



SUN ELECTRIC CORPORATION

Model: MRC-312
MRC-334

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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-312/334. The unit is shipped as a fully assembled unit, with the exception of the items as listed in the Parts List 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 FEET 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.

PARTS & ACCESSORIES LIST FOR MRC-312: _____

PART NUMBER	DESCRIPTION	QTY
0001-0067-01	Wrench, Suction Separator Bowl	1
0119-0354-01	Literature Kit, MRC-312	1
0403-1541-08	Screw,#10-32 x 1/2" (may be installed)	2
0647-0196-01	Adapter, GM	1
0647-0197-01	Adapter, Quick-Disconnect, GM/Ford	1
0647-0199-01	Adapter, Quick-Disconnect, Large GM	1
0647-0200-01	Adapter, Ford	1
0671-1026-01	Desiccant Bag	10
0675-0423	Screw 1/4 x 20 x 3/8"	2
0692-2230-01	Installation instructions	1
0693-2008	Video	1
4211-0001-01	Envelope	1
7009-2417-01	In-Line Particle Filter	1
7009-2447-03	Recovery Tank Assembly	1
7012-1369-01	Bracket, Hose	1
7012-1537-01	Bracket, Gauge	1
EAH0013C00A	Gauge Set, Uniweld	1

PARTS & ACCESSORIES LIST FOR MRC-334: _____

PART NUMBER	DESCRIPTION	QTY
0001-0067-01	Wrench, Suction Separator Bowl	1
0119-035301	Literature Kit, MRC-334	1
0403-1541-08	Screw,#10-32 x 1/2" (may be installed)	2
0671-1018-02	Desiccant Bag	10
0675-0423	Screw 1/4 x 20 x 3/8"	2
0692-2230-01	Installation instructions	1
0693-2009	Video	1
4211-0001-01	Envelope	1
7009-2418-01	In-Line Particle Filter	1
7009-2447-01	Recovery Tank Assembly	1
7012-1369-01	Bracket, Hose	1
7012-1537-01	Bracket, Gauge	1
EAH0014C00A	Gauge Set, Uniweld	1

REQUIRED TOOLS: _____

- 🔧 **Screwdriver (Flat Blade and Phillips)**
- 🔧 **Safety Goggles (0001-5005)**
- 🔧 **Refrigerant Oil (Mineral)**

UNPACKING UNIT AND ACCESSORIES: _____

1. Cut Straps, and slide the carton off the pallet.
2. Remove the top of the carton, 4 corner posts, and plastic bag. Split the corners of the base carton.
3. Lean the unit so it can be rolled off the base.
4. Remove all boxes and packing material from scale/tank compartment.
5. Inventory all items using the Parts & Accessories list and inspect for damage.

PARTS & ACCESSORIES SETUP: _____

1. Mount the Hose Bracket (7012-1369-01) to the center of the rear panel using the two Screws (0675-0423)(1/4-20 x 3/8") supplied.
2. Mount the Gauge Set Bracket (7012-1537-01) to the top center of the rear panel using the two Screws (0403-1541-08) (#10-32 x 1/2") supplied.
3. Remove the Gauge Set Assembly (EAH0013C00A or EAC0014C00A) from the gauge set box and place on the Gauge Set Bracket.
4. Remove the Blue and Red Hoses from the gauge set box and **OIL** the seals on each end.
5. Connect the open end of the Blue and Red Hoses to the Gauge Set respectively.
6. For the MRC-312, place the four adapters in the Storage Compartment on top of unit.
7. For the MRC-334, connect the Red and Blue adapters (supplied in Gauge Set box) to the Red and Blue Hoses from the Gauge Set respectfully.
8. Place the Desiccant bags (0671-1026-01 or 0671-1018-02), and Filter Wrench (0001-0067-01) in the Storage Compartment on top of unit.
9. Remove the User's Manual from the Literature Kit, and place the remainder of the Literature Kit (0119-0353-01 or 0119-0354-01) 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. There is also a Video Tape (0693-2008 or 0693-2009) supplied and can be viewed at the customer's convenience.

10. 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.
11. Place the User's Manual in the Envelope.
12. Remove Cap from Service Port on front of unit. **OIL** the seal on the Inline Particle Filter (7009-2417-01 or 7009-2418-01) and attach to the service port on front of unit. (SEE USER'S MANUAL)
13. Remove Recovery Tank (7009-2447-01 or 7009-2447-03) from box. Remove cardboard wrap from Recovery Tank. Set on floor in front of unit.

PREPARING NEW RECOVERY TANK: _____

1. Open **BLUE** valve on Recovery Tank to release **ALL COMPRESSED AIR**.
2. Remove the Inline Particle Filter from Recovery Tank. **OIL** seal, and re-attach to Recovery Tank. (**BLUE SIDE**)
3. Remove the Yellow Hose from the gauge set box. **OIL** the seals on each end of hose.



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PREPARING NEW RECOVERY TANK continued...

4. Attach open end of Yellow Hose to **BLUE** valve of Recovery Tank. Attach other end of Yellow Hose to service port on front of unit.
5. Plug AC Cord to a 115VAC outlet. Turn unit on using the front power switch.
6. Press **<AUTO SEQUENCE>** and program a 10 minute vacuum time by pressing **<UP>** twice and then pressing **<HOLD/ENTER/RESTART>** 5 times. (This programs 0 for remaining parameters.)
7. Once completed close Recovery Tank valve (**BLUE**) and remove Yellow Hose from Recovery Tank.
8. **Re-OIL** seal on Yellow Hose and connect to center port on Gauge Set.
9. Place Recovery Tank on scale. Tank fittings should face straight out the back of unit. Connect velcro strap and tighten belt.
10. Remove bubble wrap from Red and Blue Hoses on unit
11. **OIL** seals on the anti-blow back valves on Red and Blue Hoses from unit. Connect respectively to Recovery Tank.

PARAMETER SETUP: _____

1. Press **<AMOUNT>** twice to display amount of refrigerant in Recovery Tank. If amount is more than 3 ounces in an empty tank, perform sequence A through C.
 - A. Press **<HOLD/ENTER/RESTART>** and **<AMOUNT>** at the same time while the amount of refrigerant is being displayed.
 - B. Press **<UP>** or **<DOWN>** to change the amount of refrigerant to 1oz. or until it toggles between 0 and 1 oz.
 - C. Press **<HOLD/ENTER/RESTART>** to return to normal operation.
2. Press and hold **<UP>** and **<DOWN>** for 5 seconds. Refrigerant charge type will be displayed.
3. If the display shows the incorrect type of refrigerant that is going to be dedicated for this unit, stop and call service.

1-800-CALL-SUN

4. Press **<UP>** or **<DOWN>** to change CHARGE parameters to "LbOz", "kg", "Lb", "Oz". Press **<HOLD/ENTER/RESTART>** to save the desired CHARGE parameters.
5. Press **<UP>** or **<DOWN>** to change AMOUNT parameters to "LbOz", or "kg". Press **<HOLD/ENTER/RESTART>** to save the desired AMOUNT parameters.

CALIBRATION: _____

1. Close both valves on Recovery Tank.
2. Press and hold **<HOLD/ENTER/RESTART>** for five seconds until LCD displays "CAL". Tank icon should be flashing.
3. Press **<HOLD/ENTER/RESTART>** again to start calibration. "In Progress" will be displayed. This will take 2-3 minutes to complete.

Upon completion of the calibration, temperature will be displayed. Press <HOLD/ENTER/RESTART> twice.

CHARGING RECOVERY TANK: _____

NOTE: *THIS PROCEDURE IS USED TO SETUP THE UNIT FOR CHARGING. RECOVERY TANK SHOULD HAVE AT LEAST A 25" VACUUM.*

1. Be sure Recovery Tank valves are closed.
2. Disconnect the Red and Blue hoses from the Recovery Tank.
3. Disconnect and **Re-Oil** both the seals on Yellow hose. Connect the Yellow Hose with the open end to a Virgin Tank.
4. Connect the other end of the Yellow Hose to the Red Valve on the Recovery Tank.
5. Open the Red Valve on the Recovery Tank.



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6. Invert the Virgin Tank and open valve. If a Hand Valve is present on the Yellow Hose, open to allow the refrigerant to flow.
7. Raise the Virgin Tank to a higher level than the Recovery Tank. Gravity and vacuum will transform the liquid refrigerant to the Recovery Tank faster than reclaiming it.
8. Press **<AMOUNT>** twice to display the amount of refrigerant that has been transferred.
9. After the desired amount of refrigerant has been transferred, close valves on Virgin Tank and Recovery Tank. Set Virgin Tank on ground upright.
10. Close Hand Valve on Yellow Hose if present. Disconnect Yellow Hose from Recovery Tank.
11. **Re-Oil** seals on anti-blow back valves on Red and Blue Hoses from unit and connect respectfully to Recovery Tank. Open Recovery Tank valves.
12. **Re-Oil** seals on Yellow Hose and connect to service port on front of unit. Open Hand Valve on Yellow Hose if present.
13. Press **<RECLAIM ONLY>**. This will reclaim the refrigerant from the hose. *(Optional: Opening Virgin Tank valve will reclaim rest of refrigerant.)*
14. Once complete, disconnect Yellow Hose from Virgin Tank.
15. **Re-Oil** seals on Yellow Hose and connect to center port on Gauge Set.

INSTALLATION COMPLETE/SETUP COMPLETE

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