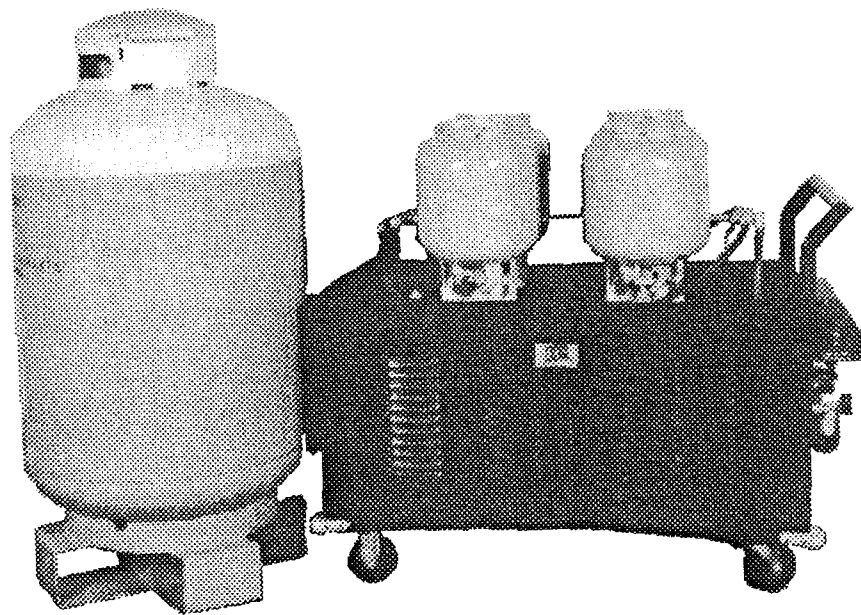


NATIONAL REFRIGERATION PRODUCTS

## Operating Instructions

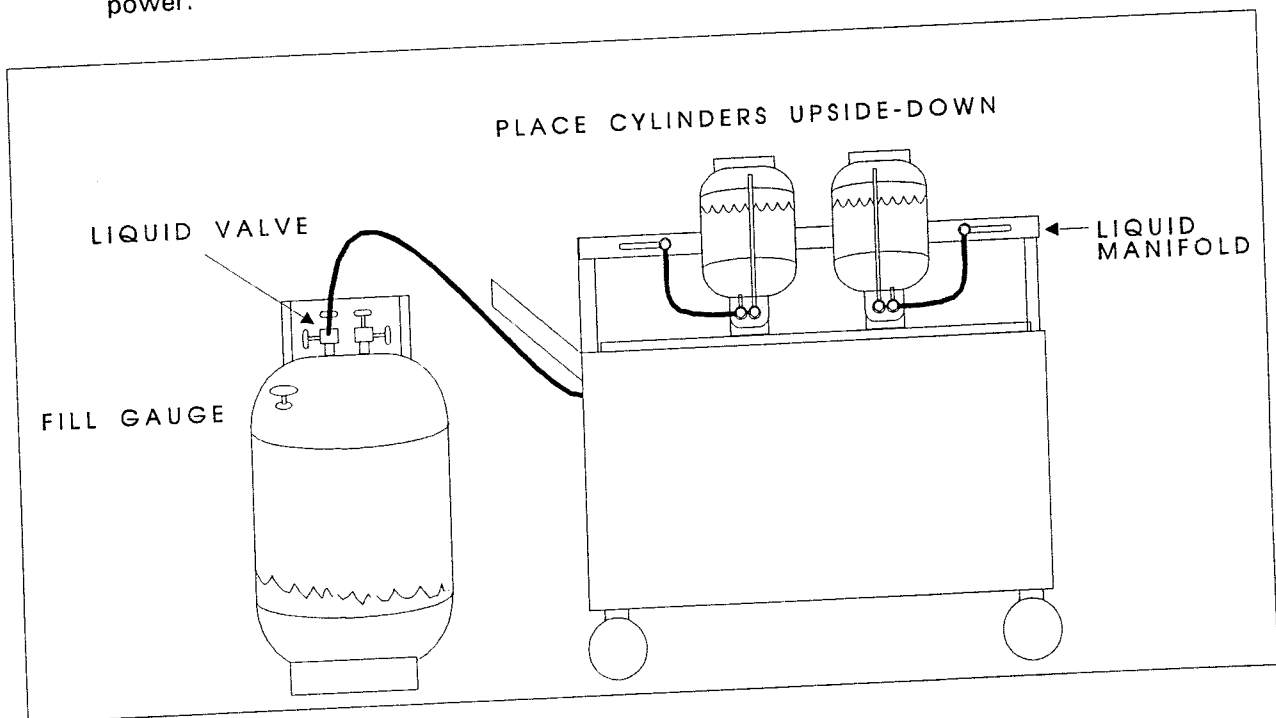


MODEL TS4  
Refrigerant Transfer Station

## OPERATING INSTRUCTIONS NRP MODEL TS4

### Large Capacity Refrigerant Transfer Station for R12, R22, R134A, R500, & R502

- \* ALWAYS USE HIGH PRESSURE CYLINDERS. CYLINDERS MUST BE D.O.T. APPROVED.
- \* DO NOT OVERFILL CYLINDERS. Cylinders should be filled to a maximum of 80% capacity. Use a scale to weigh cylinders, use an automatic shut-off device, or monitor the receiving cylinder's fill gauge.
- \* DO NOT MIX DIFFERENT REFRIGERANTS IN A CYLINDER. Mixtures can not be separated.
- \* ALWAYS WEAR RUBBER GLOVES AND SAFETY GOGGLES WHEN TRANSFERRING REFRIGERANT.
- \* BEFORE FILLING AN EMPTY CYLINDER, ALWAYS EVACUATE THE CYLINDER TO AT LEAST 1000 MICRONS TO REMOVE AIR AND NON-CONDENSABLES. NON-CONDENSABLES WILL INCREASE DISCHARGE PRESSURE DRASTICALLY.
- \* PLEASE EVACUATE OR PUMP-OUT THE TS4 RECOVERY UNIT AND PURGE THE HOSES BEFORE YOUR RECOVERY JOB TO AVOID INTRODUCING NON-CONDENSABLES IN THE RECOVERY CYLINDERS.
- \* The TS4 has two 1.5 HP air compressors. Use 230 Volt, 1 Phase, 60 Hertz, 30 Amp power.



## TRANSFER OF LIQUID AND VAPOR

1. Connect the 3/8" hoses from the TS4 to the large receiving tank. Make sure the hose is connected to the receiving tank's liquid port. The receiving tank's vapor valves must remain shut at all times.
2. Place cylinders to be recovered on cart. Place cylinders upside-down to facilitate complete refrigerant recovery. Secure the cylinders with the elastic cords.
3. Attach the hoses from the TS4 to the cylinders to be emptied. Attach the hoses from the manifold to the vapor valves of the cylinders. With the cylinder inverted, the liquid, oil, and any contaminant will be completely removed from the cylinders.
4. Open all vapor valves on the cylinders.
5. Open the ball valves on the TS4 that have cylinders attached to them. **DO NOT OPEN THE BALL VALVES ON THE TS4 THAT DO NOT HAVE CYLINDERS CONNECTED TO THEM.** Open the "Refrigerant Out" valve on the TS4.
6. Open the liquid port valve on the large receiving cylinder.
7. After all valves in steps 4, 5, and 6 are open, turn the TS4 master power switch to "RECOVER". Refrigerant transfer is now in progress. The TS4 will transfer the liquid within 6 minutes and then recover the vapor to a 4" Hg vacuum in approximately 25 minutes.
8. When the TS4 pressure reaches 4" Hg vacuum, the TS4 will shut itself off.
9. Turn all valves to the closed position. When all valves are closed, disconnect the hoses from the small cylinders, and detach the cylinder from the TS4.
10. At this point, additional cylinders can be emptied by starting at step 2. **MAKE SURE THAT THE SAME REFRIGERANT IS BEING TRANSFERRED.**
11. When all desired cylinders are emptied, or if a different refrigerant needs to be transferred, the TS4 has a self-pump out feature to pump out the TS4 and all hoses.

## SELF-PUMP OUT (Before Transferring a Different Refrigerant)

1. Make sure all valves on the TS4 are closed, except for the "Refrigerant Out" valve, which must remain open.
2. Turn the TS4 power switch to "PUMP OUT".
3. When the TS4 pressure reaches 4" Hg vacuum, the TS4 will shut itself off. Turn the self-pump out switch to the off position.
4. Close the liquid valve on the receiving tank, close all ball valves on the TS4, and remove hoses from the large receiving cylinder. The TS4 is now ready to transfer a different refrigerant.

### USING PLANT COMPRESSED AIR

The TS4 has an option for the use of an external supply of 100 psi compressed air instead of the TS4-mounted air compressor. To use this option, simply connect the compressed air hose to the air inlet located on the front of the TS4, and switch the air compressor selector switch on the side of the control panel to "OFF". **MAKE SURE THAT THIS SWITCH IS ALWAYS TO THE CORRECT SETTING.**

### TS4 MAINTENANCE

Check and clean the strainer at the pump inlet at least once every six months. Replace if necessary.

### WARRANTY

National Refrigeration Products (NRP) Recovery Equipment is warranted to be free of manufacturing defects. NRP will repair or give credit for repair, at NRP's choice, if any NRP Recovery units or accessories have manufacturing defects. Any warranty claim must be submitted in writing within one year of purchase with a copy of the invoice. In no event shall NRP be liable for the cost of the labor charges, lost profits, injury to good will, or any other special or consequential damages for defective goods, late delivery, or non-delivery. There are no warranties which extend beyond the description on the face hereof, and NRP makes no warranty of merchant ability or fitness for specific purpose. Warranty does not cover damage by improper operation or abuse.

