

MANUAL

Ver 1.0



Technicor Industries
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Wheeling IL 60090

ShoeBox Compressor Manual

Warning!! This product is not a toy! Use or misuse can cause severe injury or death! Use only with adult supervision. This unit is only to be used with tanks, hoses and fittings rated for a minimum of 4500 LBS per square inch. Do not exceed 100 pounds per square inch input pressure. Unplug power before removing cover. Do not operate with cover removed. Under NO circumstances should this unit be used with CO2 tanks or any tank rated less than 4500 pounds per square inch. Do not exceed an input pressure of more than 100 pounds per square inch or less than 85 pounds per square inch to the compressor or explosion and injury will result.

⚠WARNING:

For your own safety, never operate unit until all assembly steps are complete and until you have read and understood the entire operator's manual.

Safety Instructions

This manual contains information that you should know and understand. Understanding this information is for your SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

Safety Signal Words

! DANGER indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

! WARNING indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

! CAUTION indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.

NOTICE indicates important information, which if not followed, may cause damage to equipment.

NOTICE:

! CAUTION:

!WARNING:

! DANGER:

⚠WARNING:

Only use white lithium grease for lubrication.

⚠WARNING:

Do not put any type of oil into the compressor air lines or explosion could result.

⚠WARNING:

Do not operate unit if damaged during shipping, handling or use. Damage may result in bursting and cause injury or property damage.

Intended Use

This compressor is designed to fill air tanks rated to 4500 psi. For best performance it requires an 85 psi feed from a shop compressor to the nipple on top of the unit. We recommend one of the small shop compressors that are oil-free and generally cost less than 100 dollars. The compressor uses less than 1 cubic foot per minute and virtually all inexpensive shop compressors put out more than that.

Setup

If you had your compressor shipped to you, it may not have the fill nipple on top of the unit or the vent knob installed. Find the fill nipple and screw it into the threaded hole in the top of the compressor. Use a wrench to fully tighten. Remove the front cover after unplugging the power and air lines by unscrewing the four bolts in the back. Take the vent knob shaft and screw it part way into the upper threaded hole just above the output nipple in the front. Find the black retaining bolt with the wide head and screw that into the lower right threaded hole. You might have to screw the vent knob in and out to get the retaining screw into place and seated up against the block. Once properly in place, the vent knob shaft should be restrained by the retaining bolt so it doesn't unscrew out of the block. Reinstall front cover before use.

⚠WARNING:

To reduce the risk of injury, if any parts are missing, do not attempt to operate the air compressor until the missing parts are obtained and installed correctly.

Shop Air Compressor for 85 psi Feed

To achieve minimum fill times, the ShoeBox Compressor requires an external feed of 85 psi air from a small oil free air compressor. This acts like a "first stage" and reduces the fill times by a factor of six. Do NOT run the ShoeBox without a pressure feed. Doing so will cause the system to shut off at approximately 6,000 psi instead of approximately 4,500 psi.

⚠WARNING:

The ShoeBox compressor requires a minimum of 85 psi input for proper operation.

Feed Hookup

Set output of shop compressor to 85 psi. Attach hose from shop compressor to the nipple on top of the ShoeBox Compressor. Attach pressure rated hose to output port on the front of the compressor. Attach other end of hose to the fill nipple on the 4500 psi rated tank. Unscrew the vent knob above the output port on the front until it *just* stops.

⚠WARNING:

Do not fill CO2 tanks under any circumstances or explosion, injury or death could result.

⚠WARNING:

This compressor is NOT DESIGNED TO SUPPLY BREATHABLE AIR.

Running Compressor

Plug in compressor and flip black switch to the right to start compressor. The switch arm is a spring and will feel compliant to the touch. Compressor will start running. Monitor pressure build up on the tank gauge. Compressor does not have a precision shut off so it will turn off anywhere from 4000 to 5000 psi. See adjustment section to adjust shut off pressure. Once compressor shuts off, remove the 85 psi compressor feed hose and screw in the vent knob until you feel resistance. From there, screw the vent knob about one additional turn just until the airline vents. You can now release your tank from the fill line. **MAKE SURE** to unscrew the vent knob back out or your compressor will leak when you turn it on.

⚠WARNING:

NEVER use any oil in any airline on this compressor or an explosion could result.

Lubrication

Follow the warnings and unplug all air lines and power from the unit before removing front cover. Four screws on the back corners hold the cover in place.

Your compressor uses oil impregnated bushings which should not need lubrication. After many hours of running they can be lubricated with only ONE DROP of oil on each bushing. **NEVER PUT OIL IN THE AIRLINES OF THE COMPRESSOR or an explosion could result!!**

To lubricate the air pistons **ONLY USE WHITE LITHIUM GREASE**. Disassembly of the pistons is not required. Simply put a dab of grease on the exposed piston shaft near the end of the cylinder. Once the unit is turned on, the grease will get pulled into the cylinder as the piston moves in and out.

AC Motor

The Dayton AC motor is 1/3 horsepower and runs off standard 110 volt household current. It should be plugged into a grounded 20 amp receptacle. The motor has built-in overload protection and will shut off if overheated. The motor will start unexpectedly when cooled off, so be sure to unplug unit if overheating occurs.

Chain Tension

The chains will stretch as a normal part of wear and will need to be tightened occasionally. Remove front cover as described in **Lubrication**. Tilt the unit on to its back and find the two black allen screws on the bottom of the housing. Use an allen wrench to loosen these screws but do not remove them. This will allow the jackshaft assembly to slide and tension the chain from the jackshaft to the air block. Leave a little give in the chain and retighten the bottom screws.

Next use a wrench to loosen the four motor bolts inside the housing. Slide the motor to tension the motor to jackshaft chain. Retighten the bolts evenly but **do not over torque**. There should be some give in this chain also.

⚠WARNING:

If not properly grounded, this tool can cause an electrical shock, particularly when used in damp locations, in proximity of plumbing, or out of doors.

⚠CAUTION:

The motor must be allowed to cool down before start-up is possible. The motor will automatically restart without warning if left plugged into electrical outlet, and the motor is turned on.

⚠WARNING:

Release all pressure and disconnect power before making any repair.

Shut Off Adjustment

The pressure shut off is not very precise. The shut off point can vary by several hundred lbs from fill to fill and you should not try to "chase" the shut off point by constantly adjusting the unit. Lack of lubrication on the piston shafts will also cause the shut off point to vary. Reduction or increase of the input pressure will also change the shut off pressure. The compressor has a large spring attached to the release arm that pushes on the on-off switch to turn off the system. The far end of this spring is hooked to a collar on the piston shaft. There is a small amount of adjustment to the shut off pressure by loosening the collar's set screw and sliding it along the shaft. Do not bend the spring! Make sure that the collar does not hit the bearing when the piston moves all the way into the cylinder. Keeping your piston shafts lubricated with white lithium grease will give the most repeatable performance on the shut off pressure.

Burst Disk Overload Protection

The ShoeBox Compressor is equipped with a burst disk that can be found behind the main air block. If the compressor sees pressures greater than approximately 7500psi, the copper seal in this device will blow out and vent the system. This burst disk is industry standard and must be replaced after a venting incident. Use the same pressure rated burst disk for replacement.

⚠WARNING:
Burst disk must be replaced with unit pressure rated to the same specification as the one removed.

O-rings and Back Check Valves

There are only 7 o-rings which are active seals in the compressor. They are accessed by removing the cylinders. Replacing these o-rings should be left to a qualified technician. For technical support see

<http://www.automags.org/forums/forumdisplay.php?f=44>

Water Traps and Filters

There is no filter or water trap supplied with this compressor. We recommend filtering the incoming 85 psi line. See your shop compressor dealer for these accessories.

⚠WARNING:

For your own safety do not try and run the air compressor while troubleshooting.

Heat Buildup

Under normal running conditions the parts inside the compressor can reach temperatures in excess of 150 degrees Fahrenheit. Handling these parts immediately after shutdown can cause sever burns. Never spray the compressor with any flammable material or solvents. Always use the compressor in an area with adequate ventilation.

⚠WARNING:

Do not spray flammable materials in vicinity of open flame or near ignition sources including the compressor unit.



No Warrantee

There is no warrantee with this compressor. There is a 30 day money back guarantee from date of purchase. The customer is required to send the unit back to us first, and then we will issue a refund check. Technical Support will be handled online at www.automags.org under the ShoeBox Compressor forum.

WHAT IS NOT COVERED

This warranty applies only to the original purchaser at retail and may not be transferred. This warranty does not cover normal wear and tear or any malfunction, failure or defect resulting from misuse, abuse, neglect, alteration, modification or repair by other than a service center authorized to repair RIDGID branded air compressors. Expendable materials, such as oil, filters, etc. are not covered by this warranty. Gasoline engines and components are expressly excluded from coverage and you must comply with the warranty given by the engine manufacturer, which is supplied with the product. TECHNICOR INDUSTRIES MAKES NO WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY OR PERFORMANCE OF ITS AIR COMPRESSORS OTHER THAN THOSE SPECIFICALLY STATED IN THIS WARRANTY. RIDGID, INC. MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, INCLUDING AS NOTED BELOW.

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