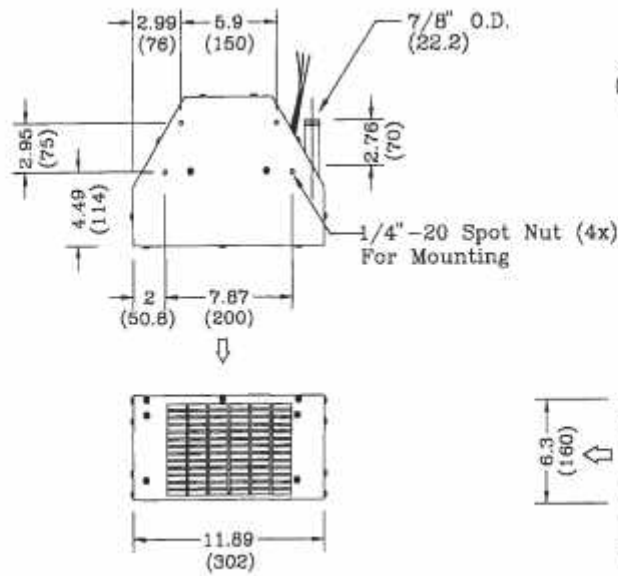
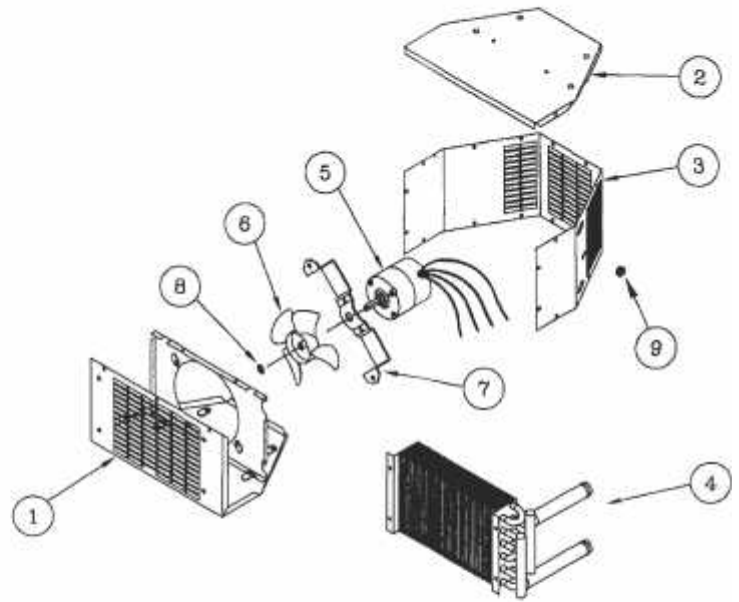
Specifications	
Heating	-13500 Btu/h (3960 W)
Air Flow	-185 CFM (315 m ³ /h)
Current	-5.8 Amps
Weight	-4.5 lbs. (2 kg)
2-Speed motor.	

FEATURES

The 226 was designed to offer flexible mounting and deliver air directly out to the front of the heater.

MCC Fan Heater Model 238

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-3811	Heater 12V	1	24-0147	Casing
12-3812	Heater 24V	2	24-0148	Top Cover
		3	24-0149	Side Cover
		4	22-0110	Heater Coil
		5	25-0105	Motor 12V
			25-0107	Motor 24V
		6	25-0041	Fan
		7	25-0110	Motor Bracket
		8	29-0039	Retaining Ring
		9	28-0014	Grommet

Specifications

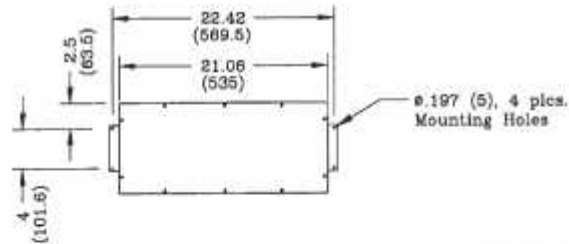
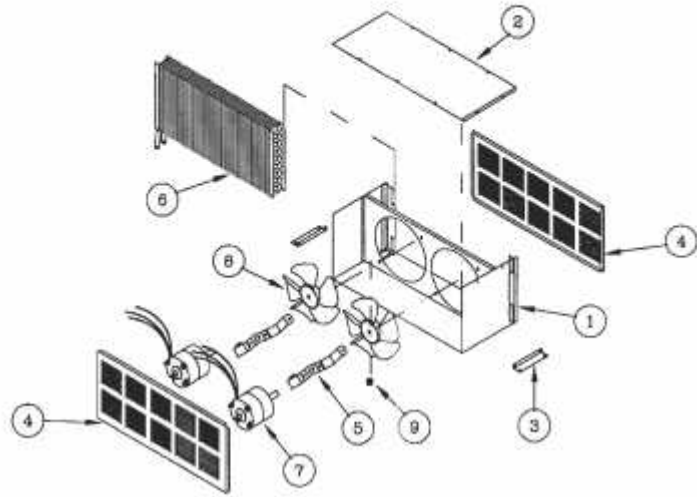
Heating	-22500 Btu/h (6600 W)
Air Flow	-250 CFM (425 m ³ /h)
Current	-4 Amps/12V -2 Amps/24V
Weight	-11.5 lbs. (5.2 kg)
2-Speed motor.	

FEATURES

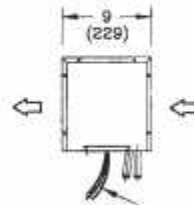
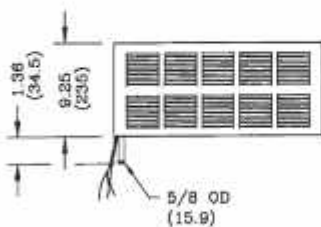
The 238 is ideal for underseat mounting. Air is disbursed to the front of the unit.

MCC Fan Heater Model 239

Mobile Climate Control



Ø.197 (5), 4 pics.
Mounting Holes



El. Leads, Ext. 16" ± 2" (400 ± 50)
Orange-High, Red-Low
Black-Ground

Part Descriptions: Specifications

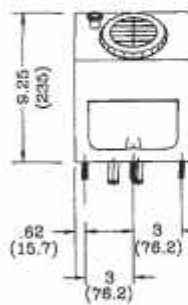
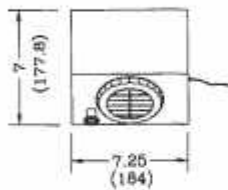
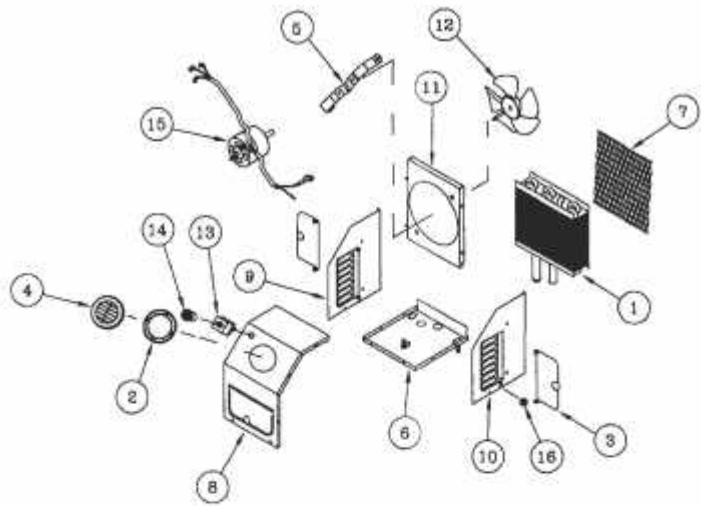
Part No.		No.	Part No.	Description
12-3903	Heater 12V	1	24-0356	Casing
12-3904	Heater 24V	2	24-0357	Cover
		3	24-0133	Mounting Bracket
		4	24-0358	Grill
		5	24-0223	Motor Bracket
		6	22-0030	Heater Coil
		7	25-0344	Motor 12V
			25-0107	Motor 24V
		8	25-0121	Fan (8" C.W.)
		9	28-0004	Grommet
Specifications				
Heating	- 64000 Btu/h (18760 W)			
Air Flow	- 800 CFM (1360 m ³ /h)			
Current	- 13 Amps/12V			
	- 6.5 Amps/24V			
Weight	- 25 lbs. (11.3 kg)			
2-Speed motor.				

FEATURES

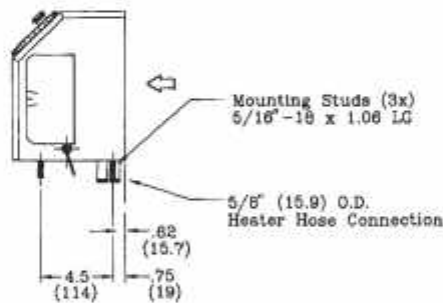
The 239 is our largest capacity fan heater - ideal for buses and other large capacity requirements.

MCC Fan Heater Model 245

Mobile Climate Control



El. Lead
Ext. $9.5 \pm 1"$
(240 ± 25)
Orange(+)



Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
12-4503	Heater 12V	1	22-0140	Heater Coil	10	24-0893	Side (R)
12-4504	Heater 24V	2	23-0048	Adapter	11	24-0894	Venturi
		3	23-0009	Door	12	25-0023	Fan (6.6" C.C.W.)
		4	23-0045	Louver	13	25-0029	Switch
		5	24-0110	Motor Bracket	14	25-0067	Knob
		6	24-0175	Base	15	25-0105	Motor 12V
		7	24-0890	Coil Protector		25-0107	Motor 24V
		8	24-0891	Cover	16	28-0014	Grommet
		9	24-0892	Side (L)			

Specifications	
Heating	-20000 Btu/h (5860 W)
Air Flow	-265 CFM (450 m ³ /h)
Current	-5.8 Amps/12V -2.9 Amps/24V
Weight	-8.5 lbs. (3.8 kg)

2-Speed motor.
Heater is internally grounded.

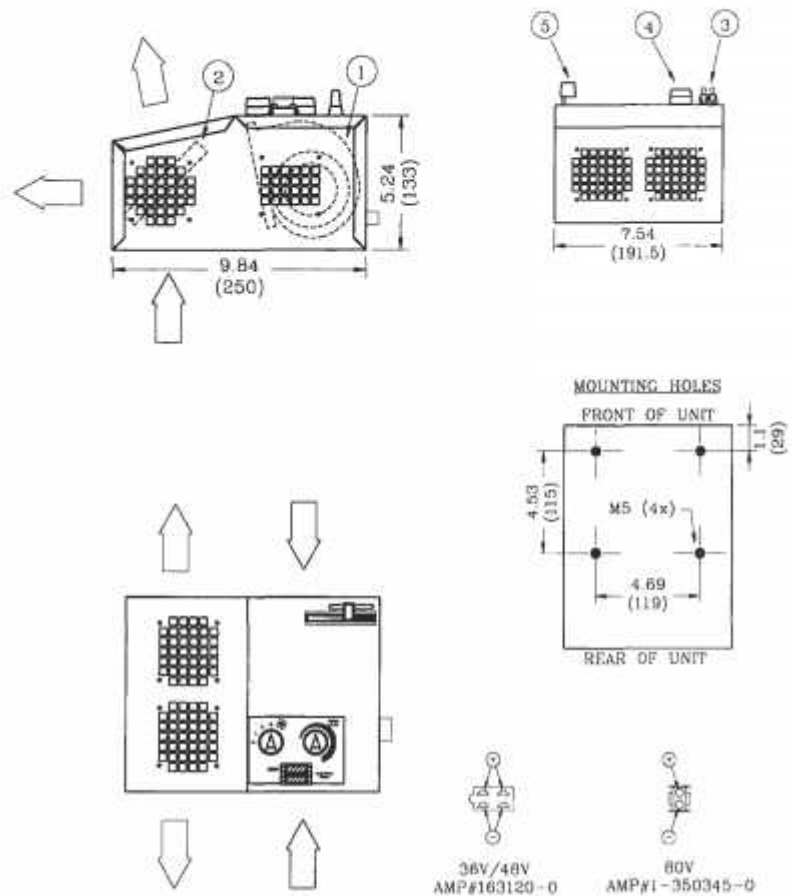
FEATURES

The 245 offers the ability to control fan speed with a control on the box. Ideal for auxiliary heaters or small cab applications.

MCC Electrical Heater Model 290

NEW

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description	
12-9036	Heater 36V	1	15-0290	Blower 24V	6	25-1181	Resistor 36V (3.3Ω)
12-9048	Heater 48V	2	25-1171	Heater Element 80V	6	25-1184	Resistor 48V (6.8Ω)
12-9080	Heater 80V	2	25-1170	Heater Element 48V	6	25-1182	Resistor 80V (15Ω)
		2	25-1169	Heater Element 36V	7	25-1185	Resistor 36V (2.2Ω)
		3	25-1172	Fuse 30A/80V At 80V	7	25-1183	Resistor 48V (4.7Ω)
		3	25-1173	Fuse 20A/80V	7	25-1179	Resistor 80V (10Ω)
		3	25-1174	Fuse 20A/32V At 36V	8	25-1180	Thermostat
		4	25-1175	Knob	9	25-1178	Relay 24V
		5	26-0712	Lever			

Items 6 through 9 are not shown.

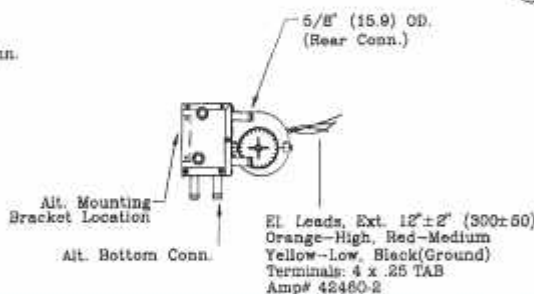
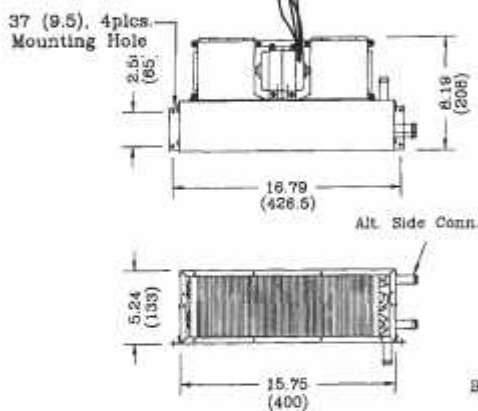
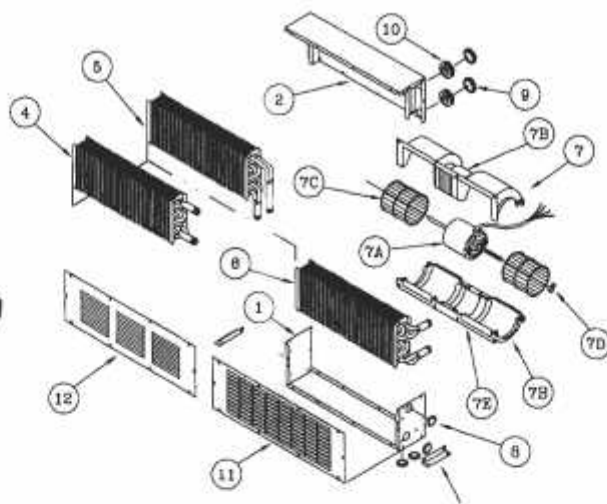
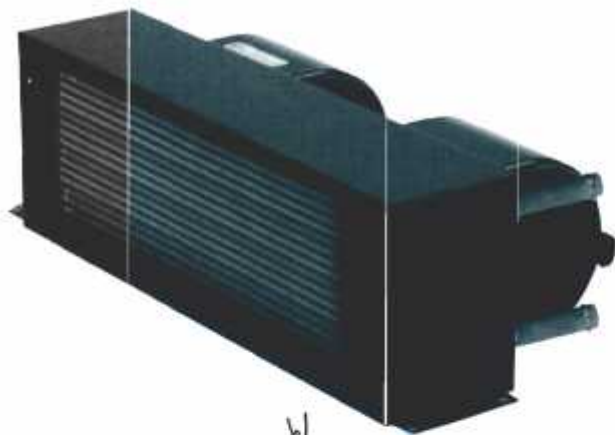
Part	MCC P/N
Casing	11.058.00.001
Cover (80V)	11.058.00.002
Cover (36/48V)	11.058.00.009
Decal	20.400.00.244

FEATURES

The heater #290 was designed by MCC Europe for use in electrical fork lift trucks. A ceramic PTC element is used in this heater. All MCC products come with a 1 year warranty.

MCC Blower Heater Model 202

Mobile Climate Control



Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
12-0203	Heater 12V - Rear Conn.	1	24-0009	Casing	7D	25-0022	Clip
12-0213	Heater 12V - Side Conn.	2	24-0008	Cover	7E	25-0020	Motor Tape
12-0204	Heater 24V - Rear Conn.	3	24-0012	Mounting Bracket	8	28-0010	Snap-in Plug
12-0214	Heater 24V - Side Conn.	4	22-0014	Heater Coil (Side Conn.)	9	28-0013	Snap-in Plug
12-0293	Heater 12V - Bottom Conn.	5	22-0021	Heater Coil (Bottom Conn.)	10	28-0005	Grommet (Rear Conn.)
Specifications		6	22-0024	Heater Coil (Rear Conn.)	11	24-0060	Grill
Heating	- 24700 Btu/h (7240 W)	7	15-0503	Blower Assy. 12V	12	24-0045	Grill
Air Flow	- 295 CFM (500 m ³ /h)		15-0504	Blower Assy. 24V	13	24-0066	Front (4 x 2" HA)
Current	- 12 Amps/12V		7A	25-0070	24-0067	Front (4 x 2 1/2" HA)	
	- 6 Amps/24V		25-0075	Motor 24V	14	23-0110	Hose Adapter 2"
Weight	- 9 lbs. (4 kg)		7B	25-0017	23-0125	Hose Adapter 2 1/2"	
3-Speed motor.			7C	25-0021			

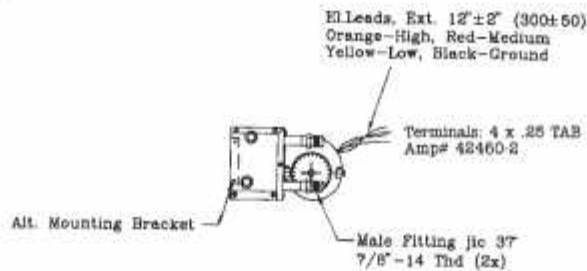
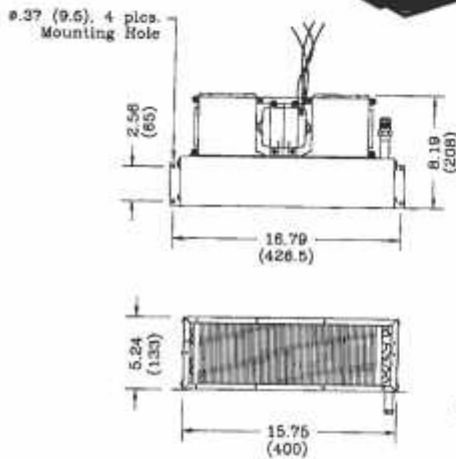
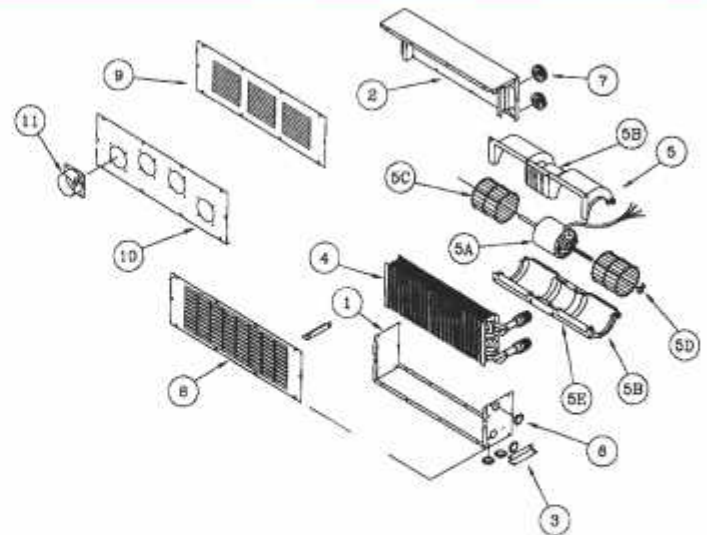
Items 11-14 are optional and have to be ordered separately.

FEATURES

The 202 offers flexible installation options to fit a wide range of applications. Can be ducted for defrost capabilities. Also available with an oil coil.

MCC Blower Heater Model 202 Oil

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
12-0253	1	24-0009	Casing	5D	25-0022	Clip
12-0254	2	24-0008	Cover	5E	25-0020	Motor Tape
	3	24-0012	Mounting Bracket	6	28-0010	Snap-in Plug
	4	22-0282	Heater Coil (Oil)	7	28-0005	Grommet
	5	15-0503	Blower Assy. 12V	8	24-0060	Grill
		15-0504	Blower Assy. 24V	9	24-0045	Grill
	5A	25-0070	Motor 12V	10	24-0066	Front (4 x 2" HA)
		25-0075	Motor 24V		24-0067	Front (4 x 2 1/2" HA)
	5B	25-0017	Blower Housing	11	23-0110	Hose Adapter 2"
	5C	25-0021	Blower Wheel		23-0125	Hose Adapter 2 1/2"

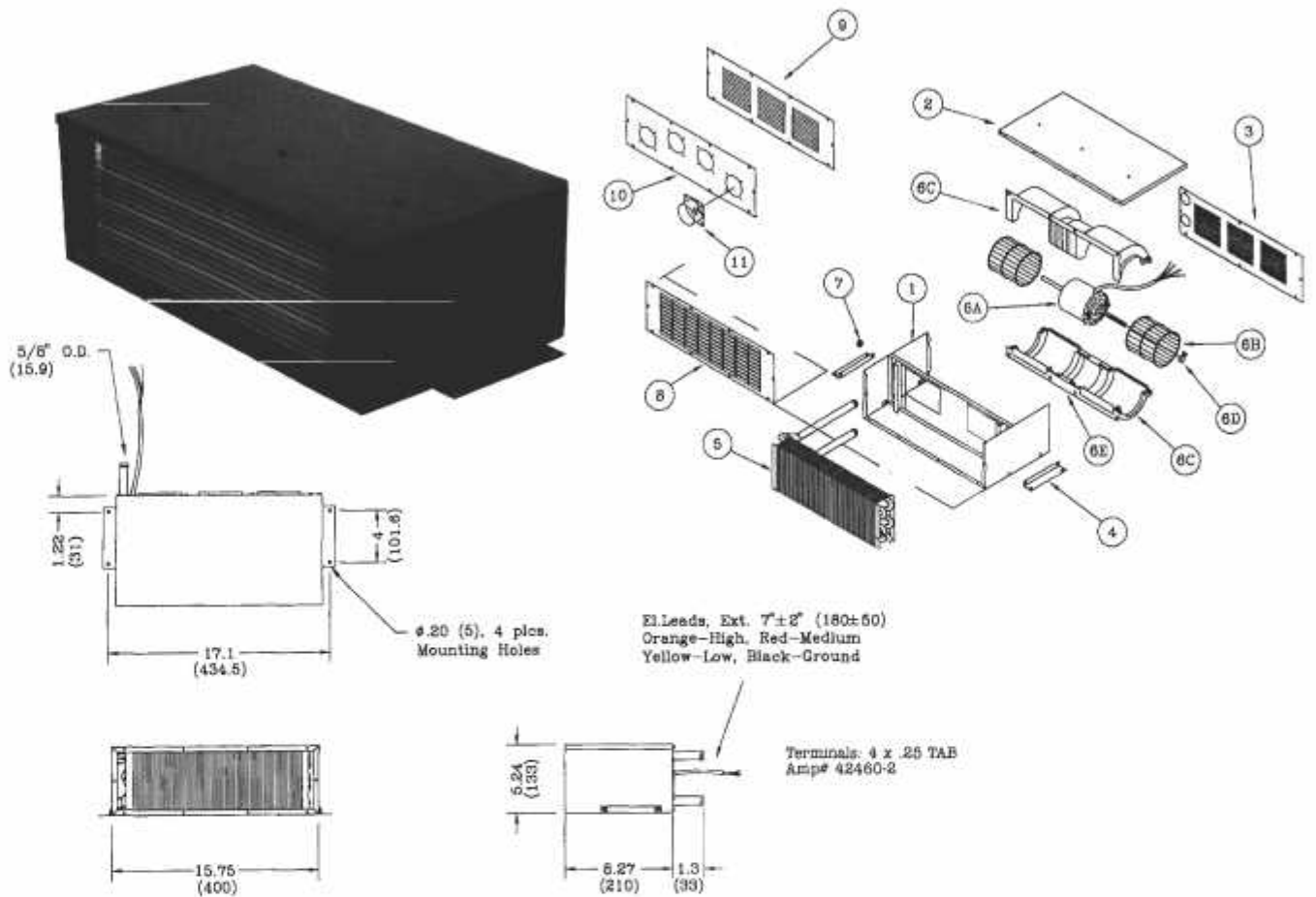
Items 8-11 are optional and have to be ordered separately.

FEATURES

The 202 offers flexible installation options to fit a wide range of applications. Can be ducted for defrost capabilities.

MCC Blower Heater Model 205

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
12-0503	1	24-0225	Casing	7	28-0014	Grommet
12-0504	2	24-0226	Cover	8	24-0060	Grill
	3	24-0199	Grill	9	24-0045	Grill
	4	24-0133	Mounting Bracket	10	24-0066	Front (4 x 2" HA)
	5	22-0060	Heater Coil		24-0067	Front (4 x 2 1/2" HA)
	6	15-0503	Blower Assy. 12V	11	23-0110	Hose Adapter 2"
		15-0504	Blower Assy. 24V		23-0125	Hose Adapter 2 1/2"
	6A	25-0070	Motor 12V			
		25-0075	Motor 24V			
	6B	25-0021	Blower Wheel			
	6C	25-0017	Blower Housing			
	6D	25-0022	Clip			
	6E	25-0020	Motor Tape			

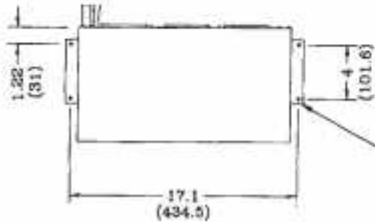
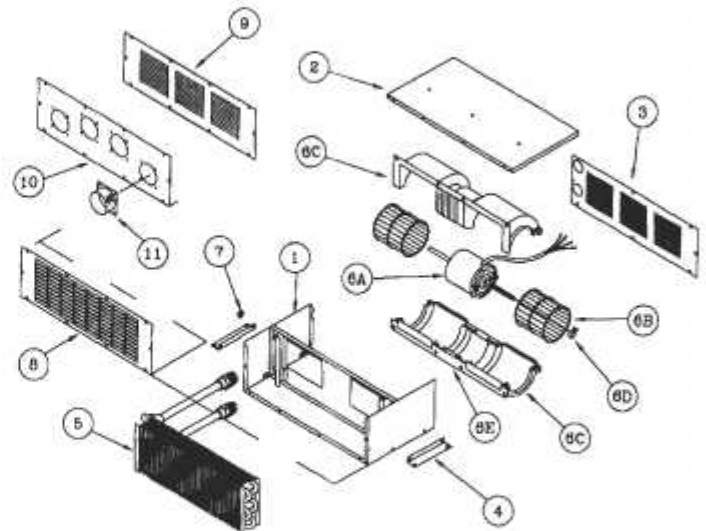
Items 8-11 are optional and have to be ordered separately.

FEATURES

A more heavy duty option than the 202. The 205 offers the same installation flexibility. Also available with an oil coil.

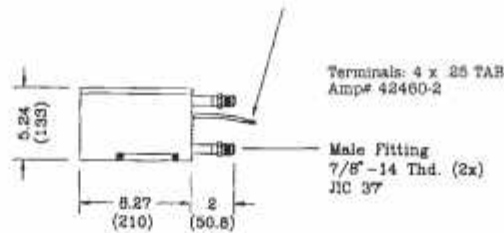
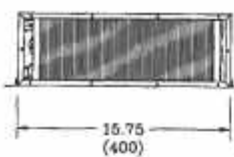
MCC Blower Heater Model 205 Oil

Mobile Climate Control



Ø.20 (5), 4 ples.
Mounting Holes

W.Leads, Ext. 7"±2" (180±50)
Orange-High, Red-Medium
Yellow-Low, Black-Ground



Terminals: 4 x 25 TAB
Amp# 42460-2

Male Fitting
7/8" -14 Thd. (2x)
JIC 37

Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
12-0553	1	24-0225	Casing	7	28-0014	Grommet
12-0554	2	24-0226	Cover	8	24-0060	Grill
	3	24-0199	Grill	9	24-0045	Grill
	4	24-0133	Mounting Bracket	10	24-0066	Front (4 x 2" HA)
	5	22-0283	Heater Coil		24-0067	Front (4 x 2 1/2" HA)
	6	15-0503	Blower Assy. 12V	11	23-0110	Hose Adapter 2"
		15-0504	Blower Assy. 24V		23-0125	Hose Adapter 2 1/2"
	6A	25-0070	Motor 12V			
		25-0075	Motor 24V			
	6B	25-0021	Blower Wheel			
	6C	25-0017	Blower Housing			
	6D	25-0022	Clip			
	6E	25-0020	Motor Tape			

Items 8-11 are optional and have to be ordered separately.

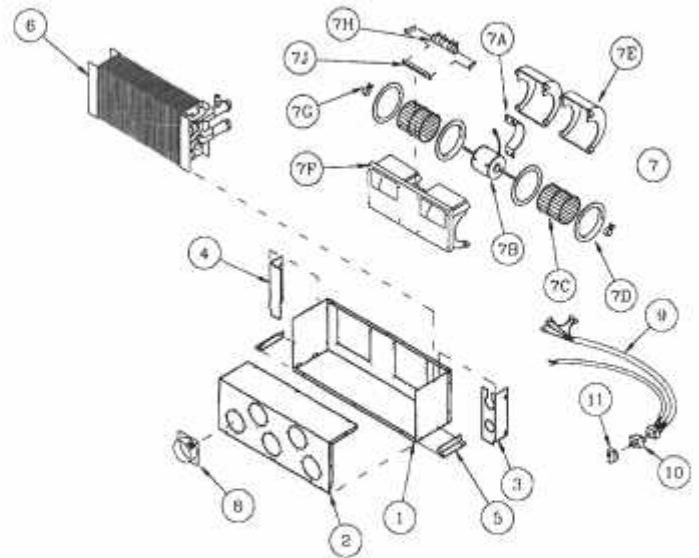
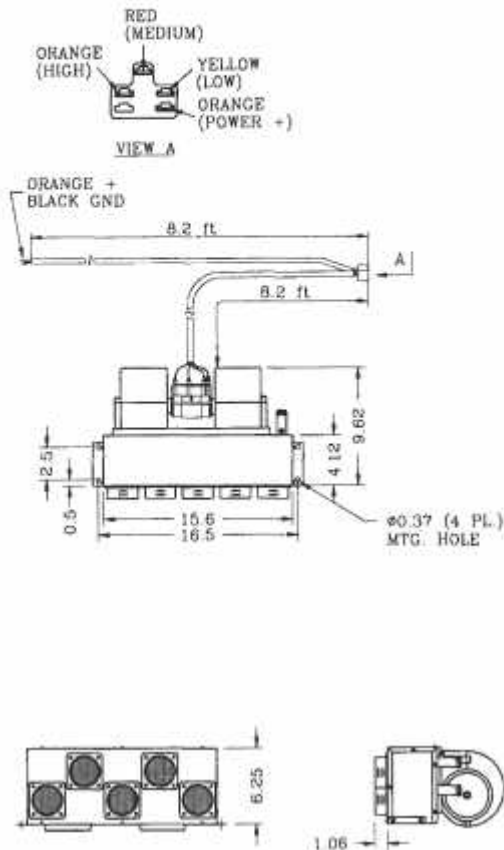
FEATURES

A more heavy duty option than the 202. The 205 offers the same installation flexibility.

MCC Blower Heater Model 212 Marine

NEW

Mobile Climate Control



DETAIL OF RESISTOR

- A - TO MOTOR (ORANGE)
- B - LOW SPEED
- C - MED. SPEED
- D - HIGH SPEED

Important! Motor is of a non-explosion proof design. The heater must be installed in areas where flammable liquids and vapors are not present.

Part Descriptions: Specifications

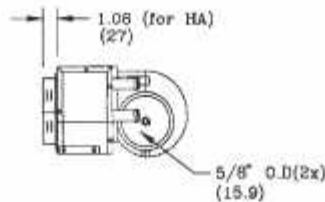
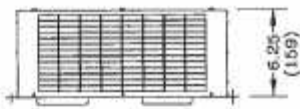
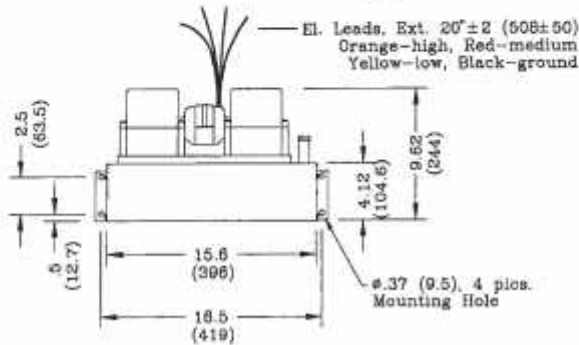
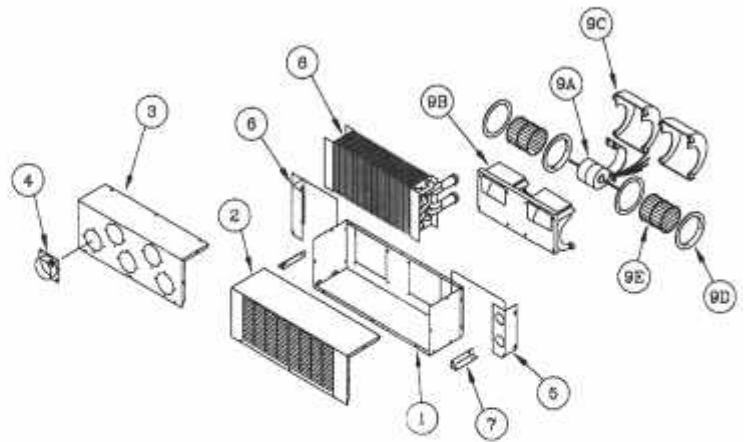
Part No.		No.	Part No.	Description	No.	Part No.	Description
12-1239	Heater 12V	1	24-3937	Casing	7D	25-0060	Venturi
		2	24-3938	Cover	7E	25-0348	Housing Top
		3	24-3939	Coil Bracket	7F	25-0048	Blower Housing
		4	24-3940	Coil Bracket	7G	28-0022	Clip
		5	24-3945	Mounting Bracket	7H	25-0601	Resistor 12V w/Bkt
		6	22-0520	Heater Coil	7J	29-0130	resistor Bracket
		7	15-1561	Blower Assy. 12V	8	23-0125	Hose Adapter 2 1/2"
		7A	25-0861	Motor Mount	9	25-1126	Wiring Hrness
		7B	25-0655	Motor 12V	10	25-0044	Switch 25 Amp
		7C	25-0200	Blower Wheel	11	25-0067	Knob
Specifications							
Heating	- 40000 Btu/h (11700 W)						
Air Flow	- 500 CFM (850 m ³ /h)						
Current	- 22 Amps/12V						
Weight	- 15 lbs. (6.8 kg)						
PM Motor	3-Speed motor.						
All Hardware	Stainless Steel						

FEATURES

This powerful version of the popular #212 family of heaters is specifically designed for the corrosive ocean environment. Coil is made of copper with stainless steel (SS) end plates. Hardware and casing are made of SS as well. Engineering plastics are used for hose adapters and blower. Details of the blower can be found in the blower section. Hose adapters make the heater suitable for ducting to windshields etc. Switch for 3 speed operation, wiring harness and knob are included.

MCC Blower Heater Model 212

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
12-1203	1	24-0055	Casing	9	15-1513	Blower Assy. 12V
12-1204	2	24-0056	Cover		15-1514	Blower Assy. 24V
12-1223	3	24-1011	Cover (5 HA's)	9A	25-0053	Motor 12V, 3-Speed
12-1224	4	23-0125	Hose Adapter 2 1/2"		25-0076	Motor 24V, 3-Speed
	5	24-0057	Coil Bracket	9B	25-0048	Blower Housing
	6	24-0058	Coil Bracket	9C	25-0348	Housing Top
	7	24-0012	Mounting Bracket	9D	25-0060	Venturi
	8	22-0090	Heater Coil	9E	25-0200	Blower Wheel
					25-0022	Clip (B.W.)

Specifications

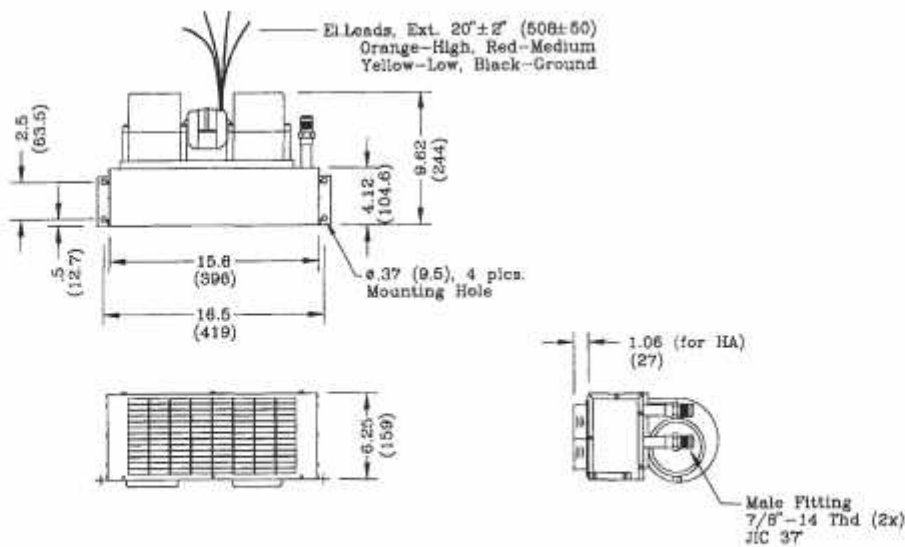
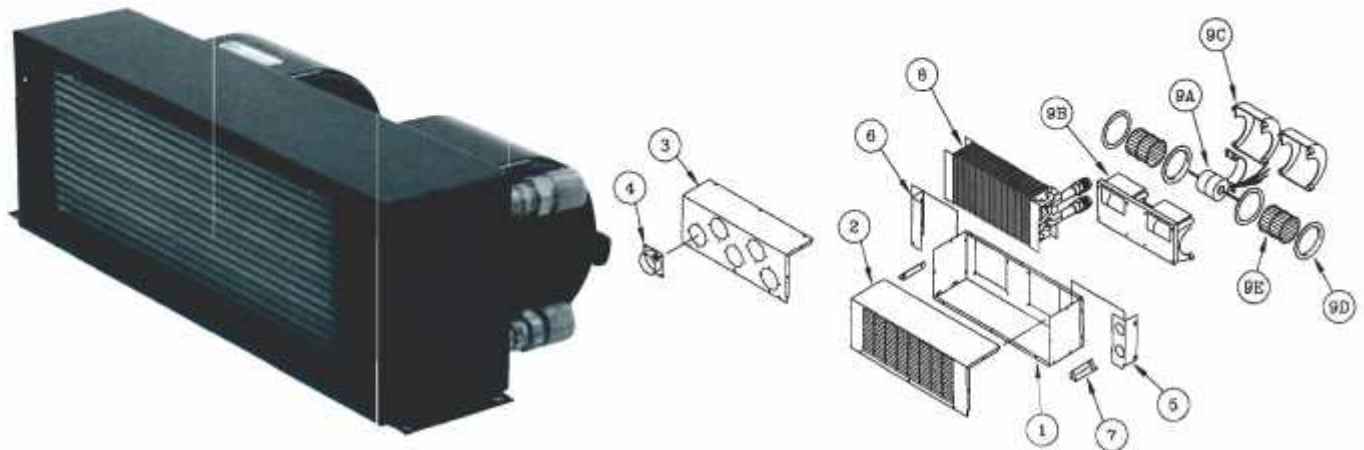
Heating	-36000 Btu/h (10550 W)
Air Flow	-400 CFM (680 m ³ /h)
Current	-14 Amps/12V -8 Amps/24V
Weight	-12 lbs. (5.5 kg)
3-Speed motor.	

FEATURES

A higher capacity heater than the 202 and 205, the 212 equipped with hose adapters offers installation flexibility for defrosting and cab ducting requirements.

MCC Blower Heater Model 212 Oil

Mobile Climate Control



Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
12-1251	Heater 12V (w.24-0056)	1	24-0055	Casing	9	15-1513	Blower Assy. 12V
12-1252	Heater 24V (w.24-0056)	2	24-0056	Cover		15-1514	Blower Assy. 24V
12-1255	Heater 12V (w.24-1011)&	3	24-1011	Cover (5 HA's)	9A	25-0053	Motor 12V, 3-Speed
12-1256	Heater 24V (23-0125)(5x)	4	23-0125	Hose Adapter 2 1/2"		25-0076	Motor 24V, 3-Speed
		5	24-0057	Coil Bracket	9B	25-0048	Blower Housing
		6	24-0058	Coil Bracket	9C	25-0348	Housing Top
		7	24-0012	Mounting Bracket	9D	25-0060	Venturi
		8	22-0284	Heater Coil (Oil)	9E	25-0200	Blower Wheel
						25-0022	Clip (B.W.)

Specifications

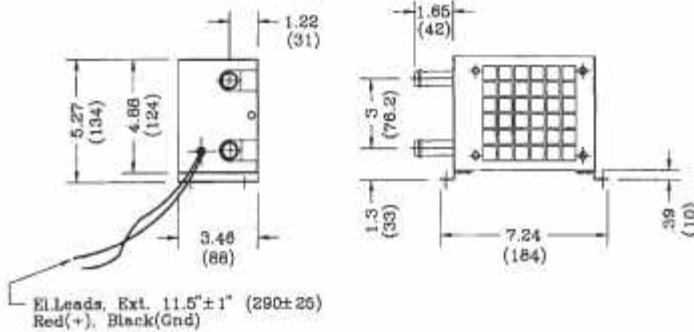
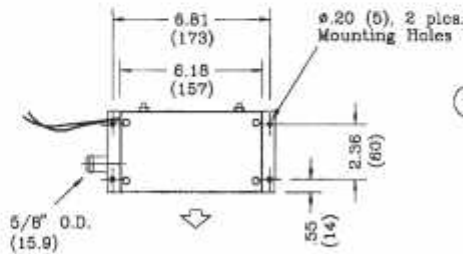
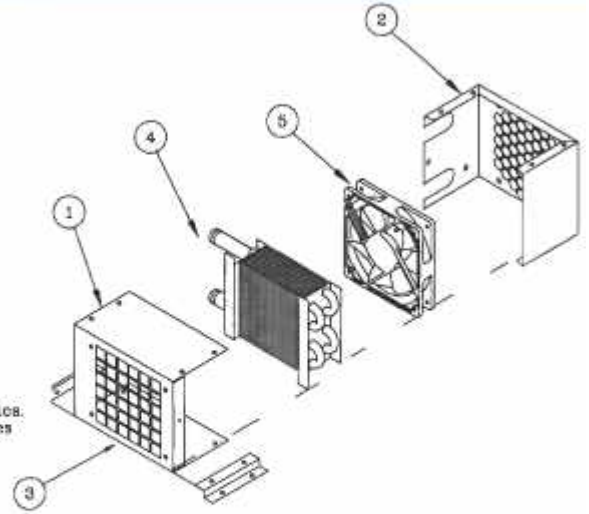
Heating	-21500 Btu/h (6300 W)
Air Flow	-400 CFM (680 m ³ /h)
Current	-14 Amps/12V -8 Amps/24V
Weight	-12 lbs. (5.5 kg)
3-Speed motor.	

FEATURES

A higher capacity heater than the 202 and 205, the 212 offers installation flexibility for defrosting and cab ducting requirements.

MCC Low Amp Heater Model 234

Mobile Climate Control



Part Descriptions: Specifications

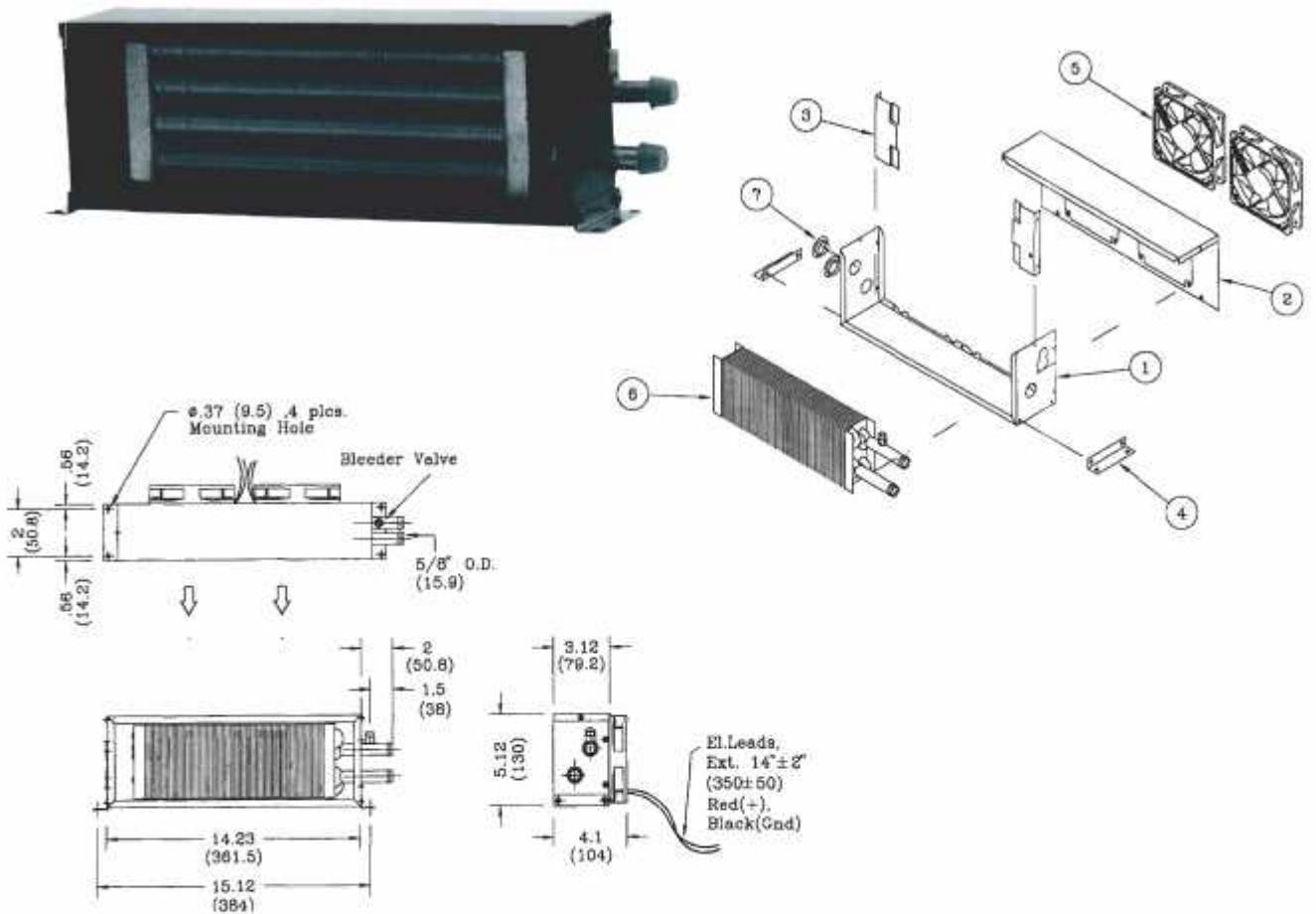
Part No.		No.	Part No.	Description
12-3421	Heater 12V	1	24-1105	Casing (Front)
12-3422	Heater 24V	2	24-1106	Casing (Rear)
		3	24-1107	Mounting Bracket
		4	24-0041	Heater Coil
		5	25-0172	Fan 12V
			25-0244	Fan 24V
Specifications				
Heating	-3425 Btu/h (1000 W)			
Air Flow	-60 CFM (100 m ³ /h)			
Current	-0.35 Amps/12V			
	-0.18 Amps/24V			
Weight	-3 lbs. (1.4 kg)			
1-Speed motor.				

FEATURES

The low amp current of the 234HD allows for mounting in applications such as motor homes, where an auxiliary heater is required.

MCC Low Amp Heater Model 236

Mobile Climate Control



Part Descriptions: Specifications

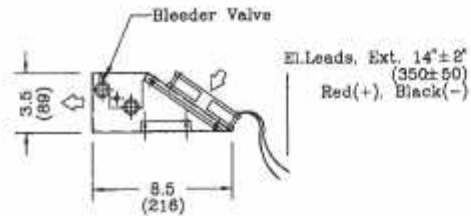
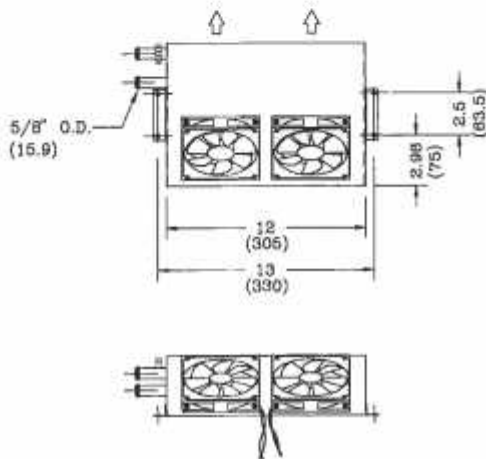
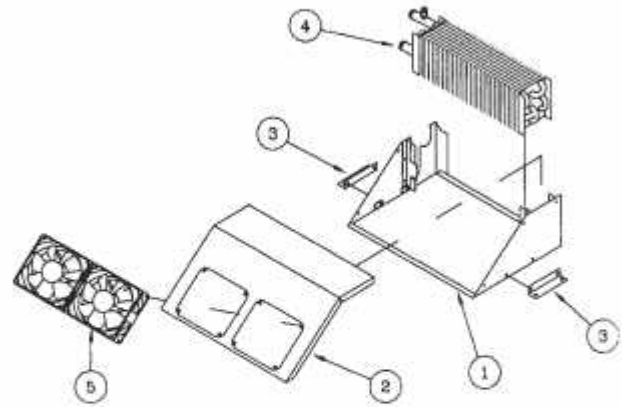
Part No.		No.	Part No.	Description
12-3601	Heater 12V	1	24-0369	Casing
12-3602	Heater 24V	2	24-0370	Cover
		3	24-0380	Coil Bracket
		4	24-0012	Mounting Bracket
		5	25-0172	Fan 12V
			25-0244	Fan 24V
		6	22-0083	Heater Coil
		7	28-0010	Snap-in Plug
Specifications				
Heating	-8700 Btu/h (2550 W)			
Air Flow	-130 CFM (220 m ³ /h)			
Current	-0.7 Amps/12V			
	-0.35 Amps/24V			
Weight	-5 lbs. (2.3 kg)			
1-Speed motor.				

FEATURES

A larger capacity heater than the 234HD, the 236 offers the capacity to handle larger low amp heater requirements.

MCC Low Amp Heater Model 247

Mobile Climate Control



Part Descriptions: Specifications

Part No.	Description
12-4701	Heater 12V
12-4702	Heater 24V

Specifications

Heating	-8700 Btu/h (2550 W)
Air Flow	-130 CFM (220 m ³ /h)
Current	-0.70 Amps/12V -0.35 Amps/24V
Weight	-6.1 lbs. (2.8 kg)
1-Speed motor.	

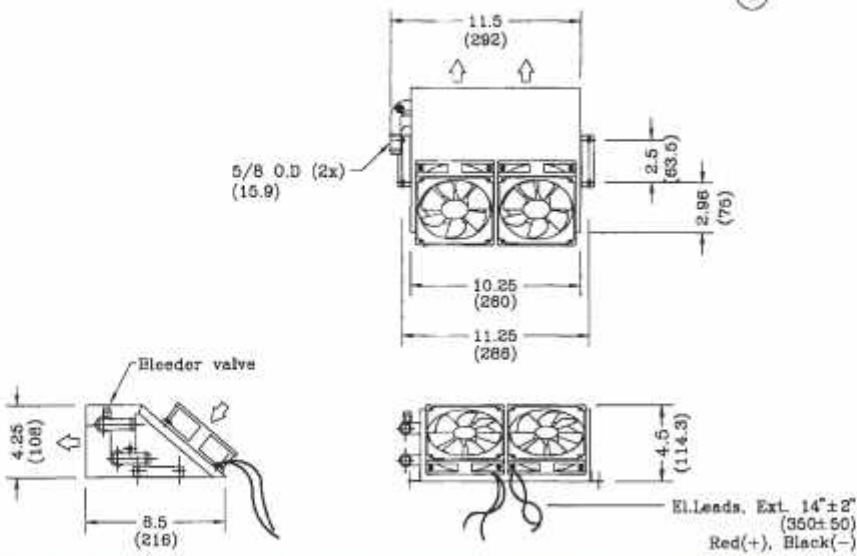
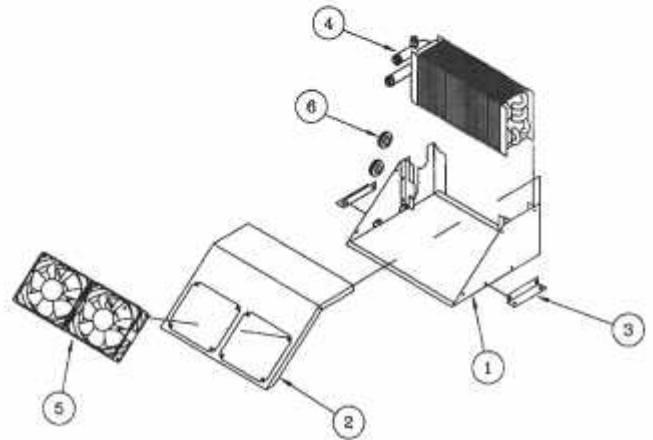
No.	Part No.	Description
1	24-1114	Casing
2	24-1115	Cover
3	24-0012	Mounting Bracket
4	22-0171	Heater Coil
5	25-0172	Fan 12V
	25-0144	Fan 24V

FEATURES

The 247 is another option for low amp heater requirements.

MCC Low Amp Heater Model 249

Mobile Climate Control



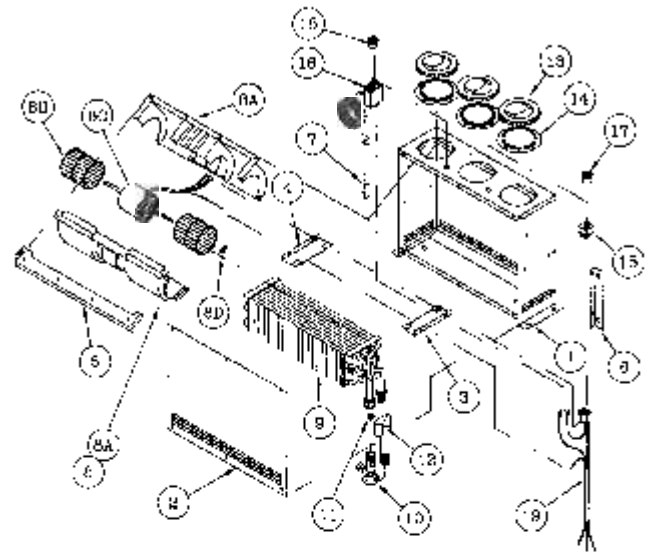
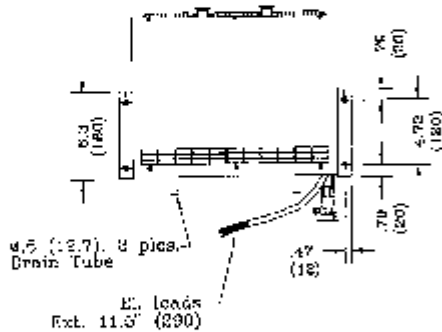
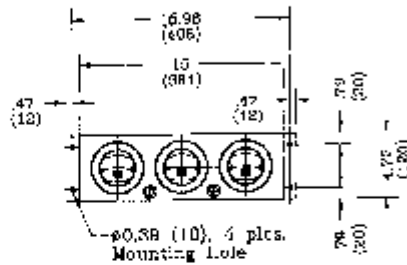
Part Descriptions: Specifications

Part No.		No.	Part No.	Description
12-4901	Heater 12V	1	24-1189	Casing
		2	24-1190	Cover
		3	24-0012	Mounting Bracket
		4	22-0203	Heater Coil
		5	25-0447	Fan 12V
		6	28-0009	Grommet
Specifications				
Heating	-10000 Btu/h (2930 W)			
Air Flow	-160 CFM (270 m ³ /h)			
Current	- 1.0 Amps/12V			
Weight	-7.5 lbs. (3.4 kg)			
1-Speed motor.				

FEATURES

The 249 offers similar mounting and installation to the 247, in a larger capacity package.

MCC Air Conditioner Model 301



5/8" -18 Male (OR #8)
 7/8" -14 Male (OR #10)
 Refr. Hose Connection

EL Connection
 Orange - Power (+)
 Black - Ground (-)
 White - To pressure switch/
 compressor
 Blue - To condenser/relay
 (1 for condenser)

Part No.		No.	Part No.	Description	No.	Part No.	Description
13-012*	Air Conditioner 12V	1	24-1584	Casing	8D	25-0022	Clip
13-0122	Air Conditioner 24V	2	24-1585	Cover	9	21-0276	Evaporator Coil
Specifications		3	24-1586	Coil Bracket (R)	10	26-0162	Expansion Valve
Cooling	-15700 Btu/h (4600 W)	4	24-1587	Coil Bracket (L)	11	27-0602	O-Ring #8
Air Flow	-200 CFM (340 m ³ /h)	5	24-1588	Blower Support	12	26-0006	Bulb Clamp
Current	-13 Amps/13.5V	6	24-1941	Mounting Bracket (R)	13	23-0005	Louver
	-6.5 Amps/27V	7	24-1942	Mounting Bracket (L)	14	23-0048	Adaptor
Weight	-19 lbs. (8.6 kg)	8	15-0503	Blower 12V	15	25-0029	Blower Switch
			15-0504	Blower 24V	16	25-0045	Thermostat
		8A	25-0017	Blower Housing	17	25-0067	Knob
		8B	25-0021	Blower Wheel	18	25-0068	Knob
		8C	25-0070	Motor 12V	19	25-0586	Wiring Harness
			25-0076	Motor 24V			
Casing made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.							

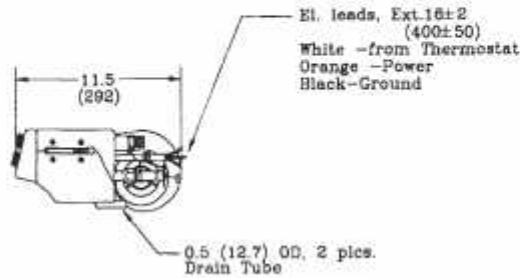
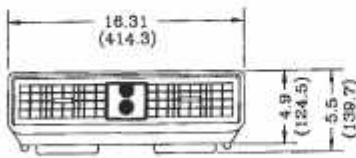
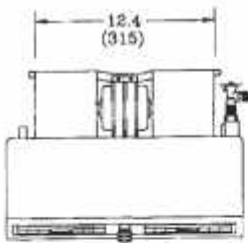
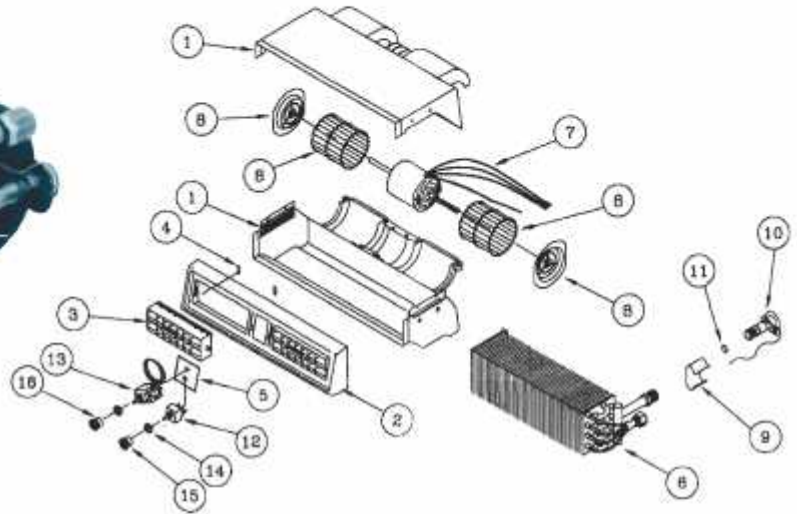
FEATURES

The 301 is a compact air conditioner that is ideal for small cabs. It can be wall mounted or used as a stand alone floor mount.

MCC Air Conditioner 302



Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
13-0221	Air Conditioner 12V	1	28-0001	Case	9	26-0006	Bulb Clamp
13-0222	Air Conditioner 24V	2	28-0002	Bezel	10	26-0162	Expansion Valve
Specifications		3	23-0011	Louver	11	27-0602	O-Ring #8
Cooling	-17950 Btu/h (5260 W)	4	23-0028	Louver Strip	12	25-0029	Switch
Air Flow	-250 CFM (425 m ³ /h)	5	25-0032	Switch Plate	13	25-0030	Thermostat
Current	-11 Amps/13.5V	6	21-0003	Evaporator Coil	14	25-0059	Nut Cover
	-5.5 Amps/27V	7	25-0677	Motor 12V	15	25-0067	Knob
Weight	-9 lbs. (4 kg)		25-0678	Motor 24V	16	25-0068	Knob
3-Speed motor.		8	25-0021	Blower Wheel	17	25-0679	Wiring Harness (Not Shown)

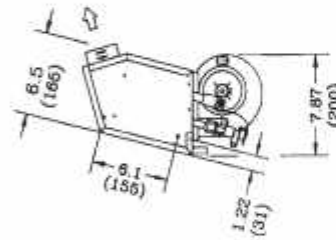
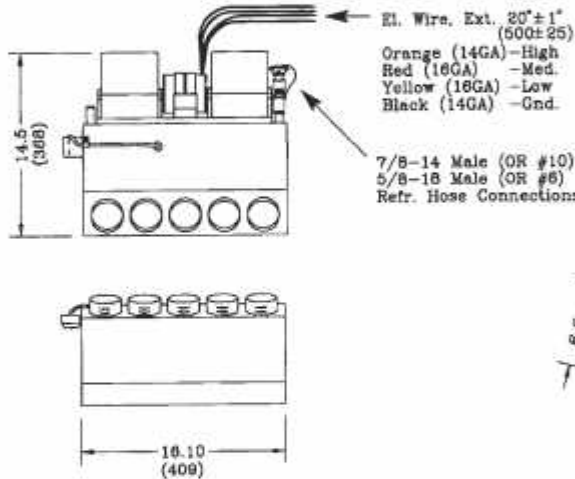
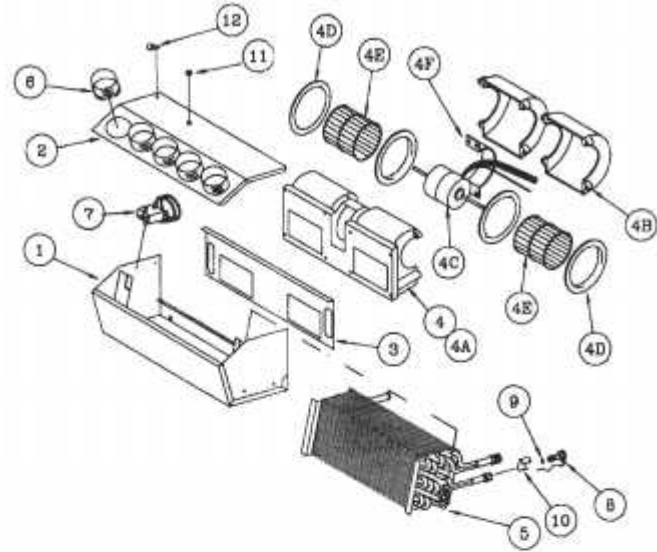
FEATURES

The 302 is a compact unit that can be ducted to deliver air flow where desired. Ideal for dash or compartment mounting.

MCC Heater Air Conditioner Model 306



Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
13-0651	Heater-AC 12V	1	24-0035	Casing	4E	25-0200	Blower Wheel
13-0652	Heater-AC 24V	2	24-0404	Cover	4F	25-0271	Motor Mount
		3	24-0497	Blower Plate	5	21-0005	Combo Coil
		4	15-1513	Blower 12V	6	23-0038	Hose Adapter 2 1/2"
			15-1514	Blower 24V	7	25-0069	Thermostat
		4A	25-0048	Blower Housing	8	26-0162	Expansion Valve
		4B	25-0348	Housing Top	9	27-0602	O-Ring #8
		4C	25-0053	Motor 12V	10	26-0006	Bulb Clamp
			25-0076	Motor 24V	11	28-0021	Snap-in Plug
		4D	25-0060	Venturi	12	29-0139	Half Clamp 5/16"

Casing made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.

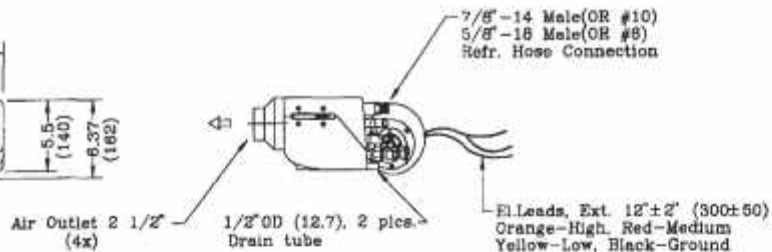
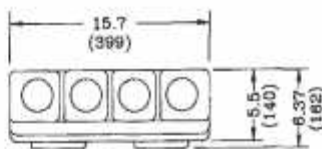
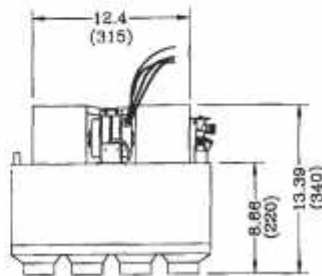
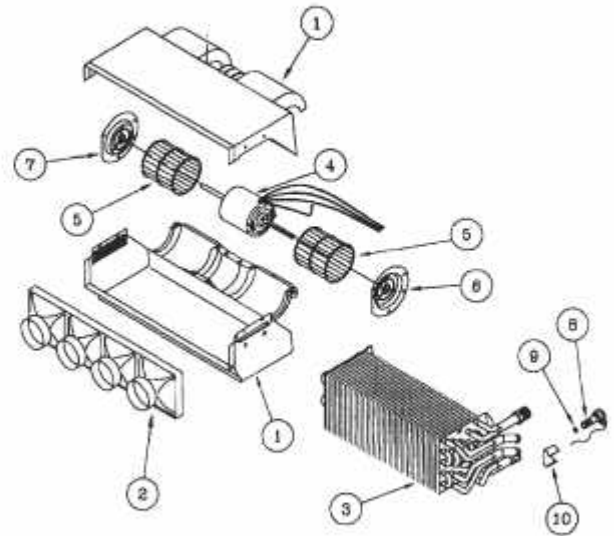
FEATURES

The 306 is ideal for under seat or dash mounting. It's high performance capacity can handle most cab requirements. It can also be used in limousine applications.

MCC Heater-Air Conditioner Model 309



Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
13-0953	1	28-0016	Case	6	28-0019	Venturi (R)
13-0954	2	28-0006	Bezel	7	28-0020	Venturi (L)
	3	21-0012	Combo Coil	8	26-0162	Expansion Valve
	4	25-0070	Motor 12V	9	27-0602	O-Ring #8
		25-0076	Motor 24V	10	26-0006	Bulb Clamp
	5	25-0021	Blower Wheel			

Specifications

Heating	-20200 Btu/h (5920 W)
Cooling	-15100 Btu/h (4425 W)
Air Flow	-310 CFM (530 m ³ /h)
Current	-11 Amps/13.5V
	-5.5 Amps/27V
Weight	-10.5 lbs. (4.8 kg)

3-Speed motor.
Casing made of ABS.

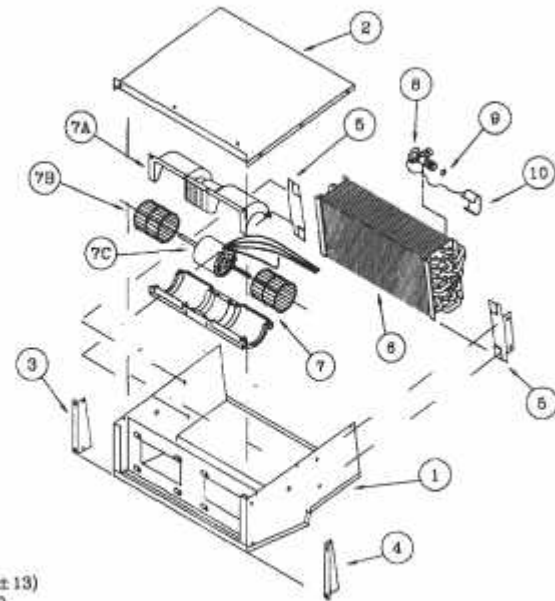
FEATURES

The 309 is a compact unit that can be ducted to deliver air flow where desired. Ideal for dash or compartment mounting.

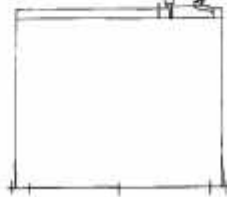
MCC Air Conditioner Model 311



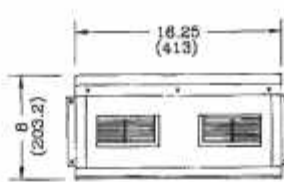
Mobile Climate Control



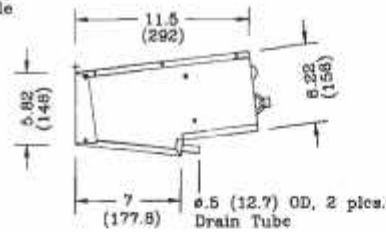
5/8-18 Male (OR #6)
7/8-14 Male (OR #10)
Refr. Hose Connections



El. Leads, Ext. 5'±.5' (127±13)
Orange-High, Red-Medium
Yellow-Low, Black-Ground



ø.25 (6.35), 7 pcs.
Mounting Hole



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
13-1153		24-0267	Casing	7A	25-0017	Blower Housing
13-1154		24-0270	Cover	7B	25-0021	Blower Wheel
		24-0192	Mounting Bracket (L)	7C	25-0070	Motor 12V
		24-0193	Mounting Bracket (R)		25-0075	Motor 24V
		24-0194	Coil Bracket	8	26-0162	Expansion Valve
		21-0045	Evaporator Coil	9	27-0602	O-Ring #8
		15-0503	Blower Assy. 12V	10	26-0006	Bulb Clamp
		15-0504	Blower Assy. 24V			

Specifications

Cooling -21800 Btu/h (6390 W)
Air Flow -325 CFM (552 m³/h)
Current -11.6 Amps/13.5V
-5.8 Amps/27V
Weight -17 lbs. (7.7 kg)

3-Speed motor.

Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat. Louvers have to be ordered separately.

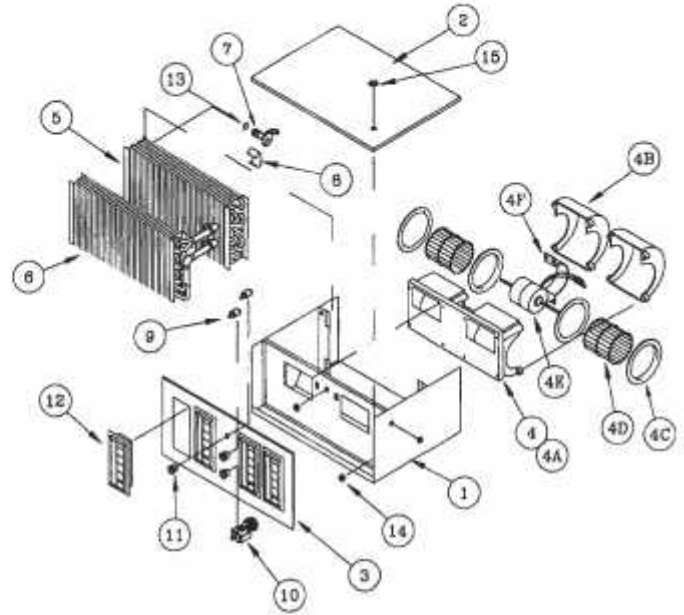
FEATURES

The 311 is ideal for ambulance requirements.

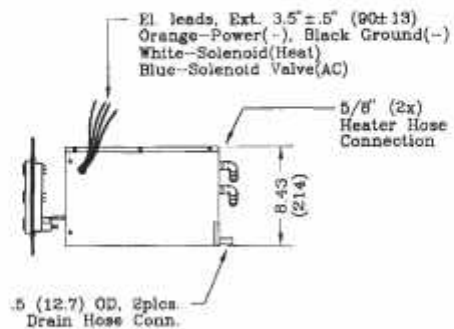
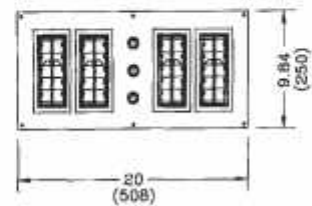
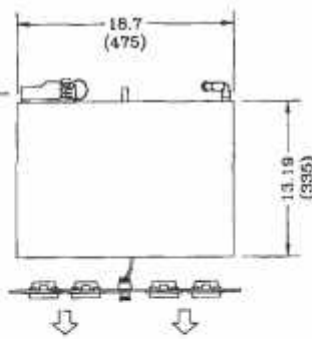
MCC Heater-Air Conditioner Model 321



Mobile Climate Control



5/8-18 Male (OR #8)
7/8-14 Male (OR #10)
Refr. Hose Connection



Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description
13-2155		Heater-AC 12V		1	24-0539	Casing
				2	24-0274	Cover
				3	24-0275	Front
				4	15-1513	Blower 12V
				4A	25-0048	Blower Housing
				4B	25-0348	Housing Top
				4C	25-0060	Venturi
				4D	25-0200	Blower Wheel
				4E	25-0053	Motor 12V
				4F	25-0271	Motor Mount
				5	21-0046	Evaporator Coil
				6	22-0130	Heater Coil
				7	26-0162	Expansion Valve
				8	26-0006	Bulb Clamp
				9	25-0029	Switch
				10	25-0045	Thermostat
				11	25-0072	Knob
				12	23-0055	Louver
				13	27-0602	O-Ring #8
				14	28-0004	Grommet
				15	28-0021	Snap-in Plug

Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.

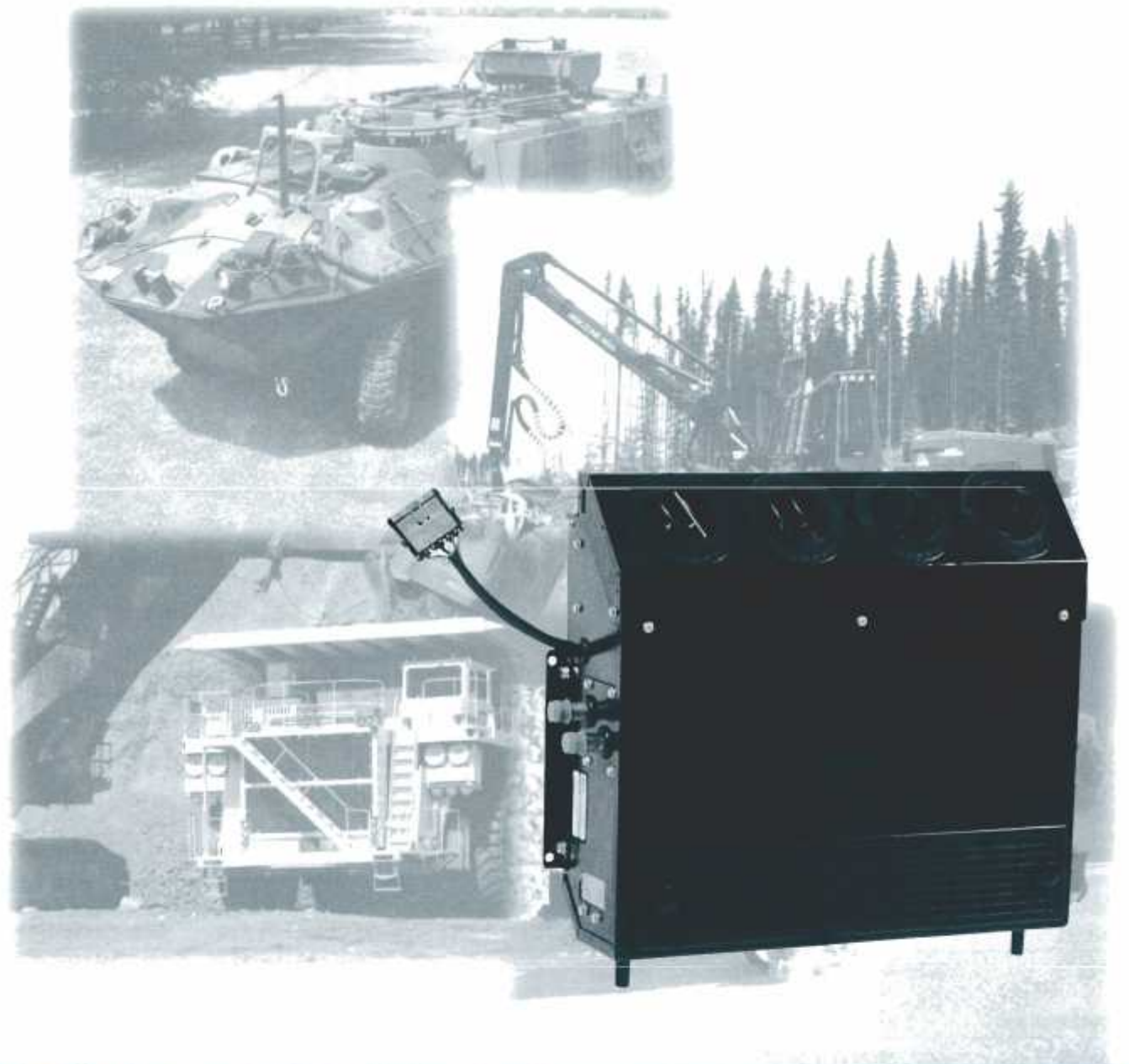
FEATURES

The 321 was designed for ambulance installation. It can be used for any deck mounting application. The high capacity of the 321 makes this unit ideal for ambulance and large cabs.

MCC Heater-Air Conditioner Model 310



Mobile Climate Control



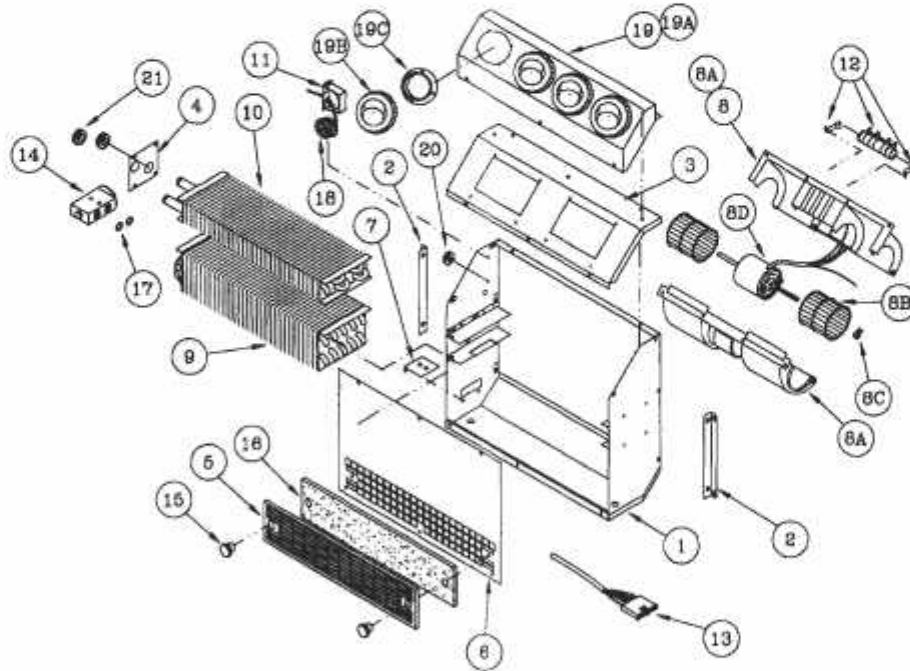
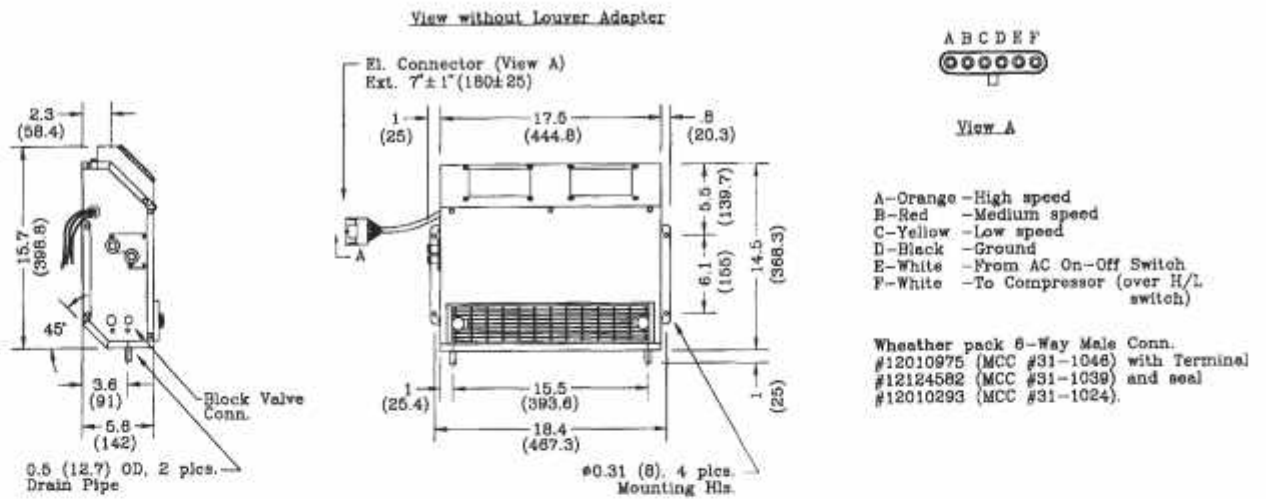
Specifications

Part No.		Specifications		
13-1003	Heater-AC 12V	Heating	-25500 Btu/h (7480 W)	Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat. Item 19 is optional and has to be ordered separately. Pictured with optional cover (item 19) installed.
13-1004	Heater-AC 24V	Cooling	-19775 Btu/h (5800 W)	
13-1023	Air Conditioner 12V	Air Flow	-300 CFM (510 m ³ /h)	
13-1024	Air Conditioner 24V	Current	-12 Amps/13V	
13-1090	Plenum Assy. Incl.19A, 19B, 19C	Weight	-6 Amps/27V -27.3 lbs. (12.4 kg)	

FEATURES

The 310 is a compact unit that can be used as a free blowing or ducting unit to direct air around the cab. A remote mount control panel is required for this system.

Dimension Profiles



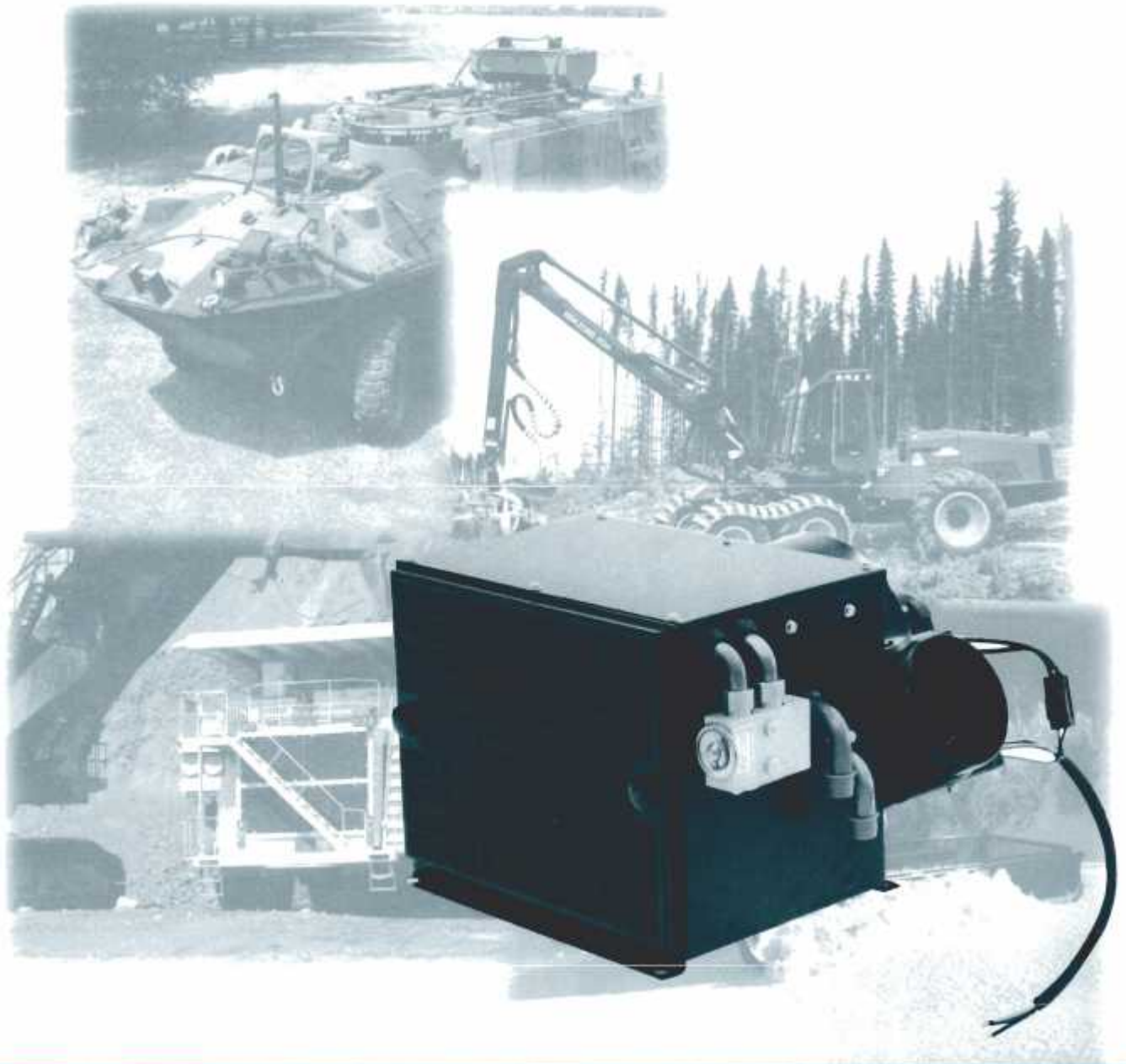
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2124	Casing	8B	25-0021	Blower Wheel	15	26-0263	Knurled Knob
2	24-2125	Mounting Bracket	8C	25-0022	Clip	16	26-0399	Air Filter
3	24-2126	Blower Plate	8D	25-0228	Motor 12V	17	27-0602	O-Ring
4	24-2166	Cover Plate		25-0298	Motor 24V	18	28-0031	PVC Hose
5	24-2167	Grill	9	21-0364	Evaporator Coil	19	13-1090	Plenum Assy. Incl.19A,B,C.
6	24-2168	Front Cover	10	22-0319	Heater Coil	19A	24-2396	Plenum
7	24-2211	Expansion Valve Bkt.	11	25-0069	Thermostat	19B	23-0005	Louver
8	15-0551	Blower 12V	12	25-0601	Resistor 12V	19C	23-0048	Adapter
	15-0552	Blower 24V		25-0602	Resistor 24V	20	28-0004	Grommet
8A	25-0017	Blower Housing	13	25-0664	Wiring Harness	21	28-0009	Grommet
			14	26-0190	Block Valve			

MCC Heater-Air Conditioner Model 316



Mobile Climate Control



Specifications

Part No.

13-1601	Heater-AC 12V
13-1602	Heater-AC 24V
13-1690	Plenum Assy. Inc. 19A-19D

Specifications

Heating	-32500 Btu/h (9525 W)
Cooling	-26500 Btu/h (7770 W)
Air Flow	-350 CFM (595 m ³ /h)
Current	-24 Amps/12V -12 Amps/24V
Weight	-26 lbs. (11.8kg)

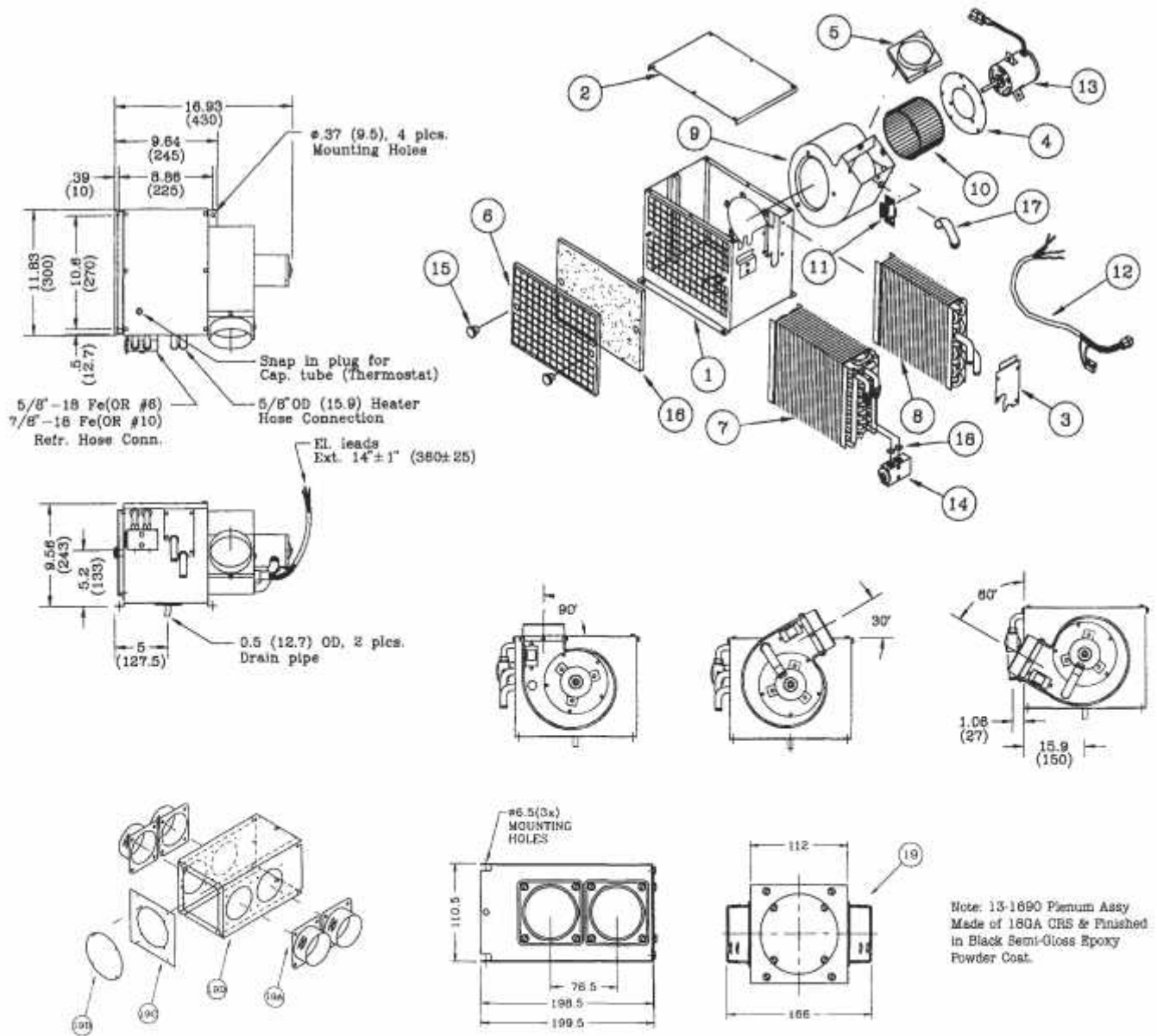
The unit is supplied w/o heater valve and de-icing thermostat, which have to be installed if needed.

Item 19 is optional and has to be ordered seperately.

FEATURES

The 316 is designed for behind the seat installations or for sleeper bunks. It is also designed to duct air around the cab. The blower can be rotated as shown in dimension profiles.

Dimension Profiles



Note: 13-1690 Plenum Assy
Made of 180A CRS & Finished
in Black Semi-Gloss Epoxy
Powder Coat.

Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2425	Casing	10	25-0098	Blower Wheel	16	26-0430	Air Filter
2	24-2426	Cover	11	25-0136	Resistor 12V	17	27-0105	Vent Tube
3	24-2427	Cover Plate		25-0552	Resistor 24V	18	27-0602	O-Ring #8
4	24-2431	Motor Plate	12	25-0538	Wiring Harness	19	13-1690	Plenum Assy
5	24-2432	Hose Adapter	13	25-0675	Motor 12V	19A	23-0125	Hose Adapters 2.5"
6	24-2501	Filter Grill		25-0676	Motor 24V	19B	23-0006	Cover Plate
7	21-0395	Evaporator Coil	14	26-0190	Block Valve	19C	24-3317	Covers
8	22-0339	Heater Coil	15	26-0263	Knurled Knob	19D	24-3316	Plenum
9	25-0668	Blower Housing						

MCC Heater-Air Conditioner Model 320



Mobile Climate Control



Note:

Switch is not as depicted in photo, has been changed to sealed rocker switch.

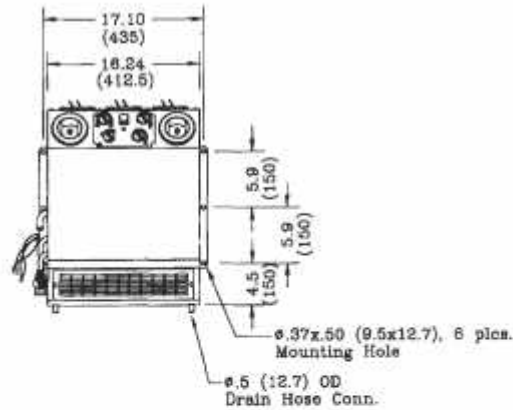
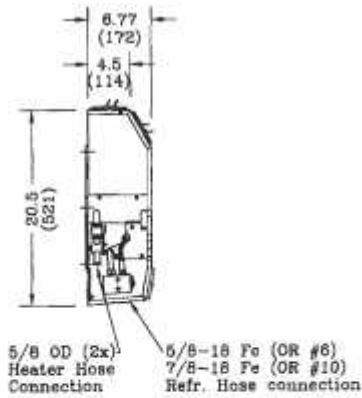
Specifications

Part No.		Specifications		
13-2021	Heater-AC 12V	Heating	-28000 Btu/h (8200 W)	Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.
13-2022	Heater-AC 24V	Cooling	-21000 Btu/h (6150 W)	
13-2051	Air Conditioner 12V	Air Flow	-380 CFM (646 m ³ /h)	
13-2052	Air Conditioner 24V	Current	-18 Amps/13.5V -9 Amps/27V	
		Weight	-40 lbs. (18 kg)	
			3-Speed blower.	

FEATURES

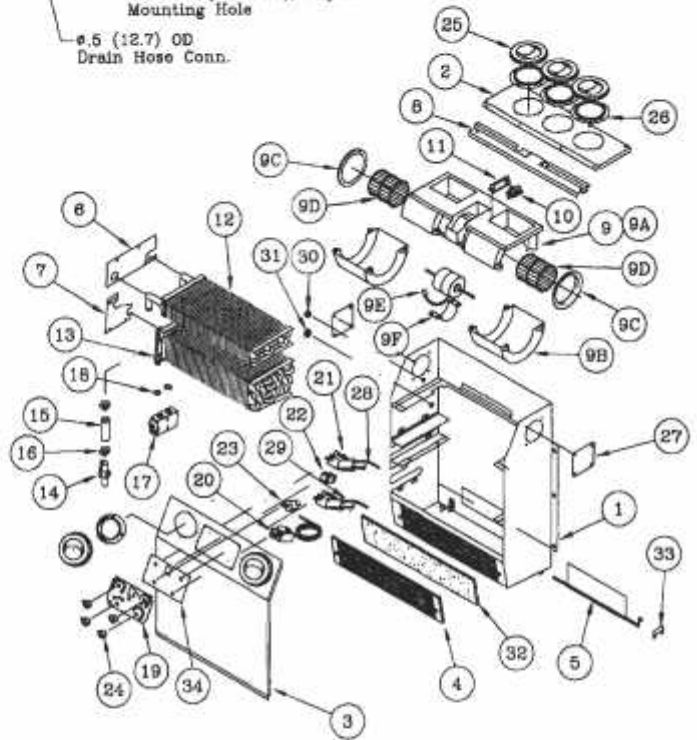
The 320 is a universal wall mounted unit that can handle the requirements of most off-road cabs. An outside filter kit and damper door can be added for outside air.

Dimension Profiles



El. connection

Orange - Power (+)
 Black - Ground (-)
 White - To compressor/Press. Switch
 Blue - To Condenser/Relay
 (if Fan Condenser)



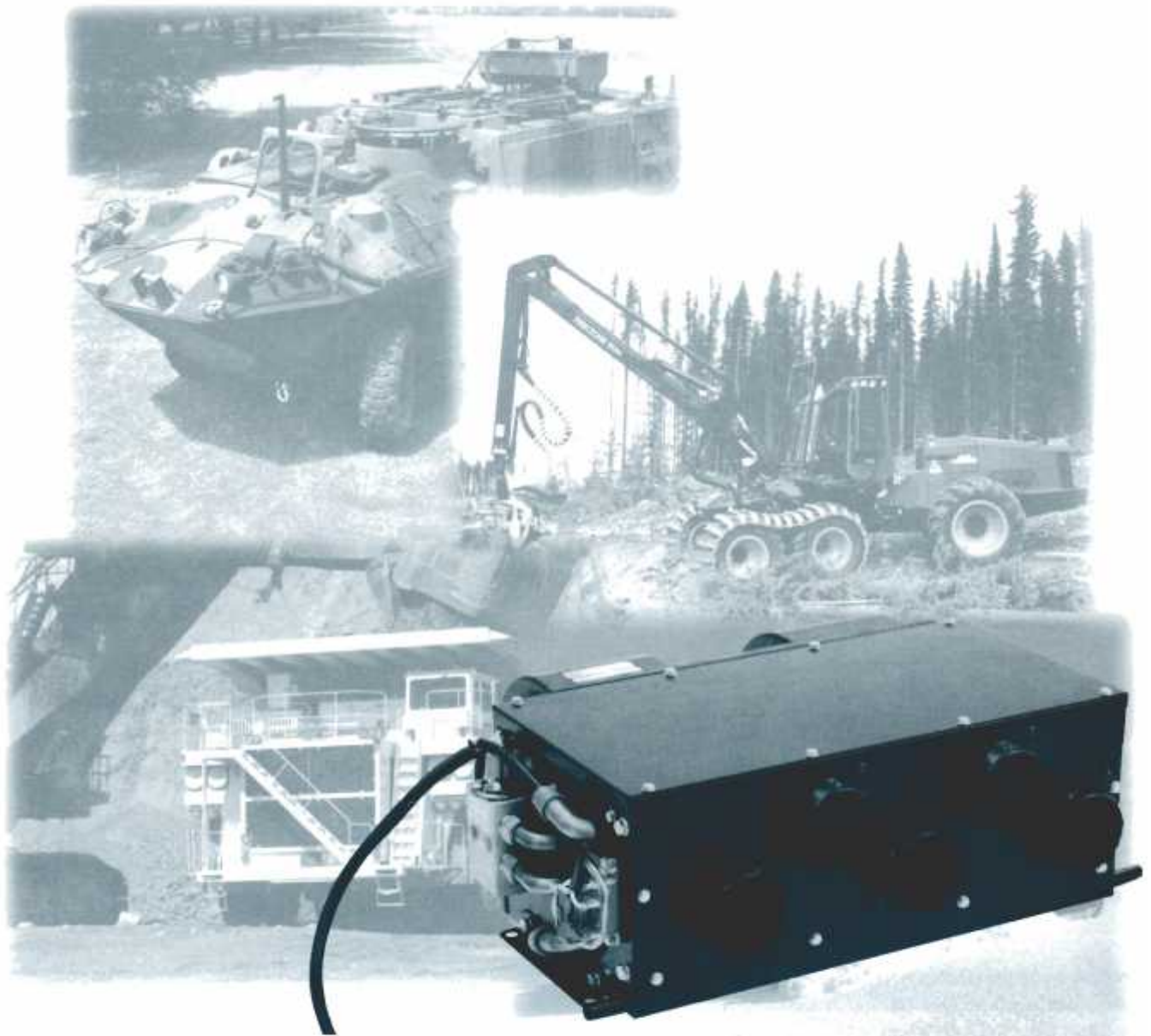
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-1182	Casing	9E	25-0665	Motor 12V	22	25-0631	Switch Push 12V
2	24-1183	Top Cover		25-0650	Motor 24V		25-0632	Switch Push 24V
3	24-1184	Front Cover	9F	25-0271	Motor Mount	23	25-0044	Blower Switch
4	24-1185	Filter Holder	10	25-0120	Resistor 12V	24	25-0435	Knob
5	24-1186	Flapper		25-0139	Resistor 24V	25	23-0005	Louver
6	24-1230	H.C. Cover Plate	11	24-0836	Mounting Plate	26	23-0048	Adapter
7	24-1243	E.C. Cover Plate	12	22-0207	Heater Coil	27	24-0320	Cover Plate
8	24-1187	Blower Bracket	13	21-0212	Evaporator Coil	28	26-0242	Bowden Cable
9	15-1503	Blower 12V	14	26-0025	Heater Valve	29	26-0243	Bowden Cable
	15-1502	Blower 24V	15	27-0225	Heater Hose 5/8"	30	28-0014	Grommet
9A	25-0048	Blower Housing	16	27-0059	Gear Clamp	31	28-0004	Grommet
9B	25-0348	Blower Housing Top	17	26-0190	Block Valve	32	26-0258	Filter
9C	25-0060	Venturi	18	27-0602	O-Ring #8	33	24-1188	Flapper Holder
9D	25-0200	Blower Wheel	19	28-0110	Overlay	34	24-1128	Control Plate
			20	25-0045	Thermostat	35	25-0436	Wiring Harness (Not Shown)
			21	26-0095	Rotary Control			

MCC Heater-Air Conditioner Model 325



Mobile Climate Control



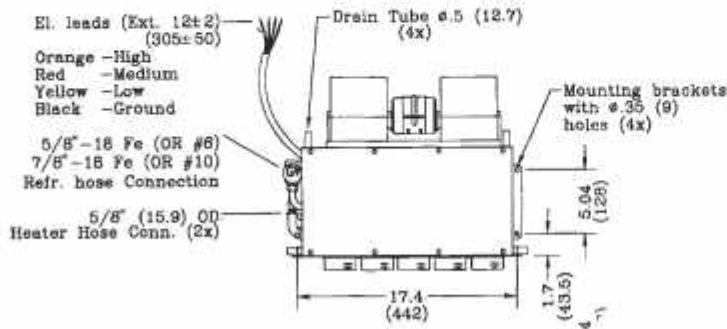
Specifications

Part No.		Specifications		
13-2503	Heater-AC 12V	Heating	-36000 Btu/h (10500 W)	Permanent magnet motor with ball bearings. Casing made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss powder coat.
13-2504	Heater-AC 24V	Cooling	-28500 Btu/h (8350 W)	
		Air Flow	-450 CFM (765 m ³ /h)	
		Current	-16 Amps/13.5V	
			-8 Amps/27V	
		Weight	-19 lbs. (8.6 kg)	

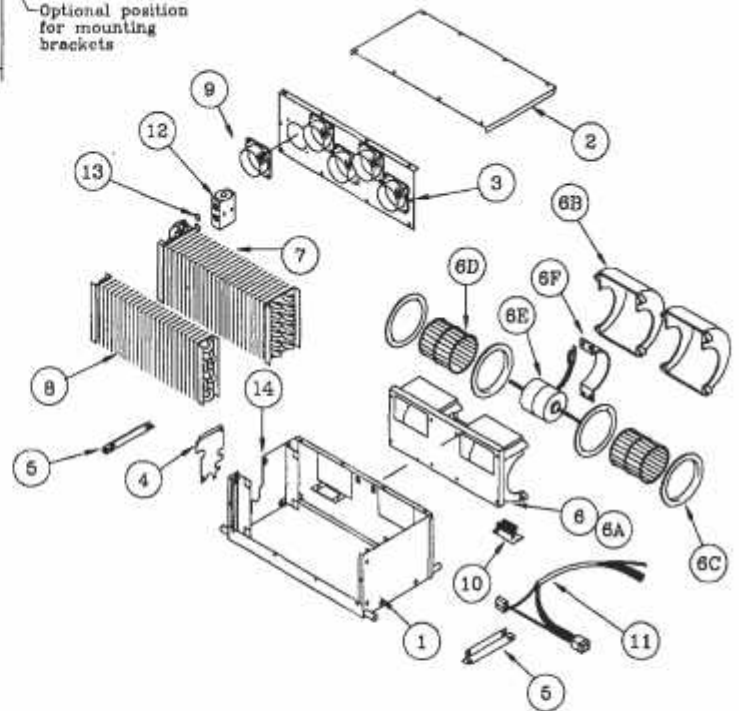
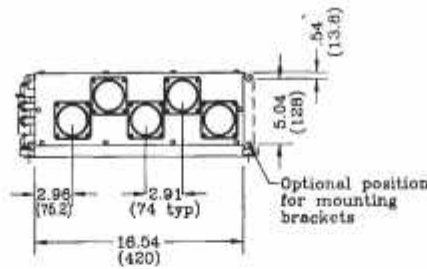
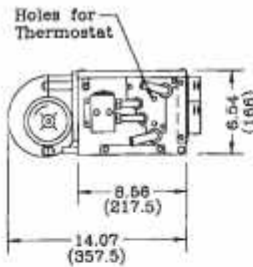
FEATURES

The 325 is a universal unit that fits all ducting requirements.

Dimension Profiles



Note:
This Unit is supplied w/o
Heater Valve and De-icing
Thermostat wich have to
be installed if needed.



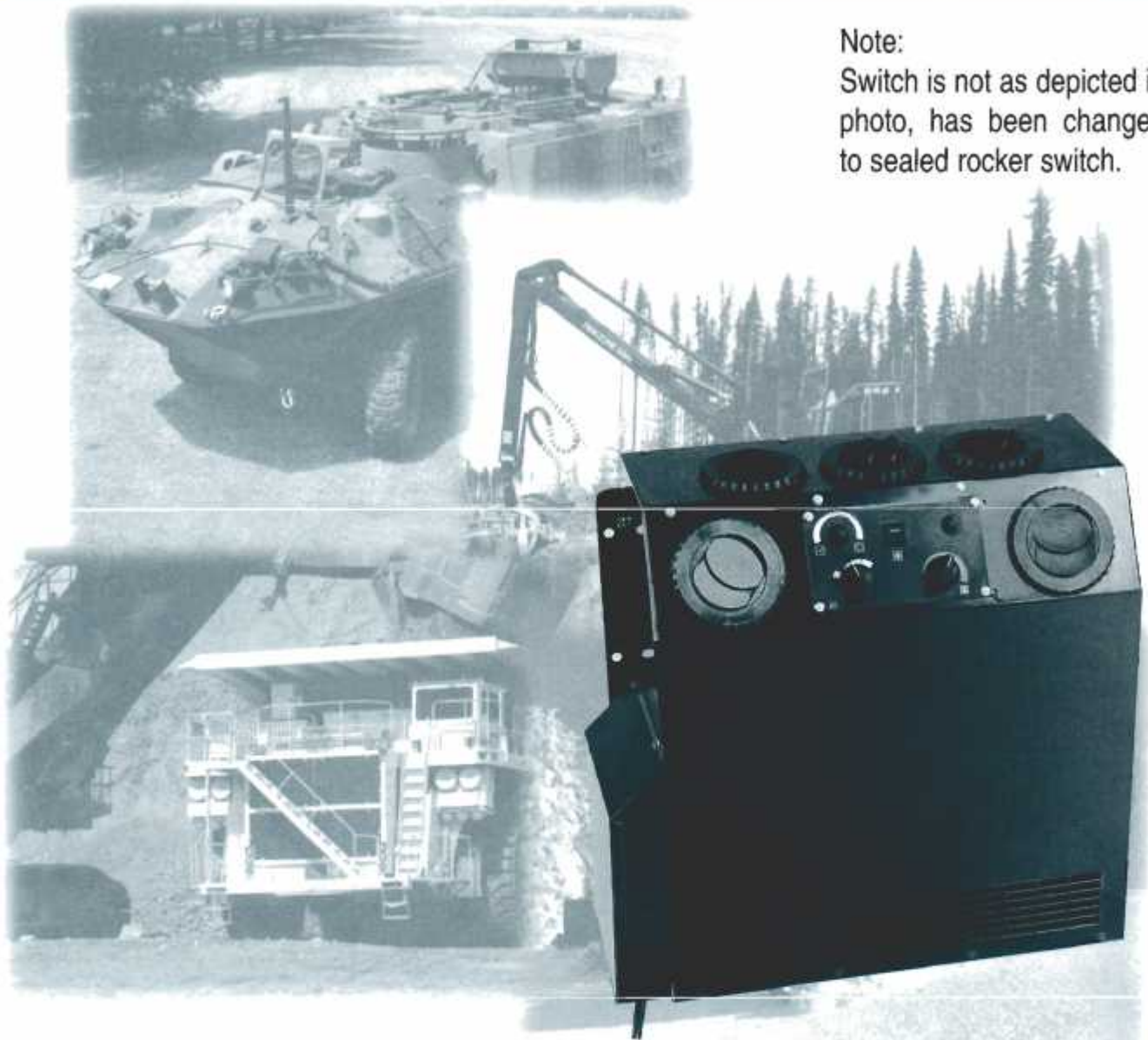
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-0027	Casing	6B	25-0348	Housing Top	9	23-0125	Hose Adapter 2.5"
2	24-0028	Cover	6C	25-0060	Venturi	10	25-0136	Resistor 12V
3	24-0013	Cover	6D	25-0200	Blower Wheel		25-0552	Resistor 24V
4	24-0017	Coil Cover (H)	6E	25-0645	Motor 12V	11	25-0671	Wiring Harness
5	24-0033	Mounting Bracket		25-0650	Motor 24V	12	26-0190	Block Valve
6	15-1501	Blower 12V	6F	25-0271	Motor Mount	13	27-0602	O-Ring #8
	15-1502	Blower 24V	7	21-0091	Evaporator Coil	14	25-0069	Thermostat
6A	25-0048	Blower Housing	8	22-0348	Heater Coil			

MCC Heater-Air Conditioner Model 330



Mobile Climate Control



Note:

Switch is not as depicted in photo, has been changed to sealed rocker switch.

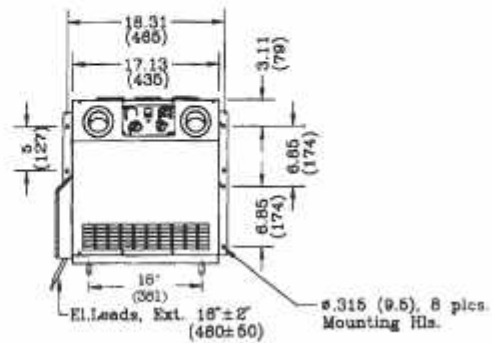
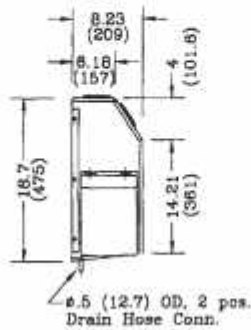
Specifications

Part No.		Specifications		
13-3061	Heater-AC 12V	Heating	-42200 Btu/h (12370 W)	Permanent magnet motor with long life brushes. 3-Speed blower. Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.
13-3062	Heater-AC 24V	Cooling	-28500 Btu/h (8350 W)	
13-3063	Air Conditioner 12V	Air Flow	-450 CFM (765 m ³ /h)	
13-3064	Air Conditioner 24V	Current	-22 Amps/13.5V	
13-3067	Heater 12V		-11 Amps/27V	
		Weight	-38 lbs. (17.2 kg)	Items 31-35 are optional and have to be ordered separately

FEATURES

Although similar in design and function, the 330 is a larger capacity unit than the 320. It is ideal for street sweepers and large off-road cabs. Outside air can be achieved by adding a filter kit.

Dimension Profiles

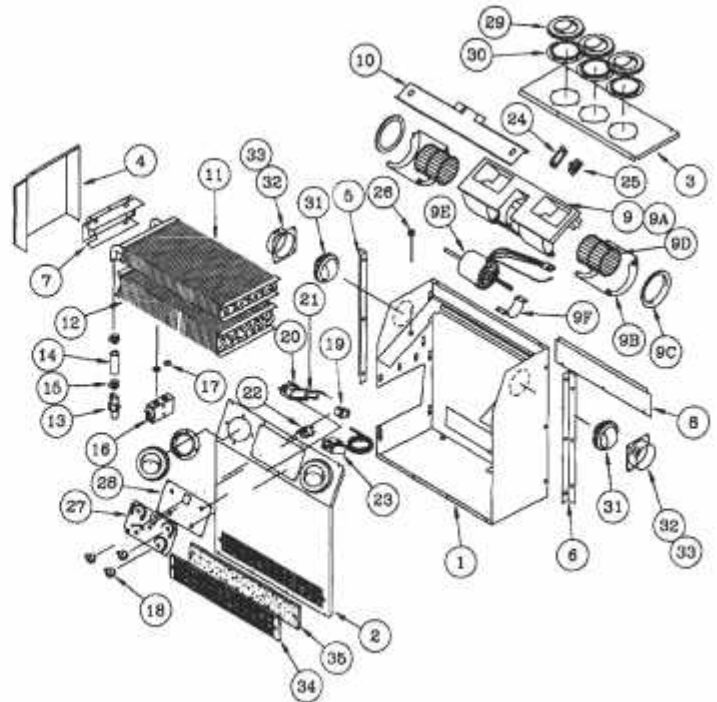


Note:

5/8-18 Male (OR #6)
 7/8-14 Male (OR #10)
 Refr. Hose Conn.
 5/8" OD Heater Hose Conn.
 All behind protection cover.

Wiring Connection

Orange - Power (+)
 Black - Ground (-)
 White - To Compressor/Pressure Switch
 Blue - To Condenser/Relay
 (if fan condensor)



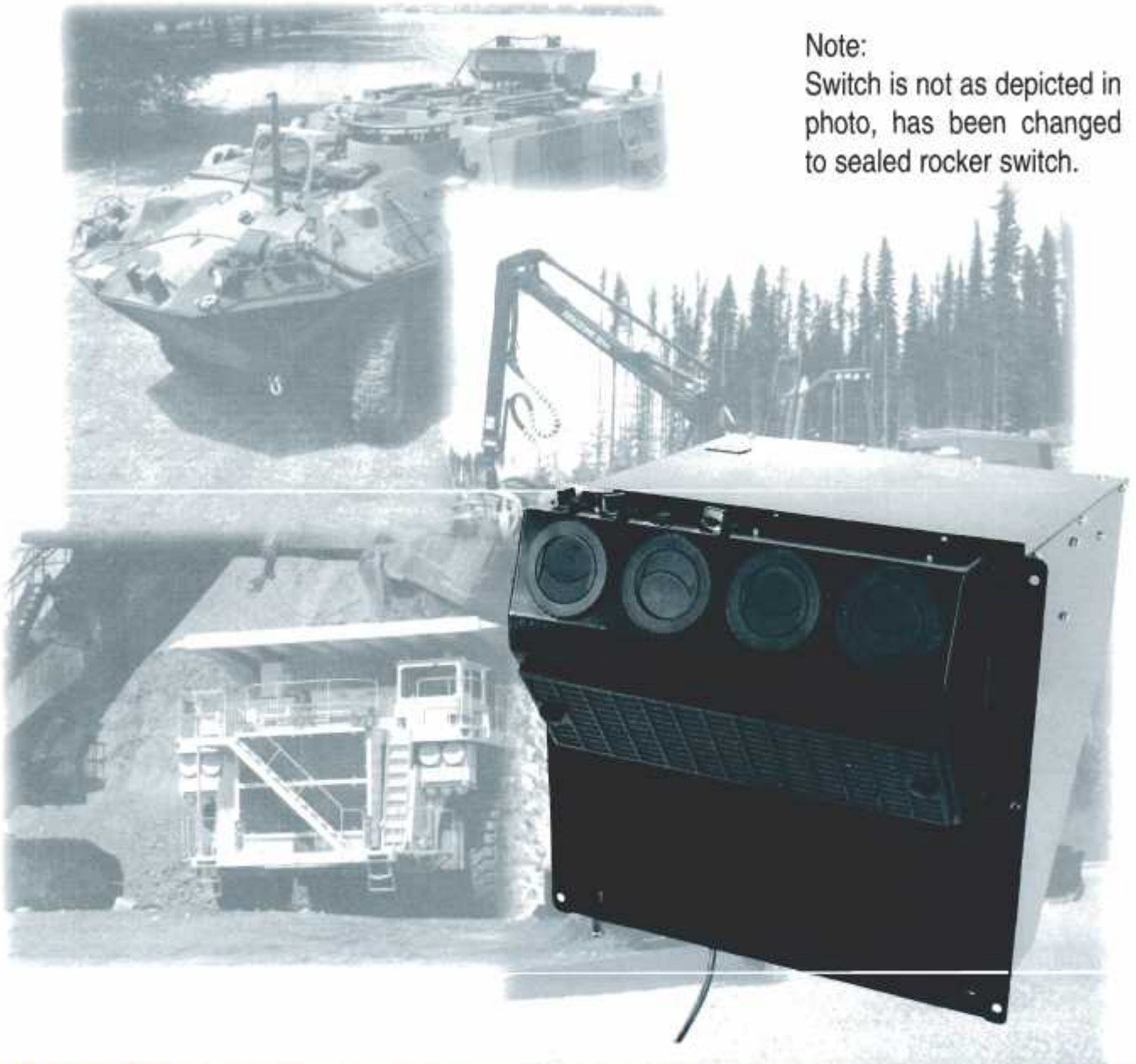
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-1157	Casing	9F	24-0271	Motor Mount	23	25-0045	Thermostat
2	24-1158	Front Cover	10	24-1160	Blower Mount	24	24-0836	Resistor Bracket
3	24-1159	Top Cover	11	22-0078	Heater Coil	25	25-0120	Resistor 12V
4	24-0205	Protection Cover	12	21-0063	Evaporator Coil		25-0139	Resistor 24V
5	24-0290	Mounting Bracket (L)	13	26-0025	Heater Valve	26	28-0014	Grommet
6	24-0279	Mounting Bracket (R)	14	27-0225	Heater Hose 5/8"	27	28-0110	Overlay
7	24-0242	Coil Bracket	15	27-0059	Gear Clamp	28	24-1128	Control Plate
8	24-0291	Fresh Air Cover	16	26-0190	Block Valve	29	23-0005	Louver
9	15-1503	Blower 12V	17	27-0602	O-Ring #8	30	23-0048	Adapter
	15-1502	Blower 24V	18	25-0435	Knob	31	23-0087	Ball Louver
9A	25-0048	Blower Housing	19	25-0631	Switch Push 12V	32	23-0110	Hose Adapter 2"
9B	25-0348	Blower Housing Top		25-0632	Switch Push 24V	33	23-0125	Hose Adapter 2.5"
9C	25-0060	Venturi	20	26-0095	Rotary Control	34	24-2018	Grill
9D	25-0200	Blower Wheel	21	26-0320	Bowden Cable	35	26-0425	Air Filter
9E	25-0665	Motor 12V	22	25-0044	Blower Switch	36	25-0436	Wiring Harness (Not Shown)
	25-0650	Motor 24V						

MCC Heater-Air Conditioner Model 344



Mobile Climate Control



Note:

Switch is not as depicted in photo, has been changed to sealed rocker switch.

Specifications

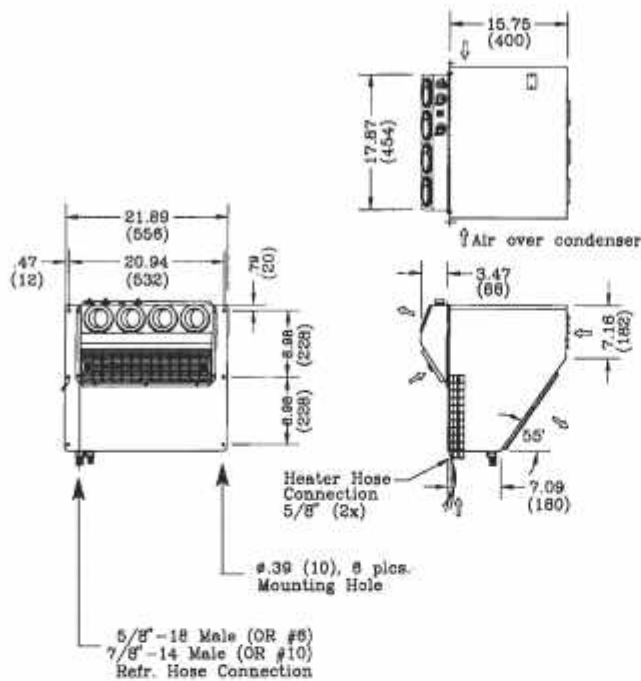
Part No.		Specifications	
13-4401	Heater-AC 12V	Heating	-34000 Btu/h (9960 W)
13-4402	Heater-AC 24V	Cooling	-17000 Btu/h (4980 W)
		Air Flow	-265 CFM (450 m ³ /h)
		Current	-33.4 Amps/3.5V
			-16.7 Amps/27V
		Weight	-77 lbs. (35 kg)

Casing made of 16GA (1.5mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.

FEATURES

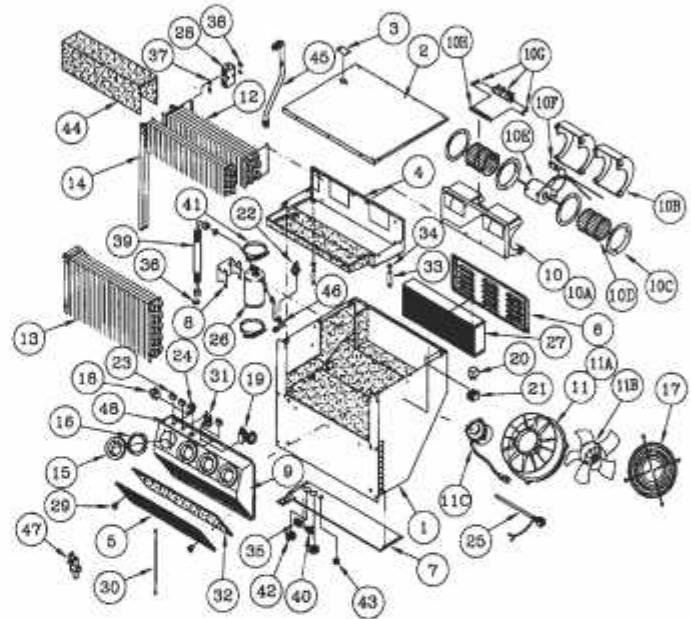
The 344 is a unit that has the condenser mounted in the same compartment as the heater-air conditioner. This unit is mounted on the side of any cab and blows air into a louver console. Outside air is standard.

Dimension Profiles



El. Connection

Orange - Power (+)
 Black - Ground (-)
 White - To Compressor / Pressure Switch
 Wiring Harness Ext. 3.5" ± 5"



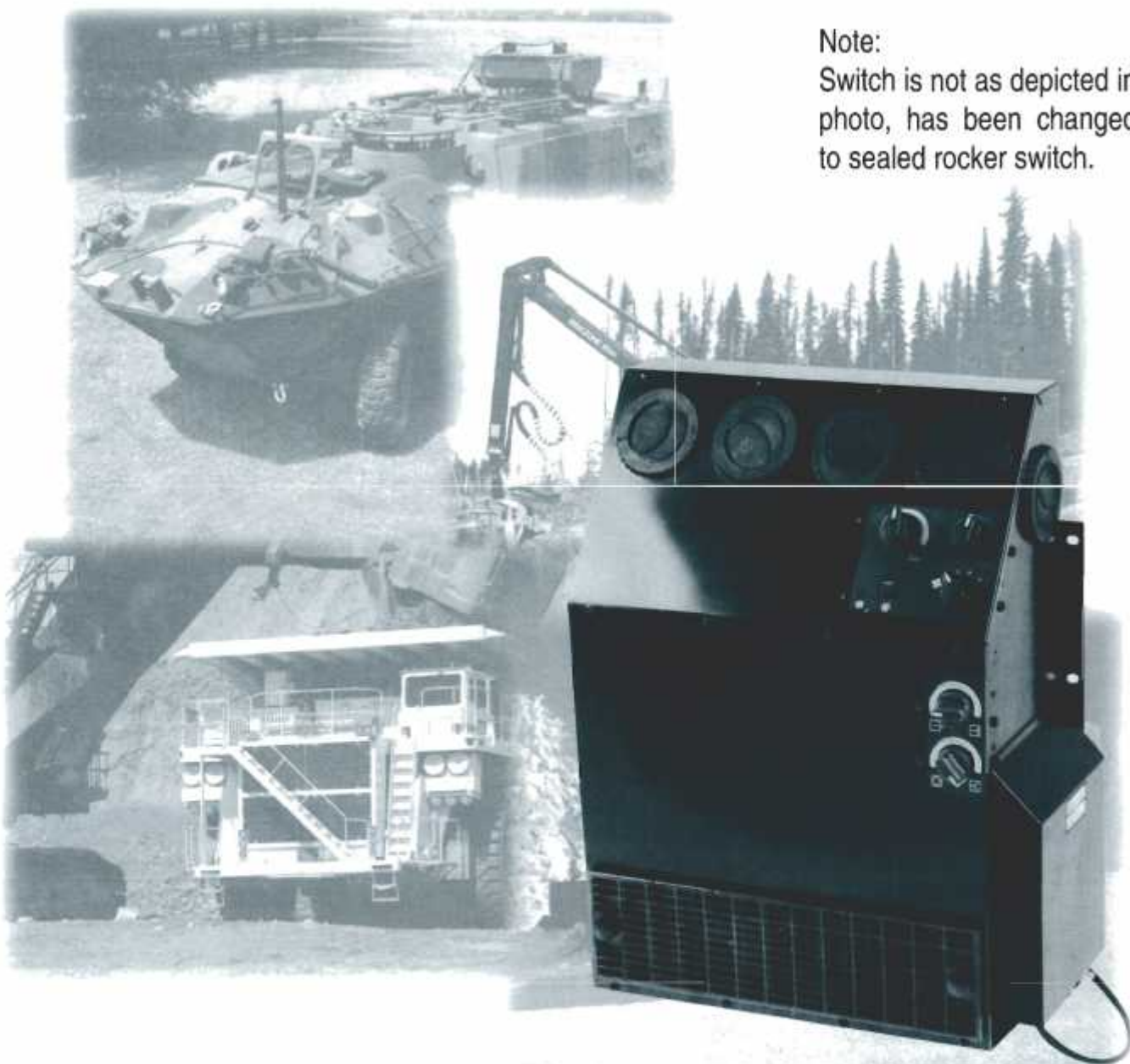
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2229	Casing Assy.	11	15-7512	Fan Assy. 24V	27	26-0041	Air Filter
2	24-2230	Cover Assy.	11A	25-0577	Venturi	28	26-0190	Block Valve
3	24-1919	Sight Glass Cover	11B	25-0579	Fan	29	26-0263	Knurled Knob
4	24-2231	Drain Pan Assy.	11C	25-0621	Motor 12V	30	26-0347	Bowden Cable
5	24-1921	Recirc. Grill		25-0622	Motor 24V	31	26-0350	Rotary Control
6	24-1922	Filter Cover	12	21-0318	Evaporator Coil	32	26-0374	Air Filter (Recirc.)
7	24-1923	Bottom Plate	13	21-0319	Condenser Coil	33	27-0030	Drain Hose
8	24-1924	R/D Bracket	14	22-0292	Heater Coil	34	27-0091	Drain Hose Clamp
9	24-2010	Plenum	15	23-0005	Louver	35	27-0502	Clamp
10	15-1561	Blower 12V	16	23-0048	Adapter	36	27-0601	O-Ring #6
	15-1562	Blower 24V	17	23-0148	Finger Guard	37	27-0602	O-Ring #8
10A	25-0048	Blower Housing	18	25-0044	Blower Switch	38	27-0603	O-Ring #10
10B	25-0348	Blower Top	19	25-0045	Thermostat	39	27-1107	Refr. Hose Assy. #6
10C	25-0060	Venturi	20	25-0251	Relay 12V	40	27-1108	P-Clamp #8
10D	25-0200	Blower Wheel		25-0219	Relay 24V	41	27-1121	Gear Clamp
10E	25-0655	Motor 12V	21	25-0221	Socket/Relay	42	28-0005	Grommet
	25-0660	Motor 24V	22	25-0343	Pressure Switch	43	28-0045	Grommet
10F	25-0271	Motor Mount	23	25-0435	Knob	44	28-0210	Reticulated Foam
10G	25-0601	Resistor 12V	24	25-0631	Switch Push 12V	45	34-0164	Copper Tube Assy.
	25-0602	Resistor 24V		25-0632	Switch Push 24V	46	34-0167	Copper Tube Assy.
10H	29-0130	Resistor Bracket	25	25-1015	Wiring Harness	47	26-0025	Heater Valve
11	15-7511	Fan Assy. 12V	26	26-0018	Drier Receiver	48	28-0191	Overlay

MCC Heater-Air Conditioner Model 345



Mobile Climate Control



Note:
Switch is not as depicted in photo, has been changed to sealed rocker switch.

Specifications

Part No.		Specifications	
13-4503	Heater-AC 12V	Heating	-46000 Btu/h (13480 W)
13-4504	Heater-AC 24V	Cooling	-33000 Btu/h (9670 W)
13-4590	Air Plenum Assy.	Air Flow	-450 CFM (765 m ³ /h)
13-4595	Rear Outlet Flapper Kit	Current	-22 Amps/13.5V -11 Amps/27V
		Weight	-48 lbs. (22 kg)

Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss "texture" epoxy powder coat.

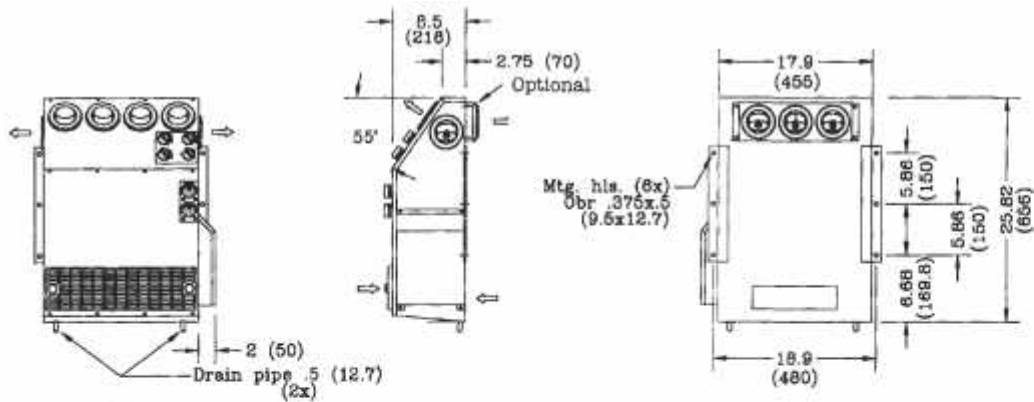
13-4595 Rear Outlet Flapper Kit includes 1 piece 26-0350, 25-0581, 26-0421 and 26-0079 with hardware.

Kit is optional and has to be ordered separately

FEATURES

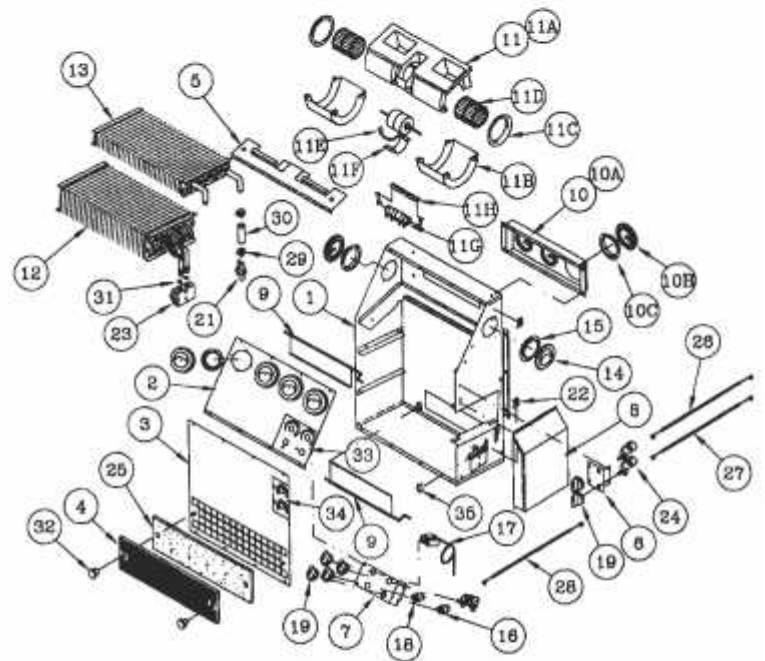
The 345 is an excellent choice for armored cars and large cabs. Its many options include outside air, rear air damper control, and side air louvers.

Dimension Profiles



Wiring Connection

Orange - Power (+)
 Black - Ground (-)
 White - To Compressor/Press. Switch
 Blue - To Condenser/Relay
 (If Fan Condenser)



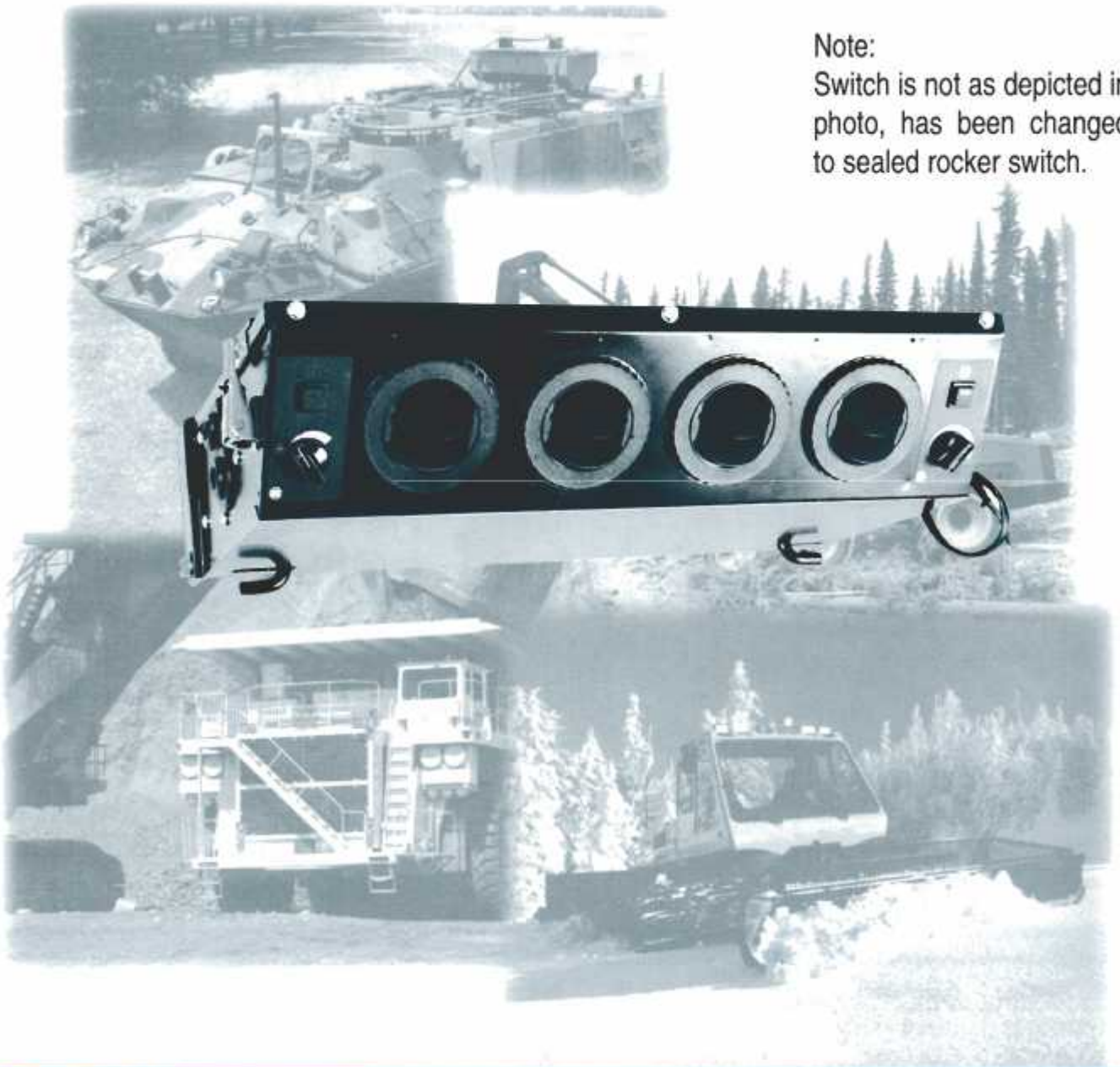
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2235	Casing	11C	25-0060	Venturi	21	26-0025	Heater Valve
2	24-2236	Face Cover	11D	25-0200	Blower Wheel	22	26-0079	Cable Clamp
3	24-2237	Front Cover	11E	25-0228	Motor 12V	23	26-0190	Block Valve
4	24-2238	Grill		25-0298	Motor 24V	24	26-0350	Rotary Control
5	24-2239	Blower Support	11F	25-0271	Motor Mount	25	26-0400	Air Filter
6	24-2240	Control Bracket	11G	25-0601	Resistor 12V	26	26-0421	Bowden Cable (R/A-Option)
7	24-2241	Control Bracket		25-0602	Resistor 24V	27	26-0422	Bowden Cable (F/A)
8	24-2242	Protection Cover	11H	29-0130	Resistor Bracket	28	26-0423	Bowden Cable (Heat)
9	24-2243	Flapper Door	12	21-0362	Evaporator Coil	29	27-0059	Gear Clamp
10	13-4590	Air Plenum Assy.	13	22-0318	Heater Coil	30	27-0225	Heater Hose
10A	24-2447	Plenum	14	23-0005	Louver	31	27-0602	O-Ring #8
10B	23-0005	Louver	15	23-0048	Adapter	32	26-0263	Knurled Knob
10C	23-0048	Adapter	16	25-0044	Blower Switch	33	28-0212	Overlay
11	15-1551	Blower 12V	17	25-0118	Thermostat Assy.	34	28-0213	Overlay
	15-1552	Blower 24V	18	25-0307	Switch	35	24-2274	Mounting Bracket
11A	25-0048	Blower Housing	19	25-0581	Knob			
11B	25-0348	Housing Top	20	25-0669	Wiring Harness (Not Shown)			

MCC Heater-Air Conditioner Model 346



Mobile Climate Control



Note:

Switch is not as depicted in photo, has been changed to sealed rocker switch.

Specifications

Part No.

13-4603	Heater-AC 12V
13-4604	Heater-AC 24V
13-4623	Air Conditioner 12V
13-4624	Air Conditioner 24V

Specifications

Heating	- 17500 Btu/h (5130 W)
Cooling	- 17300 Btu/h (5070 W)-AC only
	- 14250 Btu/h (4180 W)-Heater-AC
Air Flow	- 250 CFM (425 m ³ /h)
Current	- 12 Amps/13.5 V
	- 6 Amps/27V

Weight - 33 lbs. (15 kg)
3-Speed motor.

Made of 18GA (1.25mm) Cold Rolled Steel finished in black textured epoxy.

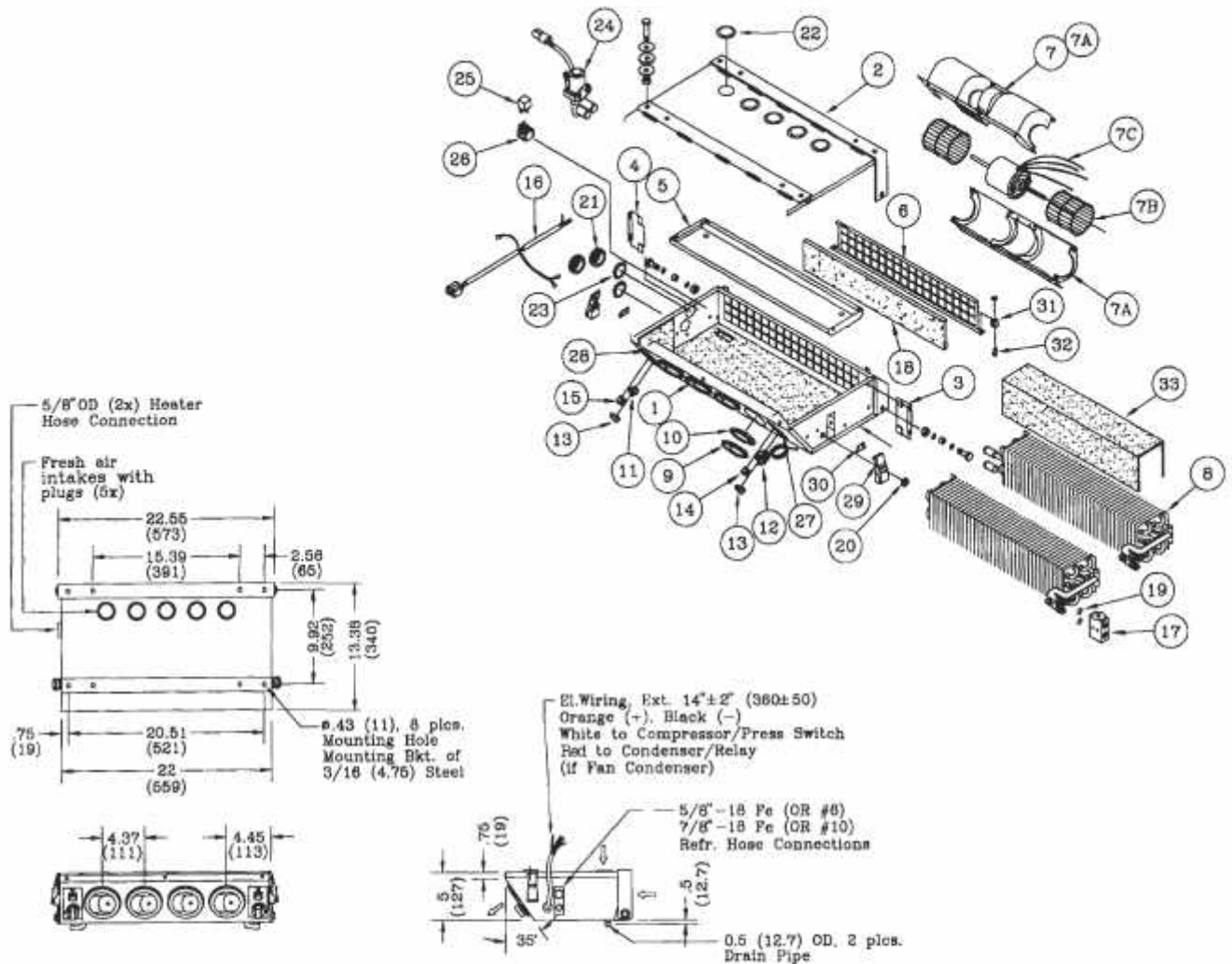
* Only for Heat/AC version.

** Only for AC version

FEATURES

The 346 is a compact overhead with a heater option. Its compact design makes it an excellent choice for many off-road cabs. The convenient swing-down unit makes for easy service.

Dimension Profiles



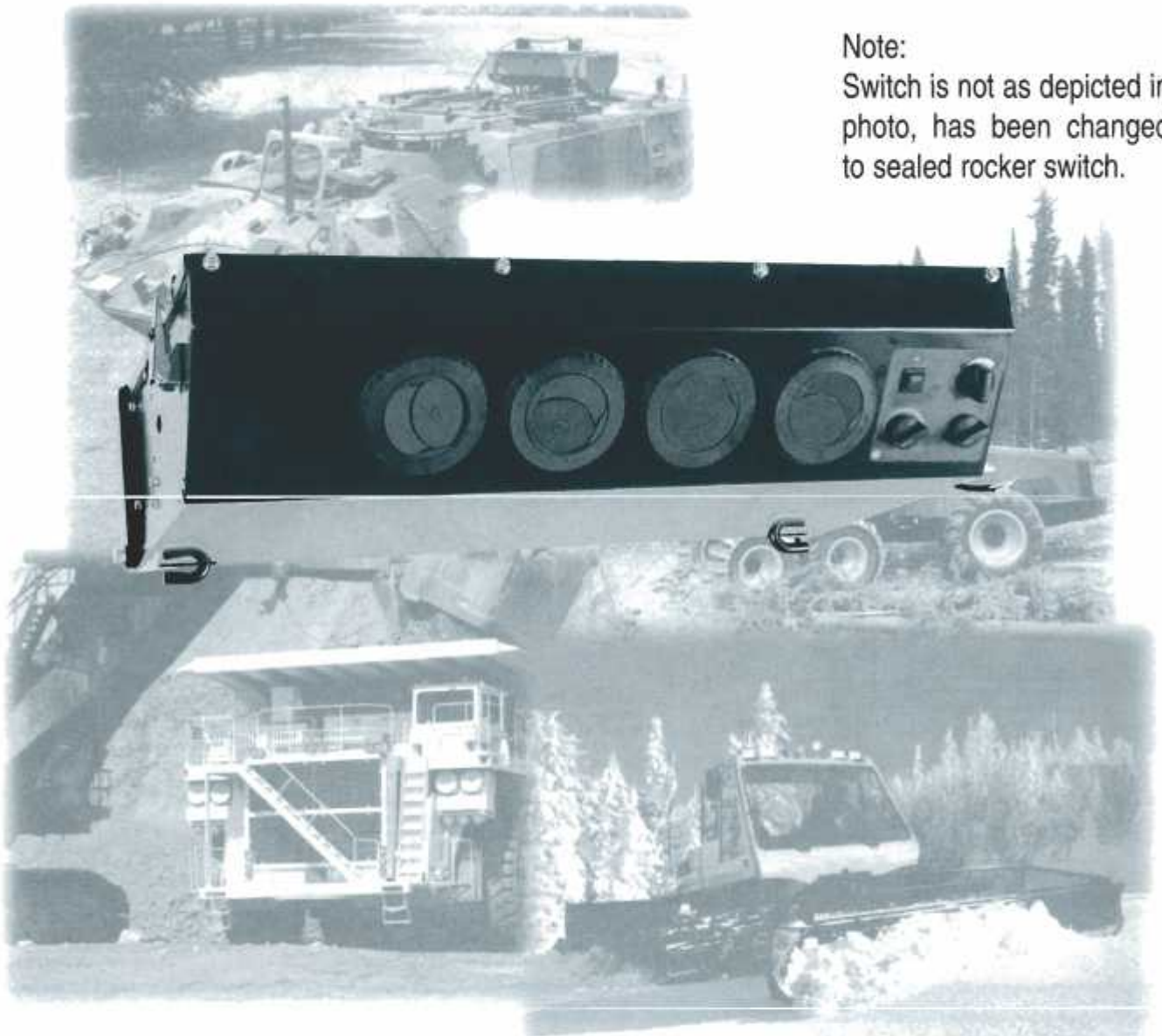
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-1991	Casing Assy.	10	23-0048	Adapter	22	28-0012	Snap-in Plug
2	24-1992	Cover Assy.	11	25-0029	Blower Switch	23	28-0013**	Snap-in Plug
3	24-1979	Coil Bracket	12	25-0118	Thermostat	24	26-0348	Solenoid Valve 12V
4	24-1980	Coil Bracket	13	25-0435	Knob		26-0194	Solenoid Valve 24V
5	24-1981	Drain Pan	14	25-0631	Switch Push 12V(AC)	25	25-0251	Relay 12V
6	24-1982	Filter Holder		25-0632	Switch Push 24V(AC)		25-0219	Relay 24V
7	15-0533	Blower 12V	15	25-0633*	Switch Push 12V (Heat)	26	25-0221	Socket Relay
	15-0534	Blower 24V		25-0634*	Switch Push 24V (Heat)	27	28-0173	Overlay
7A	25-0017	Blower Housing	16	25-0636**	Wiring Harness	28	28-0174	Overlay
7B	25-0021	Blower Wheel		25-0637*	Wiring Harness	29	29-0221	Latch
7C	25-0643	Motor 12V	17	26-0190	Block Valve	30	29-0222	Latch Hook
	25-0644	Motor 24V	18	26-0375	Air Filter	31	29-0075	Receptacle
8	21-0315**	Evaporator Coil	19	27-0602	O-Ring #8	32	29-0076	Stud, Oval Slotted
	21-0314*	Combo Coil (HE)	20	28-0004	Grommet		29-0077	Retainer
9	23-0005	Louver	21	28-0005*	Grommet	33	28-0185	Reticulated Foam

MCC Heater-Air Conditioner Model 347



Mobile Climate Control



Note:

Switch is not as depicted in photo, has been changed to sealed rocker switch.

Specifications

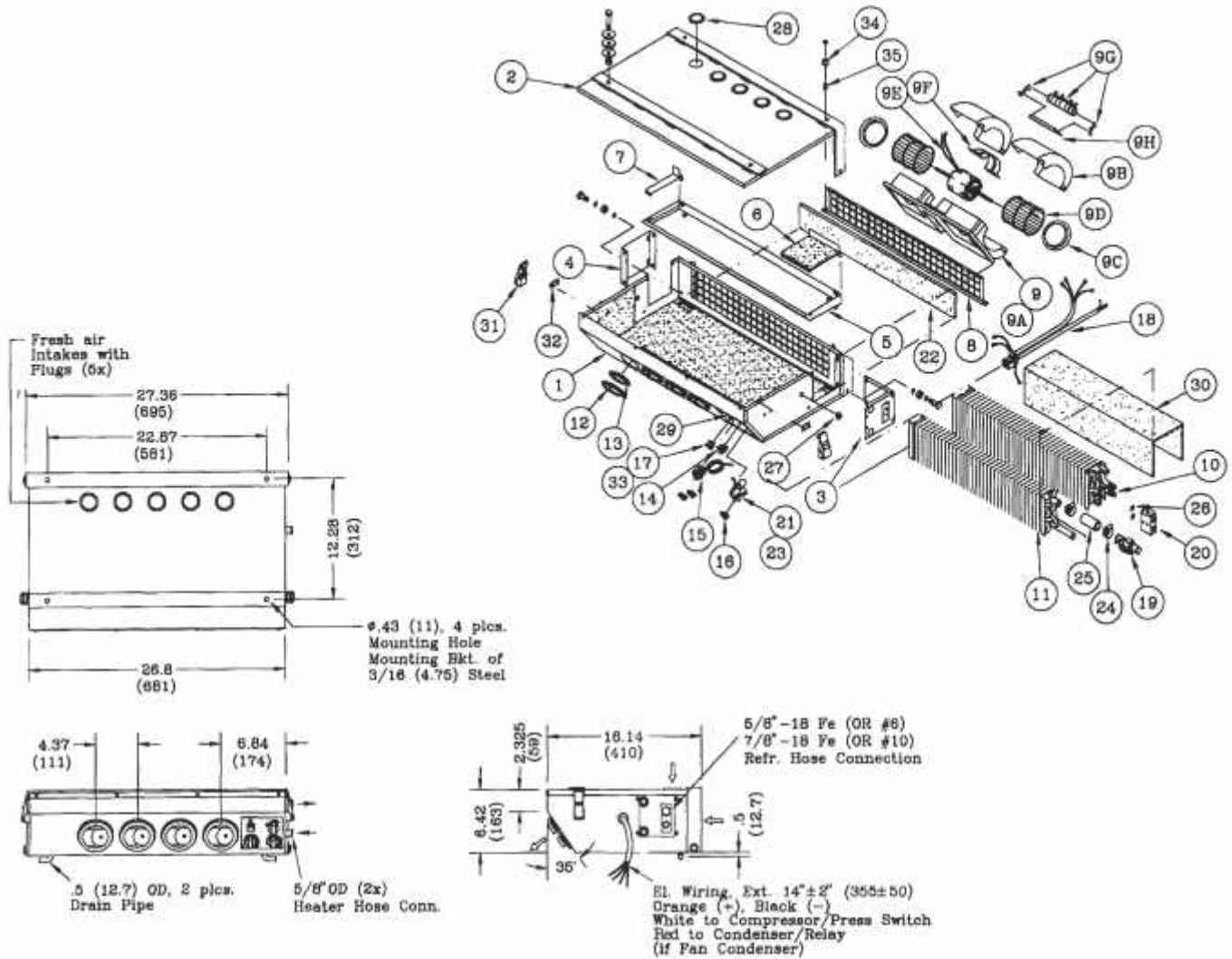
Part No.		Specifications	
13-4703	Heater-AC 12V	Heating	-40000 Btu/h (11720 W)
13-4704	Heater-AC 24V	Cooling	-21000 Btu/h (6150 W)
13-4723	Air Conditioner 12V	Air Flow	-450 CFM (765 m ³ /h)
13-4724	Air Conditioner 24V	Current	-23 Amps/13.5V
13-4795	Heater Conv. Kit		-11.5 Amps/27V
		Weight	-49 lbs. (22.2 kg)

3-Speed motor.
Made of 18GA (1.25mm) Cold Rolled Steel and finished in black textured epoxy powder coat.
* Only for Heat/AC version.
Heater and Evaporator Coil can be changed to have opposite connections.

FEATURES

The 347 is a larger capacity version of the 346. The coils can be flipped to either side of the unit to accommodate different installations. Outside air is available. This high capacity unit will handle most off-road cabs.

Dimension Profiles



Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2215	Casing Assy.	9F	25-0271	Motor Mount	21	26-0350	Rotary Control
2	24-2216	Cover Assy.	9G	25-0601	Resistor 12V	22	26-0376	Air Filter
3	24-1956	Coil Bracket		25-0602	Resistor 24V	23	26-0377	Bowden Cable
4	24-1957	Coil Bracket	9H	29-0130	Resistor Bracket	24	27-0059	Gear Clamp
5	24-1958	Drain Pan	10	21-0313	Evaporator Coil	25	27-0225	Heater Hose 5/8"(HD)
6	24-2228	Coil Support Assy.	11	22-0290	Heater Coil	26	27-0602	O-Ring #8
7	24-1960	Coil Support	12	23-0005	Louver	27	28-0004	Grommet
8	24-1961	Filter Holder	13	23-0048	Adapter	28	28-0012	Snap-in Plug
9	15-1561	Blower 12V	14	25-0044	Blower Switch	29	28-0172	Overlay
	15-1562	Blower 24V	15	25-0118	Thermostat	30	28-0187	Reticulated Foam
9A	25-0048	Blower Housing	16	25-0435	Knob		28-0189	Reticulated Foam
9B	25-0348	Housing Top	17	25-0631	Switch Push 12V	31	29-0221	Latch
9C	25-0060	Venturi		25-0632	Switch Push 24V	32	29-0222	Latch Hook
9D	25-0200	Blower Wheel	18	25-0638	Wiring Harness	33	29-0075	Receptacle
9E	25-0655	Motor 12V	19	26-0025	Heater Valve	34	29-0076	Stud, Oval Slotted
	25-0660	Motor 24V	20	26-0190	Block Valve		29-0077	Retainer

MCC Heater-Air Conditioner Model 353



Mobile Climate Control



Specifications

Part No.		Specifications	
13-5303	Heater-AC 12V	Heating	-46000 Btu/h (13480 W)
13-5304	Heater-AC 24V	Cooling	-34000 Btu/h (9970 W)
		Air Flow	-450 CFM (765 m ³ /h)
		Current	-10.2 Amps/27V
			-20.4 Amps/13.5V
		Weight	-44 lbs. (22 kg)

Made of 18GA (1.25mm) Cold Rolled Steel and finished in black epoxy powder coat.
Dim. marked (*) are inlet and outlet openings.
Items 18 to 28 are optional and have to be ordered separately.

FEATURES

The 353 was designed for log loader applications in Western North America. It is available in many different hose adapter options. It also has a 32" cover option for cab wall mount applications.

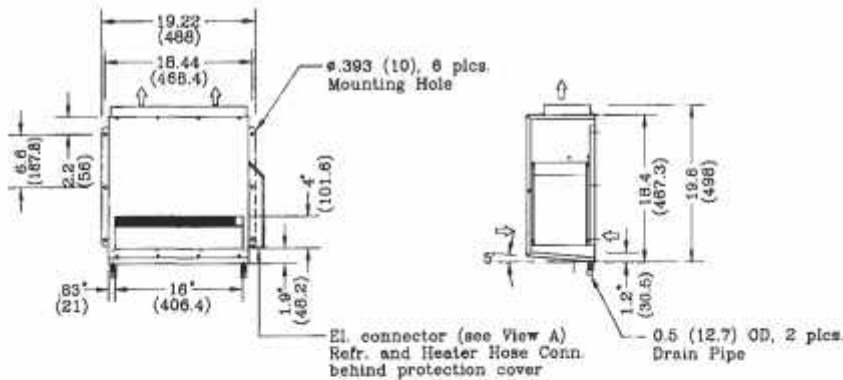
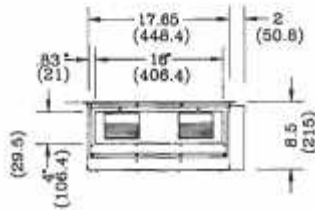
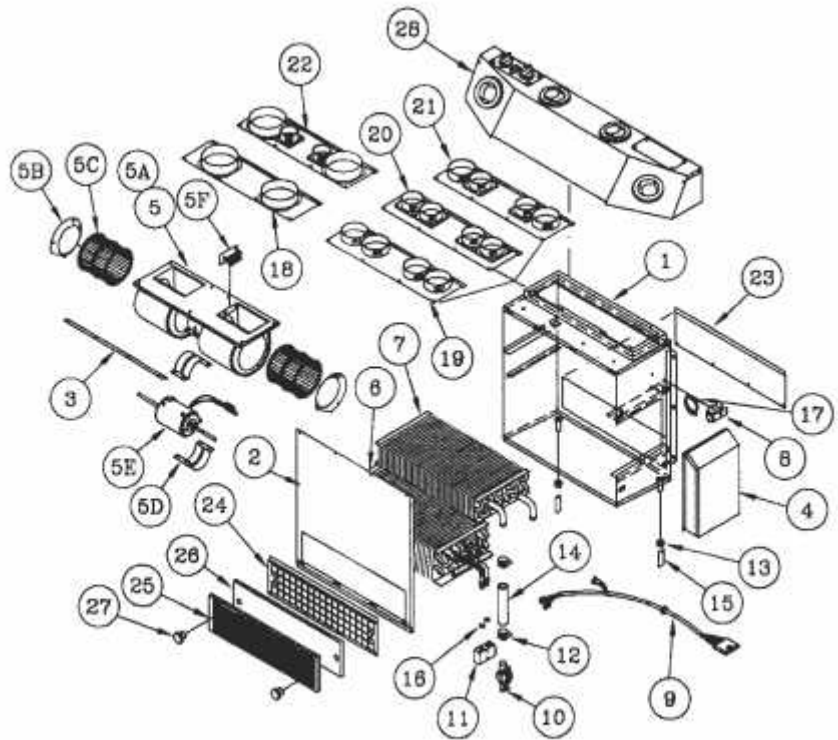
Dimension Profiles

ABCDEF


VIEW A

A - Orange - High speed
 B - Red - Medium speed
 C - Yellow - Low speed
 D - Black - Ground
 E - White - From AC On-Off Switch
 F - White - To compressor (over H/L switch)

Weather pack 6-Way Male Connector
 #12010975 (MCC #31-1048) with terminal
 #12024582 (MCC #31-1039) and seal
 #12010293 (MCC #31-1024)



Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2204	Casing	6	21-0337	Evaporator Coil	18	23-0160	HA Plate (2x4")
2	24-2205	Cover	7	22-0299	Heater Coil	19	23-0161	HA Plate (4x3")
3	24-2206	Blower Mount	8	25-0069	Thermostat	20	23-0162	HA Plate (4x2 1/2")
4	24-2207	Protection Cover	9	25-0661	Wiring Harness	21	23-0165	HA Plate (2x3"/2x2 1/2")
5	15-2033	Blower 12V	10	26-0025	Heater Control Valve	22	23-0167	HA Plate (2x4"/2x2")
	15-2034	Blower 24V	11	26-0190	Block Valve	23	24-1436	Cover Plate
5A	25-0159	Blower Housing	12	27-0059	Gear Clamp	24	24-2212	Grill Support
5B	25-0164	Venturi	13	27-0091	Drain Hose Clamp	25	24-1524	Grill
5C	25-0047	Blower Wheel	14	27-0225	Heater Hose	26	26-0412	Air Filter
5D	24-0234	Motor Mount	15	27-0421	Drain Valve	27	26-0263	Knurled Knob
5E	25-0265	Motor 12V	16	27-0602	O-Ring #8	28	13-5391	Plenum 12V
	25-0270	Motor 24V	17	28-0031	PVC Hose		13-5392	Plenum 24V
5F	25-0136	Resistor 12V						
	25-0552	Resistor 24V						

MCC Air Conditioner Model 355



Mobile Climate Control



Specifications

Part No.		Specifications	
13-5521	Air Conditioner 12V	Cooling	-20000 Btu/h (5860 W)
13-5522	Air Conditioner 24V	Air Flow	-275 CFM (468 m ³ /h)
		Current	-12 Amps/13.5V -6 Amps/27V
		Weight	-31 lbs. (14 kg)

Made of 18GA (1.25mm) Cold Rolled Steel and finished in grey epoxy powder coat.

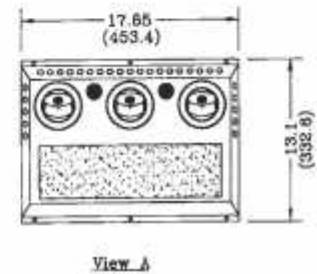
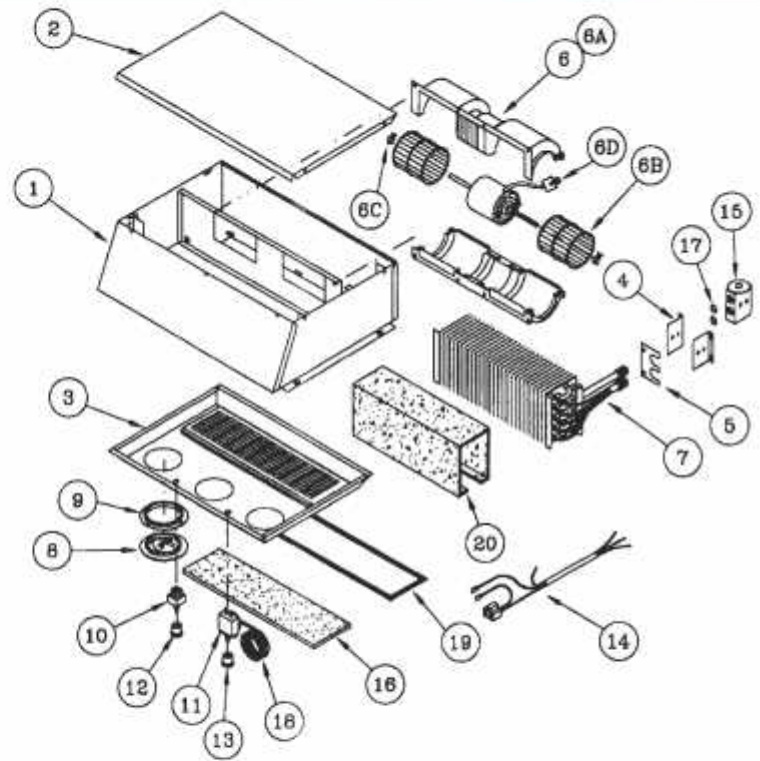
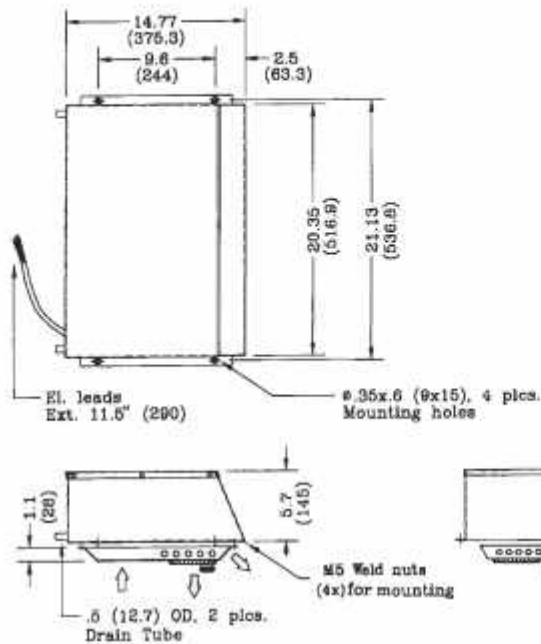
FEATURES

The 355 is a low profile roof mount air conditioner.

Dimension Profiles

El. Connection

Orange - Power(+)
 Black - Ground(-)
 White - To pressure switch/
 compressor
 Blue - To condenser/relay
 (if fan condenser)



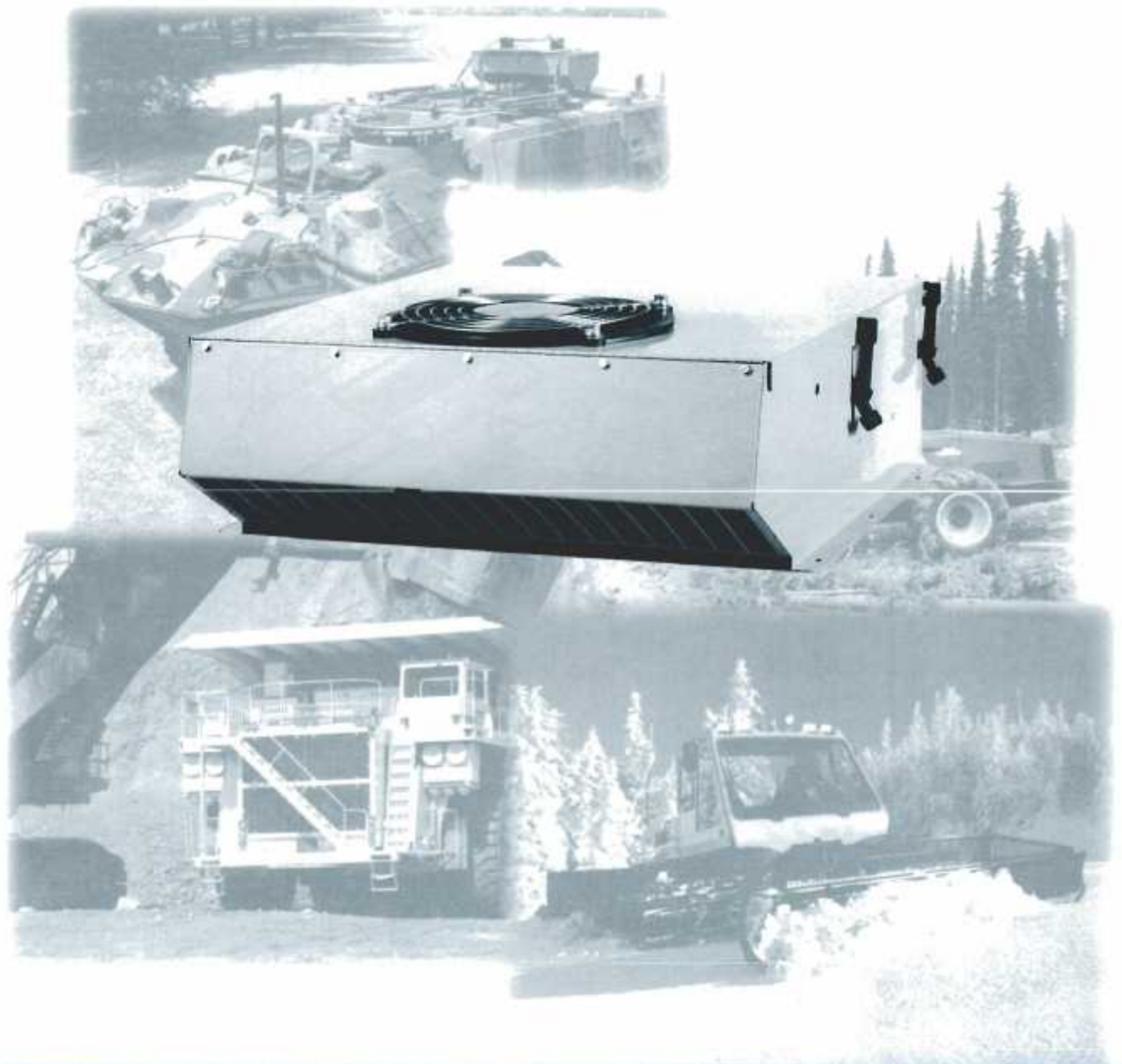
Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2177	Casing Assy.	6C	25-0643	Motor 12V	13	25-0068	Knob (Temp.)
2	24-2296	Cover Assy.		25-0644	Motor 24V	14	25-0672	Wiring Harness
3	24-2437	Air Plenum	6D	25-0022	Clip	15	26-0190	Block Valve
4	24-2439	Support Bracket	7	21-0399	Evaporator Coil	16	26-0431	Air Filter
5	24-2440	Cover Plate	8	23-0005	Louver	17	27-0602	O-Ring #8
6	15-0533	Blower 12V	9	23-0048	Adapter	18	28-0031	PVC Hose
	15-0534	Blower 24V	10	25-0044	Blower Switch	19	28-0166	Hook Tape
6A	25-0017	Blower Housing	11	25-0045	Thermostat	20	28-0230	Reticulated Foam
6B	25-0021	Blower Wheel	12	25-0067	Knob(Fan)			

MCC Heater-Air Conditioner Model 360



Mobile Climate Control



Specifications

Part No.		Specifications	
13-6023	Air Conditioner 12V	Heating	-46000 Btu/h (13500 W)
13-6024	Air Conditioner 24V	Cooling	-27000 Btu/h (7900 W)
13-6095	Heater Conv. Kit	Air Flow	-400 CFM (680 m ³ /h)
		Current	-40 Amps/12V -20 Amps/24V
		Weight	-77 lbs. (35 kg)

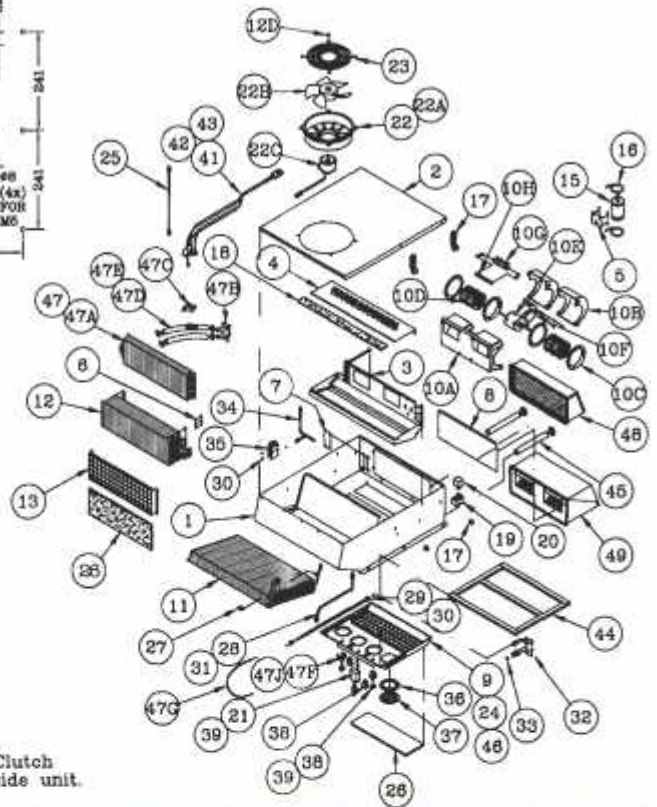
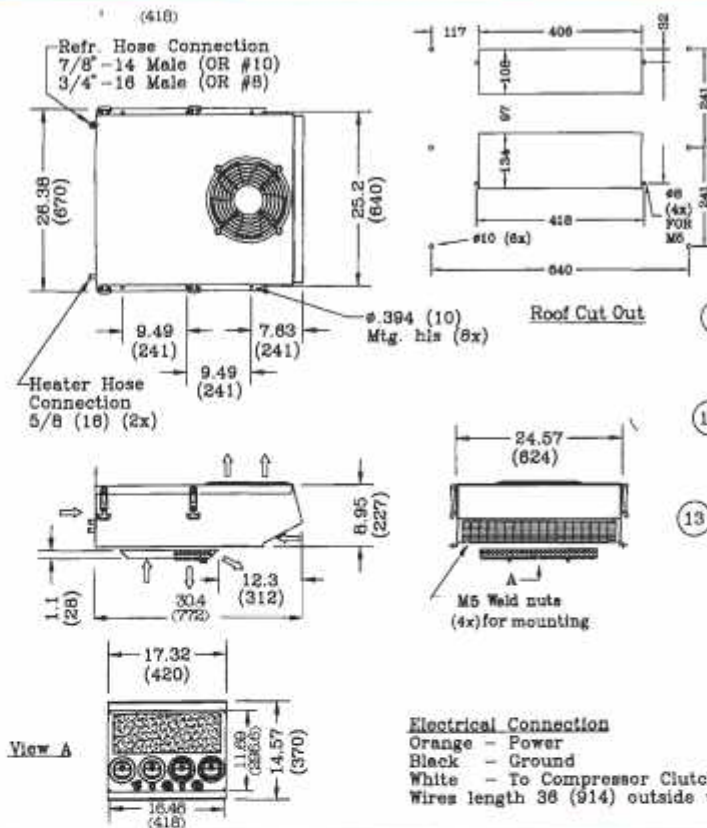
Made of 14 (1.5mm) and 16 (1.5mm) GA Cold Rolled Steel and finished in grey semi-gloss epoxy powder coat.

Items 47 to 49 are optional and have to be ordered separately.

FEATURES

The 360 was designed to offer a variety of installation options. It can be set up with an outside air or positive fan presswinger. It is also available with heat. A water and corrosion resistant condenser ensures years of service. Four nylon latches allow easy service access.

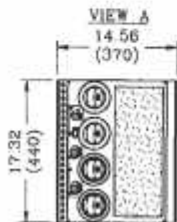
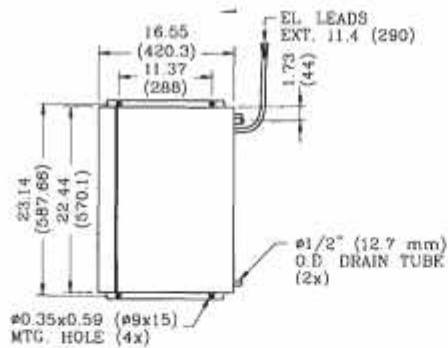
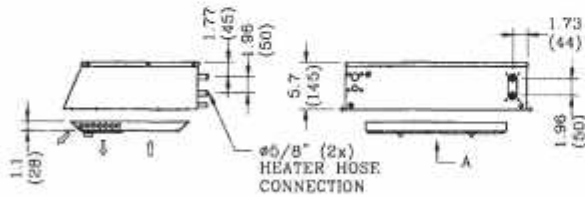
Dimension Profiles



Part Descriptions

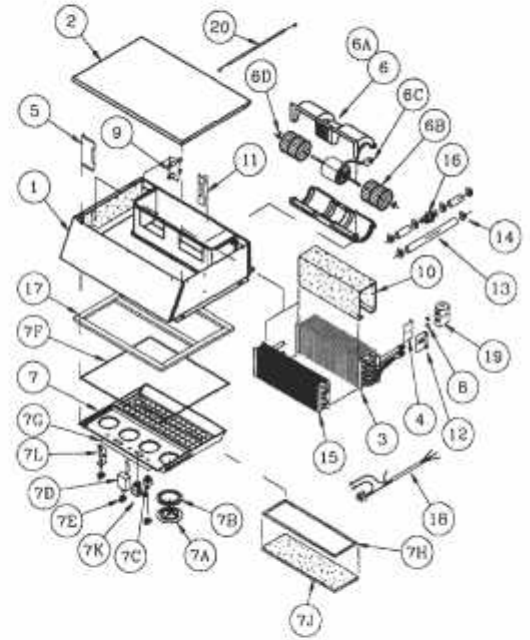
No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2219	Casing Assy.	17	29-0236	Draw Latch Assy.	37	23-0005	Louver
2	24-2208	Cover Assy.	18	28-0242	Foam	38	25-0044	Blower Switch
3	24-2221	Drain Plate	19	25-0221	Socket Relay	39	25-0435	Knob
4	24-2270	Coil Support	20	25-0251	Relay 12V	40	25-0631	Switch Push 12V
5	24-2429	R.D. Bracket		25-0219	Relay 24V		25-0632	Switch Push 24V
6	24-2428	Bracket	21	25-0118	Thermostat	41	25-0693	Wiring Harness
7	24-2505	Plate	22	15-7501	Fan Assy. 12V	42	25-0689	Fuse 40A/12V (Blower)
8	24-2226	Cover Plate		15-7502	Fan Assy. 24V		25-0686	Fuse 20A/24V (Blower)
9	24-2430	Air Plenum	22A	25-0577	Venturi	43	25-0688	Fuse 30A/12V (Fan)
10	15-1561	Blower 12V	22B	25-0579	Fan		25-0685	Fuse 15A/24V (Fan)
	15-1562	Blower 24V	22C	25-0591	Motor 12V	44	28-0225	Gasket
10A	25-0048	Blower Housing		25-0592	Motor 24V	45	27-0030	Drain Hose
10B	25-0348	Housing Top	22D	29-0167	"C" Clip		27-0091	Drain Hose Clip
10C	25-0060	Venturi	23	23-0148	Finger Guard	46	28-0248	Overlay
10D	25-0200	Blower Wheel	24	28-0221	EPDM Seal	47	13-6095	Heater Conv. Kit
10E	25-0655	Motor 12V	25	29-0235	Cable Assy.	47A	22-0301	Heater Coil
	25-0660	Motor 24V	26	28-0244	Air Filter	47B	34-0267	Copper Tube Assy.
10F	25-0130	Motor Mount	27	25-0343	Pressure Switch	47C	26-0074	Heater Valve
10G	25-0601	Resistor 12V	28	34-0397	Copper Tube 3/8"	47D	27-0225	Heater Hose 5/8"
	25-0602	Resistor 24V	29	34-0398	Copper Tube 1/2"	47E	27-0059	Gear Clamp
10H	29-0130	Resistor Bracket	30	27-0602	O-Ring #8	47F	26-0345	Rotary Control
11	21-0341	Condenser Coil	31	27-0601	O-Ring #6	47G	26-0441	Bowden Cable
12	21-0339	Evaporator Coil	32	34-0261	Copper Tube Assy.	47J	25-0435	Knob
13	24-2433	Filter Support	33	27-0603	O-Ring #10	48	16-0200	Filter Unit
14	28-0243	Reticulated Foam	34	34-0364	Copper Tube 3/8"	49	16-0303	Filter Kit 12V
15	26-0018	Receiver Drier	35	26-0190	Block Valve		16-0304	Filter Kit 24V
16	27-1121	Gear Clamp 4"	36	23-0048	Adapter			

Dimension Profiles



EL CONNECTIONS

ORANGE - POWER (+)
 BLACK - GROUND (-)
 WHITE - TO PRESSURE SWITCH/COMPRESSOR
 BLUE - TO CONDENSER/RELAY (IF FAN COND.)



Part Descriptions

No.	Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
1	24-2842	Casing Assembly	7b	23-0048	Adapter	11	24-2722	Coil Support Bracket
2	24-2843	Cover Assembly	7c	25-0044	Blower Switch	12	24-2719	Valve Mtg. Bracket (R)
3	21-0399	Evaporator Coil	7d	25-0118	Thermostat	13	27-0225	Heater Hose (2x70mm&180mm)
4	24-2718	Valve mtg. brkt (L)	7e	25-0435	Knob	14	27-0059	Gear Clamp
5	24-2721	Coil Support (Long)	7f	28-0161	EPDM Seal (10mm)	15	22-0376	Heater Coil
6	15-0533	Blower 12V	7g	28-0248	Overlay	16	26-0025	Heater Valve
6	15-0534	Blower 24V	7h	28-0166	Hook Tape	17	28-0225	Gasket
6a	25-0017	Blower Housing	7j	28-0244	Air Filter	18	25-0737	Wiring Harness
6b	25-0021	Blower Wheel	7k	25-1106	Rocker Switch (G) 24V	19	26-0190	Block Valve
6c	25-0644	Motor 24V	7k	25-1105	Rocker Switch (G) 12V	20	26-0590	Bowden Cable
6c	25-0643	Motor 12V	7L	26-0350	Rotary Control w/nut			
6d	25-0022	Clip	8	27-0602	O-Ring #8			
7	26-0584	Air Plenum Assy. 24V	9	34-0560	Copper Tube Assy.			
7	26-0583	Air Plenum Assy. 12V	10	28-0230	Reticulated Foam			
7a	23-0005	Louver						

MCC Heater-Air Conditioner Model 369

NEW

Mobile Climate Control



Specifications

Part No.

13-6903	Combo Unit 12V
13-6904	Combo Unit 24V

Specifications

Heating	-28000 Btu/h (8200 W)
Cooling	-20000 Btu/h (5860 W)
Air Flow	-275 CFM (468 m ³ /h)
Current	-12 Amps/12V -6 Amps/24V
Weight	-30.9 lbs. (14 kg)

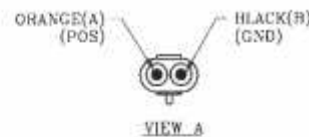
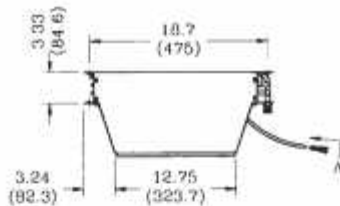
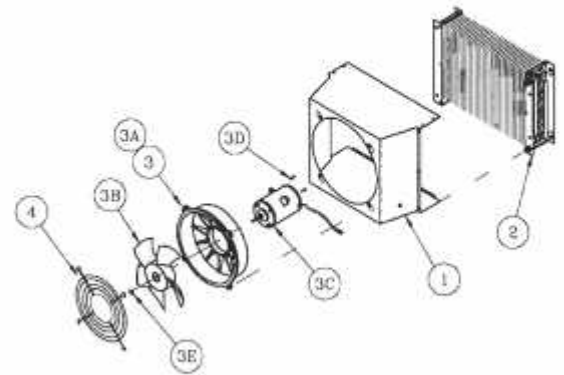
Casing made of 18GA (1.25mm) Cold Rolled Steel and finished in grey epoxy powder coat.

FEATURES

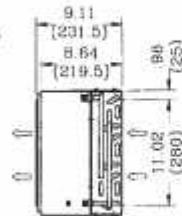
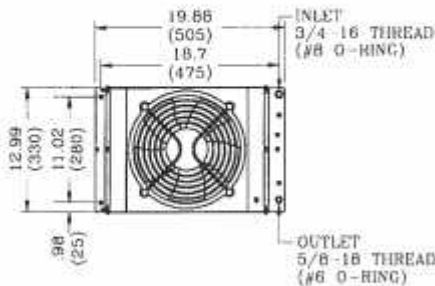
The 355 is a low profile roof mount heater/air conditioner.

MCC Electric Condenser Model 405

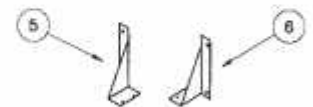
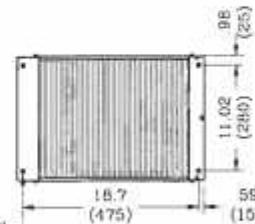
Mobile Climate Control



Electrical Connections:
2-way male weather pack connector, packard #12010973 (MCC #31-1068) with male terminal #12124582-L(2x) (MCC #31-1039) and seal #12010293 (2x) (MCC #31-1024)



MOUNTING LOCATION WITH M6 SPOTNUT INSIDE (8x)



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
14-0513	Condenser 12V	1	24-2892	Casing	3C	25-0745	Motor 12V
14-0514	Condenser 24V	2	21-0412	Condenser Coil		25-0746	Motor 24V
		3	15-7551	Fan Assy. 12V	3D	29-0166	#10 -32 HEX. Socket CTR.Sunk
			15-7552	Fan Assy. 24V			"C" clip
		3A	25-0577	Venturi	3E	29-0167	"C" clip
		3B	25-0579	Fan	4	23-0148	Finger Guard
					5	24-3639	Bracket, Left (Opt.)
					6	24-3640	Bracket, Right (Opt.)

Items 5 and 6 have to be ordered separately.

Specifications

Capacity	-to support a cooling capacity of 29650 Btu/h (8700 W)
Air Flow	-1150 CFM (1950 m ³ /h)
Current	-17 Amps (1.35V) -8.5 Amps at (27V)
Weight	-28.5 lbs. (13 kg)

Casing made of 16GA (1.5mm) Satin Coat Steel.
Endplates made of 14GA (2mm) Satin Coat Steel. Both are finished in black semi-gloss epoxy powder coat.

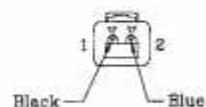
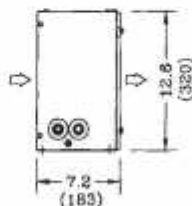
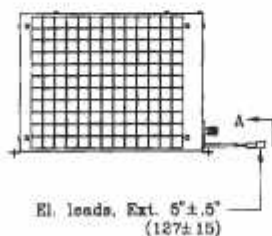
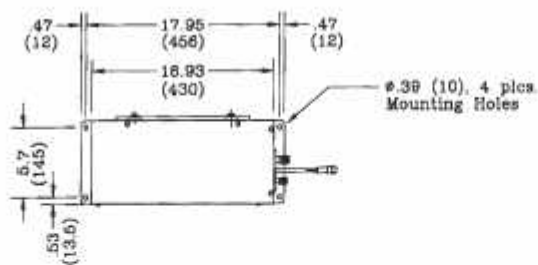
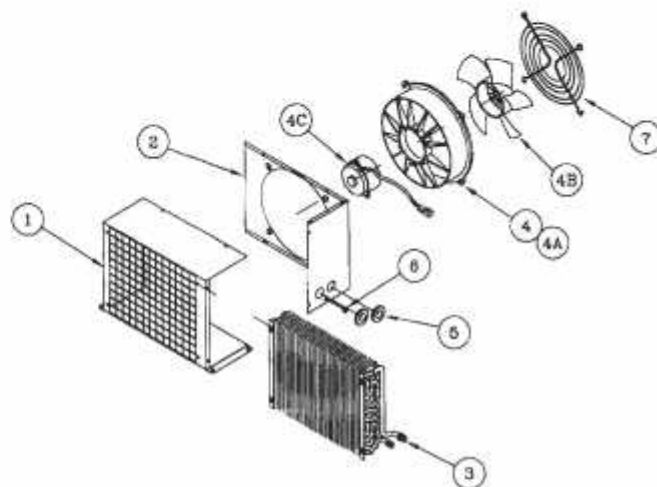
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 405 is a compact, high capacity unit. Its compact design allows for wall or flush mounting applications in engine compartments. A motor with longer life than in the 403 is used in this condenser which makes it slightly deeper.

MCC Electric Condenser Model 402

Mobile Climate Control



VIEW A
Receptacle Deutsch DT04-2P
Pin (2x) 0480-215-1614T
Wedge (2x) W2P

Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
14-0201	Condenser 12V	1	24-1591	Casing	4B	25-0579	Fan
14-0202	Condenser 24V	2	24-1592	Cover	4C	25-0621	Motor Assy. 12V
		3	21-0278	Condenser Coil		25-0622	Motor Assy. 24V
		4	15-7511	Fan Assy. 12V	5	28-0005	Grommet
			15-7512	Fan Assy. 24V	6	28-0014	Grommet
		4A	25-0577	Venturi	7	23-0148	Finger Guard

Specifications

Capacity	-to support a cooling capacity of 26500 Btu/h (7770 W)
Air Flow	-1025 CFM (1735 m ³ /h)
Current	-21.2 Amps/13.5V -10.6 Amps/27V
Weight	-24 lbs. (11 kg)

Casing made of 14/18GA (2/1.25mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.

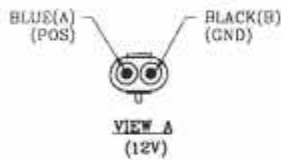
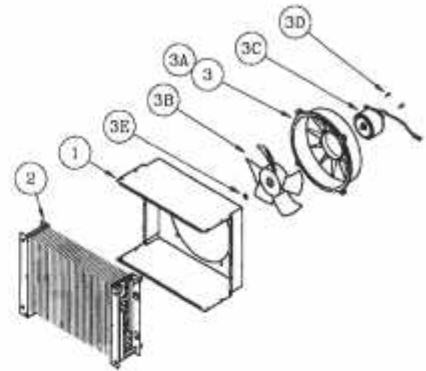
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

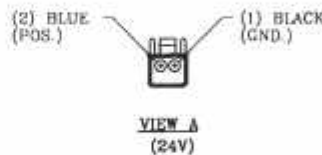
The 402 is an excellent light duty application condenser. It provides the option of deck or roof mounting.

MCC Electric Condenser Model 403

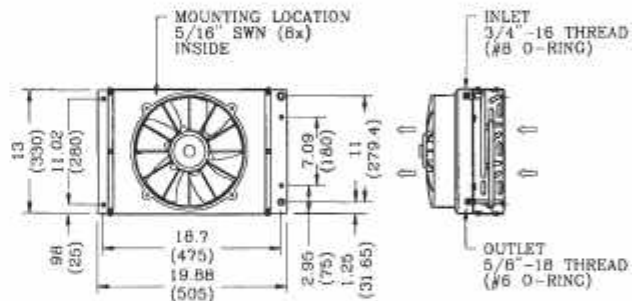
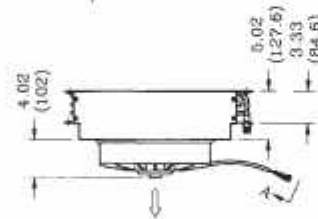
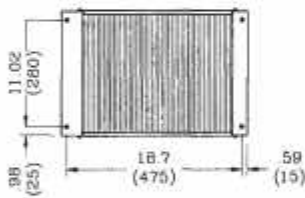
Mobile Climate Control



Electrical Connections
2-way male weather pack connector, packard #12010973 (MCC #31-1068) with male terminal #12124582-L (2x) (MCC #31-1039) and seal #12010293 (2X) (MCC #31-1024)



Electrical Connections
2-way Deutsch plug DT06 - 2S (MCC #31-1123) with #W2S wedge (MCC #31-1124) and 2 contacts 14/16Ga #0462-209-1614 (MCC #31-1125)



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
14-0301	Condenser 12V	1	24-2514	Casing	25-0778	Motor 24V	
14-0302	Condenser 24V	2	21-0412	Condenser Coil	3c	25-0591	Motor 12V
Specifications		3	15-7604	Fan Assembly 24V	3d	29-0166	#10-32 Hex.Socket
Capacity	-To support a cooling capacity of 29700 Btu/h (8700 W)	3	15-7601	Fan assembly 12V	3e	29-0197	*C* Clip
Airflow	-1150 CFM (1950 m³/h)	3a	25-0577	Venturi			
Current	-19.2 Amps (at 13.5V)	3b	25-0728	Fan			
	-9 amps (at 27V)						
Weight	-28.7 lbs (13kg)						

Note: Casing made of 16GA satin coat steel, endplates made of 14GA satin coat steel and both finished in black semi gloss epoxy powder coat.

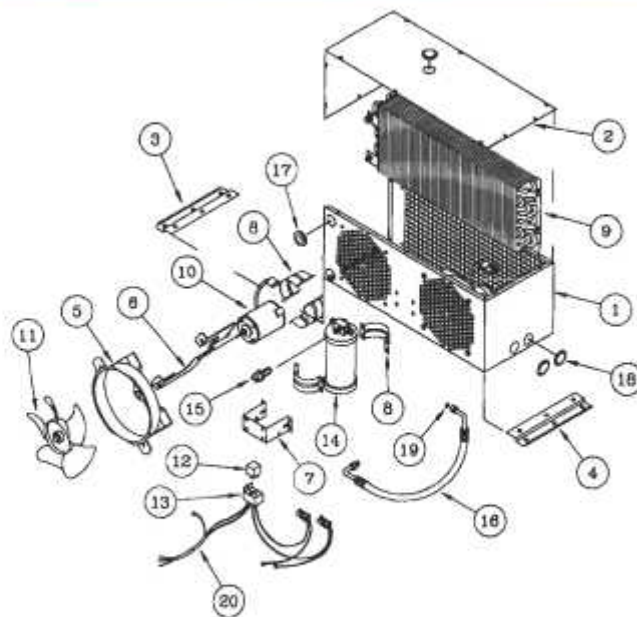
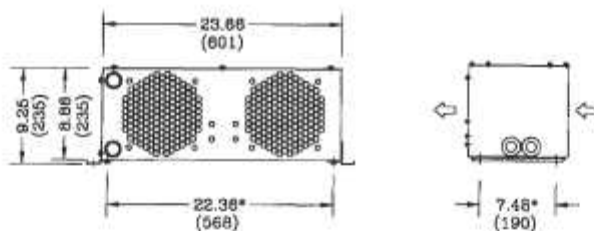
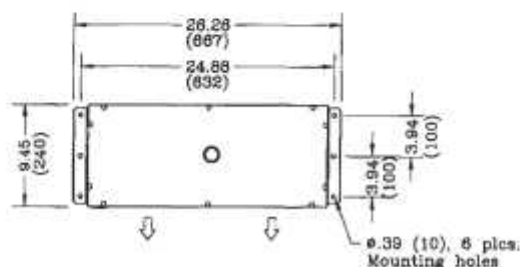
Electrical condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 403 is a compact high performance condenser.

MCC Electric Condenser Model 406

Mobile Climate Control



(*) - Dimensions of Mounting Hole (M8 Thd)

Note
El. Wiring and Refr. Hose
to be connected inside casing

Wiring
Orange(+), Black(-)
Blue (from On-Off AC)

Refrigerant
Inlet-3/4"-18 Male (#8 O-Ring)
Outlet-5/8"-18 Male (#6 O-Ring)

Part Descriptions: Specifications

Part No.	No.	Part No.	Description	No.	Part No.	Description		
14-0611		Condenser 12V	1	24-0145	Casing	11	25-0108	Fan
14-0612		Condenser 24V	2	24-0159	Cover	12	25-0251	Relay 12V
			3	24-1993	Mounting Bracket (L)		25-0219	Relay 24V
			4	24-1998	Mounting Bracket (R)	13	25-0221	Socket, Relay
			5	25-0309	Venturi Assy.	14	26-0220	Receiver Drier
			6	25-0434	Motor Support	15	25-0343	Pressure Switch
			7	24-0343	Receiver Drier Bracket	16	27-0288	Refr. Hose Assy. #6
			8	24-0234	Mount	17	28-0005	Grommet
			9	21-0122	Condenser Coil	18	28-0013	Snap-in Plug
			10	25-0470	Motor 12V	19	27-0601	O-Ring #6
				25-0490	Motor 24V	20	25-0451	Wiring Harness

Casing made of 16GA (1.5mm) and mounting brackets of 14GA (2mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.

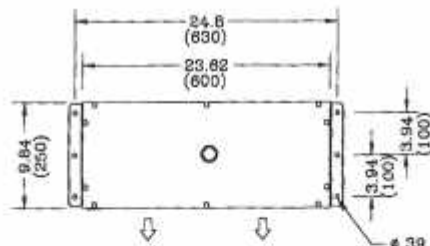
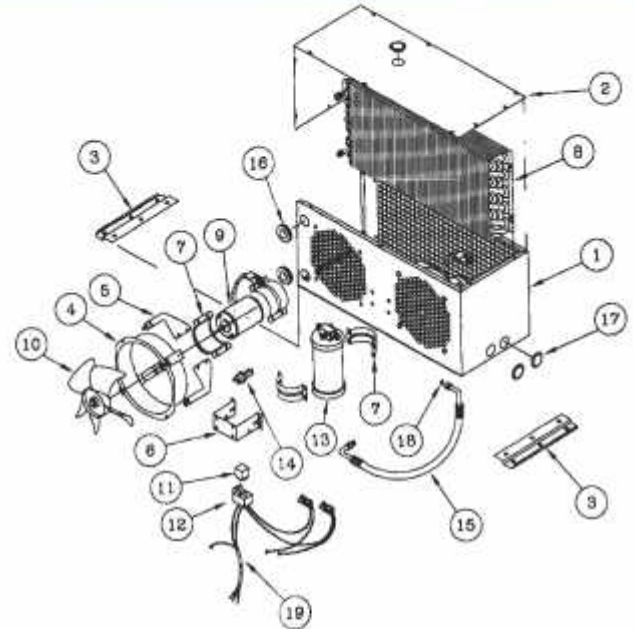
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 406 is a deck or roof mount condenser that has the receiver/drier mounted internally. The hose can exit either side of the 406. Condenser must be mounted as shown in picture.

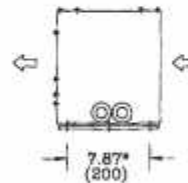
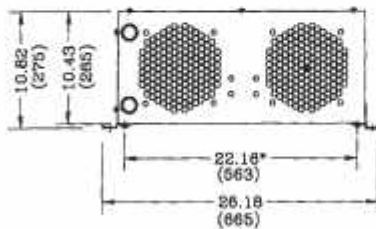
MCC Electric Condenser Model 407

Mobile Climate Control



#.39 (10), 6 plcn. Mounting Holes

(*) - Dimensions of Mounting Hole (M8 Thd.)



Note
El.Wiring and Refr. Hose to be connected inside casing

Wiring
Orange(+), Black(-)
Blue (from On-Off AC)

Refrigerant
Inlet-3/4"-18 Male (# 8 O-Ring)
Outlet-5/8"-18 Male (#6 O-Ring)

Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
14-0701	Condenser 12V	1	24-1199	Casing	11	25-0251	Relay 12V
14-0702	Condenser 24V	2	24-1200	Cover		25-0219	Relay 24V
		3	24-1984	Mounting Bracket	12	25-0221	Socket, Relay
		4	25-0388	Venturi	13	26-0220	Receiver Drier
		5	25-0434	Motor Support	14	25-0343	Pressure Switch
		6	24-0343	Receiver Drier Bracket	15	27-0288	Refr. Hose Assy. #6
		7	24-0234	Mount	16	28-0005	Grommet
		8	21-0203	Condenser Coil	17	28-0013	Snap-in Plug
		9	25-0470	Motor 12V	18	27-0601	O-Ring #6
			25-0490	Motor 24V	19	25-0451	Wiring Harness
		10	25-0181	Fan			

Casing made of 16GA (1.5mm) and mounting brackets of 14GA (2mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.

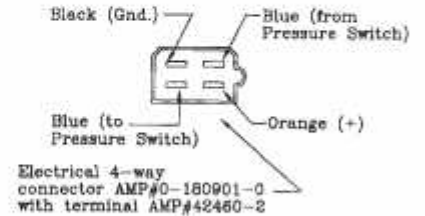
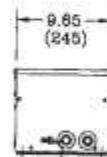
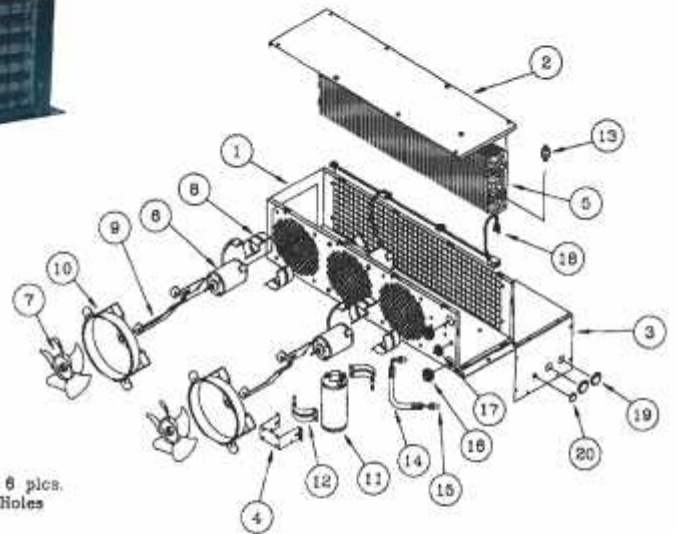
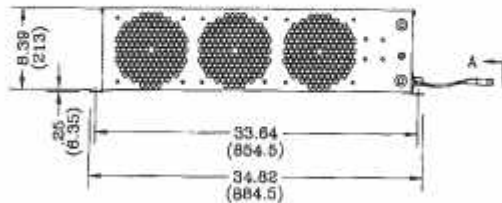
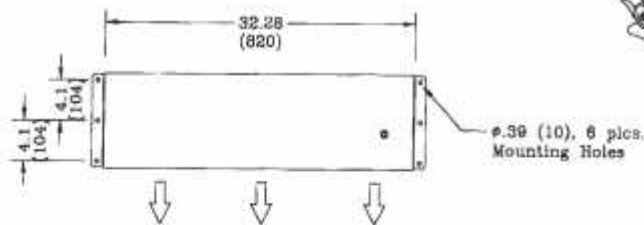
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 407 is a larger capacity version of the 406. With the receiver/drier mounted internally, installation time is minimized. Condenser must be mounted as shown in picture.

MCC Electric Condenser Model 408

Mobile Climate Control



View A

Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
14-0851	Condenser 12V	1	24-0964	Casing	11	26-0219	Receiver Drier
14-0852	Condenser 24V	2	24-0965	Cover	12	25-0297	Mount
		3	24-0966	Side Cover	13	25-0308	Pressure Switch
		4	24-0967	Receiver Drier Bracket	14	27-0373	Refrigerant Hose #6
		5	21-0166	Condenser Coil	15	27-0601	O-Ring #6
		6	25-0185	Motor 12V	16	28-0005	Grommet
			25-0190	Motor 24V	17	28-0004	Grommet
		7	25-0108	Fan C.C.W.	18	25-0450	Wiring Harness
		8	24-0234	Motor Mount	19	28-0013	Snap-in Plug
		9	25-0434	Motor Support	20	28-0011	Snap-in Plug
		10	25-0309	Venturi Assy.			

Specifications

Capacity	-to support a cooling capacity of 29000 Btu/h (8500 W)
Air Flow	-1050 CFM (1785 m ³ /h)
Current	-20 Amps/13.5V -10 Amps/27V
Weight	-47 lbs. (21.3 kg)

Casing made of 16GA (1.5mm) and mounting bracket of 14GA (2mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.

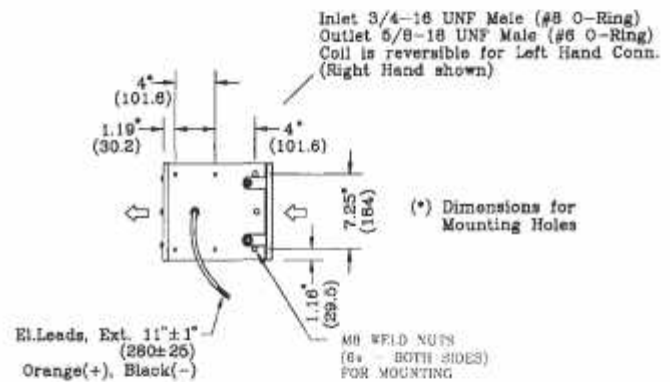
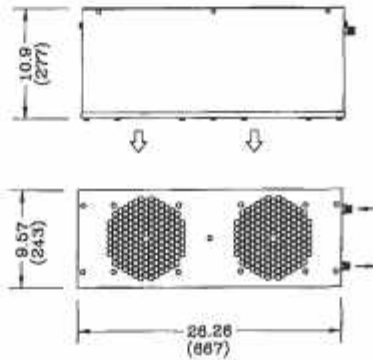
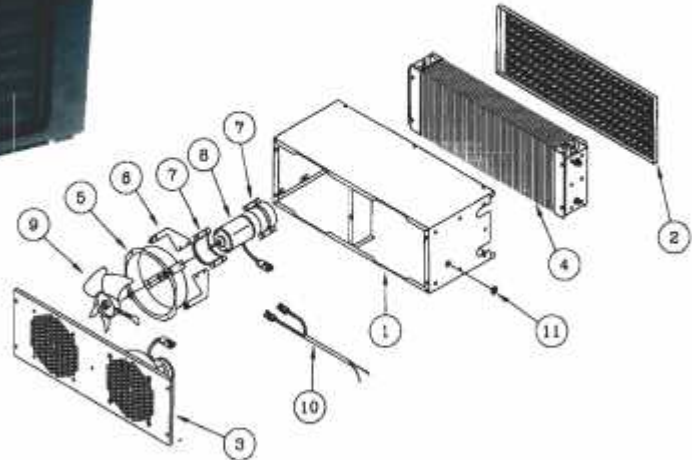
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 408 was designed for large capacity requirements in the forestry, construction and mining industries. Its three fan design ensures high capacity performance in the most demanding conditions. **Receiver/drier mounted internally.** Condenser must be mounted as shown in picture.

MCC Electric Condenser Model 409

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
14-0901	Condenser 12V	1	24-1967	Casing	7	24-0234	Motor Mount
14-0902	Condenser 24V	2	24-1966	Grill	8	25-0181	Fan
		3	24-1968	Cover	9	25-0470	Motor 12V
		4	21-0309	Condenser Coil		25-0490	Motor 24V
		5	25-0388	Venturi	10	25-0635	Wiring Harness
		6	25-0434	Motor Support	11	28-0045	Grommet

Specifications

Capacity	-to support a cooling capacity of 28500 Btu/h (8350 W)
Air Flow	-1100 CFM (1870 m ³ /h)
Current	-14 Amps/13.5V -7 Amps/27V
Weight	-46 lbs. (21 kg)

Casing made of 16GA (1.5mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.

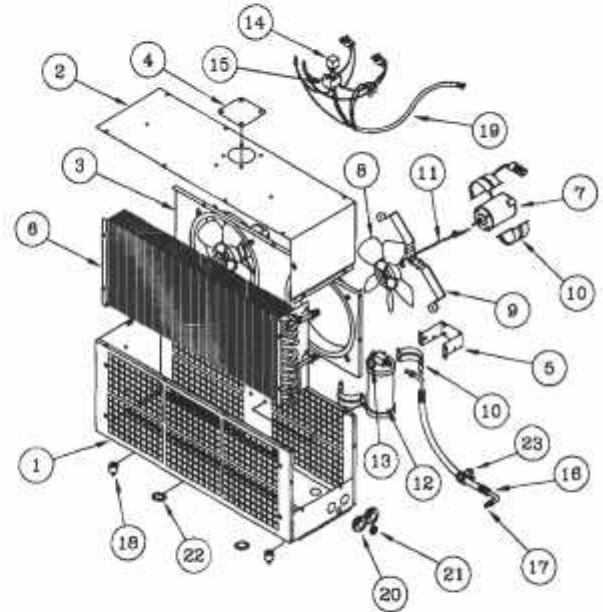
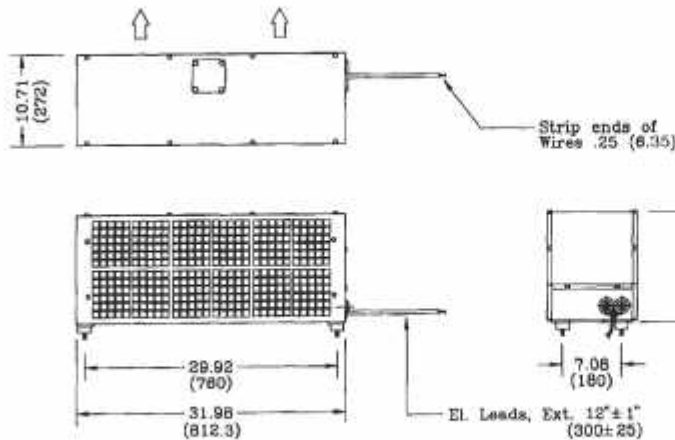
Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

The 409 is a universal mount electric condenser. It does not have the receiver/drier mounted internally. This allows for many different installation options. Condenser can be mounted vertically or horizontally.

MCC Electric Condenser Model 410

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description	No.	Part No.	Description
14-1001	Condenser 12V	1	24-0925	Casing	13	25-0308	Pressure Switch
14-1002	Condenser 24V	2	24-0926	Cover	14	25-0251	Relay 12V
		3	24-0927	Fan Mounting Plate		25-0219	Relay 24V
		4	24-0928	Cover Plate	15	25-0221	Socket
		5	24-0929	Receiver Drier Bracket	16	27-0379	Refrigerant Hose #6
		6	21-0188	Condenser Coil	17	27-0601	O-Ring #6
		7	25-0470	Motor 12V (B.B.)	18	28-0057	Vibration Mount
			25-0229	Motor 24V (B.B.)	19	25-0394	Wiring Harness
		8	25-0302	Fan	20	28-0045	Grommet
		9	24-0963	Motor Bracket	21	28-0005	Grommet
		10	24-0234	Motor Mount	22	28-0013	Plastic Plug
		11	24-0962	Motor Support	23	27-0012	Hose Clamp #6
		12	26-0219	Receiver Drier			

Casing made of 16GA (1.5mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.

Electric condensers are used when radiator mounted types cannot be installed. The reasons being insufficient air flow and/or when additional heat load over the engine cannot be tolerated. Condensing capacity will remain constant and will not be dependent on engine RPM.

FEATURES

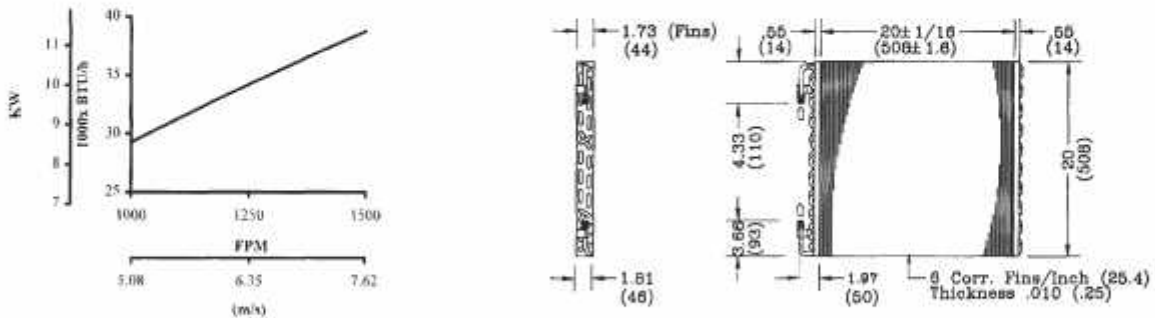
The 410 was designed for high capacity off-road applications. Its large design has flexible hose routing options. The **receiver/drier is mounted internally**. Condenser must be mounted as shown in picture.

MCC Radiator Mount Condensers

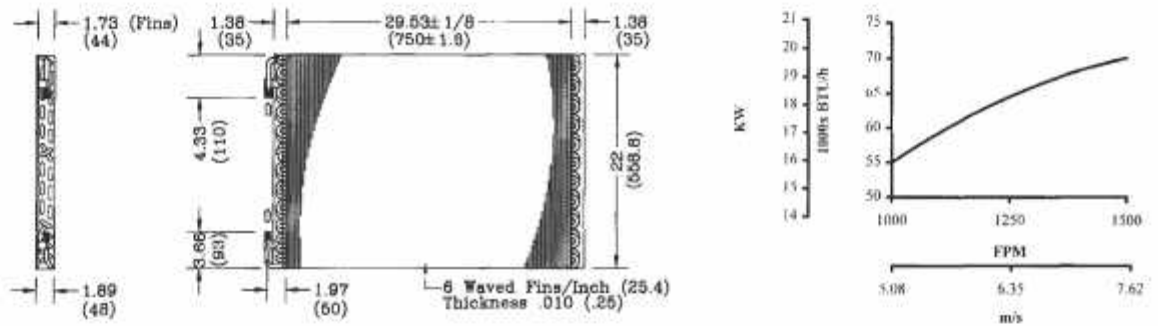
Mobile Climate Control

MCC's heavy duty radiator mounted condensers are the least expensive alternative compared to forced air types. They are manufactured in-house using 0.008-0.010" (0.20mm-0.25mm) thick aluminum fins and copper tubes. With endplates made of 16GA (1.5mm) Satin Coat Steel. Waved or corrugated fins are available, as indicated on the drawings. In addition to the heavy fin thickness, the edges are rippled, increasing the strength further. Low fin density makes cleaning easier and provides less pressure drop. Please keep in mind that the MCC condensers are developed for off-road environments. Condensers are painted black. In and outlet tubes are reinforced with metal brackets where required. All coils are pressure tested to a minimum of 300 psi (2.1 MPa)

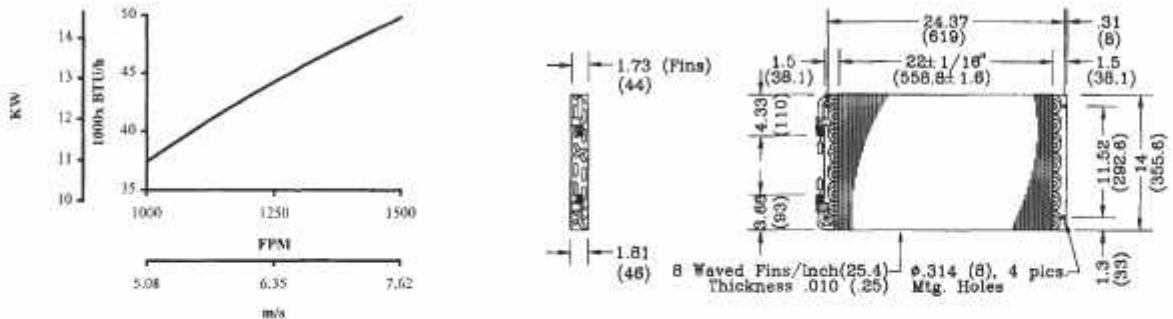
21-0089 Condenser



21-0176 Condenser



21-0320 Condenser



21-0302 Condenser



Note: Capacity based on 100°F (38°C) air temp. and 140°F (60°C) condensing temp.
Inlet -3/4-16 UNF Male (O-Ring #8) Outlet -5/8-18 UNF Male (O-Ring #6)

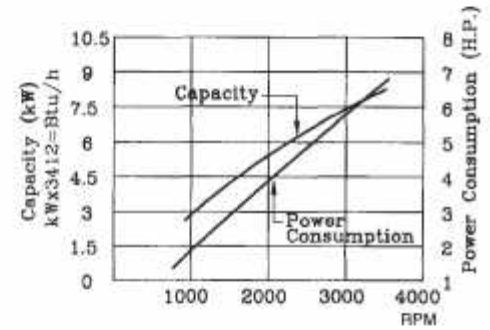
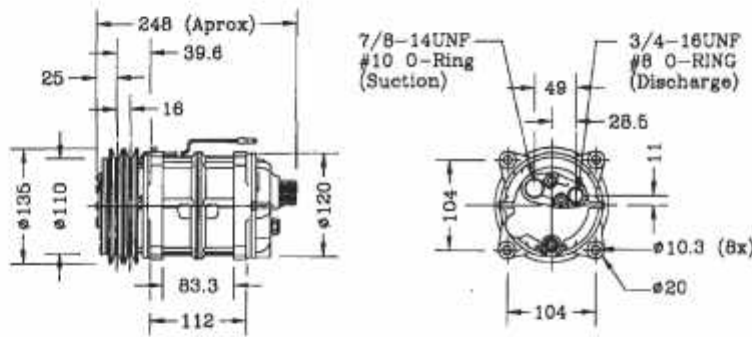
MCC Compressors

Mobile Climate Control

The refrigerant oil and refrigerant both return back into the compressor above the swash plate, thus ensuring the best possible lubrication and cooling of the compressor. The pistons which are placed on both sides of the swash plate contribute to a quiet and efficient operation. TM13HD, TM15HD, TM16HD all come with iron casted fittings that do not break when over torqued slightly. The TM08HD comes with steel fittings. All compressors (except for the TM08HD) come equipped with pressure relief valves. Spare part clutches and electromagnetic coils are the same for TM08HD to TM16HD.

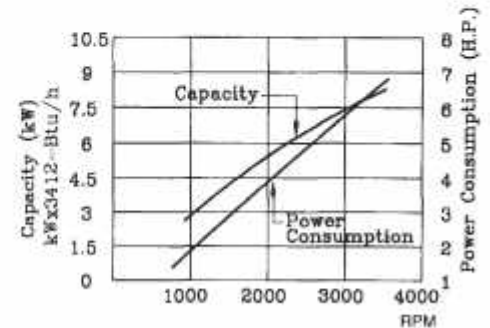
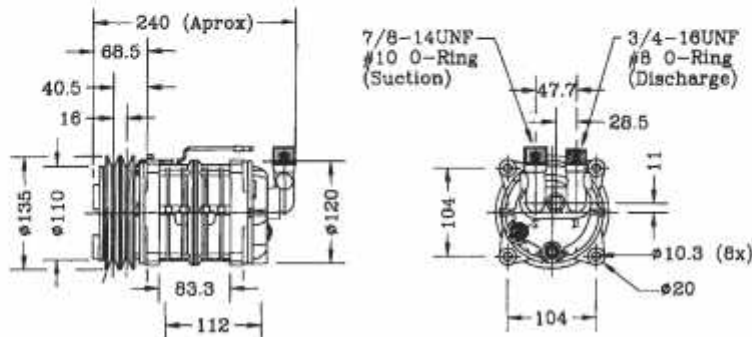
26-0229 Compressor TM15/12V

26-0230 Compressor TM15/24V



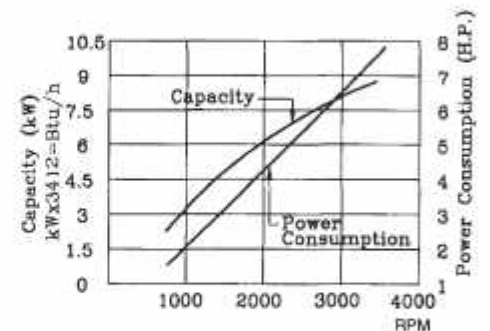
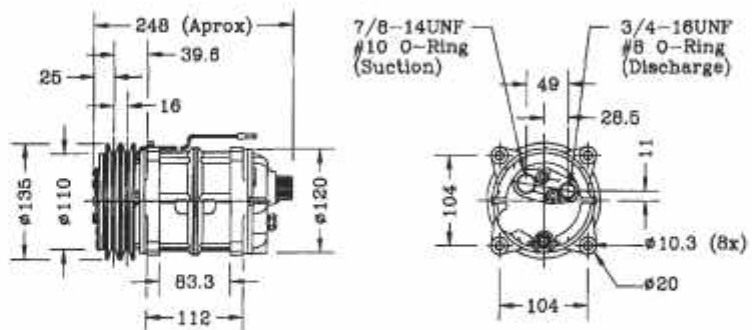
26-0245 Compressor TM15/12V

26-0246 Compressor TM15/24V



26-0279 Compressor TM16/12V

26-0343 Compressor TM16/24V



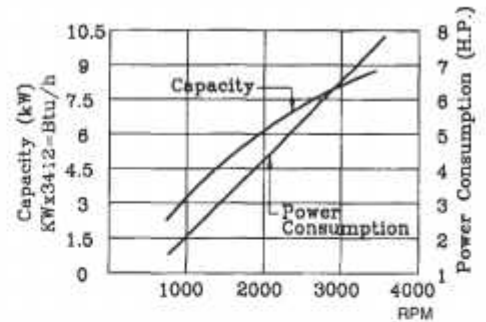
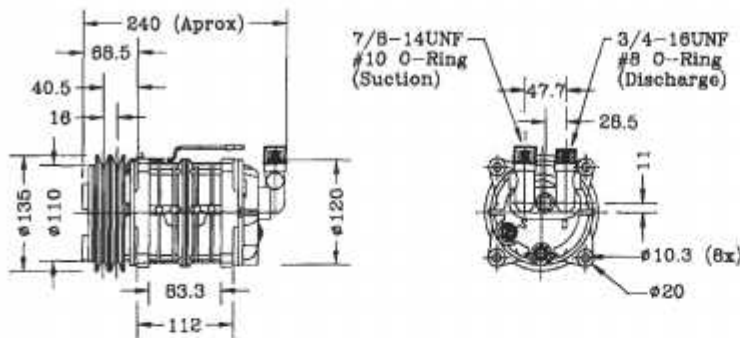
Note: Dimensions in mm only.

MCC Compressors

Mobile Climate Control

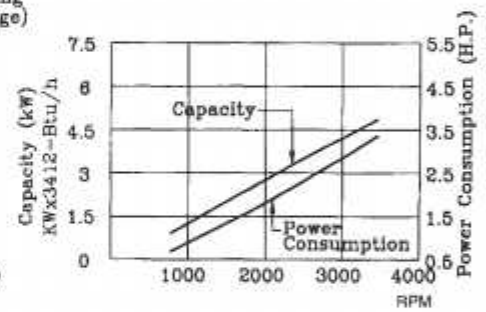
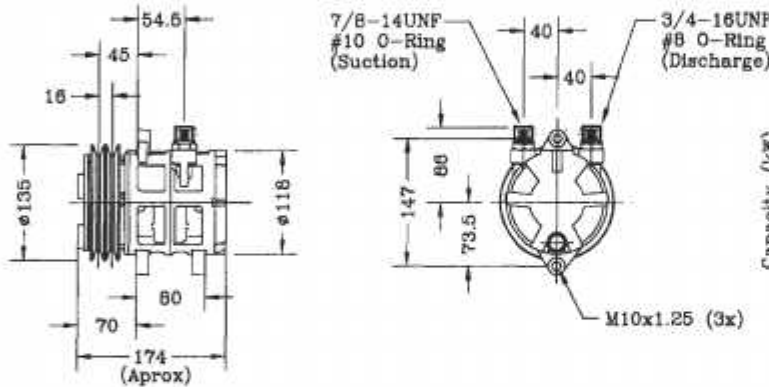
26-0293 Compressor TM16/12V

26-0294 Compressor TM16/24V



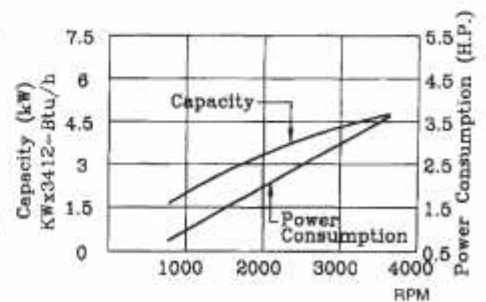
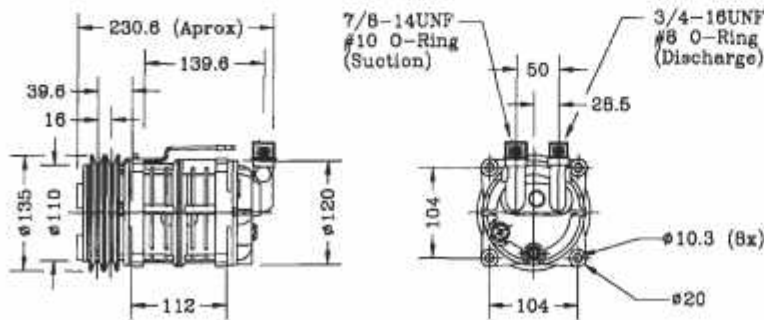
26-0385 Compressor TM08/12V

26-0300 Compressor TM08/24V



26-0553 Compressor TM13/12V

26-0382 Compressor TM13/24V



Note: Discharge pressure: 1.52 MPa (220.4 PSIG)
 Dimensions in mm only
 Suction Pressure: .182 MPa (26.4 PSIG)
 Superheat: -8°C (18°F)
 Subcool: -13°C (9°F)
 HFC134A

Part No.	Description	Part No.	Description
26-0129	Clutch Assy. 12V	26-0136	Coil 12V
26-0131	Clutch Assy. 24V	26-0137	Coil 24V
26-7004	Clutch Assy. 12V Variable Groove	30-0001	Pag Oil (1 liter)
		27-1177*	Vertical Manifold
		27-1178*	Horizontal Manifold

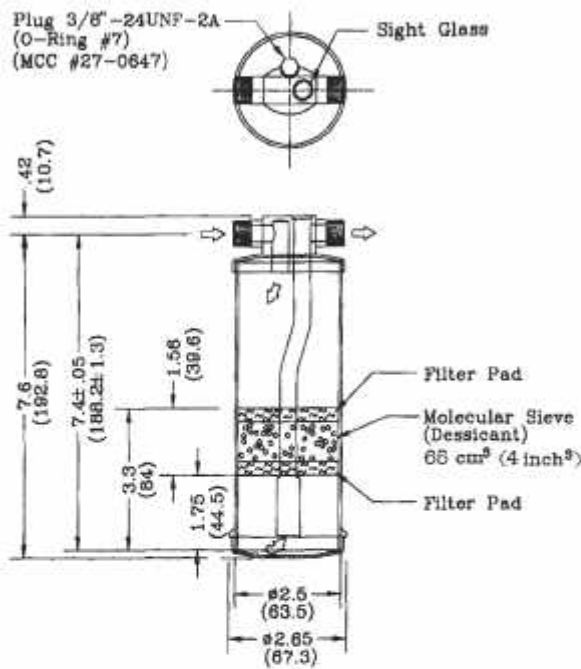
* Iron casted, single bold

MCC Receiver Driers

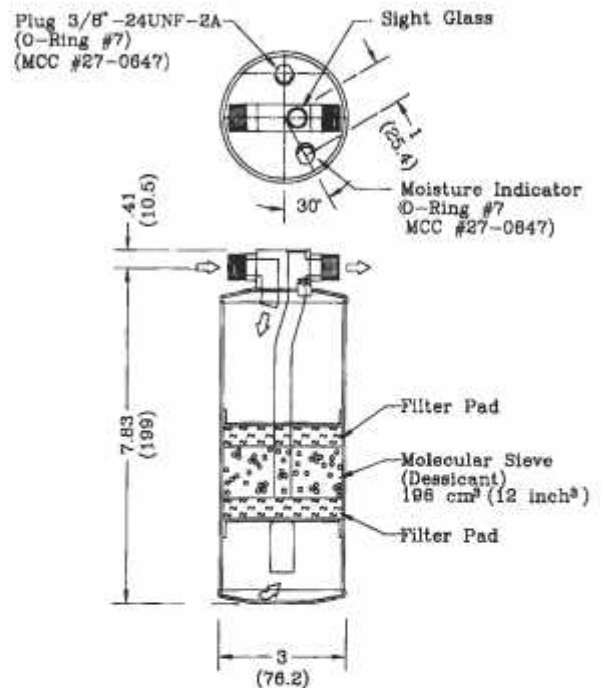
Mobile Climate Control

Most of MCC high capacity receiver driers are equipped with a moisture indicator that turns colour from blue to beige. It takes the guesswork out of determining moisture content in the system. Beige means replace receiver drier and refrigeration oil by draining compressor. Then recharge the system. Blue means OK. RD's should be mounted as close to the condenser as possible and in the air stream of the radiator fan. Please note that many of the forced air condensers are already equipped with a RD. All RD's are equipped with sight glass and some with shradder valves, making it possible to replace the pressure switch without the loss of refrigerant. We recommend installation of a pressure switch on the RD.

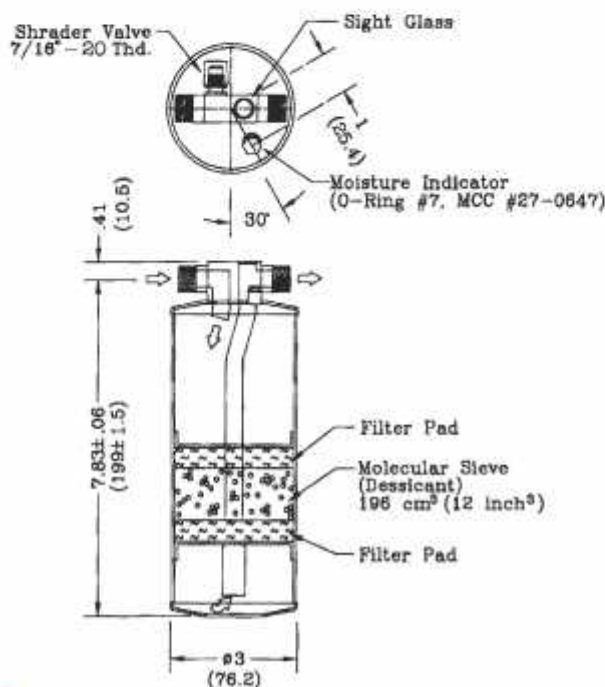
26-0014 Receiver Drier



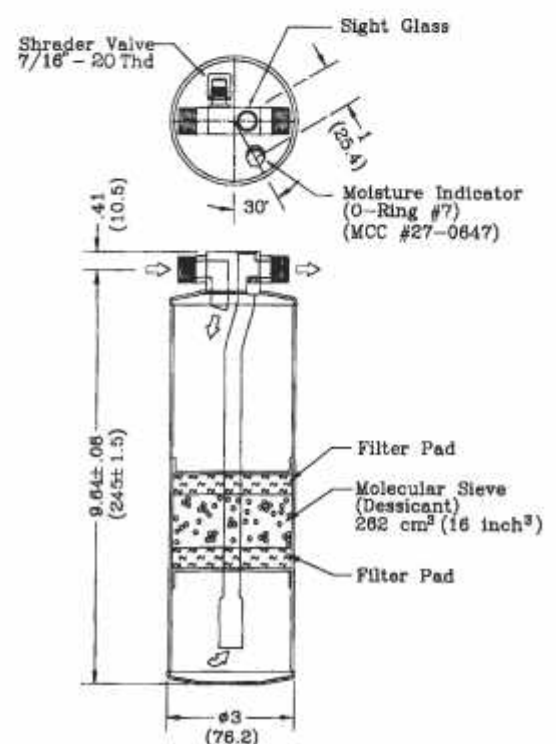
26-0219 Receiver Drier



26-0220 Receiver Drier



26-0240 Receiver Drier

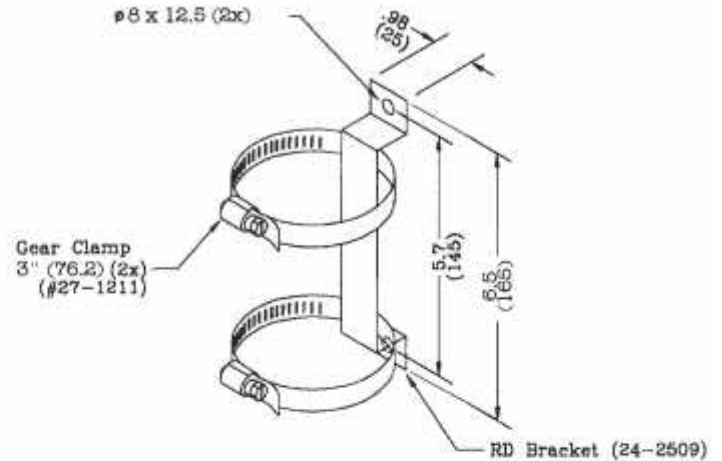
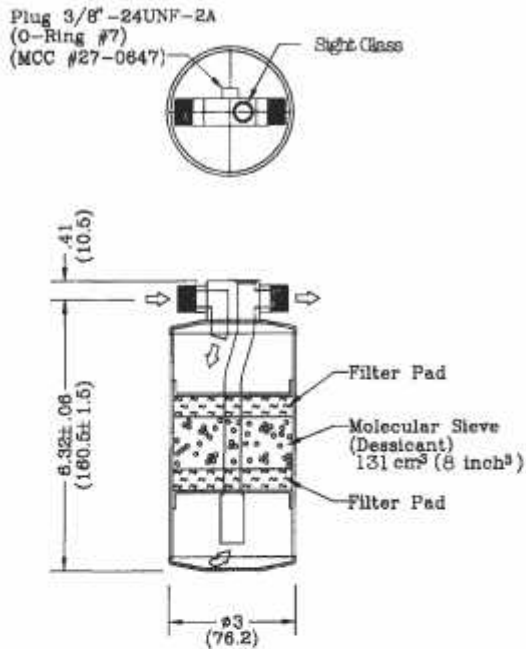


MCC Receiver Driers

Mobile Climate Control

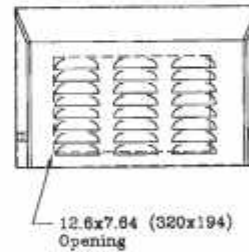
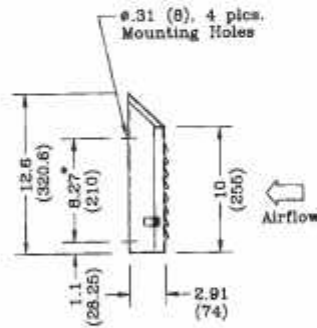
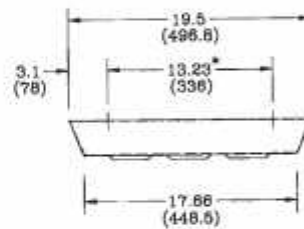
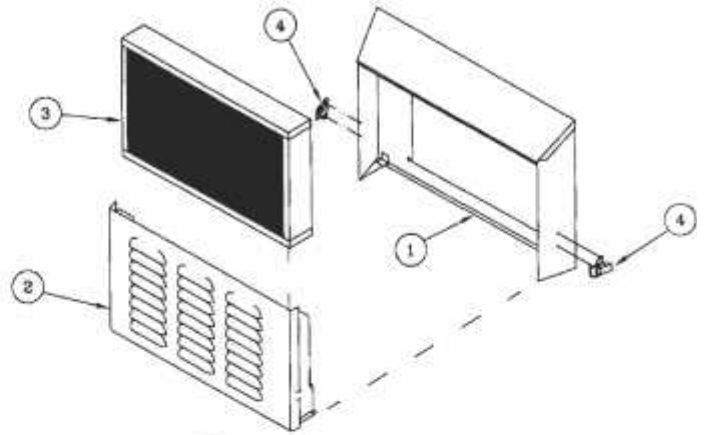
26-0018 Receiver Drier

26-0449 Receiver Drier Bracket Assy.



MCC Filter Kit 601

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
16-0195	Filter Assy.	1	24-1151	Casing
	Made of 18GA (1.25mm) Cold Rolled Steel and finished in a black semi-gloss epoxy powder coat.	2	24-1152	Cover
		3	26-0004	Filter
		4	29-0022	Latch

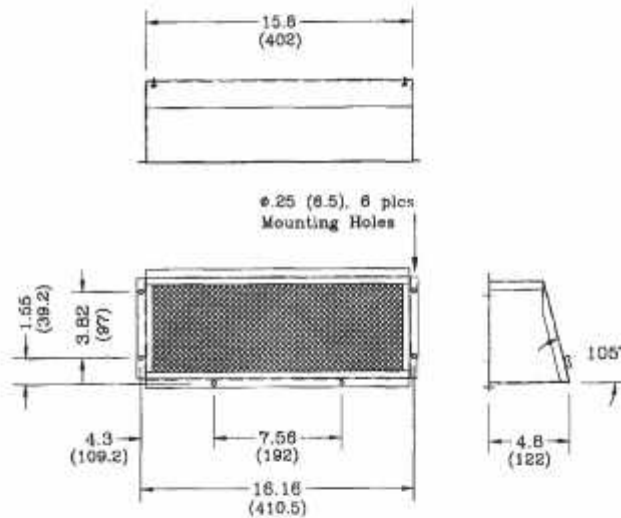
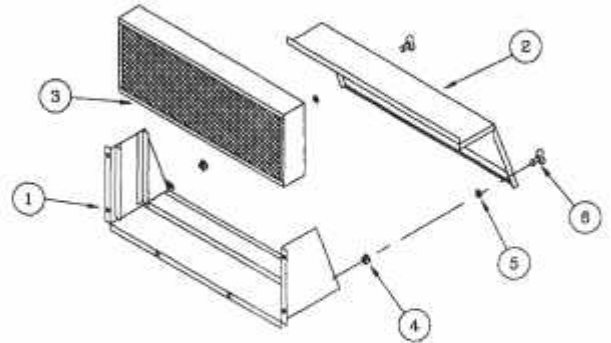
* Mounting holes location

FEATURES

The 601 has an aluminum frame and a disposable filter element.

MCC Filter Kit 602

Mobile Climate Control



Part Descriptions: Specifications

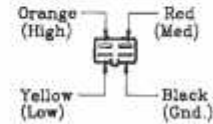
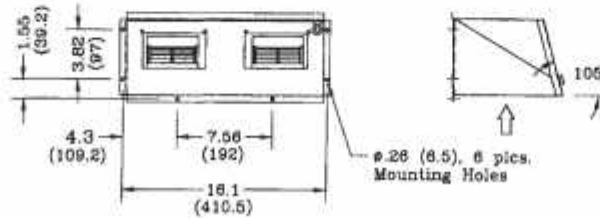
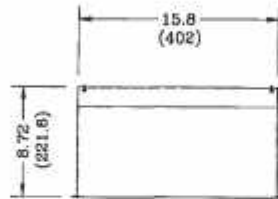
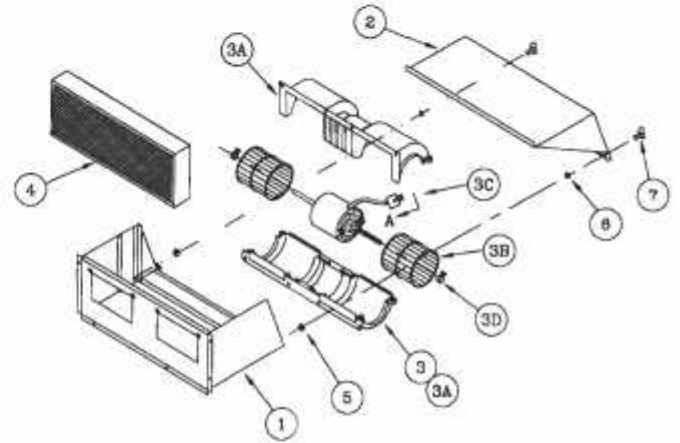
Part No.	No.	Part No.	Description
16-0200	1	24-2220	Filter Assy.
Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.	2	24-2209	Filter Box
	3	26-0041	Cover
	4	29-0075	Air Filter
	5	29-0077	Retainer
	6	29-0082	Receptacle
			Stud Wing Head

FEATURES

The 602 has an aluminum frame and a disposable filter element.

MCC Filter Kit 603 - Pressurizer

Mobile Climate Control



View A

Peckard EL 4-way Conn.
#294544 with #2971962-L
Terminal (4x)

Part Descriptions: Specifications

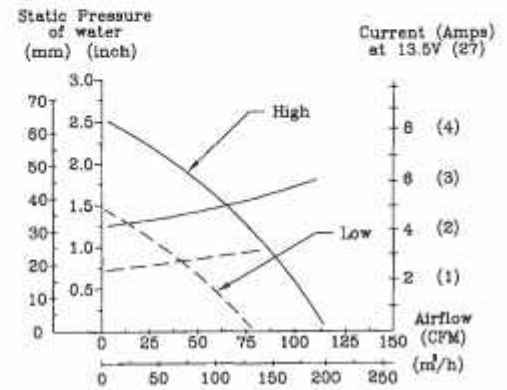
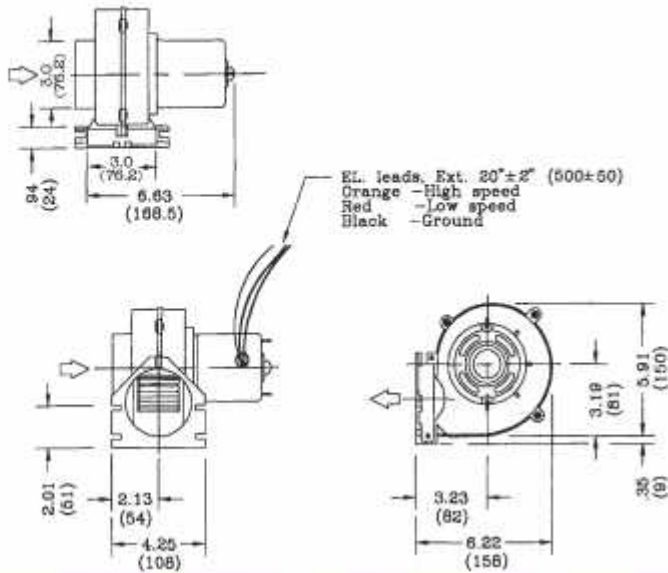
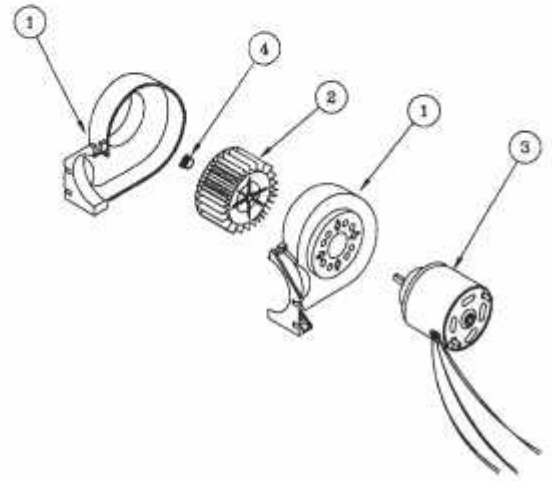
Part No.		No.	Part No.	Description	No.	Part No.	Description
16-0353	Filter Assy./12V	1	24-1627	Filter Box	4	26-0041	Air Filter
16-0354	Filter Assy./24V	2	24-1628	Cover	5	29-0075	Receptacle
Current	-12 Amps/12V	3	15-0533	Blower 12V	6	29-0077	Retainer
	-6 Amps/24V		15-0534	Blower 24V	7	29-0078	Stud Wing Head
Made of 18GA (1.25mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.		3A	25-0017	Blower Housing			
		3B	25-0021	Blower Wheel			
		3C	25-0643	Blower Motor 12V			
			25-0644	Blower Motor 24V			
		3D	25-0022	Clip			

FEATURES

The 603 has an aluminum frame and a disposable filter element.

MCC Blower Model 503

Mobile Climate Control



Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description
15-0311	Blower 12V	1	25-0033	Blower Housing
15-0312	Blower 24V	2	25-0291	Blower Wheel (C.C.W.)
		3	25-0344	Motor 12V
			25-0107	Motor 24V
		4	25-0022	Clip

Blower Housing and Blower Wheel made of ABS plastic.

2-Speed wire wound motor.

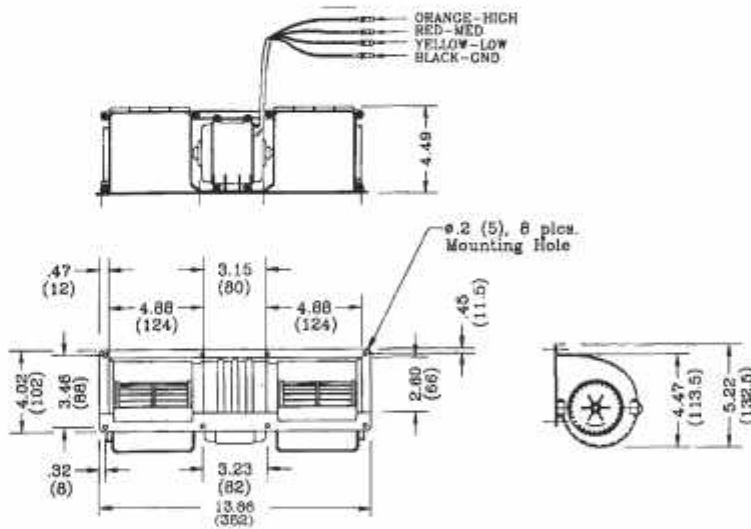
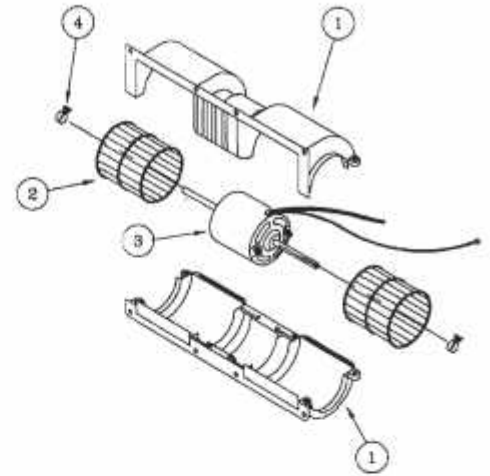
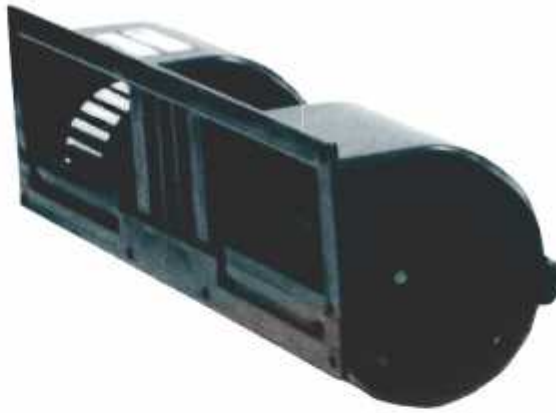
Weight -2.4 lbs. (1.1 kg)

FEATURES

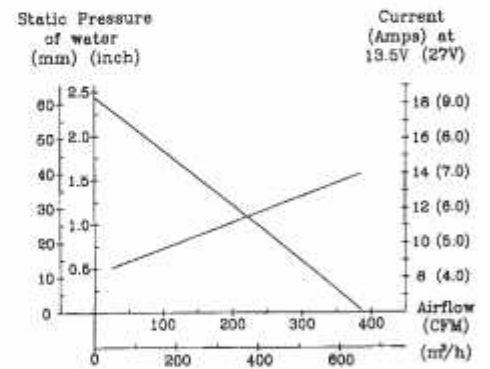
The 503 is an excellent defrost booster blower. It can also be used to bring outside air into the cab.

MCC Blower Model 505

Mobile Climate Control



ALL WIRES: 18GA (60°) 300 MM Long
 TERMINALS: 4x .25 Tab Terminal Amp # 42460-2



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
15-0503	Blower 12V	1	25-0017	Blower Housing
15-0504	Blower 24V	2	25-0021	Blower Wheel
		3	25-0070	Motor 12V
			25-0075	Motor 24V
	Blower Housing and Blower Wheel made of ABS Plastic.	4	25-0022	Clip

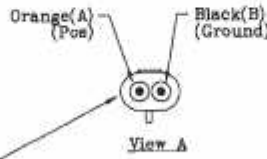
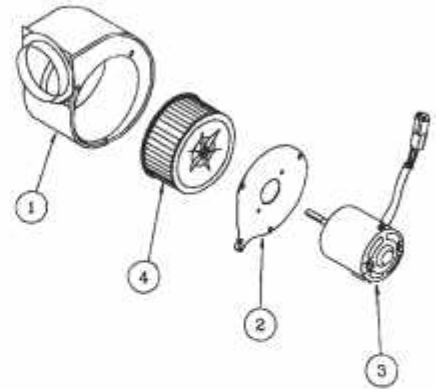
3-Speed wire wound motor.
 Weight -4 lbs. (1.8 kg)

FEATURES

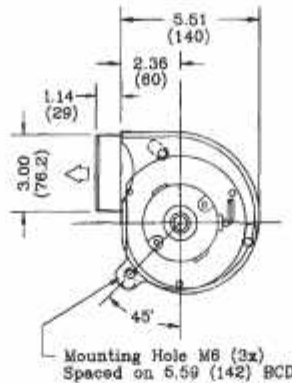
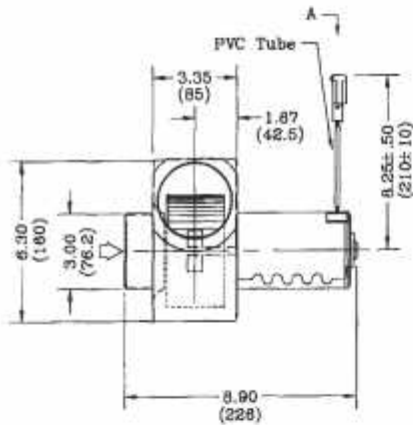
The 505 is a compact high performance blower which is ideal for extra air flow to the window areas of the cab.

MCC Blower Model 506

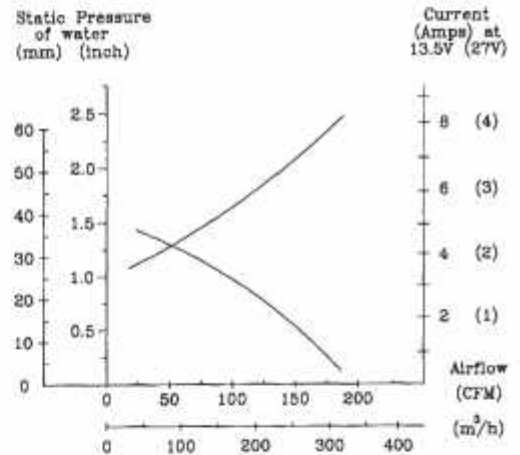
Mobile Climate Control



2-Way Weather Pack Male Connector Packard #120010973 with Male Terminal #12124582-1(2x) and Seal #12010293(2x)



Mounting Hole M6 (3x) Spaced on 5.59 (142) BCD



Part Descriptions: Specifications

Part No.	Description	No.	Part No.	Description
15-0601	Blower 12V	1	25-0337	Blower Housing
15-0602	Blower 24V	2	25-0338	Blower Plate
		3	25-0470	Motor 12V
			25-0490	Motor 24V
		4	25-0140	Blower Wheel

Blower Housing made of 18/20GA (1.25/1mm) Cold Rolled Steel and finished in semi-gloss epoxy powder coat.

Sealed Motor has long life brushes and ball bearings.

Blower Wheel made of Talc filled Polypropylene.

Inlets and Outlets have hose adapters for a 3" air hose.

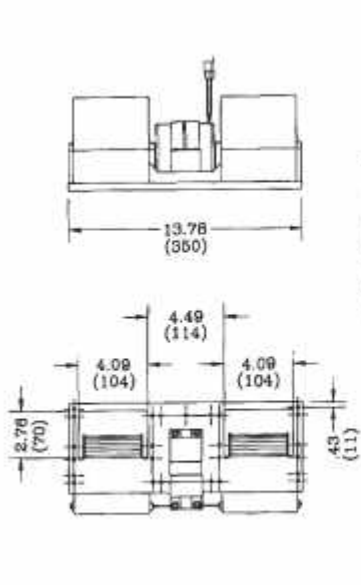
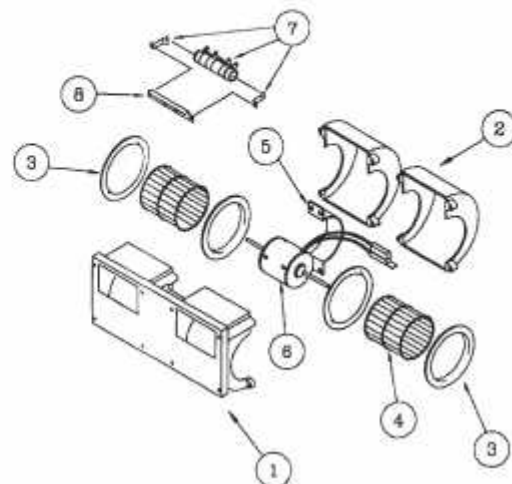
Weight -5 lbs. (2.3 kg)

FEATURES

The 506 is MCC's choice for bringing outside air into the cab. The sealed motor has long life brushes and ball bearings.

MCC Blower Model 515

Mobile Climate Control



187°C Thermofuse

A - To Motor (orange)
 B - Low Speed
 C - Med. Speed
 D - High Speed

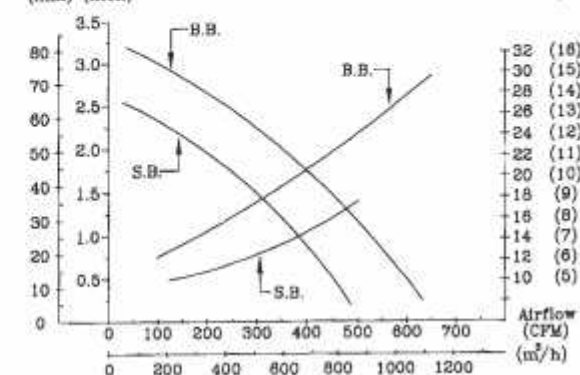


Detail of Resistor
 Only in 15-1561/15-1562*

Blower Housing made of glass filled polypropylene and Blower Wheel made of high heat ABS.
 Ball Bearing motor (B.B.) with long life brushes or wire wound 3-Speed motor (S.B.)

Static Pressure of water (mm) (inch)

Current (Amps) at 13.5V (27V)



Part Descriptions: Specifications

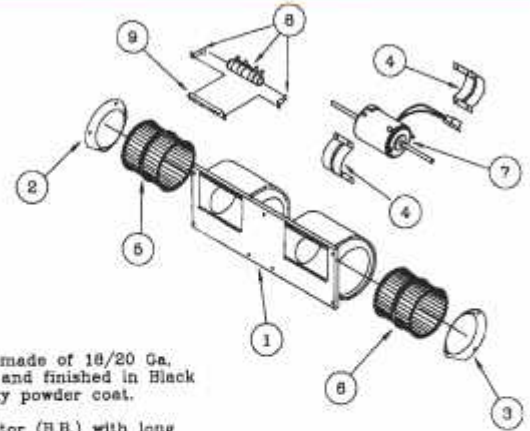
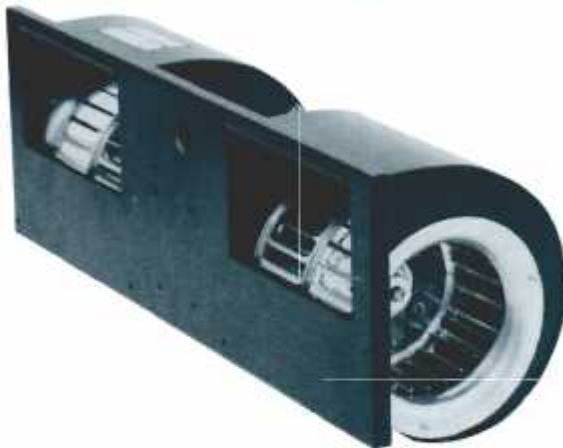
Part No.	No.	Part No.	Description	No.	Part No.	Description		
15-1501		Blower 12V (1 Sp.)	1	25-0048	Blower Housing	6	25-0053	Motor 12V (3 Sp.)
15-1502		Blower 24V (1 Sp.)	2	25-0348	Blower Housing Top	25-0076	Motor 24V (3 Sp.)	
15-1513		Blower 12V (3 Sp.)	3	25-0060	Venturi	25-0645	Motor 12V (B.B.)	
15-1514		Blower 24V (3 Sp.)	4	25-0200	Blower Wheel	25-0650	Motor 24V (B.B.)	
15-1561		Blower 12V (3 Sp./Resistor)	5	25-0271	Motor Mount	25-0655	Motor 12V (B.B.)	
15-1562		Blower 24V (3 Sp./Resistor)				25-0660	Motor 24V (B.B.)	
						7	25-0601	Resistor 12V
							25-0602	Resistor 24V
						8	29-0130	Resistor Bracket
Weight		-4.5 lbs. (2 kg)						

FEATURES

The 515 is used in the majority of MCC's air conditioning units. It is the right sized package for most off-road blower applications. The glass filled polypropylene design makes the 515 a rugged affordable blower. The blower wheels and motor are balanced as an assembly.

MCC Blower Model 519

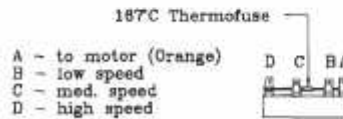
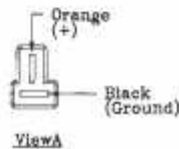
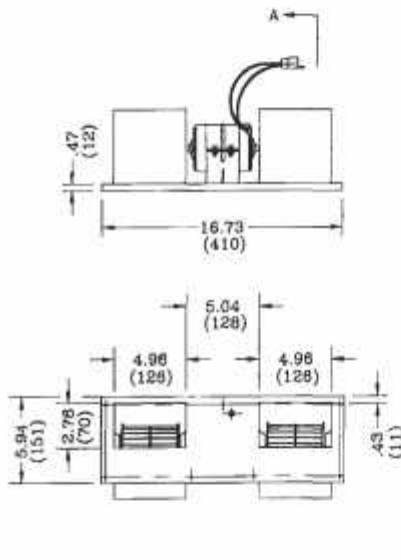
Mobile Climate Control



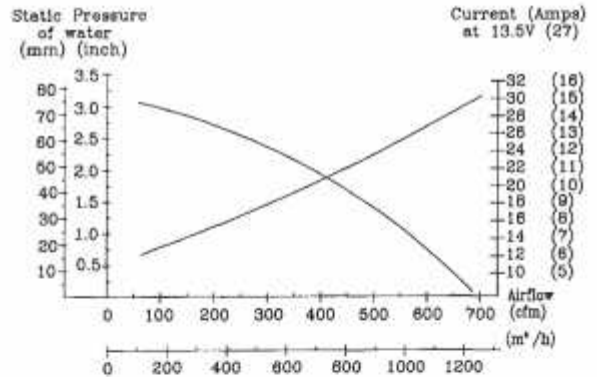
Blower Housing made of 18/20 Ga. (1.25mm/1mm) and finished in Black semi-gloss epoxy powder coat.

Ball Bearing motor (B.B.) with long life brushes.

Blower Wheel made of Aluminium.



Detail of Resistor
 Only in 15-1961/15-1962*



Part Descriptions: Specifications

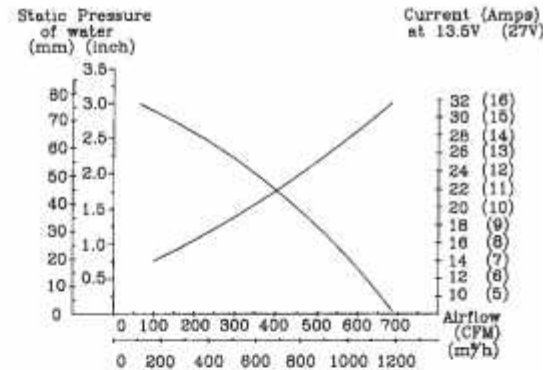
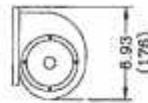
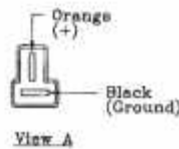
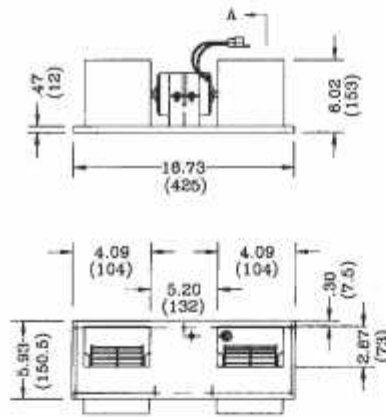
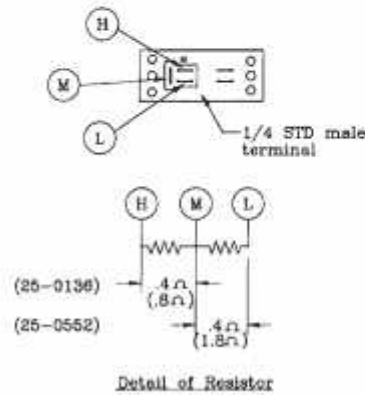
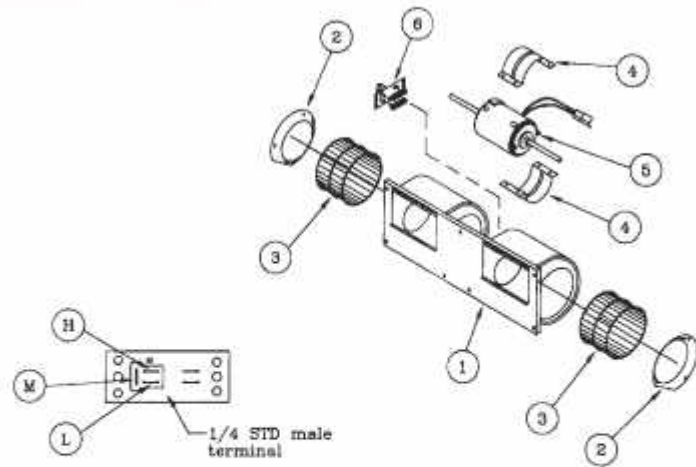
Part No.	Description	No.	Part No.	Description	No.	Part No.	Description
15-1943	Blower 12V	1	25-0240	Blower Housing	6	25-0399	Blower Wheel (C.C.W.)
15-1944	Blower 24V	2	25-0411	Venturi	7	25-0265	Motor 12V
15-1961	Blower 12V (3 Sp.)	3	25-0412	Venturi		25-0270	Motor 24V
15-1962	Blower 24V (3 Sp.)	4	25-0234	Motor Mount	8	25-0601	Resistor 12V
		5	25-0398	Blower Wheel (C.W.)		25-0604	Resistor 24V
Weight	-8.4 lbs. (3.8 kg)				9	29-0130	Resistor Bracket

FEATURES

The 519 is a high performance blower assembly for high volume blower requirements.

MCC Blower Model 520

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description
15-2033	1	25-0159	Blower Housing
15-2034	2	25-0164	Venturi
	3	25-0047	Blower Wheel
	4	24-0234	Motor Mount
	5	25-0265	Motor 12V
		25-0270	Motor 24V
	6	25-0136	Resistor 12V
		25-0552	Resistor 24V

Blower Housing made of Cold Rolled Steel finished in black semi-gloss powder coat.

Blower Wheels made of high heat ABS.

Motor has ball bearings and long life brushes.

Blower has resistor for 3-Speed operation.

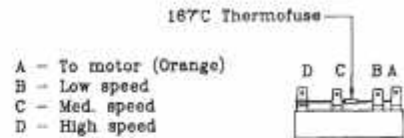
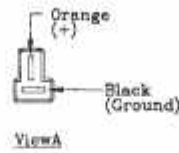
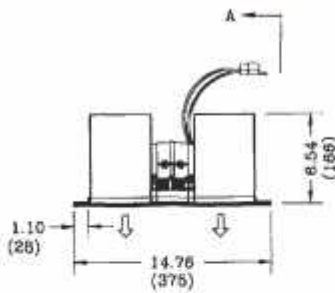
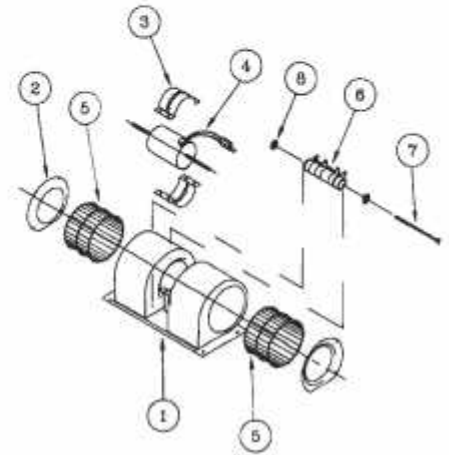
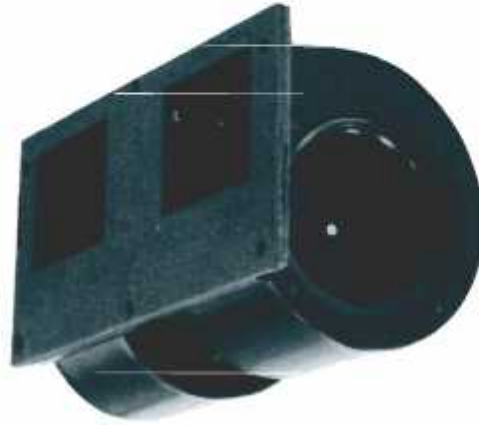
Weight -8.4 lbs. (3.8 kg)

FEATURES

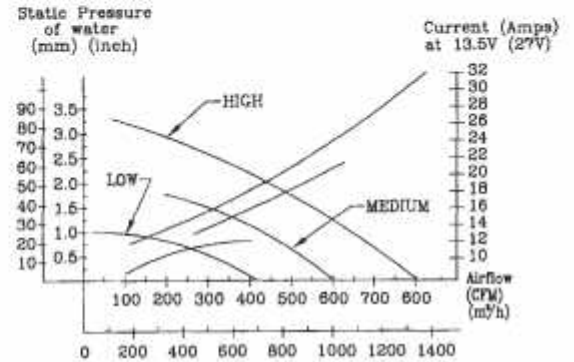
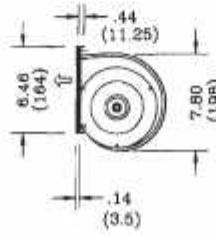
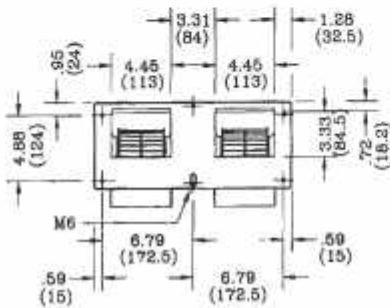
The 520, like the 519, is a high performance blower. Like all of the MCC blowers, the 520 is designed for years of reliable performance in demanding conditions. The blower wheels and motor are balanced as an assembly.

MCC Blower Model 530

Mobile Climate Control



Detail of Resistor



Part Descriptions: Specifications

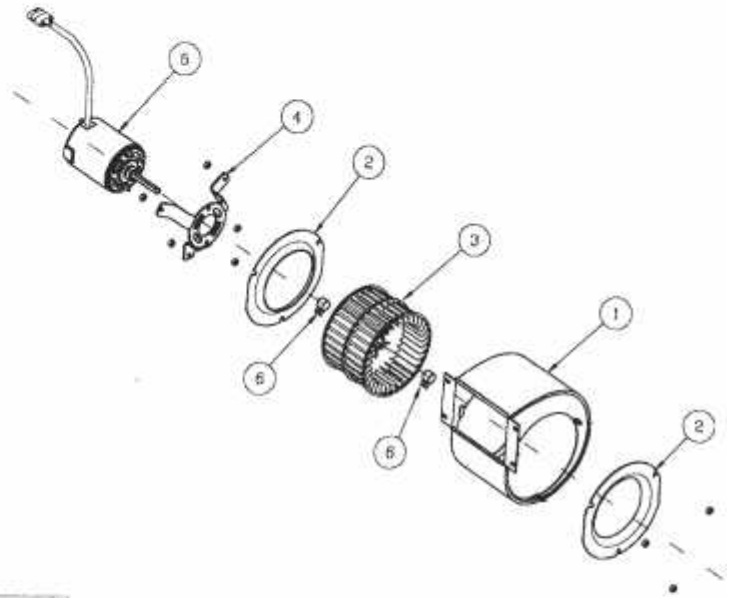
Part No.	Description	No.	Part No.	Description
15-3001	Blower 12V	1	25-0386	Blower Housing
15-3002	Blower 24V	2	25-0387	Venturi
Casing made of 18/20GA (1.25/1mm) Cold Rolled Steel finished in black semi-gloss epoxy powder coat.				
Blower Wheels made of glass filled black nylon.				
Blower has resistor for 3-Speed operation.				
Permanent magnet motor has ball bearings and long-life brushes.				
Weight	-9.2 lbs. (4.2 kg)	3	24-0234	Motor Mount
		4	25-0215	Motor 12V
			25-0250	Motor 24V
		5	25-0300	Blower Wheel
		6	25-0601	Resistor 12V
			25-0604	Resistor 24V
		7	29-0233	Through Bolt
		8	29-0234	Centering Washer

FEATURES

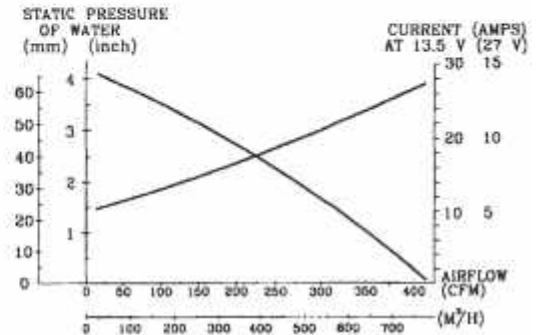
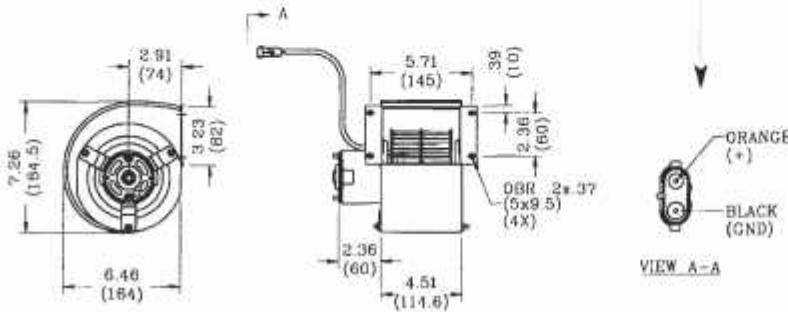
The 530 is one of MCC's largest capacity blower assemblies. Often used in the toughest air flow requirements involving high static pressure.

MCC Blower Model 561

Mobile Climate Control



CONNECTOR PACKARD
 MALE (WP) #12010973
 MCC #31-1068
 TERMINAL MALE #12124502-L
 MCC #31-1039 (2X)
 SEAL #121010293
 MCC #31-1024 (2X)
 RXT 200±10



Part Descriptions: Specifications

Part No.	No.	Part No.	Description
15-6101	1	25-0760	Blower Housing
15-6102	2	25-0762	Venturi
	3	25-0300	Blower Wheel
	4	25-0790	Motor Bracket
	5	25-0806	Motor 24V
		25-0805	Motor 12V
	6	25-0022	Clip

Blower Housing made of 18 & 22 ga (1.25 and .75 mm) cold rolled steel, finished in black semi-gloss powder coat. Blower Wheels made of glass filled black nylon.

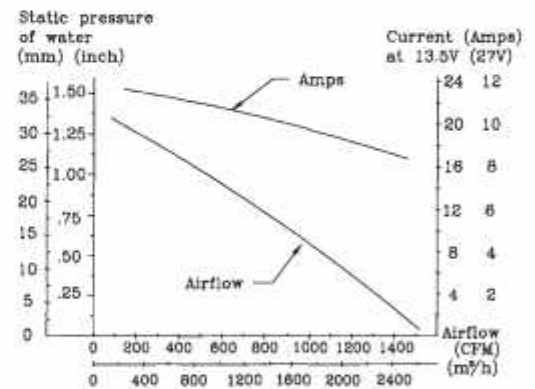
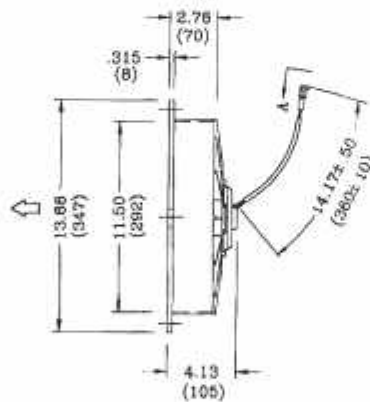
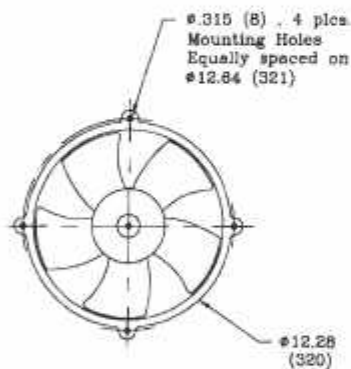
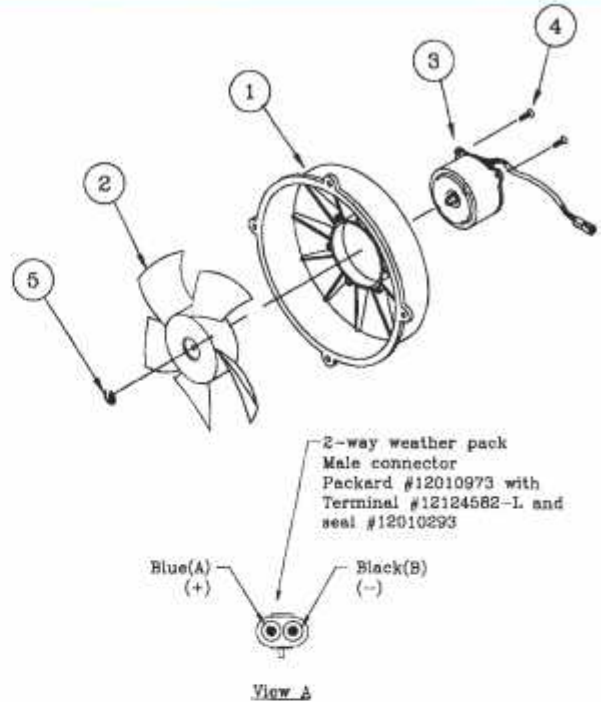
Weight -5.5 lbs. (2.5 kg)

FEATURES

The 561 is a high performance single squirrel cage blower assembly. It is designed to move air to specific areas in high volume.

MCC Fan Model 575

Mobile Climate Control



Part Descriptions: Specifications

Part No.		No.	Part No.	Description
15-7501	Fan Assy. 12V	1	25-0577	Venturi
15-7502	Fan Assy. 24V	2	25-0579	Fan
		3	25-0591	Motor 12V
			25-0592	Motor 24V
		4	29-0166	Screw
		5	29-0167	"C" Clip

Venture made of 30% G.F. polypropylene and fan made of 30% G.F. nylon.

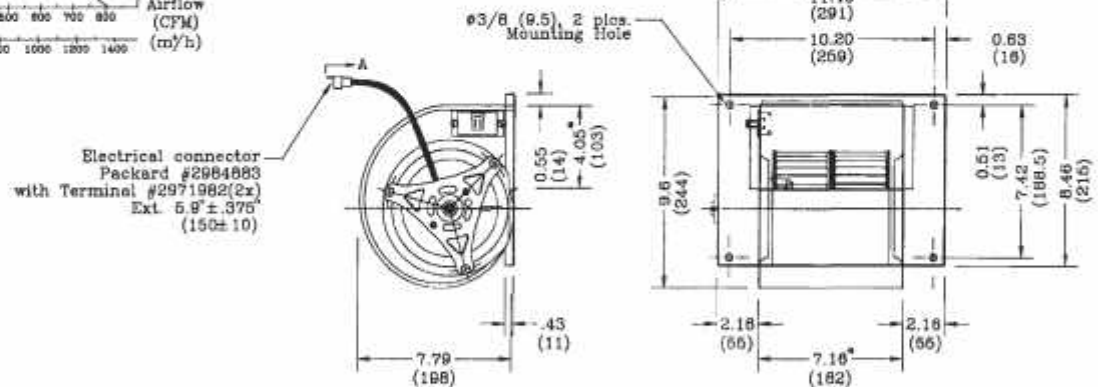
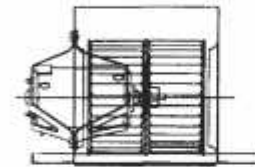
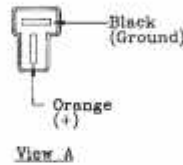
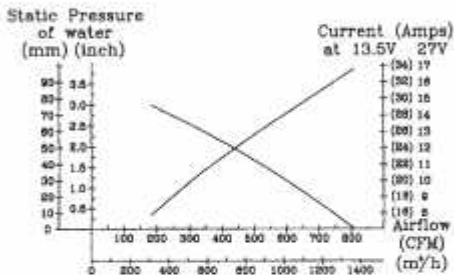
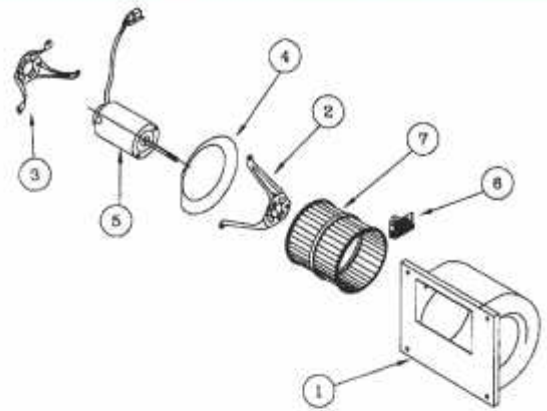
Weight -5.2 lbs. (2.4 kg)

FEATURES

The 575 is designed to deliver maximum performance using a single fan assembly. The durable 30% glass filled nylon construction ensures long life.

MCC Blower Model 582

Mobile Climate Control



Part Descriptions: Specifications

Part No.	No.	Part No.	Description
15-8201 Blower 12V	1	25-0317	Blower Housing
15-8202 Blower 24V	2	25-0320	Motor Mount
Blower housing made of 18/20GA (1.25/1mm) Cold Rolled Steel and finished in black semi-gloss epoxy powder coat.	3	25-0319	Motor Mount
	4	25-0318	Venturi
Motor has long life brushes and ball bearings.	5	25-0150	Motor 12V
	5	25-0180	Motor 24V
Blower Wheel made of aluminum.	6	25-0136	Resistor 12V
	6	25-0552	Resistor 24V
* Outlet dimensions.	7	25-0155	Blower Wheel
Weight -8.8 lbs. (4 kg)			

FEATURES

The 582 is one of MCC's largest capacity blower assemblies. Originally designed for MCC's mass transit division, the 582 is fast becoming a popular off-road blower.

MCC Refrigerant Hose

Mobile Climate Control

Refrigerant Hose

PART NO.	SIZE	DIMENSIONS				BURST STRENGTH	CRIMP OD
		ID		OD			
		Inches	mm	Inches	mm		
27-0020	5/16" 6BH	0.315±0.020	8.0±.05	0.750±0.031	19.1±0.8	2965 psi (204 bar)	0.637±.005
27-0021	13/32" 8BH	0.420±0.020	10.7±.05	0.906±0.031	23.0±0.8	2490psi (172 bar)	0.790±.005
27-0022	1/2" 10BH	0.510±0.023	13.0±.06	1.000±0.031	25.4±0.8	2320 psi (160 bar)	0.877±.005
27-0023	5/8" 12BH	0.635±0.023	16.1±.06	1.125±0.031	28.6±0.8	2450 psi (169 bar)	1.002±.005

The hose is sold as an assembly including crimped and capped fittings with O-Rings. Hose can also be purchased in bulk per reel. Length varies from 400-650 feet/ reel.



POLYCHLOROPRENE TUBE:

The tube is made of a refrigerant resistant polychloroprene tube compound. The tube is compatible with a large number of refrigerants including R12, R134a, R22, R500 and R502. The tube is specially formulated to provide good high and low temperature and resist blistering or delamination associated with rapid pressure changes at elevated temperatures.

EXCEEDS SAE J2064/J51:

The new BH Dayco Barrier Hose exceeds the stringent requirements for the SAE J2064 specification and exceeds the assembly requirement portion of the specification when crimped with the triple bubble dies using the bead lock style couplings. This combination provides you with an OEM design and quality fitting.

PAG LUBRICANT COMPATIBILITY:

The Dayco BH Barrier Hose has been tested with all OEM recommended PAG lubricates and has good compatibility with all of them. Fleet testing was done in Australia's outback with PAG lubricants in both new and retro-fitted A/C units. The Dayco BH Barrier Hose is robust designed and field proven.

PERFORMANCE:

Burst Strength

The SAE J2064 burst requirements have increased to 2000 PSI (13.7 MPa) for discharge and liquid line and 1750 PSI (12 MPa) for suction hose. Dayco has selected high strength textile reinforcement to meet these new demands.

Hose Pipe Insulation & Sleeves

Mobile Climate Control

Hose Pipe Insulation

Hose/ pipe insulation is used to insulate heater and refrigerant hose. Sold in multiples of 6 feet.

- | | |
|----------------|---|
| 28-0077 | Hose/ pipe insulation 1 1/8" ID x 3/8" wall
Use for 5/8" HD heater hose and #10 refrigerant hose |
| 28-0136 | Hose/ pipe insulation 7/8" ID x 1/2" wall
Use for 5/8" standard heater hose |

Polyurethane Sleeves

Polyurethane sleeve is used for hose protection in very difficult environments. This product is used extensively in the mining industry. Sold in multiples of 12 feet.

- | | |
|----------------|--|
| 27-0806 | Polyurethane sleeve for refrigerant hose #6 |
| 27-0807 | Polyurethane sleeve for refrigerant hose #10 |

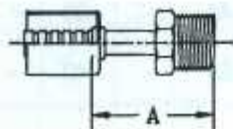
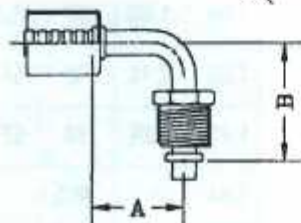
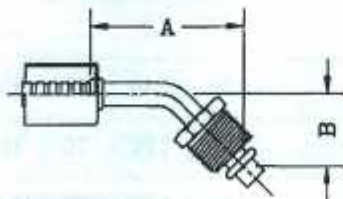
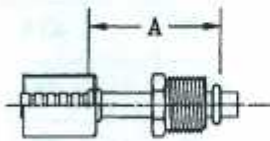
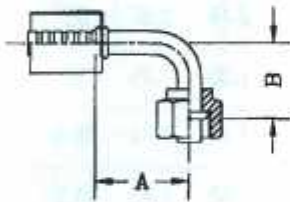
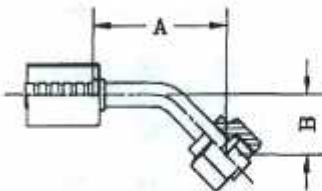
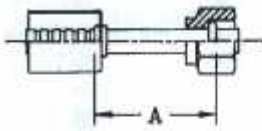
**Choose
MCC
For Reliability**

Fittings

Mobile Climate Control

Aluminum Fittings

Note: All fittings made of aluminum with steel nut and ferrule.

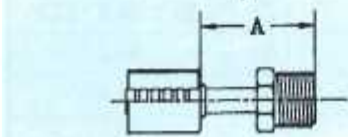
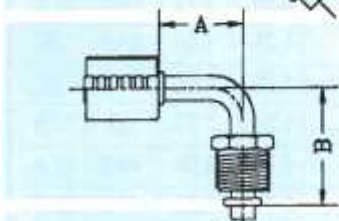
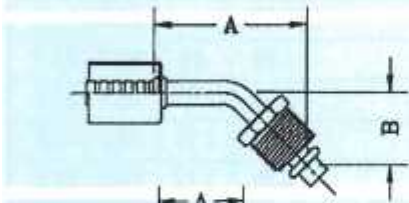
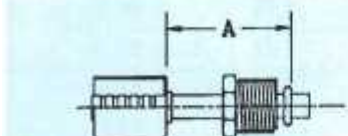
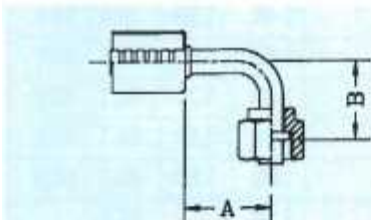
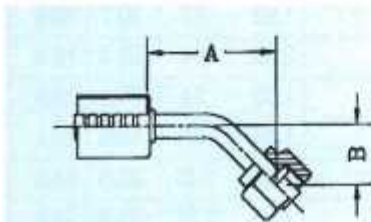
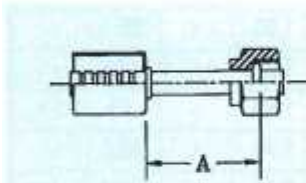


Part No.	Fitting Description	A (in)	B (in)	A (mm)	B (mm)
27-0565	5/8" - 18Fe x 180° x #6	1.76	-	44.7	-
27-0624	5/8" - 18Fe x 180° x #8	1.50	-	38.1	-
27-0566	3/4" - 16Fe x 180° x #8	1.87	-	47.5	-
27-0418	3/4" - 16Fe x 180° x #10	1.69	-	43	-
27-0567	7/8" - 14Fe x 180° x #10	1.70	-	43.2	-
27-0473	7/8" - 14Fe x 180° x #12	2.15	-	54.6	-
27-0568	1 1/16" - 14Fe x 180° x #12	2.00	-	50.8	-
27-0575	5/8" - 18Fe x 45° x #6	2.10	.65	53.4	16.5
27-0576	3/4" - 16Fe x 45° x #8	1.56	.77	39.7	19.6
27-0577	7/8" - 14Fe x 45° x #10	3.28	.64	83.4	16.3
27-1071	7/8" - 14Fe x 45° x #12	1.50	.94	38.1	23.9
27-0578	1 1/16" - 14Fe x 45° x #12	1.84	.87	46.8	22.1
27-0585	5/8" - 18Fe x 90° x #6	1.28	1.33	32.5	33.8
27-0477	5/8" - 18Fe x 90° x #8	1.25	1.31	31.8	33.3
27-0586	3/4" - 16Fe x 90° x #8	1.45	1.50	36.9	38.1
27-0450	3/4" - 16Fe x 90° x #10	1.50	1.50	38.1	38.1
27-0587	7/8" - 14Fe x 90° x #10	1.50	1.70	38.1	43.2
27-1054	7/8" - 14Fe x 90° x #12	2.13	1.67	54.1	42.5
27-0588	1 1/16" - 14Fe x 90° x #12	1.90	1.80	48.3	45.8
27-0665	5/8" - 18M x 180° x #6	2.20	-	55.9	-
27-0478	5/8" - 18M x 180° x #8	1.75	-	44.5	-
27-0666	3/4" - 18M x 180° x #8	1.97	-	50.1	-
27-0667	7/8" - 18M x 180° x #10	2.25	-	57.2	-
27-1055	7/8" - 18M x 180° x #12	2.30	-	58.5	-
27-0668	1 1/16" - 16M x 180° x #12	2.00	-	50.8	-
27-0675	5/8" - 18M x 45° x #6	1.68	.83	42.7	21.1
27-0676	3/4" - 18M x 45° x #8	2.30	1.03	58.5	26.2
27-0677	7/8" - 18M x 45° x #10	2.35	1.10	59.7	27.9
27-0678	1 1/16" - 16M x 45° x #12	2.38	1.12	60.5	25.9
27-0695	5/8" - 18M x 90° x #6	1.25	1.68	31.8	1.85
27-0514	5/8" - 18M x 90° x #8	1.25	1.85	31.8	1.85
27-0696	3/4" - 18M x 90° x #8	1.30	1.75	33	1.75
27-0697	7/8" - 18M x 90° x #10	1.75	2.06	44.5	52.4
27-0515	7/8" - 18M x 90° x #12	1.75	2.25	44.5	57.2
27-0698	1 1/16" - 16M x 90° x #12	1.75	2.25	44.5	57.2
27-0516	5/8" - 18MI x 180° x #6	1.58	-	40.2	-
27-0517	3/4" - 16MI x 180° x #8	1.63	-	41.4	-
27-0694	7/8" - 14MI x 180° x #10	2.68	-	68.1	-
27-0518	1 1/16" - 14MI x 180° x #12	2.38	-	60.5	-

Fittings

Mobile Climate Control

Steel Fittings

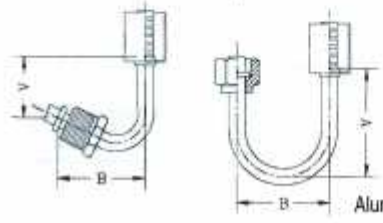
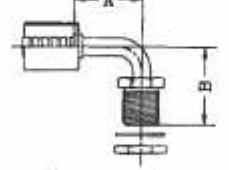
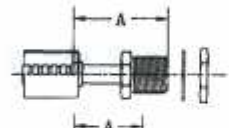
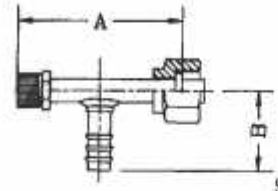
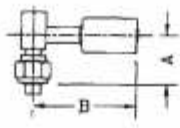
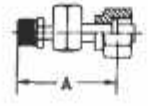
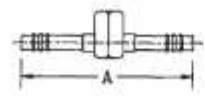
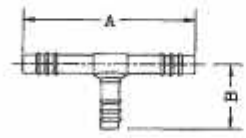
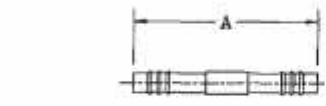


Part No.	Fitting Description	A (in)	B (in)	A (mm)	B (mm)
27-1265	5/8" - 18Fe x 180° x #6	1.38	-	35	-
27-1454	3/4" - 16Fe x 180° x #6	1.50	-	38.1	-
27-1266	3/4" - 16Fe x 180° x #8	1.44	-	36.5	-
27-1267	7/8" - 14Fe x 180° x #10	1.69	-	43	-
27-1268	7/8" - 14Fe x 180° x #12	1.88	-	48	-
27-1255	5/8" - 18Fe x 45° x #6	.81	.56	20.5	14
27-1256	3/4" - 16Fe x 45° x #8	.94	.63	24	16
27-1257	7/8" - 14Fe x 45° x #10	1.25	.88	32	22.5
27-1071	7/8" - 14Fe x 45° x #12	2.48	0.87	63	22
27-1285	5/8" - 18Fe x 90° x #6	1.25	1.25	32	32
27-1286	3/4" - 16Fe x 90° x #8	1.44	1.44	36.5	36.5
27-1287	7/8" - 14Fe x 90° x #10	1.63	1.63	41.5	41.5
27-1288	7/8" - 14Fe x 90° x #12	1.94	1.94	49.5	49.5
27-1365	5/8" - 18M x 180° x #6	1.71	-	43.5	-
27-1366	3/4" - 16M x 180° x #8	1.73	-	44	-
27-1367	7/8" - 18M x 180° x #10	1.88	-	48	-
27-1375	5/8" - 18M x 45° x #6	1.73	0.91	44	23
27-1377	7/8" - 18M x 45° x #10	2.20	1.18	56	30
27-1451	7/8" - 18M x 45° x #12	2.76	1.22	70	31
27-1395	5/8" - 18M x 90° x #6	1.06	1.63	27	41.5
27-1397	7/8" - 18M x 90° x #10	1.50	2.12	38	54
27-1453	7/8" - 18M x 90° x #12	1.73	2.24	44	57
27-1392	5/8" - 18MI x 180° x #6	1.44	-	36.5	-
27-1393	3/4" - 16MI x 180° x #8	1.41	-	36	-
27-1394	7/8" - 14MI x 180° x #10	1.58	-	40	-

Fittings

Mobile Climate Control

Special Fittings



Aluminum

Aluminum

Steel

Steel

Steel

Steel

Steel

Steel

Aluminum

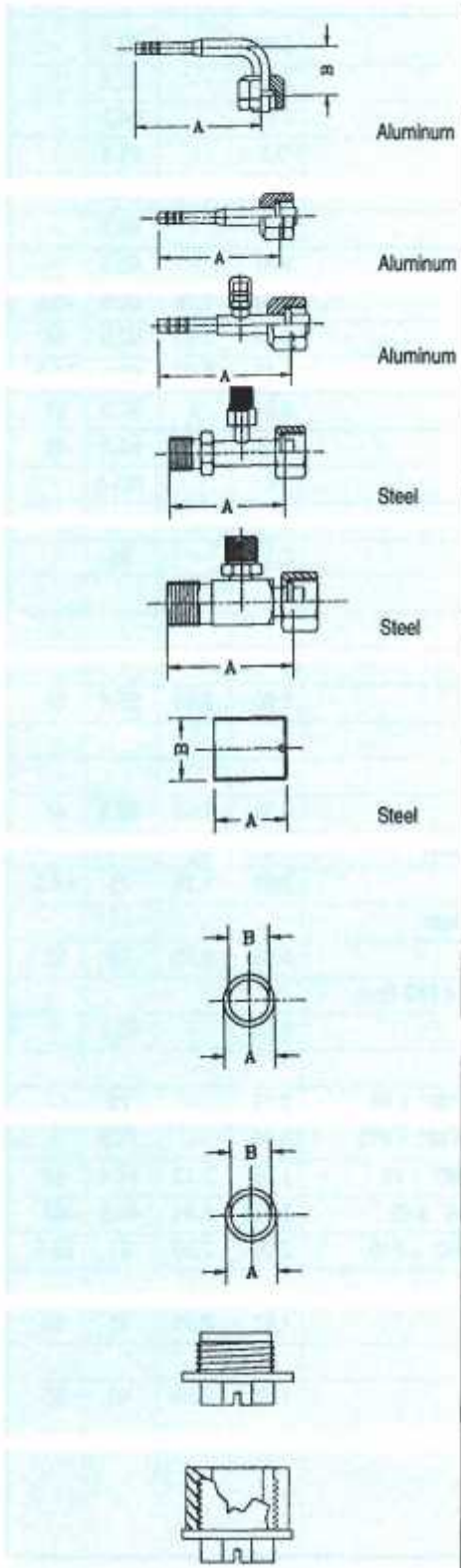
Part No.	Fitting Description	A	B	A	B
		(in)	(in)	(mm)	(mm)
27-0041	Straight Splicer #6	3.64	-	92.5	-
27-0042	Straight Splicer #8	3.64	-	92.5	-
27-0043	Straight Splicer #10	3.33	-	84.5	-
27-0044	Straight Splicer #12	3.6	-	91.5	-
27-0029	Step-Up Splicer #6/8	3.29	-	83.5	-
27-0033	Step-Up Splicer #8/10	3.33	-	84.5	-
27-0034	Step-Up Splicer #10/12	3.37	-	85.5	-
27-0051	T-Splicer #6	3.64	1.79	92.5	45.5
27-0052	T-Splicer #8	3.64	1.85	92.5	47
27-0053	T-Splicer #10	3.48	2.03	88.5	51.5
27-0054	T-Splicer #12	3.84	2	97.5	51
27-0092	T-Splicer #12/10/12	3.6	1.97	91.5	50
27-0024	Sight glass #6 #6 Barb x #6 Barb	4	-	101.5	-
27-0015	Switch Port 3/8" Fe-24Thd. 5/8" -18MI x 5/8" -18Fe For Pressure Switches	2.17	-	55	-
27-1180	Switch Port 3/8" Fe-24 Thd. 5/8" -18 Fe x 90° x #6 Barb	1.00	2.60	25.4	66
27-0005	Adapter 5/8" -18MI x 5/8" -18Fe x #6 Barb	2.31	1.89	58.5	48
27-0040	Adapter 3/4" -16MI x 3/4" -16Fe x #6 Barb	2.95	1.76	75	44.5
27-0180	Adapter 1 1/16" -16MI x 1 1/16" -16Fe x #10 Barb	3.66	2.05	93	52
27-0424	Bulkhead fitting 5/8" -18MI x 180° x #6	2.50	-	63.5	-
27-0425	Bulkhead Fitting 3/4" -16MI x 180° x #8	2.75	-	70	-
27-0426	Bulkhead Fitting 7/8" -14MI x 180° x #10	2.94	-	74.5	-
27-0474	Bulkhead Fitting 5/8" -18MI x 90° x #6	1.63	2.12	41.4	54
27-0475	Bulkhead Fitting 3/4" 16MI x 90° x #8	1.75	2.44	44.5	62
27-0476	Bulkhead Fitting 7/8" -14MI x 90° x #10	2.00	2.50	51	63.5
27-0479	5/8" -18Fe x U Bend x #6	1.61	2.05	41	52
27-1478	7/8" -18M x 115° x #10	1.65	2.20	42	56

Fittings

Mobile Climate Control

Special Fittings, O-rings and parts

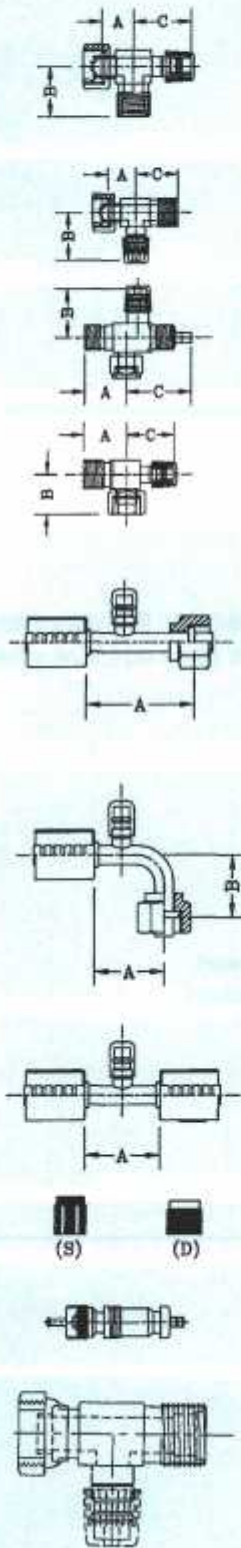
Part No.	Description	A (in)	B (in)	A (mm)	B (mm)
27-1111	Fitting (Ford) M24 x 1.5Fe x 90° x #10	3.03	1.36	77	34.5
27-1112	Fitting (Ford) M20 x 1.5Fe x 90° x #6	3.2	1.32	81	33.5
27-0656	Fitting (Ford) M20 x 1.5Fe x 180° x #6	2.95	-	75	-
27-0657	Fitting (Ford) M24 x 2.0Fe x 180° x #10	3.48	-	88.5	-
27-0658	Fitting (GM Astro/Safari) M20 x 1.5M x M20 x 1.5Fe x 5/8" -18M	2.78	-	70.7	-
27-0659	Fitting (GM Astro/Safari) M27 x 2.0M x M27 x 2.0Fe x 7/8" -14M	2.50	-	63.5	-
27-0071	Ferrule #6	1.1	.82	28	21
27-0072	Ferrule #8	1.4	1	35.5	25.4
27-0073	Ferrule #10	1.4	1.1	35.5	28
27-0074	Ferrule #12	1.42	1.21	36	30.8
27-0601	O-Ring #6 (R22/R134a)	.44	.31	11.3	7.7
27-0602	O-Ring #8 (R22/R134a)	.56	.44	14.4	10.8
27-0603	O-Ring #10 (R22/R134a)	.69	.56	17.6	14
27-0604	O-Ring #12 (R22/R134a)	.75	.62	19.2	15.6
27-0647	O-Ring #7 (R22/R134a/R12) For pressure switches	.5	.36	12.7	9.2
27-0693	O-Ring (25-0380/25-0381) For solenoid valve	.87	.69	22.2	17.5
27-0001	O-Ring #6 (R12)	.44	.31	11.3	7.7
27-0002	O-Ring #8 (R12)	.56	.44	14.4	10.8
27-0003	O-Ring #10 (R12)	.69	.56	17.6	14
27-0004	O-Ring #12 (R12)	.75	.62	19.2	15.6
28-0064	Cap #6 Male				
28-0065	Cap #8 Male				
28-0066	Cap #10 Male				
28-0067	Cap #6 Female				
28-0068	Cap #8 Female				
28-0069	Cap #10 Female				



Service Fittings for Refrigerant R134A

Mobile Climate Control

Note: All fittings made of steel if not otherwise indicated



Part No.	Description	A (in)	B (in)	C (in)	A (mm)	B (mm)	C (mm)
26-0226	Service Fitting(S) 7/8" - 14M x 90° x 7/8" - 14Fe	.79	1.34	1.46	20	34	37
26-0227	Service Fitting (D) 3/4" - 16M x 90° x 3/4" - 16Fe	.91	1.30	1.34	23	33	34
26-0280	Service Fitting (D) 3/4" - 16M x 90° x 3/4" - 16Fe	.91	1.46	1.30	23	37	33
26-0281	Service Fitting (S) 7/8" - 14M x 90° x 7/8" - 14Fe	.79	1.46	1.34	20	37	34
27-1165	Service Valve (S) 7/8" - 14M x 90° x 7/8" - 14Fe	1.34	.75	3.41	34	19	86.5
27-1175	Service Valve (D) 3/4" - 16M x 90° x 3/4" - 16Fe	1.30	.92	3.46	33	23.5	88
27-0265	Service Fitting (S) 7/8" - 14Fe x 90° x 7/8" - 14M	1.34	.75	1.46	34	19	37
27-0275	Service Fitting (D) 3/4" - 16Fe x 90° x 3/4" - 16M	1.30	.93	1.46	33	23.5	37
27-1275	Service Fitting (D) 5/8" - 18Fe x 180° x #6	1.88	-	-	48	-	-
27-1276	Service Fitting (D) 3/4" - 16Fe x 180° x #8	1.88	-	-	48	-	-
27-1277	Service Fitting (S) 7/8" - 14Fe x 180° x #10	2.12	-	-	54	-	-
27-1148	Service Fitting (S) (Alum.) 7/8" - 14Fe x 90° x #12	2.25	-	-	57	-	-
27-1295	Service Fitting 5/8" - 18Fe x 90° x #6	2.12	1.12	-	54	28.5	-
27-1296	Service Fitting (D) 3/4"-16Fe x 90°x #8	2.12	1.31	-	54	33.3	-
27-1297	Service Fitting (S) 7/8" - 14Fe x 90°x #10	2.38	1.50	-	60.5	38	-
27-1109	Service Fitting (S) 7/8" - 14Fe x 90°x #12	2.69	1.75	-	68.5	44.5	-
27-1301	Service Splicer (D) #6 x180°x#6	1.50	-	-	38	-	-
27-1302	Service Splicer (D) #8x180°x #8	1.60	-	-	40.5	-	-
27-1303	Service Splicer (S) #10 x180°x #10	1.63	-	-	41.5	-	-
27-1304	Service Splicer (S) #12x180°x#12	1.75	-	-	44.5	-	-
28-0246	Plastic Cap (S)	-	-	-	-	-	-
28-0247	Plastic Cap (D)	-	-	-	-	-	-
27-1234	Valve Core For 26-0226 to 27-1175	-	-	-	-	-	-
27-1235	Valve Core For 27-1275 to 27-1304	-	-	-	-	-	-
27-1290	Service Fitting (D) 5/8"18 Fe x #6 Male Insert	-	-	-	-	-	-
27-1291	Service Fitting (D) 3/4"16 Fe x #8 Male Insert	-	-	-	-	-	-
27-1292	Service Fitting (S) 7/8"14 Fe x #10 Male Insert	-	-	-	-	-	-

Expansion and Solenoid Valves

Mobile Climate Control

Expansion valves



- 26-0162** Expansion valve R12/R134a, 2 Ton
- 26-0167** Expansion valve R22, 2 Ton
12" cap tube, 5/8"-18 male inlet and 3/4" -16 male outlet



- 26-0580** Expansion valve R134a Externally equalized, 5/8"-18 male inlet, 3/4"-16 male outlet 18" capillary tube and 18" external capillary tube with 1/4" Fe nut, 1.5 Ton



- 26-0190** Block expansion valve R12/R134a
- 26-0384** Block expansion valve R22
2 ton externally equalized, 3/4" -16 connection to coil, 5/8"-18 inlet and 7/8"-14 outlet female



- 26-0006** Bulb clamp cadmium plated for above expansion valves



- 26-0032** Insulation tape 1/8" x 2" x 30 ft. (3.2 mm x 51 mm x 10 meter)
(Prevents condensed water from forming on expansion valves and copper tubes.)
- 26-0324** Insulation tape as above but 2 ft long.
- 26-0158** Insulation tape as above but 1850mm.

Solenoid valves



- 25-0380** Solenoid valve 12V, R12/R134a, 5/8"-18 male
- 25-0381** Solenoid valve 24V, R12/R134a, 5/8"-18 male

Electrical

Mobile Climate Control

Thermostats

All thermostats include nut 25-0066. Thermostats are used to prevent icing of the coil by cycling the compressor clutch. Temp settings are 26° F (-3° C) cut out and 35° F (2° C) cut in. Capillary tube to be inserted at the coldest area in the coil. It must be inserted with minimum 15% of the capillary tubes total length.



- 25-0030 19" capillary tube
- 25-0045 36" capillary tube
- 25-0118 As above with PVC tube protected capillary tube



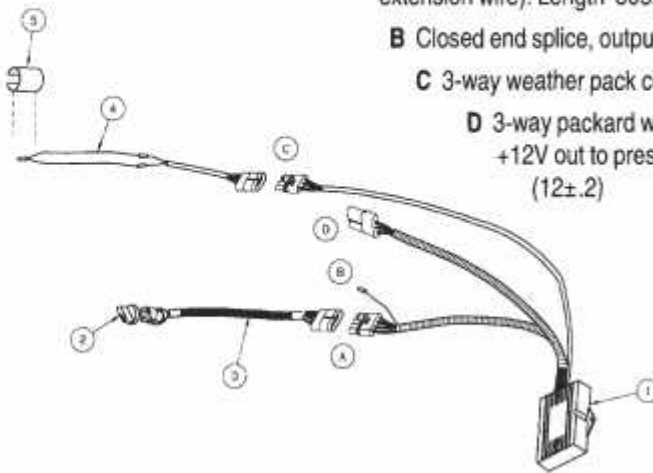
- 25-0069 24" capillary tube
- 28-0031 PVC tube 1/4" OD
(Not pictured)
(used to protect capillary tube, specify length when ordering)

- 19-0069 Thermostat Kit 12V
- 19-0066 Thermostat Kit 24V

*Note: Electronic deicing thermostat
Thermostat kit controls evaporator coil temperature by cycling the clutch
Potentiometer controls temperature setpoint and has ON/OFF switch*

Connector Details:

- A 4-way weather pack connects to control potentiometer. (For longer distance to control panel, use extension wire). Length 305±5 (12±.2)
- B Closed end splice, output to drive relay coil. Length 12±.2 (305±5).
- C 3-way weather pack connects to de-icing sensor. Length 305±5 (12±.2)
- D 3-way packard weather pack power in/out (A) battery +12V in. (B) ground gnd, (C) clutch +12V out to pressure switch. Mating connector: 31 - 1091 (12015793). Length 305±5 (12±.2)



No.	Part No.	Description
1	35-0112	Thermostat Module 12V
	35-0110	Thermostat Module 24V
2	25-0581	Knob
3	35-0111	Potentiometer Assy. with distinct ON/OFF position
4	35-0035	De-icing sensor Assy.
5	26-0032	Insulation Tape

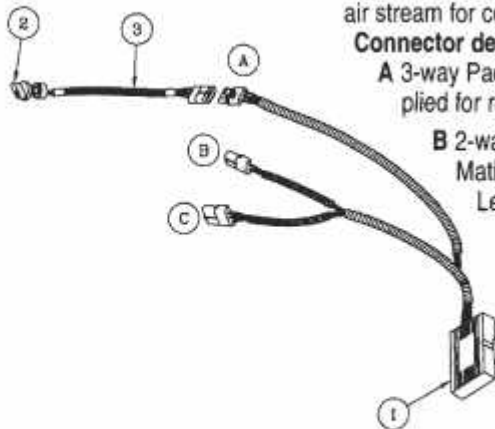
Stepless Blower Controller

19-0062 Blower Speed Kit

Notes: Control kit for variable speed blower drive operation. Drive module to be mounted in air stream for cooling. Consult MCC for use over 20A.

Connector details:

- A 3-way Packard Weather Pack to Potentiometer Assy., an extension wire harness can be supplied for remote control panel installations. Length 21.7±0.2 (550±5)
- B 2-way Packard Weather Pack to Blower Motor Terminals: (A) Battery -A, (B) Motor-B Mating Connector: MCC#31-1068, with terminal MCC#31-1039 Length 23±0.2 (585±.5)
- C 3-way Packard Weather Pack to Power Input Terminals: (A) Battery-A, (B) Ground-C (C) Ignition-G Mating Connector: MCC#31-1091, with terminal MCC#31-1026 Length 23±0.2 (585±5)



No.	Part No.	Description
1	35-0033	Motor Stepless Control
2	25-0581	Knob
3	35-0036	Potentiometer Assy.

Electrical

Mobile Climate Control

Pressure Switches

Pressure switches safeguard the compressor against extreme high and low pressures. This occurs when condenser capacity is reduced or after a loss of refrigerant. Recommended to be installed on the receiver-driers. They can also be installed on special fitting with switch port.



25-0038
R12 Male 3/8" - 24

25-0058
R12 Male 3/8" - 24

25-0308
R134a Male 3/8" - 24

25-0667
R134a Male 3/8" - 24



25-0343
R134a Fe 7/16" - 20
fits schrader valves

25-0674
R134a Fe 7/16" - 20
fits schrader valves

Cut Out Pressure Settings Psig (MPa)			
Part	High	Medium	Low
25-0038	370 (2.6)	-	27 (0.2)
25-0058	370 (2.6)	213 (1.5)	27 (0.2)
25-0308	455 (3.1)	-	28 (0.2)
25-0667	455 (3.1)	228 (1.6)	28 (0.2)
25-0343	455 (3.1)	-	28 (0.2)
25-0674	455 (3.1)	228 (1.6)	28 (0.2)

Rotary Switches



25-0029
For 3 speed motors, 15 amp, 4 pos

25-0044
For 3 speed motors, 25 amp, 4 pos

25-0305
For 2 speed motors, 15 amp, 3 pos

25-0307
On/off, 15 amp, 2 pos



25-0034
Connector for 25-0029/44



25-0028
For 3 speed motors, 15 amp with resistor, 4 pos. Must be mounted in the air stream for cooling

Rotary switches include 25-0066 nut. Switches 25-0029/44/28 include an A/C circuit that closes when in low, medium or high speed

Toggle Switches



25-0536
Two positions

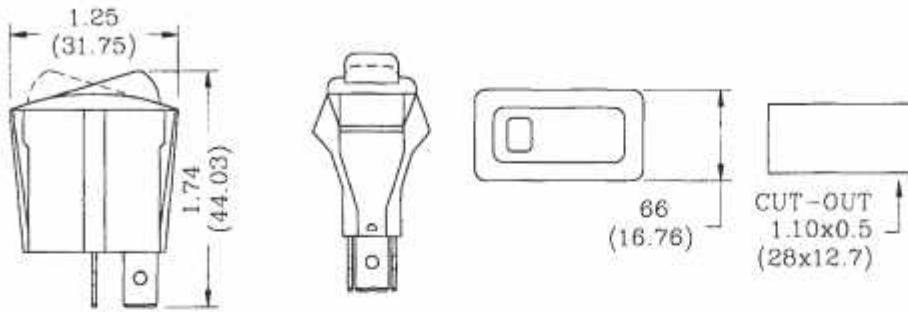
25-0537
Three positions



25-0100
For 3 speed motors, 15 amp, 4 pos
Includes an A/C circuit that closes when in low medium or high speed.

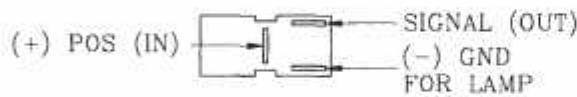
Mobile Climate Control

Single Pole (Sealed) Rocker Switches

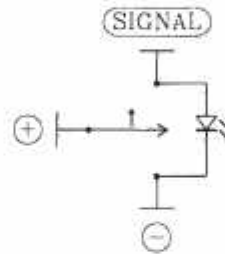


NOTES:
 CUT-OUT IS 1.10x.5
 (28x12.7 mm)
 LAMP IS A LED

TERMINALS (BOTTOM VIEW)

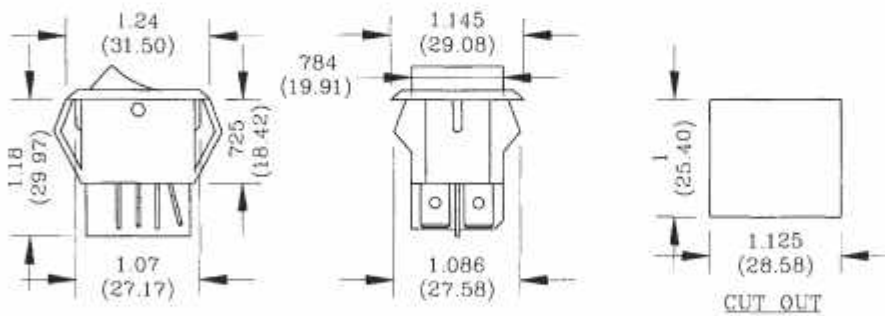


CIRCUIT DIAGRAM



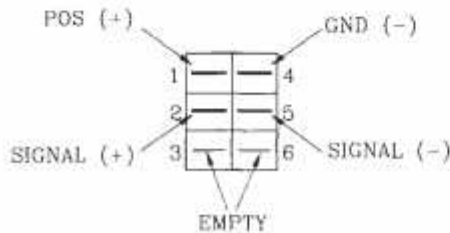
- 25-1105**
Green, 12V
- 25-1106**
Green, 24V
- 25-1107**
Amber, 12V
- 25-1108**
Amber, 24V

Double Pole Rocker Switches

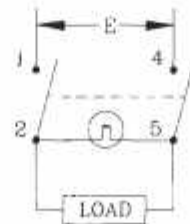


NOTES:
 CUT-OUT IS
 28.6x25.4 mm.
 LAMP IS 12V (24V)
 INCANDESCENT.

TERMINALS (BOTTOM VIEW)



CIRCUIT DIAGRAM



- 25-1167**
Green, 12V
- 25-1168**
Green, 24V
- Note:
25-1167 replaces 25-0114 (12v)
25-1168 replaces 25-0084 (24v)

Used in A/C systems to turn system on/off. Provides a lighted indication when on. Green is used for the A/C. Amber for other functions.

Electrical

Mobile Climate Control

Relays



25-0251
12 V 40/30A
25-0219
24V 40A



25-0074
12V 40/30A

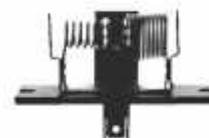


25-0221
Socket for 25-0251
and 25-0219

Resistors



25-0136 12V (0.4 Ω +0.4 Ω) 300°F (150°C)
meltfuse
25-0156 24V (1.8 Ω +2.0 Ω)
25-0552 24V (0.8 Ω +1.8 Ω)



25-0120
12V (0.35 Ω +1.5 Ω)
25-0139
24V (1.4 Ω +4.5 Ω)



25-0095
12V (0.5 Ω +0.5 Ω +1 Ω)



25-0090
12V (0.5 Ω +1.3 Ω)



25-0601 12V (0.4 Ω +1.5 Ω) ceramic 333°F (167°C) meltfuse
25-0602 24V (1.2 Ω +3.5 Ω) ceramic 333°F (167°C) meltfuse
25-0604 24V (0.8 Ω +1.8 Ω)
29-0130 Resistor bracket for ceramic resistor Used with blower #515
(not pictured)

Diodes



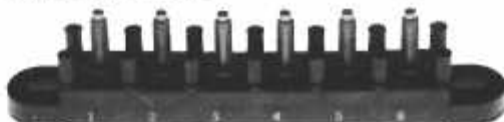
25-0097 Heavy duty type, 12 amp, 10-32 thread

Automatic Circuit Breakers



25-0026 12V, 30 amp, 1/4" male terminal (Not pictured)
25-0406 24V, 20 amp, 10-32 thread
25-0421 24V, 12 amp, 10-32 thread
25-0442 12V, 40 amp, 10-32 thread

Junction Block



25-0006 10-32 thread brass studs, rated 30A, 600V.
Max 302°F (150°C)

Knobs

Mobile Climate Control

Knobs



25-0061
Fan plate for rotary switches



25-0133
Lever, 1/4" slot, black, for 25-0100 and lever controls



25-0067
Fan/blower, Ø 1", D-shaft



25-0186
Lever, 1/4" slot, black, for 25-0100 lever controls



25-0581
Position, Ø 1 3/8", rubber coated with set screw and brass insert.



25-0072
Position, Ø 1", D shaft



25-0142
Position, Ø 1.5" with set screw and brass insert



25-0435
Position, Ø 1 1/8" with set screw



25-0068
Thermostat, Ø1", D-shaft



26-0266
Ball, thread Fe 10-32 brass insert Ø 1"



25-0063
Heat plate for pull and push controls 26-0008 and 26-0058



26-0263
Knurled, thread Fe 1/4"-20 brass insert Ø 1"



25-0549
Position, Ø 7/8" with set screw and metal insert

Electrical

Fuse Holder

Inline fuse holder

25-0682	Fuse holder (in Line)	Little Fuse	FHAC - 2	.75
25-0568	Fuse 3A	Little Fuse	ATO - 7.5	.18
25-0569	Fuse 5A	Little Fuse	ATO - 7.5	.18
25-0683	Fuse 7.5A	Little Fuse	ATO - 7.5	.18
25-0684	Fuse 10A	Little Fuse	ATO - 10	.18
25-0685	Fuse 15A	Little Fuse	ATO - 15	.18
25-0686	Fuse 20A	Little Fuse	ATO - 20	.18
25-0687	Fuse 25A	Little Fuse	ATO - 25	.18
25-0688	Fuse 30A	Little Fuse	ATO - 30	.18
25-0689	Fuse 40A	Little Fuse	ATO - 40	.18

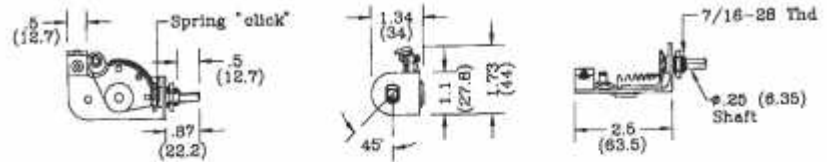


Controls & Bowden Cables

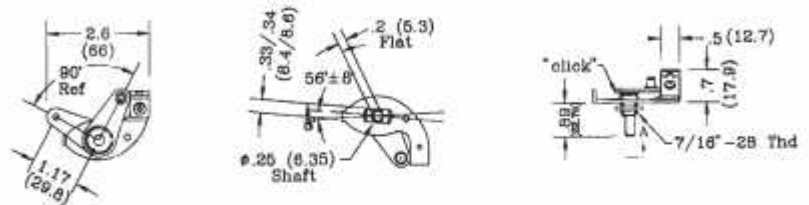
Mobile Climate Control

Rotary Controls

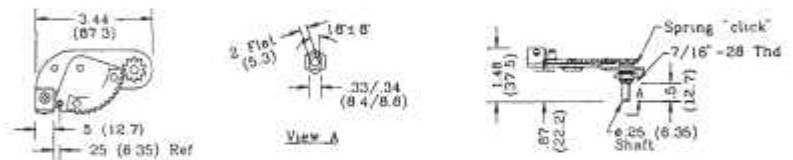
26-0350
Heavy duty steel rotary control, nut 25-0066 included.



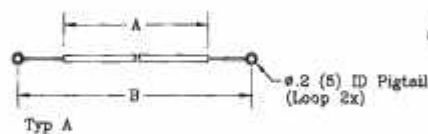
26-0345
Heavy duty steel rotary control, nut 25-0066 included.



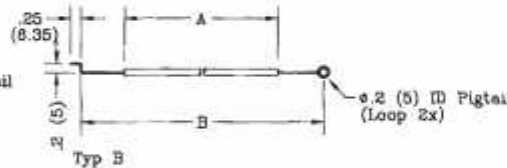
26-0359
Heavy duty steel rotary control, nut 25-0066 included.



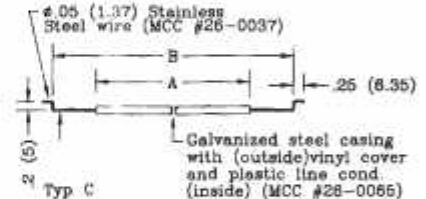
Bowden Cables



26-0037 Stainless steel wire
Specify length when ordering
(Use this Bowden Cable with metal controls only.)
Vinyl cover to be removed under cable clamp.



26-0065 Vinyl cover galvanized steel spring with plastic insert.
Specify length when ordering.



29-0424 3/16" pushnut used for holding pigtails on shafts

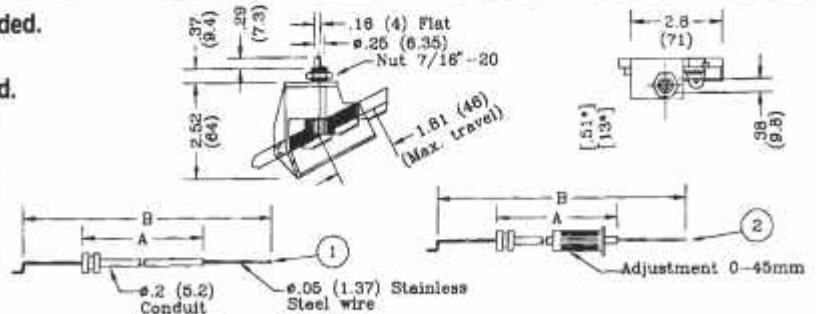
Injection Molded Rotary Control & Cable

26-0095
Medium duty injection molded rotary control, nut included.

26-0335
As above but with extended shaft (13mm) nut included.

Sym Part No.	Description	Note	A,mm	B,mm	A,in	B,in
29-0040	Nut 7/16" - 20					
2	26-0095	With adjuster	2100	2250	82	88
2	26-0097	Bowden Cable With adjuster	1100	1250	46	49
1	26-0098	Bowden Cable W/O adjuster	2100	2250	82	88
1	26-0096	Bowden Cable W/O adjuster	1100	1250	46	49

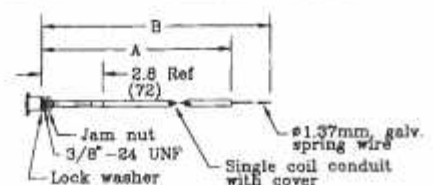
Use these bowden cables with injection molded controls only



Push & Pull Control

26-0008
Pull and push control for heavy duty use. A = 84" (2124 mm) B = 90" (2286 mm)

26-0058
Longer version of above. A = 156" (3962 mm) B = 162" (4124 mm)



Control Panels

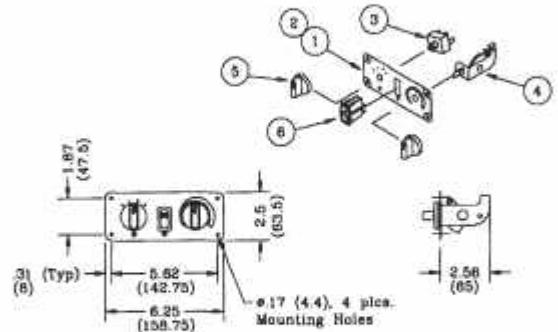
Mobile Climate Control

26-0413 Control Panel 12V

26-0342 Control Panel 24V



No.	Part No.	Description
1	24-2213	Control Plate
2	28-0200	Overlay
3	25-0044	Blower Switch
4	26-0350	Rotary Control
5	25-0581	Knob
6	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V

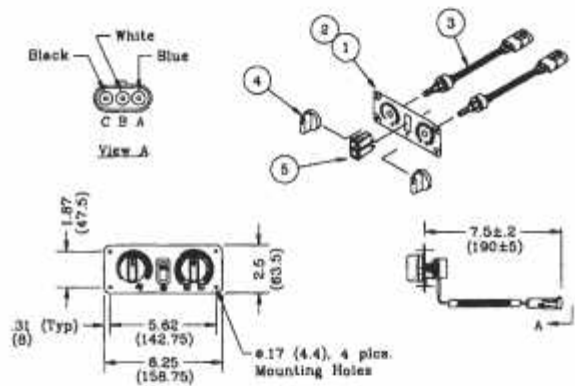


26-0445 Control Panel 12V

26-0446 Control Panel 24V



No.	Part No.	Description
1	24-2508	Control Plate
2	28-0245	Overlay
3	35-0036	Potentiometer Assy.
4	25-0581	Knob
5	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V



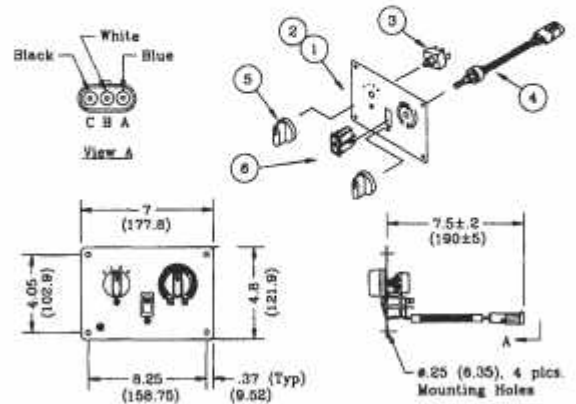
Connector Info: Connector 3-way Male Packard #12010717 with Male Terminal #12124582-L (3x) and Seal #12015323 (3x)

26-0415 Control Panel 12V

26-0416 Control Panel 24V



No.	Part No.	Description
1	24-2401	Control Plate
2	28-0224	Overlay
3	25-0044	Blower Switch
4	35-0036	Potentiometer Assy.
5	25-0581	Knob
6	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V



Connector Info: Connector 3-way Male Packard #12010717 with Male Terminal #12124582-L (3x) and Seal #12015323 (3x)

Control Panels

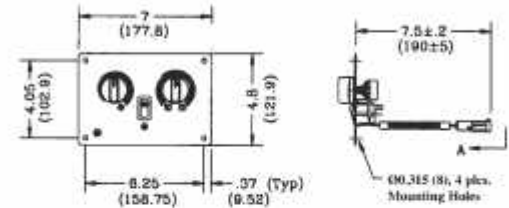
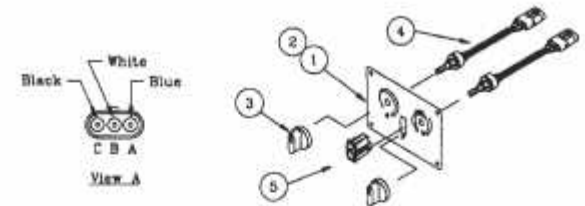
Mobile Climate Control

26-0387 Control Panel 12V

26-0386 Control Panel 24V



No.	Part No.	Description
1	24-3248	Control Plate
2	28-0223	Overlay
3	25-0581	Knob
4	35-0036	Potentiometer Assy.
5	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V



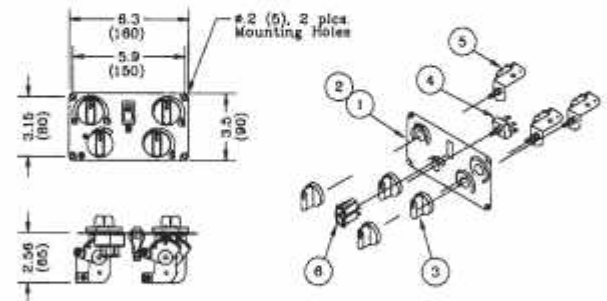
Connector Info: Connector 3-way Male Packard #12010717 with Male Terminal #12124582-L (3x) and Seal #12015323 (3x)

26-0398 Control Panel 12V

26-0444 Control Panel 24V



No.	Part No.	Description
1	24-2355	Control Plate
2	28-0215	Overlay
3	25-0581	Knob
4	25-0044	Blower Switch
5	26-0350	Rotary Control
6	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V

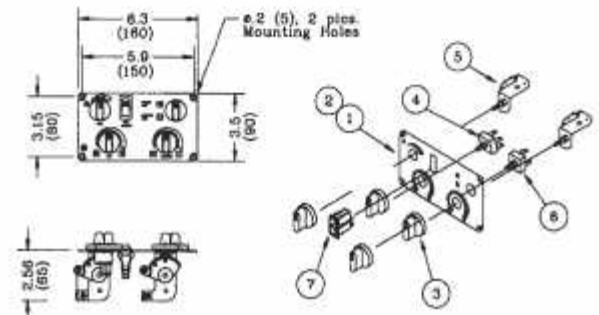


26-0447 Control Panel 12V

26-0448 Control Panel 24V



No.	Part No.	Description
1	24-2355	Control Plate
2	28-0163	Overlay
3	25-0581	Knob
4	25-0044	Blower Switch
5	26-0350	Rotary Control
6	25-0307	Switch On-Off
7	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V



Control Panels

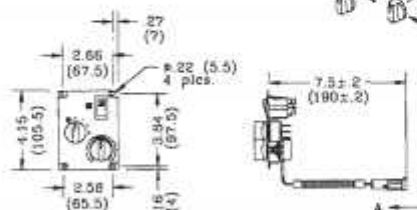
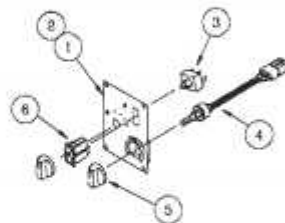
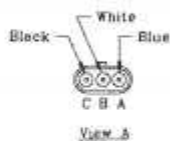
Mobile Climate Control

26-0361 Control Panel 12V

26-0362 Control Panel 24V



No.	Part No.	Description
1	24-2248	Control Plate
2	28-0214	Overlay
3	25-0044	Blower Switch
4	35-0036	Potentiometer Assy.
5	25-0435	Knob
6	25-1105	Rocker Switch (G) 12V
	25-1106	Rocker Switch (G) 24V



Connector Info: Connector 3-way Male Packard #12010717
with Male Terminal #12124582-L (3x) and Seal #12015323 (3x)

**Choose
MCC
For Performance**

Heating Related Parts

Mobile Climate Control

Heater Hose



- 27-0017 Heater hose elbow 5/8" (standard) black
- 27-0019 Heater hose elbow 3/4" (standard) black

- 27-0025 Heater hose 5/8" (standard) black sold per 250 feet reels
 - 27-0220 Heater hose 3/4" (standard) black sold per 50 feet rolls
 - 27-0225 Heater hose 5/8" (heavy duty) black sold per 50 foot rolls
 - 27-0235 Silicon hose 5/8" (long life) green or blue sold per foot
 - 27-0238 Silicon hose 3/4" (long life) green or blue sold per foot
- (See also hose insulation and sleeves under hose section.)

Heater Control Valves



26-0025
Heater control valve 5/8"
pull to open



26-0043
Heater control valve 5/8"
3-way. Inlet from bottom
when bracket on top*.
Pull for waterflow to left side.



27-0064
Shut off valve 5/8" x 5/8" hose



26-0074
Heater control valve 5/8"
pull to open



27-0100
Shut off valve 5/8" hose
x 3/8" male pipe



26-0296
Heater control valve 5/8"
brass. Bottom threaded
Fe 8-32 x 10 (2x)

26-0154
Heater control valve 3/4"
pull to open

*Heater control valve is directional and will leak if connected wrong

Heating Related Parts

Mobile Climate Control

Heater Solenoids Valve



26-0348

Heater solenoid valve 12V, 3/4" 2 way



26-0330

Heater solenoid valve 24V 3/4" 3 way



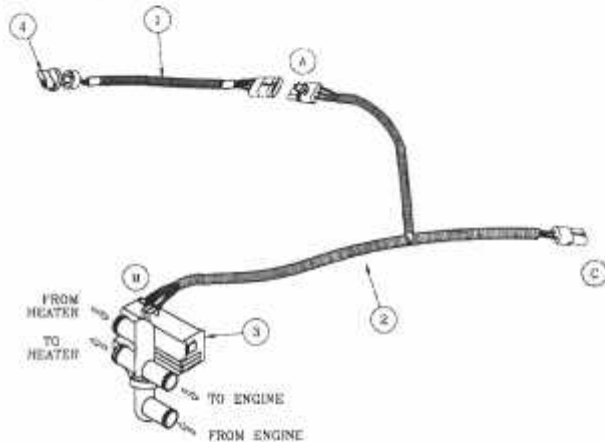
26-0194

Heater solenoid valve 24V, 3/4" 2 way

Motorized Valve

19-0061 Motorized Valve Kit (12V)

19-0158 Motorized Valve Kit (24V)



Note: Control kit for motorized heater control valve.

Heater hose connection Ø 15.9mm (5/8")

Connector Details:

- A** 3-way Packard Weather Pack connects to control potentiometer assy. Extension wire can be made for longer distance to control panel. Length 230±5mm.
- B** Connector to the motorized valve. Length 485±5mm.
- C** Power in, 2-way Packard Weather Pack. Red +12/24V, Brown GND. mating connector Packard 12015792 (MCC #31-1025) with terminal 120124580 (MCC #31-1026). Length 230±5mm.

No.	Part No.	Description
1	35-0036	Potentiometer Assy.
2	25-1135	Wiring Harness (12V)
2	25-1136	Wiring Harness (24V)
3	26-0650	Motorized Heater Valve Assy.
4	25-0581	Knob

Splicers and Adapters



27-0102

Y-splicer 5/8" 43% fibreglass reinforced nylon 6/12. For 5/8 and 3/4" hose.



27-0244

Straight splicer 3/4" x 5/8", steel



27-0278

Elbow 5/8" Plastic

27-0125

Elbow 5/8" Copper (not pictured)



27-0018

Straight splicer 5/8" copper

27-1110

Straight splicer 3/4" copper

27-0098
Adapter converts 3/8" male to 1/2" male pipe (not pictured)

27-0140
Adapter converts 3/4" male to 3/8" male pipe (not pictured)



27-0710

T-splicer 5/8" Copper

Heating Related Parts

Mobile Climate Control

Nipples



27-0141
Elbow 3/8" male x 3/8" female



27-1159
Hex nipple 3/4" hose x 3/4" male
NPT, brass



27-0097
Hex nipple 5/8" hose x 3/8"
male NPT, steel

27-0140

Adapter 3/4" male NPT x 3/8 female NPT, brass

27-0371

Hex nipple 3/4" hose x 1/2"
male NPT, steel

Grommets and Clamps



28-0005
Grommet fits 1.25" (32 mm) hole.
Use to protect refrigeration or
heater hose.



27-0048
Constant tension band clamp 24mm,
Use with 5/8" Heavy Duty Hose only



27-0059
Gear clamp 5/8" hose, stainless steel

27-0209
Gear clamp 3/4" hose, stainless steel



27-0012
Hose clamp for #6 hose

27-0013
Hose clamp for #8, #10 and 5/8" hose

27-0502
Hose clamp for 5/8" tube O.D. (Drain)

27-1108
Hose clamp for 1/2" tube O.D.



27-0910
Gear clamp 3/4" hose, stainless steel,
constant torque

Circulation Pump



These pumps are used when the main pump in the vehicle is insufficient to support the coolant flow to an auxiliary heater. The circulation pump is of a very high quality. The compact design (length 177mm, width 68mm, height 85mm) and low weight makes installation a breeze. It is weatherproof, dust-proof and can be installed in dirty, humid environments. This high-tech pump has a 5000-hour continual service life! Comes with black painted aluminum bracket.

Technical specifications: Magnetic drive (no shaft between motor and pump), CE-marked (radio disturbance shielded) as per EN55014, Ball bearing-permanent magnet motor, Liquid temperatures -40°C to 100°C, Ambient operational temperatures -40°C to 70°C.

Pressure and Capacity data

(based on water at 20° C)

	BACK PRESSURE			FLOW		AMPERAGE	
	Bar	kPa	ft	l/min	USGPM	12V	24V
26-0688 (12V) Ø16 5/8"	0.1	10	3.3	15.0	4.0	1.2	0.6
71-4161 (24V)	0.15	15	4.9	12.0	3.2	1.0	0.5
	0.2	20	6.6	4.0	1.1	0.8	0.4
64-5012 (12V) Ø20 3/4"	0.1	10	3.3	17.0	4.5	1.2	
	0.15	15	4.9	12.0	3.2	1.0	
	0.2	20	6.6	3.0	0.8	0.8	

Vacuum Operated Parts



26-0021
Heater control valve 5/8"



25-0025
Vacuum solenoid 12V

27-0210
Vacuum hose 1/8" (not pictured)

26-0024
Vacuum tee 3/16" (not pictured)

26-0038
Vacuum tee 1/4" x 3/16" (not pictured)

26-0039
Vacuum check valve (not pictured)

A/C Related Parts

Mobile Climate Control

Drain, Hose and Clamps



27-0091
Drain clamp (Do not use between drain connector and drain valve.)



27-0030
Drain hose 1/2" ID x 5/8" O.D.



27-0032
Drain tee



27-0421
Drain Valve 1" kazoo tube.



27-0264
Air Restrictor

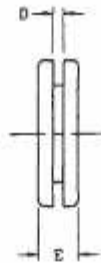
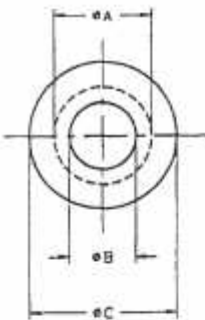


27-0422
Drain connector, connects between drain valve and drain hose.



27-0031
Drain elbow

Rubber Grommets



Part No.	A	B	C	D	E
28-0014	9.5	7	14.3	1.6	6.35
28-0004	12.7	9.5	17.5	1.6	7
28-0045	17.5	11	24	1.6	8
28-0083	17.5	11	24	4.8	11
28-0293	19.05	12.7	24.6	2.4	7.14
28-0009	22.2	16	28.5	1.6	8
28-0008	26.98	19	35	1.6	9.5
28-0007	35	28.5	50.8	1.2	9.5
28-0005	32	16-30	47	2.0	9.5

Note: Dimensions in mm

Pag Compressor Oil & Fin Comb



30-0005
Fin comb for 6, 8, 10, 12, 14 and 15 fins/inch coils. Can be used for heater, evaporator and condenser coils.



30-0001
Pag OIL for compressors, 1 liter bottle

Air Distribution Products

Mobile Climate Control

Air Hose



23-0102
2" Low friction, non collapsible,
sold in length of 47" (1200 mm)

23-0104
2.5" Low friction, non collapsible,
sold in length of 47" (1200 mm)



23-0015	2" Collapsible	sold in multiples of 50 feet
23-0020	2.5"	" "
23-0025	3"	" "
23-0035	3.5"	" "
23-0040	4"	" "

Gear Clamp



27-1211
max 3" diameter stainless steel

27-0183
3.16 - 4.5" diameter stainless steel



28-0053
Nylon strap up to 3"
diameter

Round Louvers



23-0005
Rotates and closes. Nylon 66

23-0047
Rotates and closes. Nylon ST801
(Cold Climate)



23-0045
Rotates, Nylon 66

23-0086
Rotates, nylon ST801
(Cold Climate)

Louvers shown have diameters of 3.94" (100 mm) and are manufactured of super tough nylon. The ST801 was specially designed for extreme low temperatures. **The louvers must be used with any of the adapters below.**

Adapters for 23-0005, 45, 47 & 86



23-0048
Adapter, Nylon 66



23-0017
Hose adapter, 2"
23-0018
Hose adapter, 2.5"



23-0032
Hose adapter, 3", Nylon 66



23-0006
Cover plate (ABS)



23-0143
Hose adapter, 60mm, Nylon 66

Mounting hole \varnothing 3.1" (79mm). Screw hole 4 x \varnothing 84 mm.

Air Distribution Products

Mobile Climate Control

Round Louvers



23-0171
Rotates and closes,
adapter included



23-0172
Rotates and closes, hose
adapter 2" included

Above louvers are manufactured of prime grade ABS. The overall $\text{\O} 2.75"$ (70 mm), screw hole $\text{\O} 2.204"$ (56 mm) (4x), mounting hole $\text{\O} 2.10"$ (53.5mm). Adapter will also accept snap in installation without screws.



23-0100
Rotates and closes comes with 4" hose
adapter (ABS). Four screw holes at $\text{\O} 4.93"$
(125.2mm)
Used in the RV and motor home industry.



23-0065
Non adjustable, mounts in 3"
(76.2mm) hole.
Mounting spring included.
Low cost (ABS).

Ball Type Louvers (ABS)



23-0164
Black ball, hose adapter 2" included

23-0067
Black ball, hose adapter 2.5" included



23-0087
Black ball, adapter included

23-0097
Large black ball, adapter included
mounts in a $\text{\O} 3"$ (76.2mm) hole.



23-0057
Chrome ball, hose adapter
2.5" included

Louvers
23-0164, 23-0057, 23-0067, and 23-0087
Mount in a $\text{\O} 2.5"$ (63.5 mm) hole.

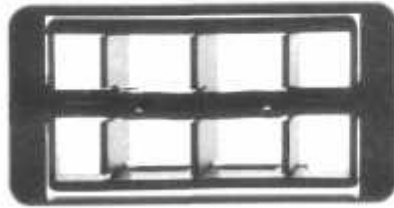


23-0098
Large black ball, hose adapter $\text{\O} 2.5"$ included
Louvers 23-0097 and 23-0098 mounts in a $\text{\O} 3"$
(76.2mm) hole.

Air Distribution Products

Mobile Climate Control

Rectangular and Square Louvers (closable and adjustable)



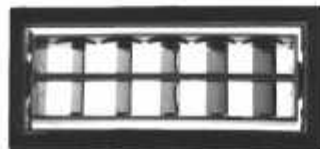
23-0042

3.65" (92.2mm) x 1.88" (47.8mm), (ABS)
snaps into hole
3.41" (86.6mm) x 1.72" (43.7mm)



23-0029

6" (152.4mm) x 1.87" (47.6mm), (ABS)
snaps into hole
5.73" (145.5mm) x 1.72" (43.7mm)



23-0055

7.1" (180.3mm) x 3.3" (83.8mm), (ABS)
snaps into hole
6.38" (162.1mm) x 2.48" (63mm)



23-0054

Adapter for 23-0053 with 2.5" (63.5mm)
hose adapter. (ABS)



23-0027

2.45" (62.2mm) x 2.44" (62mm), (ABS)
2" hose adapter included, snaps into
hole 2.2" (55.9mm) x 2.375" (60.3mm)



23-0046

6" (152.4mm) x 1.562" (39.7mm), (ABS)
snaps into hole
5.75" (146mm) x 1.375" (34.9mm)



23-0053

5.43" (137.9mm) x 2.68" (68.1mm),
(ABS) fits hole
4.75" (120.7mm) x 2" (50.8mm)



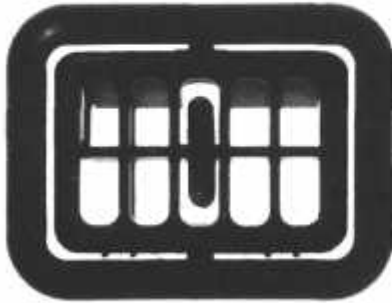
23-0116

5.43" (138mm) x 2.17" (55mm), (ABS)
snaps into hole
5.12" (130mm) x 1.81" (46mm)

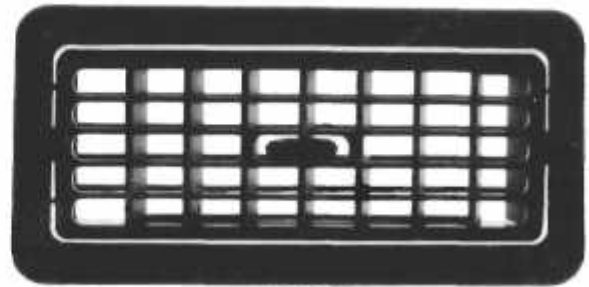
Air Distribution Products

Mobile Climate Control

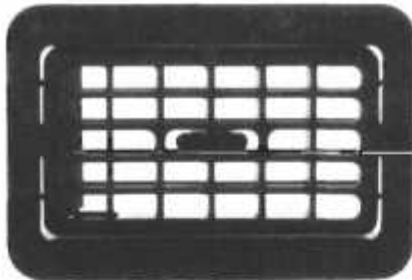
Rectangular and Square Louvers (closeable & adjustable)



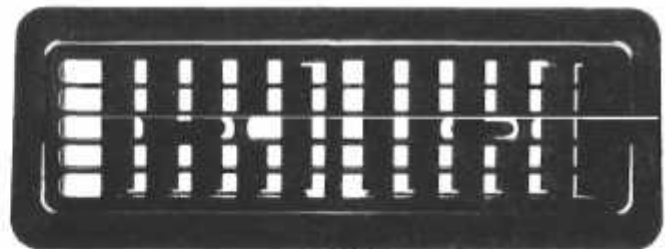
23-0173



23-0175



23-0174



23-0176

DIMENSIONS						
ABOVE LOUVERS SNAP INTO 1/16" (1.59mm) TO 1/8" (3.19mm) WALL THICKNESS OPENINGS						
Part No.	Overall Size		Mounting Hole		Snap-in	Hose* Adapter
	in.	mm	in.	mm		
23-0173	2.62 x 3.45	66.5 x 87.6	2.02 x 2.85	51.3 x 72.4	yes	no
23-0174	3.82 x 5.64	97.0 x 143.3	2.82 x 5.13	71.6 x 130.3	yes	no
23-0175	3.82 x 7.87	97.0 x 199.9	2.85 x 7.34	72.4 x 186.5	yes	no
23-0176	3.82 x 10.11	97.0 x 256.8	2.82 x 9.61	71.6 x 244.1	yes	no

*Louvers available on request with Ø2.5" (63.5 mm) hose adapter as a one piece design.



23-0177



23-0178

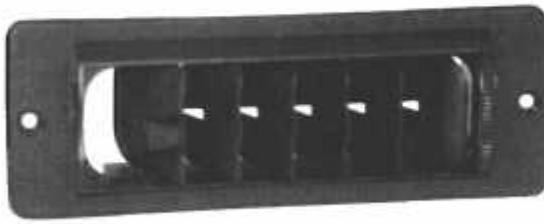
DIMENSIONS						
Part No.	Overall Size		Mounting Hole		Snap-in	Hose Adapter
	in.	mm	in.	mm		
23-0177	2.17 x 6.08	55.1 x 154.4	request sample	request sample	yes	no
23-0178	2.17 x 6.08	55.1 x 154.4	request sample	request sample	yes	Ø 2.5"

Air Distribution Products

NEW

Mobile Climate Control

Rectangular and Square Louvers (closable and adjustable)

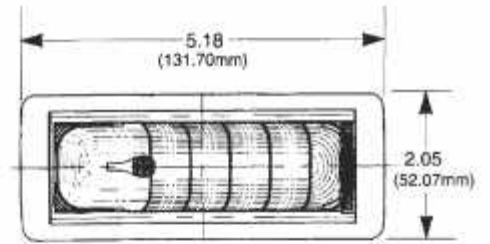
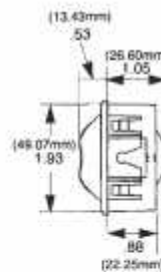
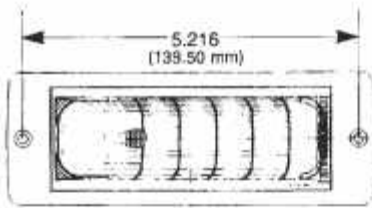


23-0186

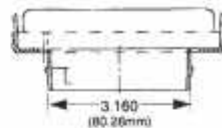
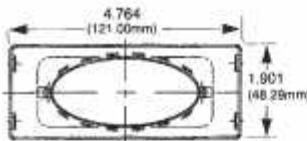


23-0145

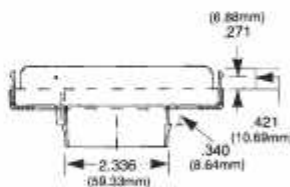
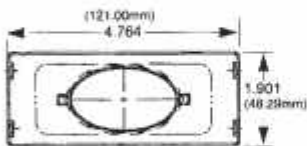
Louver Vents



Hose Adapters



23-0203 Hose Adapter \varnothing 2.5" (63.5 mm)



Hose Adapter \varnothing 2" (50.8 mm)

Air Distribution Products

Windshield Louvers



23-0094

9.53" (237mm) x 1.18" (30mm).
Two centered screw holes at 8.70" (221mm). (ABS)



23-0115

6.07" (205mm) x 1.02" (26mm) (ABS)
Snaps into oblong hole 7.80" (98mm) x 0.69" (17.5mm); (ABS)



23-0095

As 23-0094 but angled 40° from vertical line

Hose adapters



23-0110 /2"

2.36" (60mm), four screw holes \varnothing 2.56" (65mm), mounts in 2" (50.8mm) hole (ABS)

23-0125 /2.5"

2.9" (74mm), four screw holes \varnothing 3.25" (83mm), mounts in 2.48" (62.8mm) hole (ABS)



23-0141 60mm, nylon 66



23-0037 2" Snap in mounting (ABS)

23-0038 2.5" Snap in mounting (ABS)

23-0039 3" Snap in mounting (ABS)



23-0050 Reducer from 2.5" - 2" (ABS)



23-0048 y-splicer 2.5" (ABS)



23-0051 Reducer from 2.5" - 3" (ABS)



23-0129 4" Steel with flapper door. Four screw holes at \varnothing 5.30" (134.6mm)



23-0091 3" Steel four screw holes at \varnothing 3.54" (90mm)

23-0090 4" Steel four screw holes at \varnothing 4.72" (120mm)

23-0142 3.5" (88mm), nylon 66

Air Distribution Products

Mobile Climate Control

Recirculating Air Grills



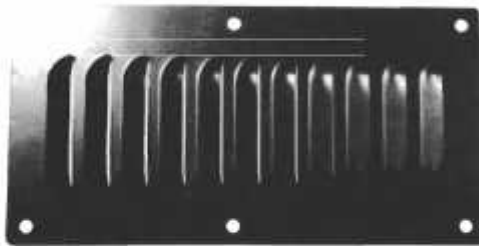
23-0084

Grill 5.51" (140mm) high x 6.18" (157mm) wide (ABS)
For opening 4.96" (126mm) high x 5.31" (135mm) wide
Four screw holes at 5.12" (130mm) high x 5.79" (147mm) wide.



23-0041

Grill 5.51" (140mm) high x 12.36" (314mm) wide (ABS)
For opening 4.96" (126mm) high x 11.18" (284mm) wide
Four screw holes at 5.12" (130mm) high x 11.97" (304mm) wide.



24-0025

Steel Grill 12" (304.8mm) x 6.13" (155.7mm)



23-0075

Steel Grill with metal mesh 7.50" (190.5mm) x 18.5" (469.9mm)