9500 SERIES TRANSFILL PUMP SYSTEM
OWNERS MANUAL

LIT-122 rev. 3.15

WARNING: THIS EQUIPMENT WAS INTENDED FOR USE WITH TRAINED PERSONNEL ONLY! MISUSE CAN RESULT ON DESTRUCTION OF PROPERTY, INJURY, OR DEATH. EVEN IF YOU ARE FAMILIAR WITH CO2, PLEASE READ, UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS AND PROCEDURES.

Thank you for purchasing the Sterling Pressure Systems 9500 series Transfill System, It is designed to be the safest, highest quality, and most affordable Professional CO2 Transfilling System available.

Some of the safety features of this system include:

- Momentary push button activation of pump for assurance of constant operator attention.
- 3-way transfill valve-shuts off and bleeds down pressure to the cylinder being filled.
- Accurate electronic scale, with tare weight feature for weighing cylinder contents.

Although this quality transfill system has been designed with safety first, ultimately, safe operation of this equipment depends on following all of the safety guidelines. **Always** observe the guidelines set out in this manual**.**

Call STERLING PRESSURE SYSTEMS LLC at 1-800-856-5668 for replacement operating instructions at no charge.

STERLING PRESSURE SYSTEMS LLC
4474 Center Park Blvd Suite 103 San Antonio, Texas 78218 800.856.5668

PLEASE READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND INSTRUCTIONS

- Always make certain the cylinder you are filling has a current hydro test date (Look for the date stamp on the neck of the cylinder).
- Never fill any cylinder or pressure vessel that is not positively marked with a D.O.T. approval number and has at least an 1800 P.S.I service pressure.
- Prior to filling, always turn the cylinder upside down and vent off all remaining contents.
- **WARNING: Aluminum cylinders may be filled with inert gasses only**! Filling with oxygen or any flammable gas is extremely dangerous and likely will result in severe injury or even death!
- Never attempt to fill any type of fire extinguisher, unless you have been specifically trained and certified in the proper procedures.
- Never drive the pump with any gas other than clean dry air, CO2 gas or Nitrogen regulated to between 130 to 140 PSI.
- Do not fill any cylinder if you cannot positively determine its capacity. (Refer to section "How to Read Cylinder Markings").
- **WARNING: Never over-fill** any cylinder!
- Liquefied gases become cold when they evaporate! Always wear gloves and eye protection.
- **WARNING:** Always use a well ventilated area to fill CO2 cylinders. You can be asphyxiated by CO2 even if there is still oxygen in the room. Never vent any gas into an enclosed room!
- Never depress the activator button on the pump with anything other than your fingers! Propping open the activator can result in damage to the pump and overfilling; causing property damage, injury, or death.

STERLING
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SETTING UP YOUR PUMP

1. Connect the stainless braided hoses to the pump. The hose with the wrench-tightened CO2 nut and nipple connects to the port marked “intake”, and the hose with the large plastic hand-wheel connects to the “outlet” port of the pump.
2. Insert the driving air quick connect plug (supplied with Teflon tape on the threads) into the “driving air” port. **DO NOT USE ANY OIL IN PUMP!** (This pump does not require oil and the use of oil will void the warranty. If using compressed air, use a drier to remove moisture. The presence of oil in the pump can cause corrosion and possibly void the warranty.)
3. Insert the 9v Batteries into the scale handset.
4. Using a 1-1/8” wrench, connect the high pressure intake hose (located at the front right corner of the pump) to the dip tube CO2 cylinder (mother cylinder).
5. –Connect your driving air source (compressed air or vapor CO2, regulated at 140 PSI) to the quick connect coupling and you are ready to start.

FILLING PROCEDURE

1. Always wear eye protection.

2. Confirm that the hose connections are tight on the pump and on the dip tube cylinder.

3. Turn on scale.

4. Turn off the transfill valve that is located on the end of the outlet hose.

5. Slowly turn on the mother cylinder, checking for leaks. If there are any leaks on the hose connections, turn of the pressure and tighten the fitting. For ALL other leaks, turn off the pressure and contact Sterling Pressure Systems Technical Assistance at 1-800-856-5668.

6. In a well ventilated area, turn the cylinder to be filled (nursing cylinder) upside down and vent off the remaining contents, leaving the valve open.

WARNING: YOU MUST MAKE SURE THAT THE NURSING CYLINDER IS COMPLETELY EMPTY PRIOR TO RESETTING THE SCALE TO ZERO; IF THERE IS STILL CONTENTS IN THE CYLINDER YOU COULD OVERFILL IT.

7. Visually inspect the nursing cylinder, checking for scorching, scrapes, dents or cracks. If any of these are present, refer cylinder to certified hydrotest facility for inspection.

WARNING: DANGER –DO NOT FILL ANY DAMAGED CYLINDER!

8. If the cylinder passes the visual inspection, read the cylinder markings, checking the hydrotest date, and the CO2 capacity. (Refer to the "How to Read Cylinder Markings", section on placard).

9. Connect the pump outlet hose to the nursing cylinder and place it on to the scale.

10. Press the tare button on the scale meter head, and wait for it to reset to zero.

11. Open the 3 way transfill valve and allow trans-filling to begin.

12. Once the flow of CO2 has slowed down or stopped (You can hear the flow), depress the run button on the side of the pump – watching the scale – hold it until the nursing cylinder is filled to proper weight. **WARNING: DANGER!** DO NOT FILL ANY CYLINDER BEYOND ITS MARKED CAPACITY!

13. Once the transfill is complete, shut off the nursing cylinder valve.

14. Shut off the 3 way transfill valve, turning until the pressure relieves from the valve, and disconnect the hose.

15. If you have more than one cylinder to fill, begin with the next cylinder at step 6.

16. After you have finished filling all the cylinders, shut off the mother cylinder and release the pressure in the pump by opening the transfill valve.
*Please see cautionary notes on page 5 for warnings.

WARNING: The pump is designed to pump liquid gas only. The pump transfill rate will slow dramatically when the liquid supply is exhausted. The pump and the cylinder being filled will also get warm or even hot. This will cause damage to the pump and also void the warranty.
Operator must be aware of the change in transfill rate to determine the moment the liquid supply is exhausted.

REMEMBER!, THE SAFETY OF THIS SYSTEM DEPENDS ON YOU! PLEASE USE COMMON SENSE. HIGH PRESSURE GASES HAVE A TREMENDOUS AMOUNT OF LATENT ENERGY, EXERTING FORCE IN ALL DIRECTIONS – PLEASE RESPECT THAT FORCE!

WARRANTY

LIMITED WARRANTY Products sold by STERLING PRESSURE SYSTEMS LLC are warranted for a period of eighteen months from date of shipment by STERLING PRESSURE SYSTEMS LLC or one year from date of purchase, whichever occurs first (proof of purchase required). STERLING PRESSURE SYSTEMS LLC limits the warranty to repair, replacement, or credit at invoice price (our option), to products which in our opinion have failed due to defects in materials and/or workmanship. This warranty is in lieu of all other warranties, expressed or implied, including any warranty of merchantability and warranty of fitness for a particular purpose of use. STERLING PRESSURE SYSTEMS assumes no obligation or liability for any incidental or consequential damages arising from the use or application of such products.

STERLING PRESSURE SYSTEMS LLC reserves the right to change specifications, prices, sale and/or terms of sale without notice. Possession of the price list does not necessarily entitle the holder to receive these prices. STERLING PRESSURE SYSTEMS LLC is not responsible for typographical errors. Packaging and standard carton information included where applicable, weights are approximate.

Reminder:
The use of oils and/or automatic oilers on the drive air for the pump will void the warranty!
Overheating the pump will also void the warranty. Pump is designed to pump liquid only.

NORTH AMERICAN CYLINDER MARKINGS

1st Row (Inner)	
MARK	**EXPLANATION**
TC or CTC	Transport Canada
3ALM	Aluminum specification (Canada)
124	Service pressure (bar)
T11.3KG	Tare weight (Kilograms)

2nd Row	
MARK	**EXPLANATION**
DOT	US Department of Transportation
3AL	Aluminum specification (USA)
1800	Service pressure (PSI)
U372530	Serial number
Manufacturing plant identifier	Manufacturing plant identifier

3rd Row (Outer)	
MARK	**EXPLANATION**
1	Month of manufacture
A	Mark of independent inspector
98	Year of manufacture
20#C02	C02 capacity
TW24.9	Tare weight (LBS)

TEMPERATURE EXPOSURE WARNING Revised: March 1999

Cylinder Manufacturers strongly recommend making the following information available to any and all persons who handle and/or fill high-pressure aluminum gas cylinders:

You are warned that failure to strictly follow these guidelines could result in overheating of the cylinder which could weaken the cylinder, causing it to fail under pressure, exposing bystanders to serious injury or even death and/or loss of property.

WARNING:

- Do not expose any aluminum cylinder to temperatures in excess of 265 degrees F (130 degrees C).
- If you know or suspect an aluminum cylinder has been exposed to elevated temperatures BETWEEN 265 degrees F (130 degrees C) and 350 degrees F (175 degrees C), it MUST be hydrostatically retested before being returned to service.

Common evidence of exposure to elevated temperatures above 265 degrees F (130 degrees C) includes:

- Charring or blistering of the paint or other protective coating
- Distortion of the cylinder
- Melting of fuse plugs
- Charring or burning of labels
- Increases in total or permanent expansion from hydrotesting
- Distortion of valve or carrying handles

WARNING:

- Any cylinder exposed to the direct action of fire MUST be removed from service as its mechanical properties are adversely affected by exposure to high temperatures (49 CFR 173.34) and it may fail under pressure.
- Any aluminum cylinder exposed or suspected of having been exposed to temperatures in excess of 350 degrees F (175 degrees C) MUST be condemned (CGA C-6.1) and removed from service.
- Do not use caustic paint strippers or corrosive cleaners to remove paint from aluminum cylinders. They will damage the cylinder and weaken the metal which could later cause a failure under pressure.
- Do not remove old paint by using blasting media that will or may remove metal from the cylinder.
- **CAUTION:** It is illegal to transport any cylinder filled after the hydrotest has expired. (Hydro testing is required every 5 years on aluminum cylinders, and the date of the last test is stamped into the neck of the cylinder.)

For further information on cylinder safety, contact:
Compressed Gas Association, 4221 Walney Road, 5th Floor,
Chantilly, VA 20151-2923
Phone (703) 788-2700

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