

OPERATION & MAINTENANCE MANUAL

750-SP1-UNDP

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Manual P/N 035-80505-00

TABLE OF CONTENTS

Before Using & Safety Precautions	2
Preparing the Outlet Cylinder	3
Setting Up the 750-SP1 to Recycle	4
Recycling Refrigerant	5
When Inlet Cylinder is Empty	6
Removing Air from Outlet Cylinder	7
Pressure - Temperature Table	8
Scheduled Maintenance	9
Flow Diagram	Appendix
Circuit Diagram	Appendix

BEFORE USING

Check for any shipping damage. Place a claim with carrier if damage is discovered.

DO NOT USE A DAMAGED UNIT.

The machine should not be operated or serviced by any person who has not read all the contents of this manual. Failure to read and comply with these instructions or any one of the limitations noted herein can result in serious injury and/or property damage.

These general instructions describe normal operation and maintenance situations encountered. The instructions should not be interpreted to anticipate every possible contingency.

It is the responsibility of the owner/user to operate the machine in accordance with all specifications and laws which may apply.

The following pages contain rules for safe operation. Taking precedence over any specified rule listed herein, however, is the most important rule of all:

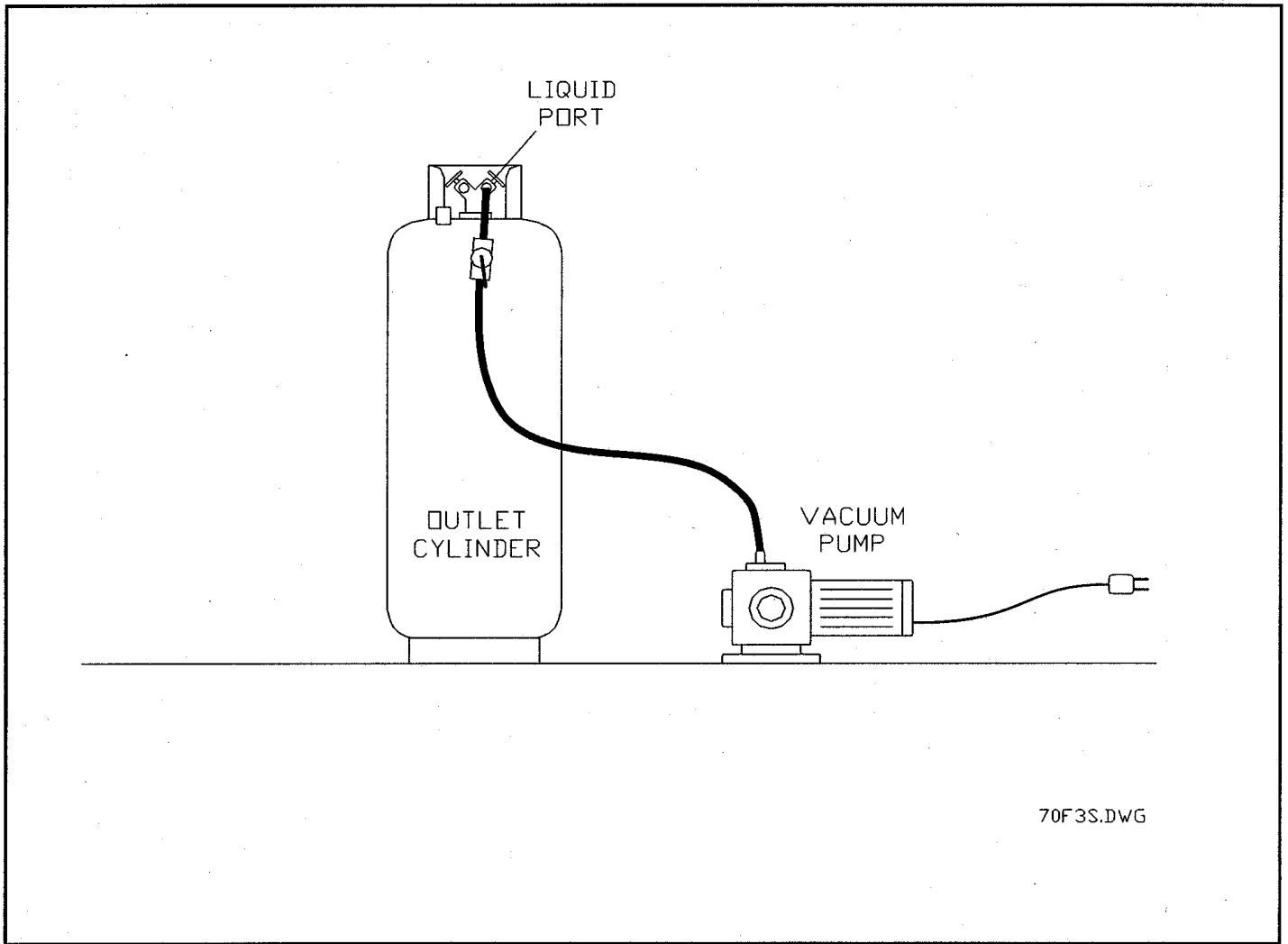
"USE COMMON SENSE"

A few minutes spent reading these instructions can make an operator aware of dangerous practices to avoid and precautions to take for his own safety and the safety of others.

A regular schedule of inspection should be established and records maintained with special attention given to Hoses, Oil Levels, Moisture Indicators, and Filters.

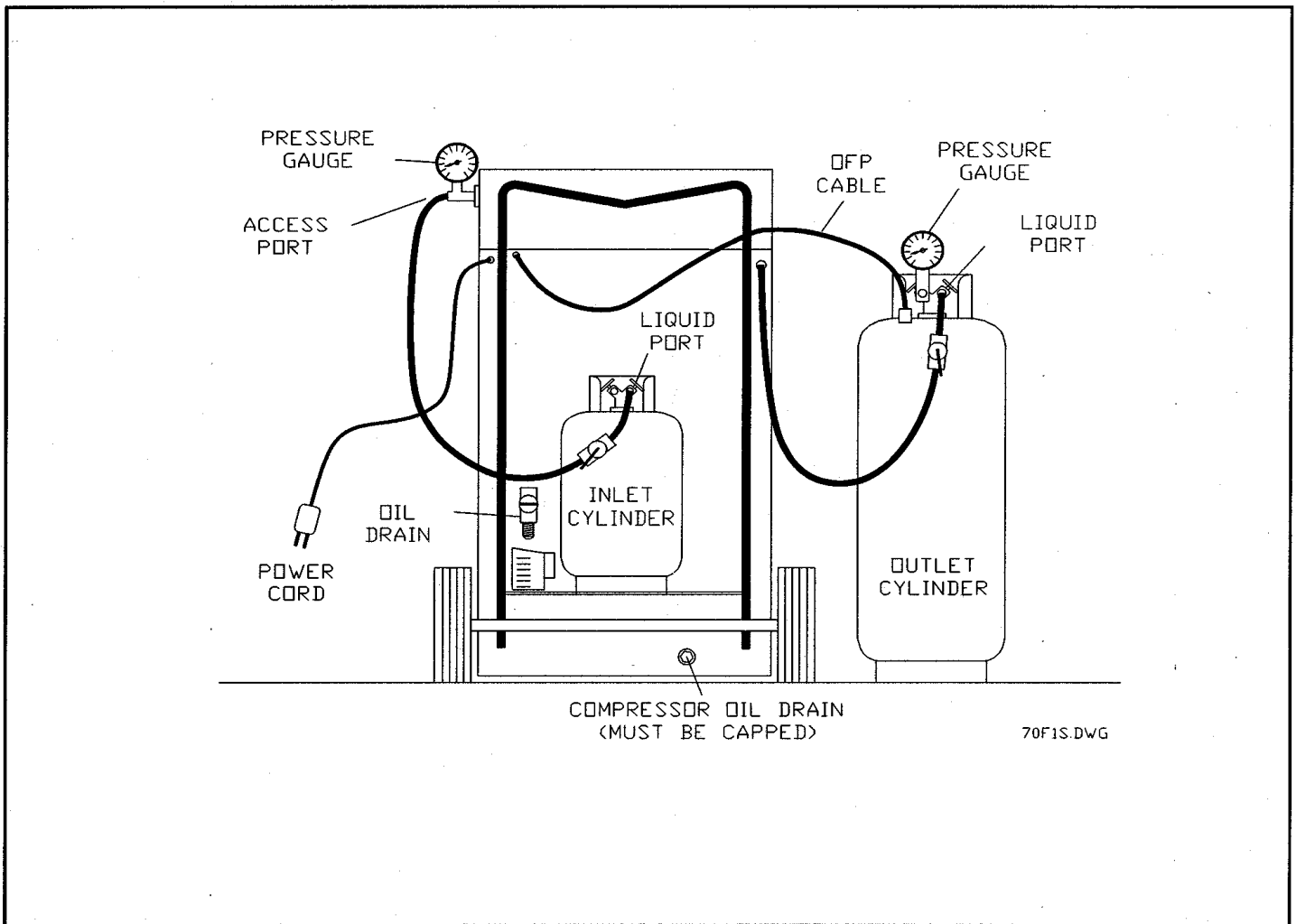
SAFETY PRECAUTIONS

- Recover, Recycle, and Charge only the refrigerant for which this machine is configured.
- Wear safety glasses and protective gloves. Refrigerant has a very low boiling point and can cause frostbite.
- Follow operation procedures sequentially to avoid prematurely disconnecting hoses or opening valves which may release refrigerant to the atmosphere.
- Do not expose the machine to moisture or operate in wet areas.
- Use the machine in locations with mechanical ventilation that provides at least four air changes per hour.
- Hoses have shutoff devices within 30 mm of the connection point to the system being serviced to minimize the introduction of Non-condensable Gas (Air) into the machine and the release of refrigerant when being disconnected.
- Disconnect machine from power before performing any maintenance or service.
- **Avoid using an extension cord. If necessary, use a good condition, 3-wire grounded, 2.5 mm² extension cord of the shortest possible length.**
- Connect the machine to a properly protected, grounded receptacle. Do not over load the circuit.
- Do not allow the machine to remain unattended in the Charge Mode with power On. The Internal Cylinder Heater will be energized creating a high pressure condition.



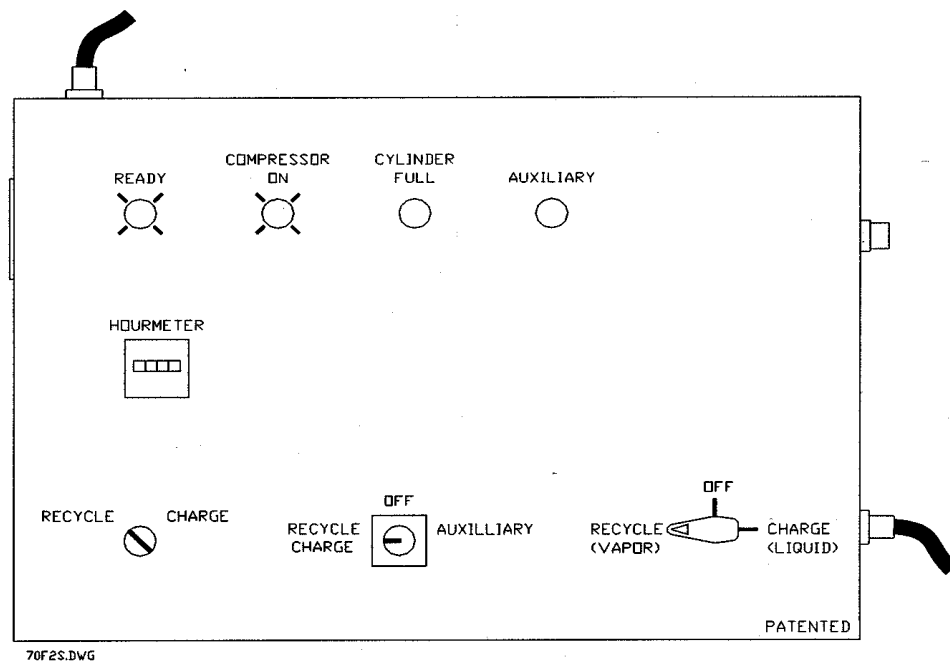
PREPARING THE OUTLET CYLINDER

1. Connect one end of a Yellow Hose to the Liquid Port of the Outlet Cylinder.
2. Connect other end of the Yellow Hose to a Deep Vacuum Pump.
3. Close Vapor Valve.
4. Open Liquid Valve and valve on Yellow Hose.
5. Connect Vacuum Pump to power source.
6. Draw a vacuum on the Outlet Cylinder for one hour.
7. Close Outlet Cylinder Liquid Valve and valve on Yellow hose.
8. Disconnect Yellow Hose from Vacuum Pump and connect to access port of the 750-SP1.



SETTING UP THE 750-SP1 TO RECYCLE

1. Connect Pressure Gauge to Vapor Port of Outlet Cylinder.
2. Position Inlet and Outlet Cylinders as shown.
3. Connect OFP Cord to Receptacle on Outlet Cylinder.
4. Connect Yellow Hoses to Inlet and Outlet Cylinders.
5. Open valves on both Yellow Hoses.
6. Open Liquid Valve on Inlet Cylinder and Liquid Valve on Outlet Cylinder.
7. Connect Power Cord to proper voltage supply.



RECYCLING REFRIGERANT

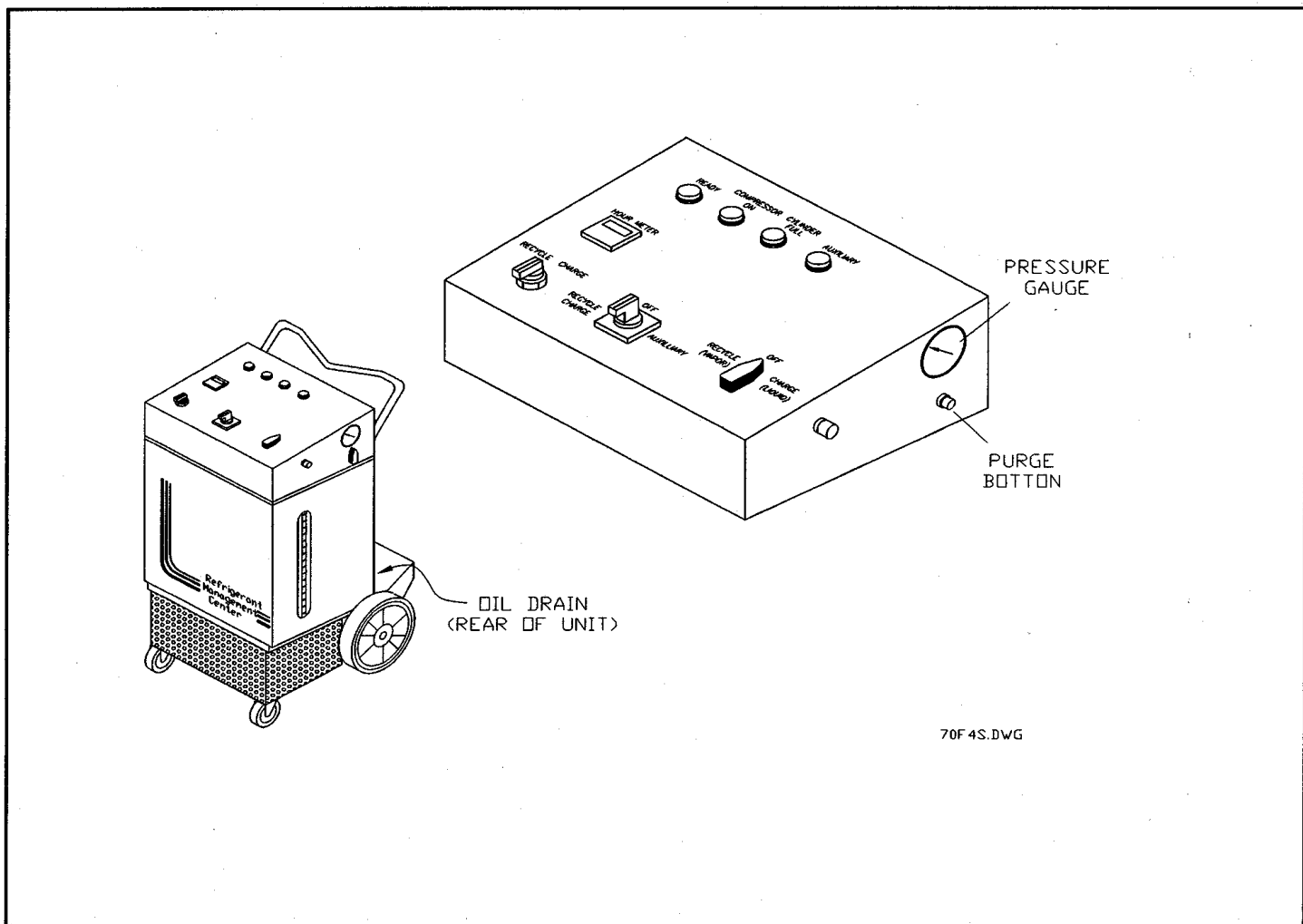
1. Set Mode Selector to RECYCLE (IN).
2. Set Main Switch to RECYCLE/CHARGE. The READY Light will be on.
3. Set Access Valve to RECYCLE (IN). The COMPRESSOR-ON light will be on and the 750-SP1 will begin recovering refrigerant from the Inlet Cylinder. The 750-SP1 is specially designed to process Liquid or Vapor refrigerant.

Refrigerant will be purified by the 750-SP1 and collected in the Internal Cylinder.

When the Internal Cylinder fills to capacity, the 750-SP1 will automatically stop recovering from the Inlet Cylinder. The CYLINDER FULL Light will be on and the COMPRESSOR-ON Light will be off.

A timer will activate and the 750-SP1 will automatically charge refrigerant from the Internal Cylinder to the Outlet Cylinder.

At the end of the timed charge the 750-SP1 will begin recovering refrigerant.

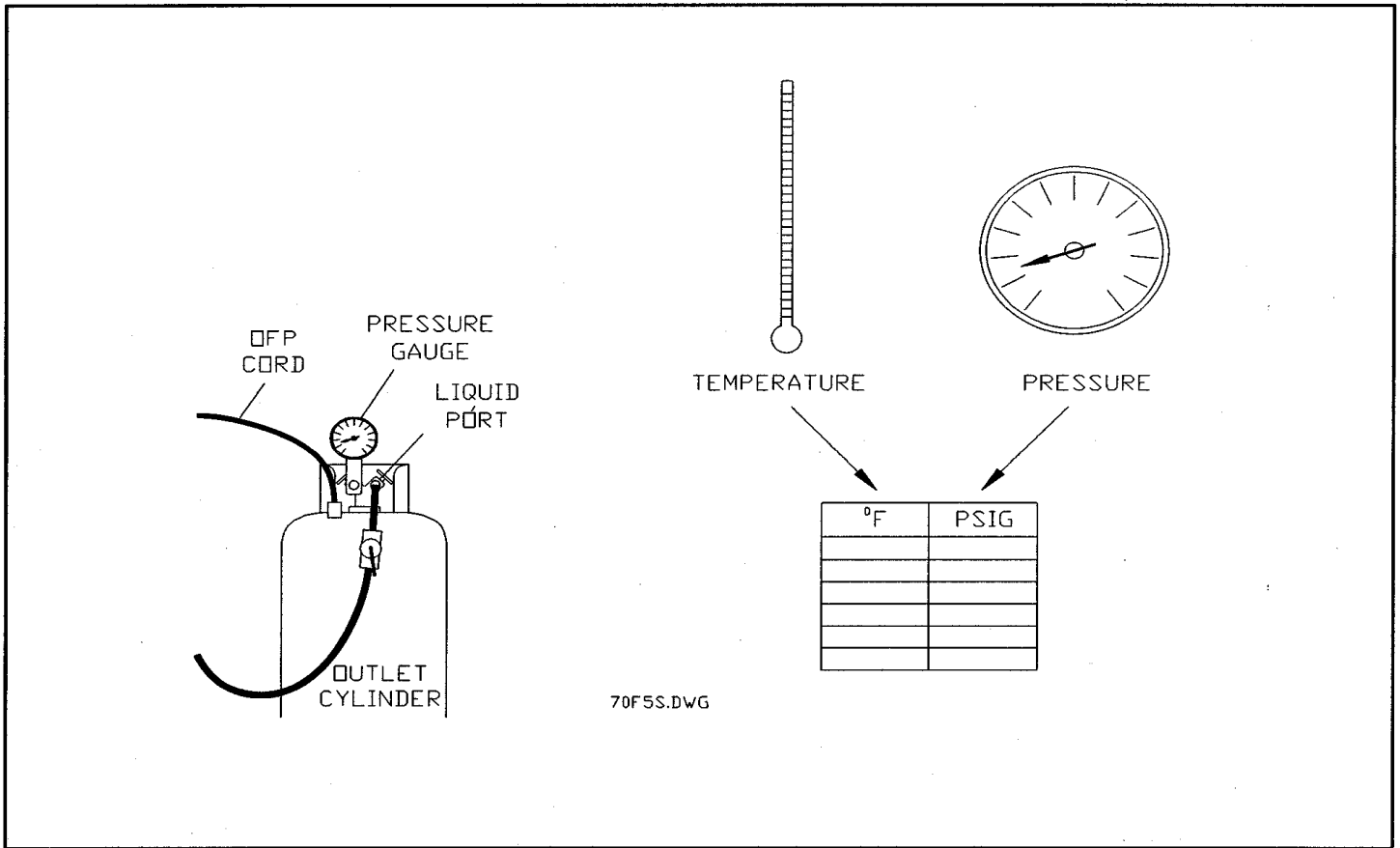


WHEN INLET CYLINDER IS EMPTY

The 750-SP1 will recover and recycle refrigerant from the Inlet Cylinder until it is empty. When all of the refrigerant has been recovered and recycled, the COMPRESSOR-ON light will be off and the 750-SP1 will automatically shut off.

Oil which has been removed from the refrigerant must be drained from the 750-SP1 as follows. This procedure **MUST** be performed after emptying each Inlet Cylinder.

1. Set Main Switch to OFF.
2. Press and hold the Purge Button (Right side of machine) until the pressure on the Pressure Gauge above the Purge Button drops one small graduation mark (approximately 5 PSIG).
3. **SLOWLY** open Oil Drain Valve (Lower left side on rear of machine) and drain any oil which may have been removed from the refrigerant. A plastic cup is provided to collect the oil.
4. Close the Oil Drain Valve.



REMOVING AIR FROM OUTLET CYLINDER

The Pressure Gauge mounted on the Vapor Port of the Outlet Cylinder should be checked periodically for an indication of excessive Air. The end of the Tee Fitting to which the Pressure Gauge is attached must be capped. All Valve Cores, if any, must be removed from the Tee Fitting. Open the Vapor Valve on the Outlet Cylinder to read the pressure in the cylinder.

Measure the ambient temperature and find the corresponding pressure for that temperature in the following Pressure-Temperature Table.

If the Pressure Gauge reading is greater than the pressure determined from the table, the excess air should be vented from the Outlet Cylinder as follows:

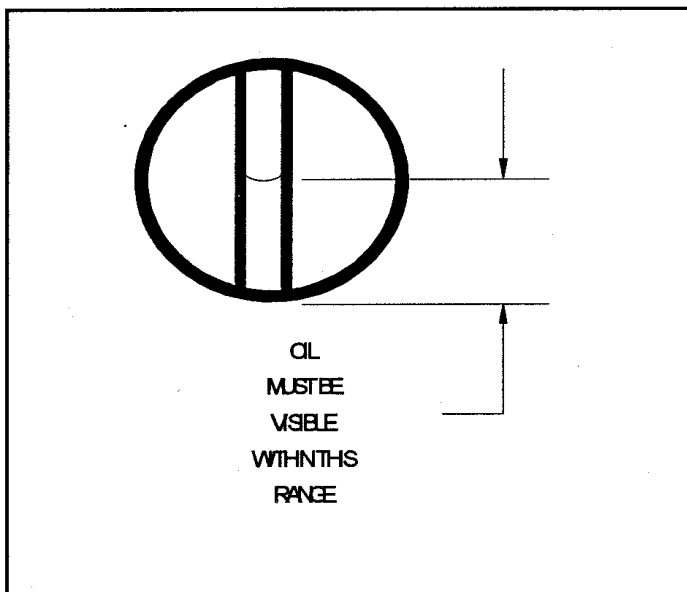
1. Close the Vapor Valve on the Outlet Cylinder.
2. Remove the cap from the Tee Fitting.
3. Slowly open the Vapor Valve to release Air until the Pressure Gauge reads the same as the temperature determined from the table.
4. Close the Vapor Valve and replace cap on the Tee Fitting.

EXCESSIVE PRESSURE DUE TO AIR IN THE OUTLET CYLINDER WILL CAUSE THE 750-SP1 TO SHUT DOWN IN A "HIGH PRESSURE" CONDITION OR REFRIGERANT MAY NOT FLOW FROM THE 750-SP1 TO THE OUTLET CYLINDER.

PRESSURE-TEMPERATURE TABLE

°F	PSIG	°F	PSIG
30	29	76	78
32	30	78	81
34	32	80	84
36	34	82	87
38	35	84	90
40	37	86	94
42	39	88	97
44	41	90	100
46	43	92	104
48	45	94	107
50	47	96	110
52	49	98	114
54	51	100	117
56	53	102	120
58	56	104	125
60	58	106	127
62	60	108	133
64	62	110	137
66	65	112	140
68	68	114	145
70	70	116	148
72	73	118	153
74	76	120	157

SCHEDULED MAINTENANCE



DAILY

Check the oil level in the Compressor. The Oil Level Sight Tube is visible through a cut-out in the left side of the black Compressor Cover at the bottom of the machine.

The oil level should be visible in the cut-out and within the range indicated in the illustration.

If oil is not visible within this range, it is necessary to add Type 3GS Oil to the compressor. A fill port is located above the Oil Level Sight Tube.

MONTHLY

Clean the Condenser to maintain high efficiency performance. Disconnect power and remove the Compressor Compartment Cover and blow compressed air through the cooling fins of the Condenser to remove any debris. It may be necessary to use a soft brush if the fins are excessively dirty.

Do not bend the fins on the Condenser coil. Air flow will be restricted and cause damage to the machine. Replace the Compressor Compartment Cover before applying power.

COMBO FILTER & FILTER-DRIER

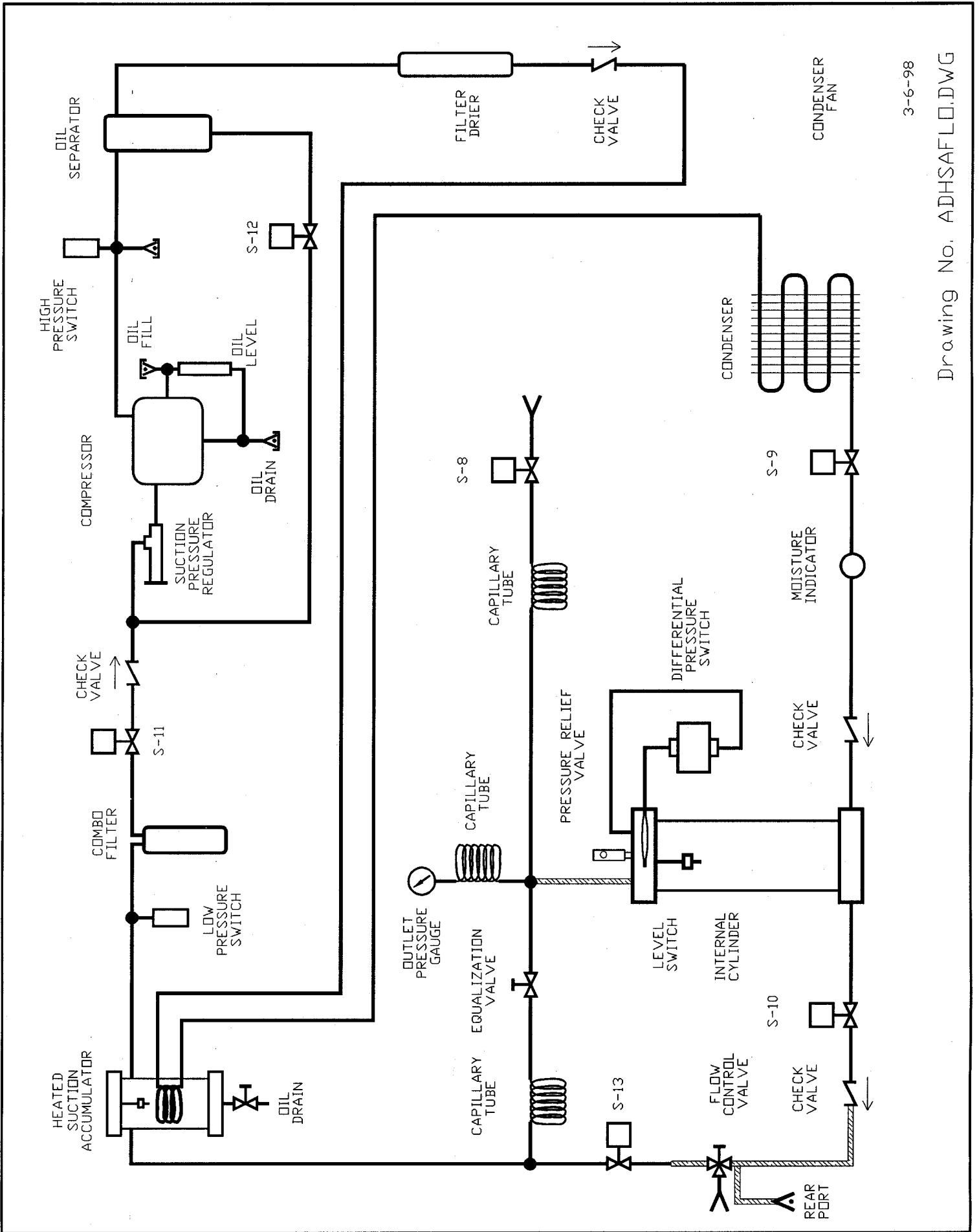
Replace the Combo Filter and Filter-Drier after every 75 Hours of operation.

Combo Filter P/N: 026-80077-00

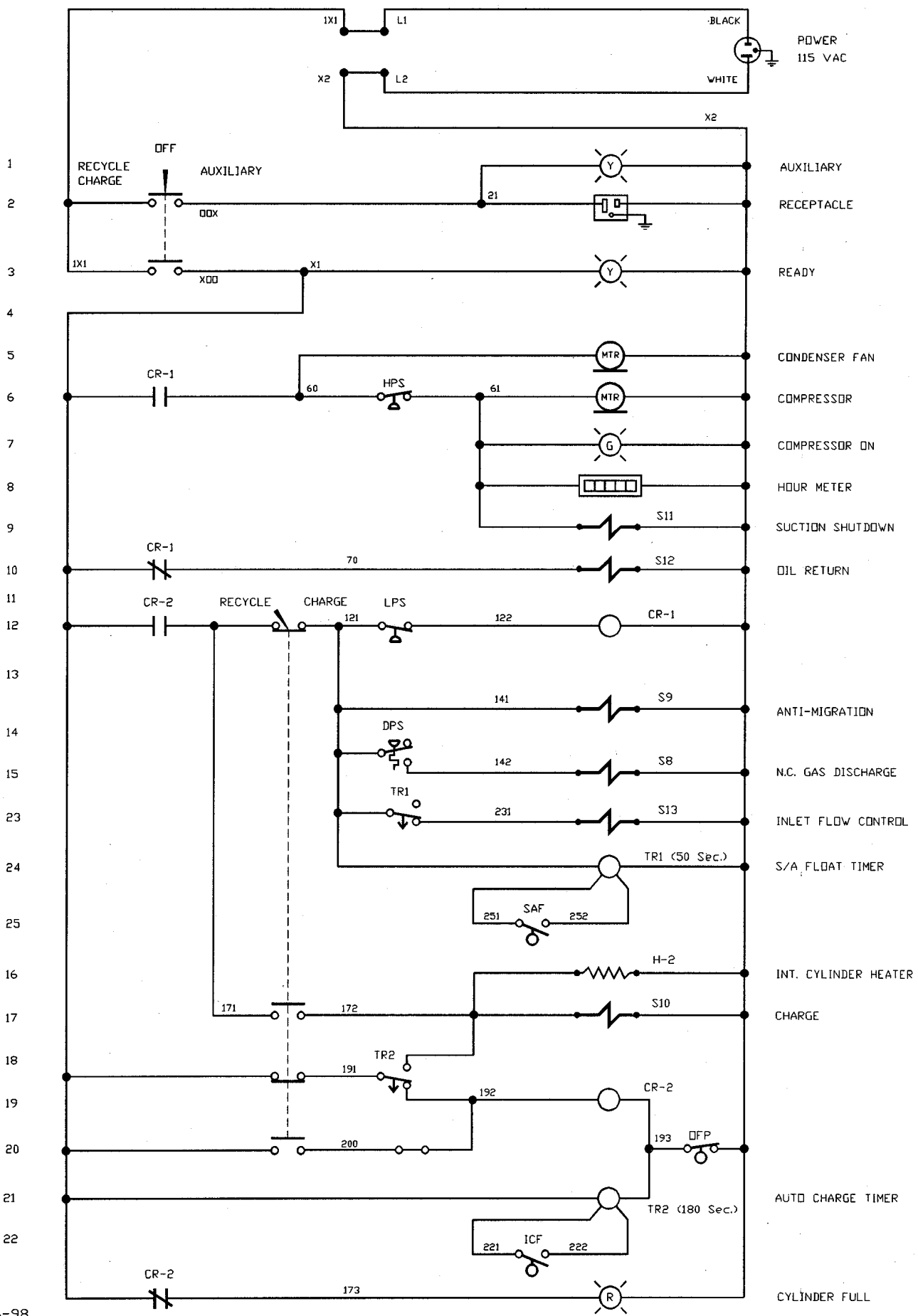
Filter-Drier P/N: 026-80044-00

To replace the Filters:

1. Disconnect machine from power.
2. Remove the Middle Cabinet Cover.
3. Locate the Filters mounted on a bracket on the left side of the machine. The Filter-Drier has black insulation wrapped around it.
 - 3.1 Disconnect Flare Fittings at top and/or bottom of Filters.
 - 3.2 Remove mounting hardware and remove Filters.
 - 3.3 Remove the black insulation and install on new Filter-Drier.
 - 3.4 Install new Filters using hardware removed earlier.
 - 3.5 Connect Flare Fittings to top and/or bottom of Filters.
4. Check for leaks and repair as required.
5. Replace Middle Cabinet Cover.



FLOW DIAGRAM - MODEL RRC750-SP1



3-6-98
 Drawing No. ADHSAELE.DWG

SCHEMATIC - MODEL RRC750-SP1