

Hydraulic Power Pack

Work Force
2 Technicians

Installation
1 to 2 Hours

Technical Support
800-327-8723

Emergency



Register Warranty
SonnysDirect.com
Support Tab

Owner's Manual



- 1 Checklist**
- 2 Installation Dimensions**
- 3 Installation Instructions**

All parts and components **MUST** be installed by experienced and trained technicians.
The **Quick Start** is a Summary Overview of the Installation Instructions. For detail instructions and Important Safeguards and Warnings, the Owner's Manual **MUST** be referenced online at SonnysDirect.com under Support Tab.

www.SonnysDirect.com

CHECKLIST



Safety Glasses

Stainless Shims

 $\frac{1}{2}$ " Drive
Ratchet Set $\frac{1}{2}$ " Hammer DrillStandard Combo
WrenchesStandard
ScrewdriverImpact Gun and
Sockets

Sledgehammer

Tape Measure



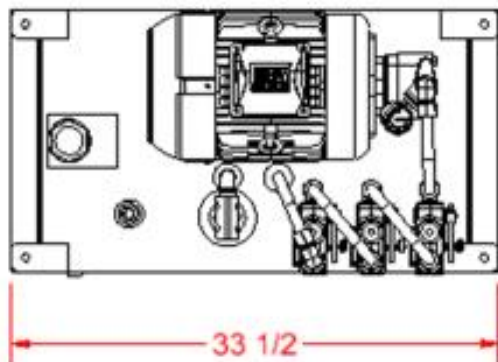
WARNING: Make sure to follow Local and State Safety Wear Required Regulations to ensure the safety of all personnel. Failure to follow Safety Regulations may result in personal injury, death and/or dismemberment.

- The installer is to provide materials, install pressure, and return lines to and from the hydraulic power pack flow control valves and the equipment to be operated. These lines may be Schedule 80 BIP, or hose rated at least 2200PSI. Minimum 18 inch long flexible hose should be used at each termination. It is recommended that the return line from the last hydraulic motor in a circuit to the power pack return filter be one size larger than the pressure line (example: pressure line is $\frac{1}{2}$ inch... return line should be $\frac{3}{4}$ inch). This practice extends the life of the hydraulic motors and pump by reducing line friction and oil temperature.



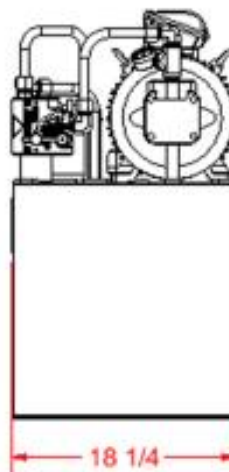
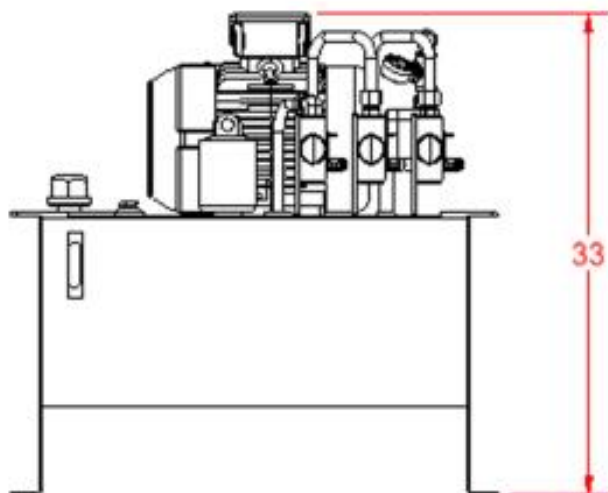
- The Customer's Electrician is to provide materials and install 208VAC or 230VAC or 460VAC, 3-phase, 60Hz power to the electric motor on the hydraulic power pack from a properly sized three pole circuit breaker and motor starter with three thermal overloads.
- The Customer's Electrician is to provide materials and install single phase power (24VAC or 110VAC) from the Customer supplied start/stop system, through the low oil level switch on the hydraulic power pack to the motor starter coil for the hydraulic power pack.

INSTALLATION DIMENSIONS



Other Power Packs

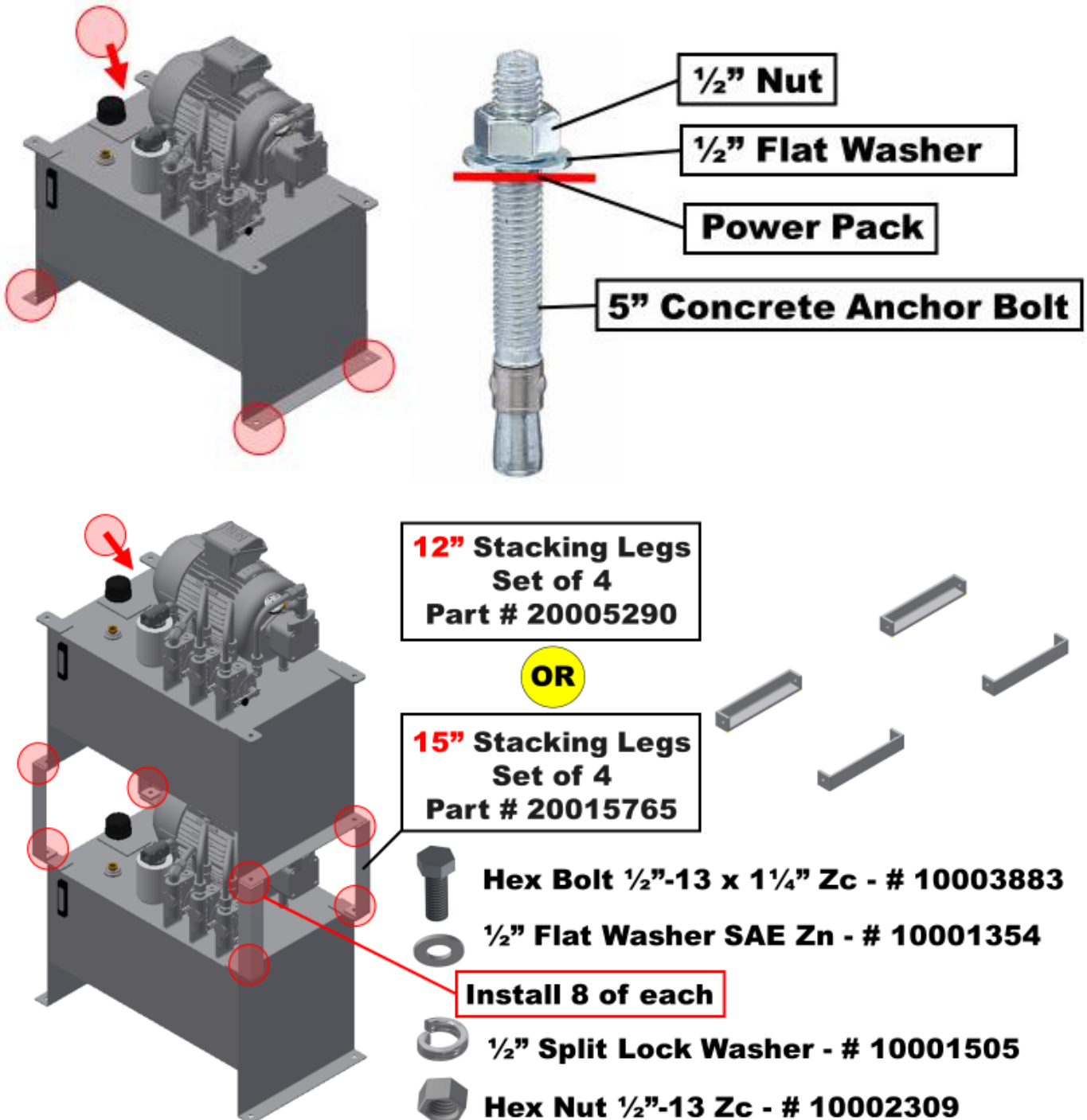
3HP – H25" W24" D18"
7.5HP – H35" W34½" D20"
10HP – H37" W34" D20"




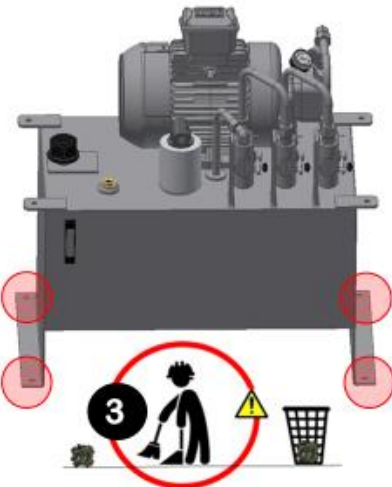


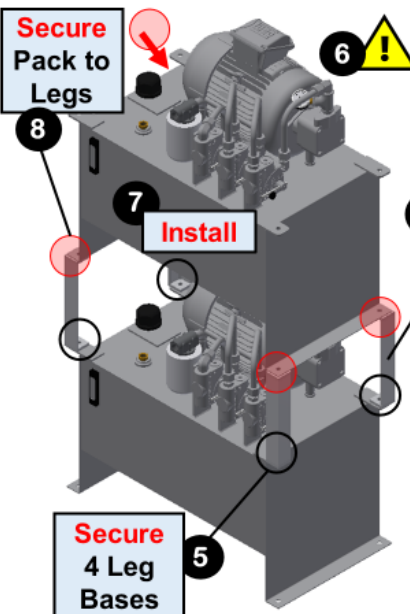
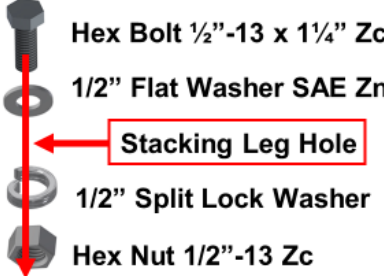
5HP

Sonny's and Sonny's The CarWash Factory are registered trademarks of Sonny's Enterprises LLC.
 Products mentioned herein are for identification purposes only and may be registered trademarks of their respective companies.
 All other brand names, trademarks or registered trademarks are the property of their respective owners.


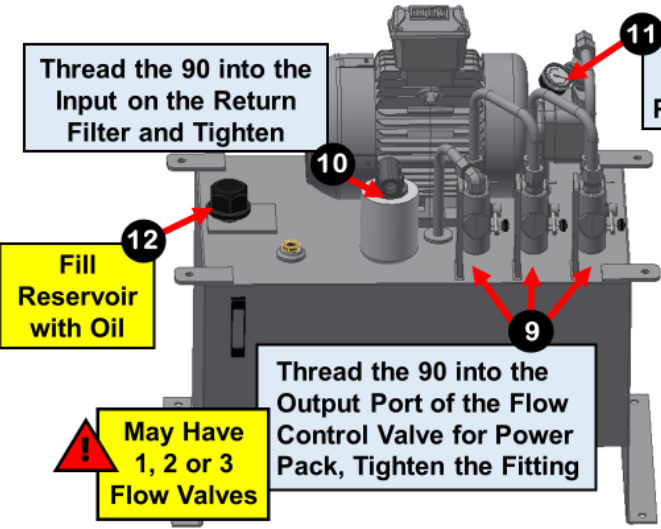

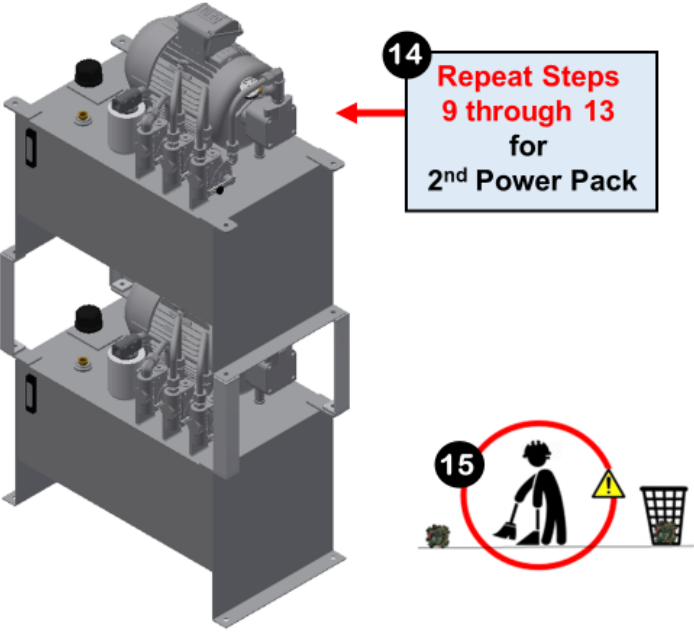

CONCRETE ANCHORS & STACKING LEGS KITS



INSTALLATION INSTRUCTIONS

 <p>1/2"</p> <p>3/4"</p>	<div data-bbox="430 409 1323 462"> 1 Install 4 Concrete Anchor Bolts Per Power Pack </div>  <div data-bbox="844 472 1429 892">  <p>1/2" Nut</p> <p>1/2" Flat Washer</p> <p>Power Pack</p> <p>5" Concrete Anchor Bolt</p> <div data-bbox="1006 819 1364 892"> 2 Shim As Needed </div> </div>
<p align="center">If Mounting a 2nd Power Pack</p>	
 <p>3/4"</p>	<div data-bbox="381 1081 787 1690">  <p>Secure Pack to Legs</p> <p>Secure 4 Leg Bases</p> </div> <div data-bbox="795 1102 1429 1249"> <p>6 ! WARNING: Verify stacking legs are installed correctly and secured with proper hardware. Tighten Hardware. Make sure second Power Pack is secured in place before lifting and mounting it on top of the first Power Pack to avoid personal injury, death and/or dismemberment.</p> </div> <div data-bbox="795 1270 1201 1690"> <div data-bbox="795 1270 1201 1407"> 4 Install & Tighten Hardware 12" Stacking Legs (4) Or 15" Stacking Legs (4) </div>  <p>Hex Bolt 1/2"-13 x 1 1/4" Zc</p> <p>1/2" Flat Washer SAE Zn</p> <p>Stacking Leg Hole</p> <p>1/2" Split Lock Washer</p> <p>Hex Nut 1/2"-13 Zc</p> </div> <div data-bbox="1250 1270 1421 1522"> <p align="center">NO Climbing Or Standing On Units</p> </div>

INSTALLATION INSTRUCTIONS

	 <p>Thread the 90 into the Input on the Return Filter and Tighten</p> <p>11 Install Gauge for Power Pack</p> <p>12 Fill Reservoir with Oil</p> <p>May Have 1, 2 or 3 Flow Valves</p> <p>Thread the 90 into the Output Port of the Flow Control Valve for Power Pack, Tighten the Fitting</p> <p>13 Connect Feed & Return Lines Before Operating</p>
<p>If a 2nd Power Pack was Mounted</p>	
	 <p>14 Repeat Steps 9 through 13 for 2nd Power Pack</p> <p>STOP</p> <p>DO NOT Stack Power Packs Higher Than 3 & They MUST ALL Have the Same Frame Footprint</p> <p>15 </p>

ADJUSTMENTS AND TESTING

IMPORTANT: AFTER WASHING THE FIRST 200 CARS WITH A NEW HYDRAULIC SYSTEM CHANGE THE RETURN LINE FILTER. THEN CHANGE THE RETURN LINE FILTER EVERY 6 MONTHS.

Initial Start-Up

1. Check all fittings for tightness.
2. Fill the hydraulic system with non-detergent, non-foaming, **ISO 32 10W** grade hydraulic fluid. With the power on, fill the unit until the fluid reaches the low level switch then add a little bit more.
3. Adjust the relief pressure for each flow control valve on the Hydraulic Power Pack.
 - a. Install caps on the output of each flow control valve (FCV).
 - b. Pressure **MUST** be equal on each FCV. To achieve this, turn all FCV's off (zero flow).
 - c. Advance the adjustment handle on the FCV closest to the pump to the full flow position (the FCV closest to the pump should have the highest GPM placed on it and go down accordingly).
 - d. Adjust the set screw under the hex cap for this FCV to the minimum relief setting required for operation on each individual piece of equipment.
 - e. Turn this first FCV to zero flow.
 - f. Repeat steps b through d for each FCV, in order, for this Power Pack. Be certain that all FCV's are off except the one that is being adjusted for the pressure relief setting.
4. Check that rotation is correct for each hydraulic motor in each circuit. Reverse the hydraulic lines at the hydraulic motors to reverse rotation.
5. Adjust for proper hydraulic motor speeds with the appropriate flow control valves on the Hydraulic Power Pack.
6. Repair any hydraulic fluid leaks.

Speed and Torque Adjustment (where applicable)

1. Hydraulic

- a. The speed can be adjusted on the flow control for the power pack.
- b. To increase the speed move the handle on the flow control closer to the number 10.
- c. To decrease the speed move the handle on the flow control closer to the number 1.
- d. The torque must be set prior to operation and should be set between 600 and 900 PSI. For information on how to set the torque please refer to Adjustments and Testing section in this manual.

ADJUSTMENTS AND TESTING

Speed and Torque Adjustment (where applicable)

2. Electric

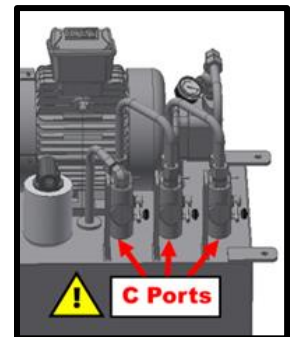
- a. The speed can be adjusted on the Variable Frequency Drive (VFD).
- b. To increase the speed adjust the Hertz on the VFD to a higher number.
- c. To decrease the speed adjust the Hertz on the VFD to a lower number.
- d. The Overload on the Motor Starter protector(s) must be set at the lowest level to allow for operation. Adjust the amps in accordance with motor(s) name plate.

Instructions for Setting the Relief Valve

1. Remove the pressure hose going to the hydraulic motor. This is the "C" port(s) on the flow control valve.
2. Plug the "C" port(s) with a pipe plug.
3. Remove the relief valve cap nut located directly across from the incoming pressure pipe or hose from the pump.
4. Startup power unit and read the gauge pressure.
5. Adjust the relief valve pressure by turning the adjustment screw clockwise to increase, counterclockwise to decrease.
6. Adjust to the lowest possible level to archive desired use.
7. Turn off the power unit and replace cap nut on the relief valve and replace the pressure hose on the flow control valve.

For Multi-Flow Units

1. Remove both pressure hoses and plug both pressure (C) ports.
2. Set flow valve closest to pump to full flow & second flow valve to zero (0) flow.
3. Turn on power unit and adjust relief valve to desired setting on first valve.
4. Set flow on first valve to 0 flow and flow on second valve to full flow.
5. Adjust the relief valve on the second flow valve to the desired setting.
6. Turn off power unit and reconnect the pressure hoses.

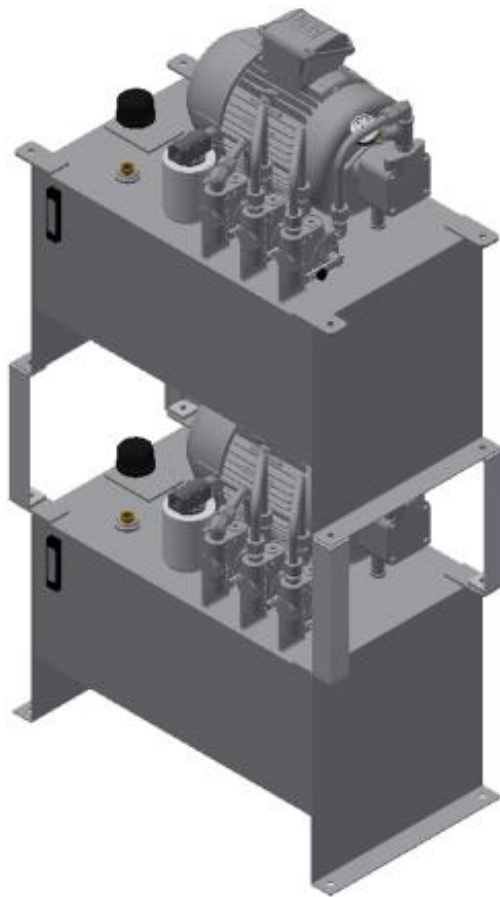


GENERAL OPERATION

- Starting and stopping of the electric motor is controlled by the motor starter coil for the function the power pack is designated.
- The speed of the rotation of the motor(s) being driven may be changed by the flow control valve on the Hydraulic Power Pack. See Adjustments and Testing Section.
- Flow dividers are used to divide the hydraulic fluid supplied by a power pack; between several pieces of tunnel equipment to reduce the number of power packs required for a given tunnel layout.
- Fill the hydraulic system with non-detergent, non-foaming, ISO 32 10W grade hydraulic fluid.



NOTE: You can contact Suncoast Hydraulics @ 904-693-3318 for any technical questions.



1 Flow



2 Flows



3 Flows