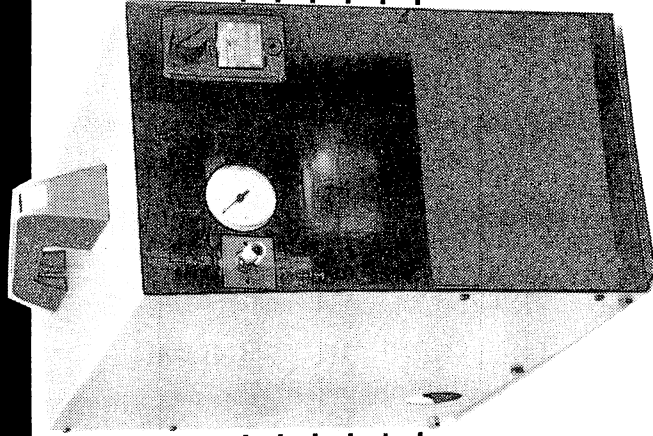
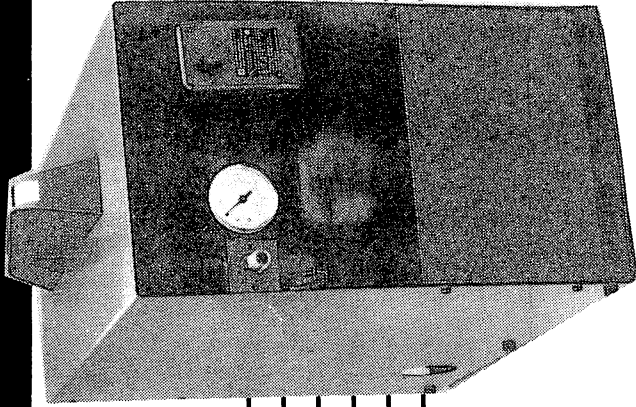
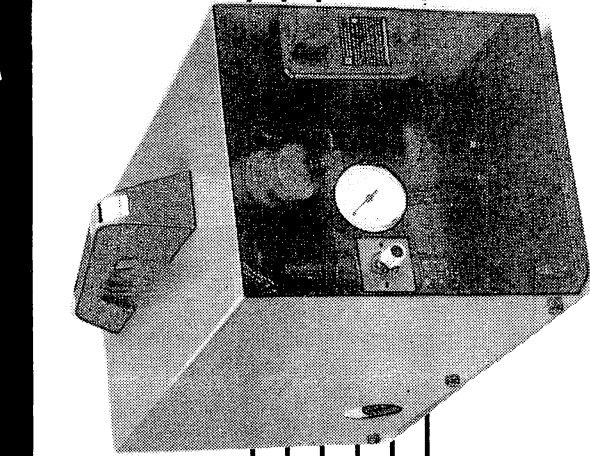




TM

BADGER



for Silent Compressors
480-1 • 480-2 • 480-3
Owner's Manual

INTRODUCTION

The silent compressor that you purchased is made with the careful choice of first quality materials and exceeds the highest testing standards. Use with care and it is guaranteed to faithfully serve your needs for several years.

For correct use of your unit, read this manual completely before starting the motor. **INCORRECT USE WILL VOID THE WARRANTY.**

DO NOT TURN ON THE COMPRESSOR WITHOUT OIL IN THE MOTOR.

NEVER TRANSPORT COMPRESSOR WITH OIL IN THE MOTOR.

TECHNICAL FEATURES

Your compressor has been made with the most advanced technologies.

The Model 480-1 is 1/6 hp, the 480-2 is 1/4 hp, and the 480-3 is 1/2 hp.

Although compact in size, they are supplied with pressure gauge, pressure switch, automatic starting and safety valve.

All models have an air tank to allow a constant air stream and they also have a filter regulator which removes all dust particles over 20 μ m from inlet air.

MACHINE SET-UP

Immediately check the compressor for damage due to shipping during transport.

Also check the bottle of oil that came with your unit to make sure it wasn't punctured and leaking into the carton.

Note: This is to avoid leaks around the motor cover gasket which may cause future problems during normal operation. This unit has been sent to you without oil in the motor.

After oil filling procedure make sure you have put teflon tape on threads of compressor regulator then attach braided hose and air-brush.

OIL FILLING PROCEDURE

The 480-1, 2 and 3 have all been sent with one bottle of oil.

Remove the plug from the mouth on the top of oil container and attach the filler spout to the oil container included in small bag of parts. Cut off the top of filler spout on the bottle of oil. Remove both plugs from motor (breather plug and filling plug, the 480-3 only has filling plug) insert filler spout into the filling tube marked oil (Fig. 1). Fill to the middle of oil level sight glass, between min and max level on the side of your unit (fig. 2).

Do not fill over max level, this may damage your unit.

Required oil is about 10,8 oz for 480-1, about 12,9 oz for 480-2 and about 18,7 oz for 480-3.

Keep remaining oil for the future topping off.

Replace breather and filling plug.

USE ONLY OIL SUPPLIED OR RECOMMENDED BY MANUFACTURER.

FAILURE TO DO SO WILL VOID YOUR WARRANTY.

NEVER TURN OR TIP COMPRESSOR WITH OIL.

Before transporting unit over a long distance, drain oil reservoir (see oil change). If unit is accidentally tipped over, remove oil from reservoir and disconnect hose assembly from motor (see illustration of Part Nos. C0022 on page 7 and C0064 on page 9) and run motor in 10 minute cycles till no oil is noticeable from compressor outlet. Let unit cool between cycles. When finished reconnect hose and begin normal usage.

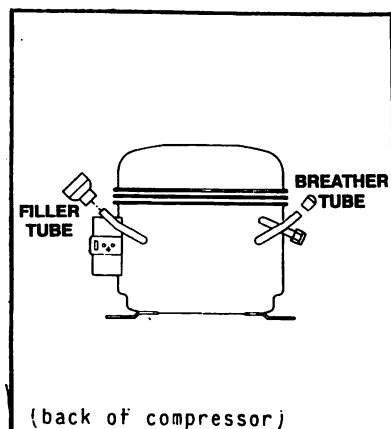


Fig. 1 Breather and filling plugs

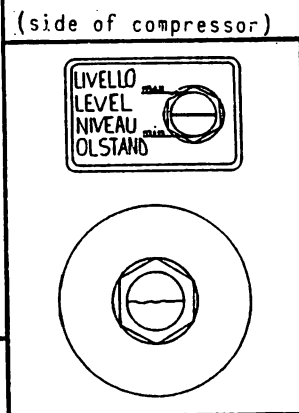


Fig. 2 Oil level sight glass

STARTING PROCEDURE

The compressor operates on a 115V-60 Hz three pronged plug electrical power supply. Make sure that you use a grounded electrical outlet for the unit. If the ground is missing, short circuit could cause electrical discharge in the compressor itself.



Once you have completed these operations, your compressor is ready to start.

Turn ON/OFF switch in AUTO position: (Fig. 3)

1. Compressor will run (if it doesn't, check to see if you have a faulty outlet, blown fuse or tripped circuit breaker).
2. Compressor will run to 116 PSI pressure into air tank then it will automatically stop.
3. After these operations check oil level on oil level sight glass. Additional oil may be necessary after initial run.
4. With tank pressurized and using teflon tape, connect 1/4" adapter fitting, air hose and air brush securely as shown in Fig. 4A.
5. The filter regulator is set to O.P.S.I. by manufacturer but should be regulated to your desired pressure. To do so, turn the ring on the top of filter regulator clockwise to get desired pressure by reading on pressure gauge.

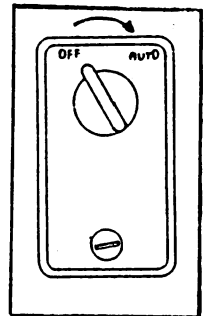
Now you are ready to use your compressor.

NOTE: Pressure switch of your compressor was calibrated to stop when air pressure tank gets to 116 PSI. Unit will start automatically when tank air pressure will fall to about 80 PSI. If pressure exceeds 116 PSI, a safety valve opens automatically till the pressure is under 116 PSI.

NEVER REMOVE OR ATTEMPT TO REPAIR THIS VALVE.

NEVER USE YOUR COMPRESSORS ON AN UNEVEN SURFACE.

Fig. 3



Pressure switch

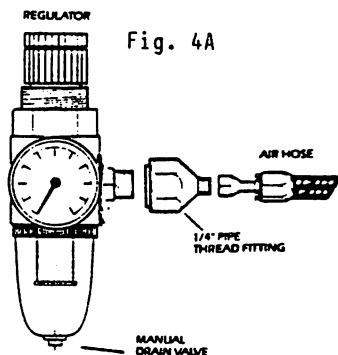


Fig. 4A

CONDENSATION

Periodically check for water and oil condensation in the filter regulator. To drain, push pressure valve on bottom of bowl with the tank under pressure until all liquid has been removed.

Periodically remove condensation in the air tank. If the compressor is used frequently and in areas of high humidity more frequent removal of condensation is required.

To drain, put tank under pressure, REMOVE THE ELECTRICAL PLUG FROM OUTLET, open drain valve under tank. After draining completely, close drain valve, reconnect plug into outlet and repressurize the tank. Regularly drain air-hose and other accessories.

OIL CHANGE

To change oil, tilt the compressor away from the sight glass and unscrew the glass with a 27mm socket.

Take a standard 1/2" NPT pipe and screw into hole, tilt towards pipe and drain oil out, then screw sight glass back into hole.

To fill again, follow filling procedures.

You should change oil completely after running about 500 hours or at least once a year.

OIL LEVEL CHECK

During the first week check the oil level daily, then it is sufficient once weekly.

Add oil if it goes below minimum level.

ELECTRICAL POWER CABLE

Periodically check condition of power cable. If you need to replace, use plug and cable with the same features : plug with three prongs and cord with three wire identified as follows :

Black - live white - neutral green - ground

Avoid stretching the power cable excessively as it will reduce the power to the compressor.

NEVER USE TWO PRONGED PLUG OR TWO WIRE CABLE

Periodically check the cover screws, tighten if necessary.

AIR INTAKE FILTER

Constantly check air intake filter considering use.

If it is clogged, remove it and set in a cup with warm soapy water. Then flush with clean water, dry and reattach.

If heavy use, clean filter weekly.

Failure to do so will void warranty.

IMPORTANT

NEVER ATTEMPT TO CHECK OR REPAIR INSIDE PARTS OF MOTOR REMOVING THE DOME SHELL. TO DO THIS SO WILL VOID YOUR WARRANTY WITH OTHER CHARGE TO REPAIRS.

BEFORE CHECKING OR REPAIRING COMPRESSOR, REMOVE PLUG FROM OUTLET.

HELPFUL HINTS

1. Compressor has a motor with a thermal overload protection that automatically stops motor when there is overload tension or temperature reaches 110°C (about 212°F).

If it should stop due to overheating during normal working, turn

pressure switch to OFF position and wait till motor is cooled (about 60°/70°C - 150°F).

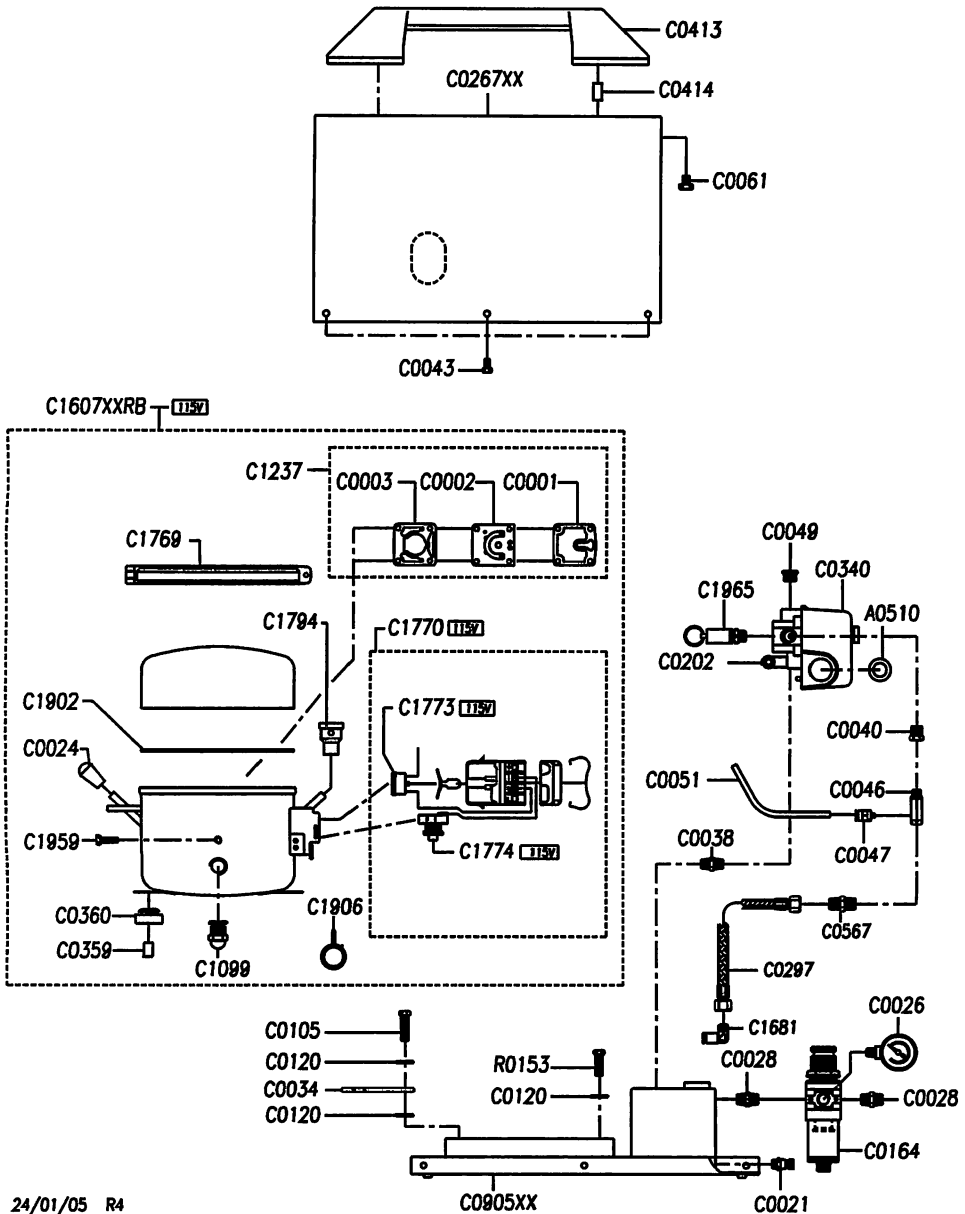
Start again and check if functioning correctly.

2. Use compressor on a flat horizontal surface.
3. Place compressor in a clean dirt/dust free area.
4. Use only those replacement parts recommended by the manufacturer.
5. Do not mix oil in the compressor with other kinds.
6. Do not expose compressor to water or excessive humidity. To ship compressor, oil must be drained. If the unit is sent to manufacturer with oil in motor compartment, the warranty may be voided and a clean-up charge will be assessed.
7. Cool the unit by running a fan over it.

SERVICE CHECK LIST

PROBLEM	POSSIBLE CAUSE	SOLUTION
1.Compressor will not run	No power Thermal overload has tipped	Check outlet voltage, fuse and circuit breakers.Wait 10 min, and try starting again.See the "Electrical" section of your manual.
	Bad cord connection	Check cord connection for any visual damage
2.Compressor runs but will not supply	Air filter cap is closed Air filter is dirty and clogged	Check for blockage or send in for service
3.Air leak	Leak in safety relief valve	Safety relief valve is sticking-must replace.
	Loose fittings and hose connections	Tighten fittings and check hose connections
4.Rattling noise during operation	Compressor motor is touching the compressor shell lack of oil in compressor	Operate on a flat or level surface.Periodic check of oil level sight glass. Keep oil level no lower than the minimum marking.
5.Milky oil in compressor	Oil has been contaminated with moisture or other foreign materials.	Complete oil change
6.Air tank does not hold pressure when compressor is not running.	Faulty check valve. See "Air Leaks"	Disassemble check valve, assembly and clean or replace.

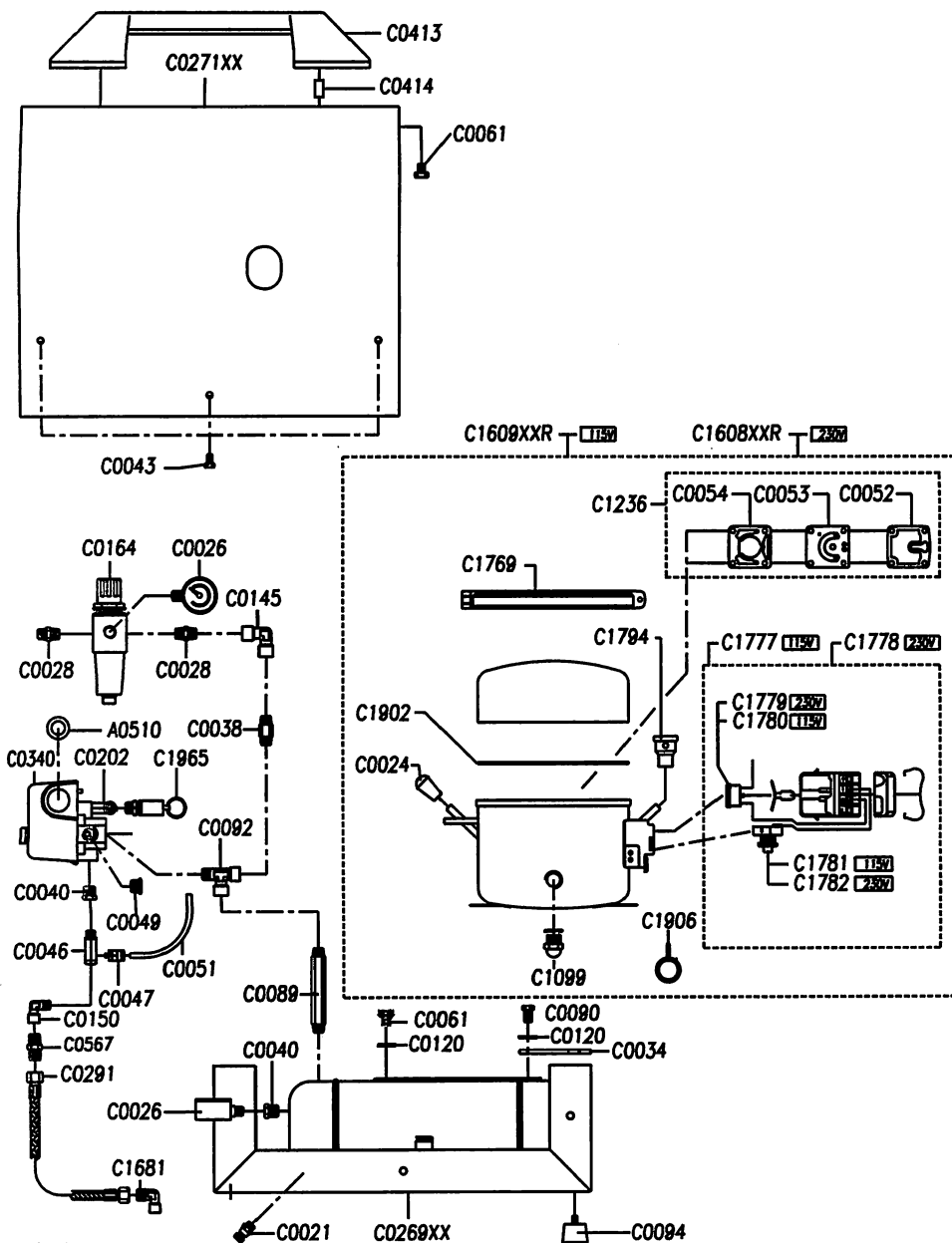
480-1 (L55 115/60) ASSEMBLY DIAGRAM



MODEL 480-1 (L55)

Part Code	Description
A0510	CABLE CLAMP Ø24
C0001	HEAD GASKET
C0002	VALVE PLATE E 59 WITH VALVE
C0003	CYLINDER GASKET
C0021	DRAINCOCK M 1/8"
C0024	RUBBER OIL PLUG Ø8
C0026	R. GAUGE D.40 1/8" 0-10 BAR
C0028	NIPPLE M1/4
C0034	CABLE RELIEF
C0038	NIPPLE 1/4" X 35
C0040	REDUCTION M-F 1/4 X 1/9
C0043	SCREW TE M6X10 UNI 5739
C0046	NON RETURN VALVE M-F 1/8"
C0047	QUICK COUPLING M5XØ6
C0049	PLUG M1/4
C0051	RYLSAN HOSE Ø4/6
C0061	SCREW TE M8X10 UNI 5739
C0105	SCREW TE M8X30 UNI 5739
C0120	WASHER Ø9X24 UNI 6593
C0164	FILTER REGULATOR FR BIT 1/4"
C0202	EXHAUST VALVE 90°
C0267XX	COWLING
C0297	AIR HOSE
C0340	FOUR WAYS PRESSURE SWITCH CSA - UL
C0359	SPACER E 59-E 88
C0360	RUBBER GROMMET E 59 -E 88
C0413	HANDLE MOD. COMPACT
C0414	HANDLE INSERT MOD. COMPACT
C0567	NIPPLE 1/8"
C0905XX	TANK 15-30SA
C1099	OIL LEVEL GLASS 1/2"INCH
C1237	KIT VALVE PLATE+GASKET E59
C1607XXRB	MOTOR L55 (115V)
C1681	"L" CONNECTION M 1/8X8
C1769	KIT HOLDING BAND L55-L88
C1770	KIT TERMINAL BOX L55 (115V)
C1773	OVERLOAD PROTECTOR L55 (115V)
C1774	START RELAY L55 (115V)
C1794	KIT INTAKE FILTER
C1902	O'RING
C1959	SCREW 5X20
C1965	VALVE
R0153	HH SCREW M8X25 UNI 5739

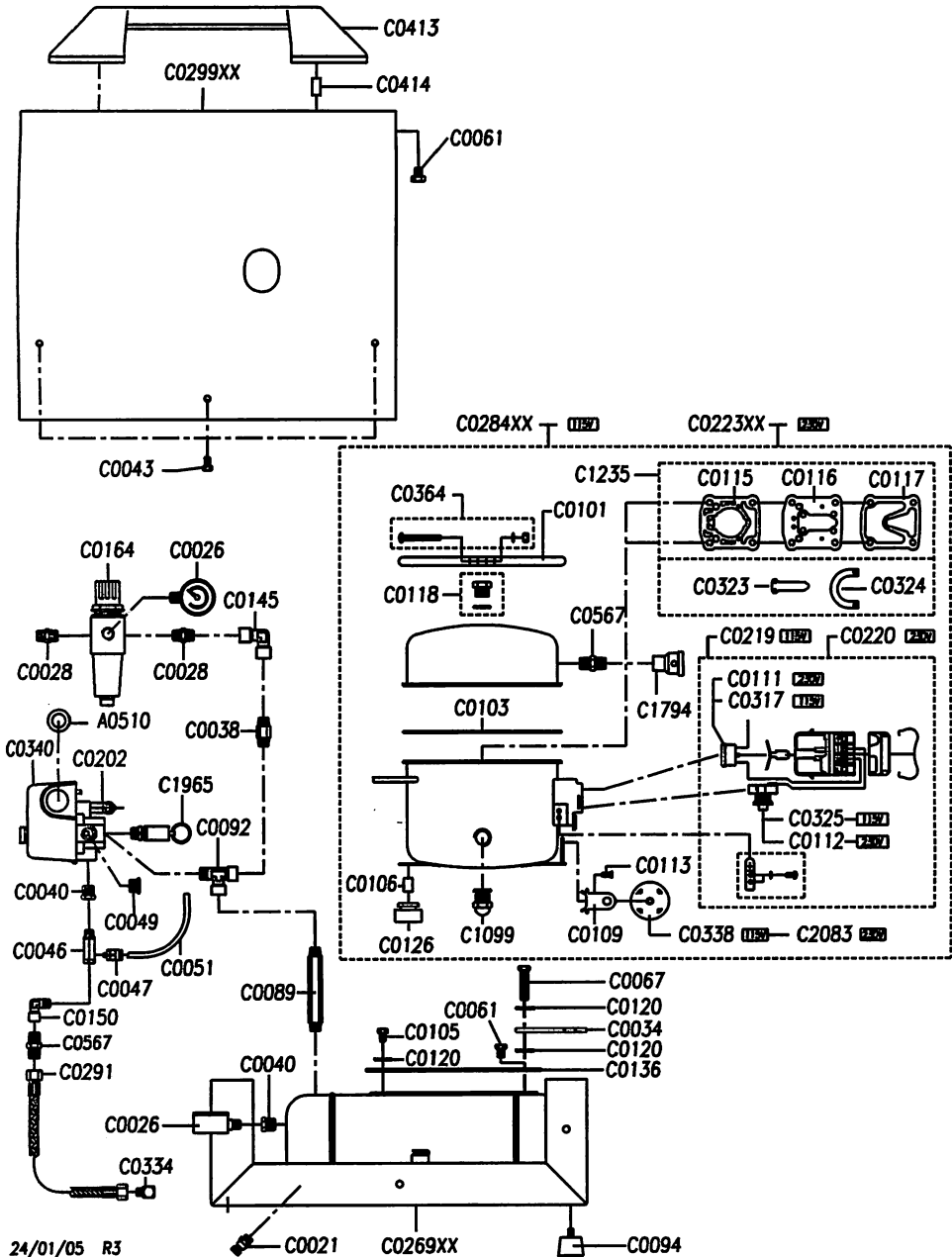
480-2 (L88 115/60) ASSEMBLY DIAGRAM



MODEL 480-2 (L88)

Part Code	Description
A0510	CABLE CLAMP Ø24
C0021	DRAINCOCK M 1/8"
C0024	RUBBER OIL PLUG Ø8
C0026	R. GAUGE D.40 1/8" 0-10 BAR
C0028	NIPPLE M1/4
C0034	CABLE RELIEF
C0038	NIPPLE 1/4" X 35
C0040	REDUCTION M-F 1/4 X 1/9
C0043	SCREW TE M6X10 UNI 5739
C0046	NON RETURN VALVE M-F 1/8"
C0047	QUICK COUPLING M5XØ6
C0049	PLUG M1/4
C0051	RYLSAN HOSE Ø4/6
C0052	HEAD GASKET
C0053	VALVE PLATE E88 WITH VALVE
C0054	CYLINDER GASKET
C0061	SCREW TE M8X10 UNI 5739
C0089	NIPPLE 1/4" L=95
C0090	SCREW TE M8X14 UNI 5739
C0092	"T" CONNECTION F-F-M 1/4"
C0094	WERTHER RUBBER FOOT M6
C0120	WASHER Ø9X24 UNI 6593
C0145	CONNECTION F-F 1/4"
C0150	M-F "L" CONNECTION 1/8"X1/8"
C0164	FILTER REGULATOR FR BIT 1/4"
C0202	EXHAUST VALVE 90°
C0269XX	TANK MOD.BILLIONAIR-TRILLIONAIR
C0271XX	COWLING MOD.BILLIONAIR
C0291	AIR HOSE
C0340	FOUR WAYS PRESSURE SWITCH CSA - UL
C0413	HANDLE MOD. COMPACT
C0414	HANDLE INSERT MOD. COMPACT
C0567	NIPPLE 1/8"
C1099	OIL LEVEL GLASS 1/2"INCH
C1236	KIT VALVE PLATE+GASKET E88
C1608XXR	MOTOR L88 (230V)
C1609XXR	MOTOR L88 (115V)
C1681	"L" CONNECTION M 1/8X8
C1769	KIT HOLDING BAND L55-L88
C1777	KIT TERMINAL BOX L88 (115V)
C1778	KIT TERMINAL BOX L88 (230V)
C1779	OVERLOAD PROTECTOR L88 (230V)
C1780	OVERLOAD PROTECTOR L88 (115V)
C1781	START RELAY L88 (115V)
C1782	START RELAY L88 (230V)
C1794	KIT INTAKE FILTER
C1902	O'RING
C1965	VALVE

480-3 (T2134A 115/60) ASSEMBLY DIAGRAM



MODEL 480-3 (T2134A)

Part#	Sug	Description
A0510		CABLE CLAMP Ø24
C0021		DRAINCOCK M 1/8"
C0026		R. GAUGE D.40 1/8" 0-10 BAR
C0028		NIPPLE M1/4
C0034		CABLE RELIEF
C0038		NIPPLE 1/4" X 35
C0040		REDUCTION M-F 1/4 X 1/9
C0043		SCREW TE M6X10 UNI 5739
C0046		NON RETURN VALVE M-F 1/8"
C0047		QUICK COUPLING M5XØ6
C0049		PLUG M1/4
C0051		RYLSAN HOSEØ4/6
C0061		SCREW TE M8X10 UNI 5739
C0067		SCREW TE M8X35 UNI 5739
C0089		NIPPLE 1/4" L=95
C0092		"T" CONNECTION F-F-M 1/4"
C0094		WERTHER RUBBER FOOT M6
C0101		HOLDING BAND T2134A
C0103		PVC GASKET HOSE
C0105		SCREW TE M8X30 UNI 5739
C0106		SPACER T21
C0109		CAPACYTOR BRACKET
C0111		OVERLOAD PROTECTOR T2134A (230V)
C0112		START RELAY T21 (230V)
C0113		SCREW
C0115		CYLINDER GASKET
C0116		VALVE PLATE T21 WITH VALVE
C0117		HEAD GASKET
C0118		OIL PLUG 3/8+O'RING
C0120		WASHER Ø9X24 UNI 6593
C0126		RUBBER GROMMET T21
C0136		MOTOR PLATE
C0145		CONNECTION F-F 1/4"
C0150		M-F "L" CONNECTION 1/8"X1/8"
C0164		FILTER REGULATOR FR BIT 1/4"
C0202		EXHAUST VALVE 90°
C0219		KIT TERMINAL BOX T2134A (115V)
C0220		KIT TERMINAL BOX T2134A (230V)
£0223X		MOTOR T2134 (230V)
£0269X		TANK MOD.BILLIONAIR-TRILLIONAIR
£0284X		MOTOR T2134A (115V)
C0291		AIR HOSE

80299X		COWLING MOD.TRILLIONAIR
C0317		OVERLOAD PROTECTOR T21 (115V)
C0323		INTAKE VALVE
C0324		EXHAUST VALVE
C0325		START RELAY T21 (115V)
C0334		DISTRIBUTION FRAME "L" M-F 1/8 CH13
C0338		CAPACITOR 145+174 μ F T21 (115V)
C0340		FOUR WAYS PRESSURE SWITCH CSA - UL
C0364		HOLDING BAND FIXING KIT
C0413		HANDLE MOD. COMPACT
C0414		HANDLE INSERT MOD. COMPACT
C0567		NIPPLE 1/8"
C1099		OIL LEVEL GLASS 1/2"INCH
C1235		KIT VALVE PLATE+GASKET T2134A
C1794		KIT INTAKE FILTER
C1965	*	VALVE
C2083		CAPACITOR



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