



SUN ELECTRIC CORPORATION

Model: MRC-400
MRC-400-3
MRC-400-6
MRC-400-GR

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Installation Instructions

**INSTALLATION MUST BE PERFORMED
BY
QUALIFIED SUN PERSONNEL ONLY**

INSTALLATION OVERVIEW:

The Installation Procedures listed are for the MRC-400, (-3) (-6) & (GR). The unit is shipped as a fully assembled unit, with the exception of the items listed in the Parts & Accessories per tester.

PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE SETTING UP UNIT.



CAUTION!

THIS UNIT MUST BE PLUGGED IN TO A PROPER AC OUTLET FOR UNIT TO OPERATE CORRECTLY. REFER TO UNIT ID PLATE LOCATED ON BACK OF UNIT. EXTENSION CORDS ARE NOT RECOMMENDED, BUT IF AN EXTENSION CORD MUST BE USED, USE A CORD THAT IS LESS THAN 50 FEET WITH A 16 AWG, OR ABOVE 50 FEET AND LESS THAN 100 WITH A 14 AWG.



WARNING!

USE STANDARD REFRIGERANT HANDLING
SAFETY PROCEDURES WHEN PERFORMING INSTALLATION

ALWAYS WEAR SAFETY GOGGLES, DON'T SPILL OR TOUCH
LIQUID REFRIGERANT, AVOID FLAMES, AND EXCESSIVE HEAT.
USE ONLY IN WELL VENTILATED AREA.

REQUIRED TOOLS:

- ù 7" Crescent
- ù Screw driver (Flat Blade and Phillips)
- ù Safety Goggles (0001-5005)
- ù Refrigerant Oil (Mineral)

PARTS & ACCESSORIES LIST FOR: _____

PART NUMBER	DESCRIPTION	MRC-400	(-3, -GR)	(-6)
0119-0346-01	Literature Kit, MRC-400	-	1	1
0119-0362-01	Literature Kit, MRC-400	1	-	1
0271-0071-01	Oil Cylinder, Disposable	1	1	1
*0400-0036	Washer, Flat, #10	-	2	-
*0403-1541-08	Screw, 10-32 x 1/2 HXSMS	-	1	-
*0403-1541-16	Screw, Mach 10-32 x 1	-	1	-
0647-0197-01	Adapter, Quick-Disconnect, GM/Ford	1	1	1
0647-0199-01	Adapter, Quick-Disconnect, Large GM	1	1	1
0647-0200-01	Adapter, Ford	1	1	1
0671-1018-01	Desiccant Bag	1	1	1
0692-2302-01	Installation Instruction	1	1	1
*0692-2253-01	Tank Band Installation Instructions	-	1	-
0693-2014-01	Video	1		
*0710-0032	Tinneman	-	2	-
3988-0235-02	Hose Assembly, Red, with Hand Valve, 10"	1	1	1
3988-0236-02	Hose Assembly, Blue, with Hand Valve, 10"	1	1	1
3988-0292-01	Blue Hose Assembly, 96"	1	1	1
3988-0293-01	Red Hose Assembly, 96"	1	1	1
4211-0001-01	Envelope, Clear	1	1	1
6001-0197-01	AC Power Cord	1	-	1
6001-0200-01	AC Power Cord	-	1	-
6004-0760-01	Cable, Recovery Tank	1	1	1
6004-0777-01	Cable Assembly, Temperature Probe	1	1	1
7009-2331-01	Recovery Tank Assembly	1	1	-
7009-2417-01	Inline Filter	1	1	1
*7012-1568-01	Band, 30lb. Tank	-	1	-

* Part of the Tank Band Kit

UNPACKING UNIT AND ACCESSORIES: _____

1. Cut Straps, and remove top of the carton, top packing, and carton sides.
2. Slide the unit and carton base off the pallet, and split the corners of the base carton.
3. Lean the unit so that one half of the cardboard base can be removed.
4. Lean the unit so the other half of the cardboard base can be removed.
5. Inventory all items using the parts list and inspect for damage. Place the four adapters, Desiccant bags, and the Cap Plugs in the Storage Compartment on the rear of the unit.
6. Place the Literature Kit (0119-0362-01 or 0119-0346-01), that includes the User's manual in the Storage Compartment in back of unit.

PARTS AND ACCESSORIES SETUP: _____

1. Remove oil bracket from the scale and set aside.
2. Remove the Cap from the LOW fitting on the rear of the unit. **OIL** the seals and attach the 96" BLUE Hose Assembly (3988-0292-01).

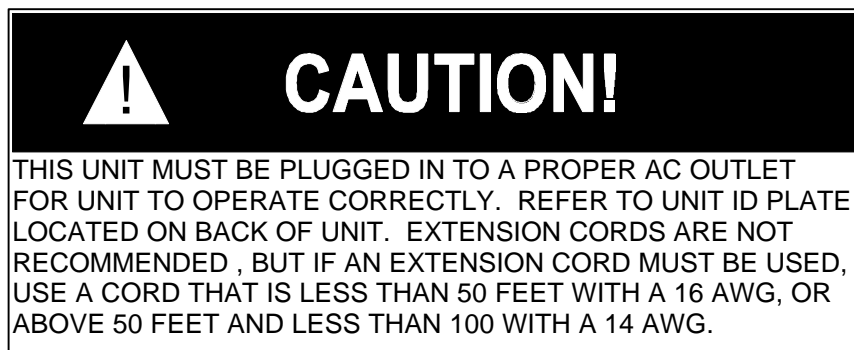
PARTS AND ACCESSORIES SETUP: (cont)

3. **Oil** seals and attach the BLUE Hose Assembly (10") with hand valve (3988-0236-01) and In-line Particle filter (7009-2417-01) to the BLUE Hose Assembly.
4. Remove the Cap on the HIGH Fitting on the rear of the Unit. **OIL** the seals and attach the 96" RED Hose Assembly (3988-0293-01).
5. **Oil** seals and attach the RED Hose Assembly (10") with Hand Valve (3988-0235-01) and Inline Particle filter (7009-2417-01) to the RED Hose Assembly.
6. Attach the Temperature Probe Assembly (6004-0777-01) to the four pin connector located below the pump compartment. Place the probe tip next to the recovery tank temperature sensor, located on the right Velcro strap that holds the tank in place.
7. Remove the packing material from under the scale by slightly lifting the scale plate and sliding the cardboard blocks toward the sides of the unit until the blocks are clear. Use a wrench to remove the four bolts that secure the scale for shipping.
8. Remove the User's Manual from the Literature Kit, and place the remainder of the Literature Kit (0119-0346-01 or 0119-0362-01) in the Storage Compartment on top of unit.

BE SURE TO REVIEW THE USER'S MANUAL WITH THE CUSTOMER DURING TRAINING. Then before installing the User's Manual Envelope, ask where the customer would like the envelope installed. For the MRC-400 only, there is also a Video Tape (0693-2014-01) supplied and can be viewed at the customer's convenience.

9. Peel the backing from the User's Manual Envelope (4211-0001-01) and apply the envelope, with the open end on top, to either side of the unit or in the location designated by the customer.
10. Place the User's Manual in the Envelope.

POWER UP, CALIBRATION / PARAMETER SETUP: _____



1. Plug the unit in to proper A.C. outlet and turn on the Main Power Switch on the rear of the unit. Confirm that none of the hoses are lying on the scale.
2. Press **<POWER ON/OFF>** on the front panel. The unit will go through the power up sequence and then display zero. Wait for 2 beeps indicating scale is stable.

NOTE: IF DISPLAY IS OTHER THEN ZERO, REMOVE RECOVERY TANK FROM THE BOX AND PLACE RECOVERY TANK ON SCALE. ATTACH FLOAT CABLE. WAIT FOR 2 BEEPS, CALIBRATE AND THEN REMOVE TANK.

3. Press **<TEMP>**. If the left display shows a temperature, go to next step. If it displays "----", the Temperature Probe is not installed correctly, is defective, or there is a problem with the unit. Correct the problem before proceeding.

POWER UP, CALIBRATION / PARAMETER SETUP: (cont)

4. **CALIBRATION:** Open hand valves to atmosphere. Press and hold **<HOLD/ENTER/RESTART>** for five seconds, "CAL" is displayed on LCD'S. Hand Valves MUST be open.
5. Press **<RECLAIM>**, observe that the "IN PROGRESS" LED is flashing and the "HOLD" LED is on.
6. Press **<HOLD/ENTER/RESTART>**. Unit will enter a 3 minute delay for stabilization. If pressure is measured the unit will Reclaim and go into a 3 minute delay. After the 3 minute delay the right display will show and match Ambient temperature. If not adjust by using **<UP>** and **<DOWN>** arrows.
7. Press **<HOLD/ENTER/RESTART>** again. The unit will sound one long beep and the "COMPLETED LED" will be on. The Temperature Probe may be removed from Recovery Tank Temperature Sensor.
8. Programming of the Default Settings can be accessed by pressing and holding both the **<UP>** and **<DOWN>** arrows at the same time for 5 seconds. Select desired default setting by pressing the **<UP>** and **<DOWN>** arrows individually and pressing **<ENTER>** to program.

PREPARING NEW RECOVERY TANK: _____

1. Remove the Reclaim Tank Assembly (7009-2331-01) from its box. Remove cardboard wrap from around tank. MRC-400-6 & -GR, obtain local Reclaim tank.
2. Open both Tank valves on the Recovery Tank to release the compressed air. Oil the o-ring and connect Inline Particle Filter (7009-2417-01) to low side (Blue) for the (-6) units only.
3. Connect the vehicle hoses to the Recovery Tank to evacuate, Red Hose to vapor side and Blue Hose to low side.
4. Press **<AUTO SEQUENCE>** on the Front panel. Observe that the "VACUUM TIME" & "AUTO SEQUENCE" LEDs are on.
5. Press **<UP>** twice. The number ten should appear in the right LCD.
6. Press **<HOLD/ENTER/RESTART>** five (5) times. The evacuation procedure will start and run for ten minutes. The LCD should indicate at least 27 IN/HG, 700 mmHG, 90 Bar, or 900 mbar. When the unit beeps twice, the procedure is finished and the "COMPLETED LED" is on.
7. Close the RED and BLUE tank valves. Close the service hose hand valves and disconnect from the Recovery Tank.
8. **Oil** seal in the Blue Hose from scale compartment and attach to the Inline Particle Filter (7009-2417-01) on the Recovery Tank .
9. **Oil** the seal and connect the Red Hose in the Scale Compartment to the fitting with the Red Tank Valve on the Recovery Tank.
10. Set the Recovery tank GENTLY on the Scale and secure it to the Right side using the velcro strap (CONFIRM TANK DEPRESSED SWITCH). Wait for 2 beeps.
11. Ensure the strap is not twisted and that the tank temperature sensor is positioned next to the tank; not on the outside of the strap. Ensure that none of the hoses are lying on the scale.
12. Connect the Recovery Tank Cable Assembly (6004-0760-01) to the Tank and the "Tank Sensor" connection on the underside of the pump compartment.

PREPARING NEW RECOVERY TANK: (cont)

13. Open the Red and Blue valves on the Recovery Tank.

PREPARING UNIT HOSES AND SCALE: _____

NOTE: *HEATER BLANKET IS EXTREMELY HOT!*

1. For the MRC-400-6 and -GR, obtain the Virgin Tank from the Customer. Loosen the hardware on the heater blanket, adjust heater blanket and tank switch to match the height of the virgin tank being installed. Retighten hardware.



2. **Oil** the Inline Particle Filter (7009-2417-01) o-ring and attach it to the Virgin Tank fitting. Connect the Blue Hose in the Scale Compartment to the inline filter. Open the Tank Valve.
3. Set the Virgin Tank GENTLY on the Scale and secure it with the heater blanket straps. (CONFIRM TANK DEPRESSES SWITCH). Wait for 2 beeps.
4. **Oil** the seal and connect the Yellow Hose in the Scale Compartment to the Oil cylinder. (0271-0071-01)
5. Slide Oil Cylinder in the Oil Bracket that was removed earlier in Parts and Accessories Step 1.
6. Attach the oil bracket to scale with Oil Cylinder in it. 2 beeps will be heard when scale stabilizes.
7. Complete the questionnaire (0692-1834-01) and mail it to Sun Electric Corp. For the MRC-400-3 & -GR, install tank band using instructions (0692-2253-01).

INSTALLATION COMPLETE

**REMEMBER TO OIL O-RINGS AND SEALS
WHEN ATTACHING HOSES OR FITTINGS**