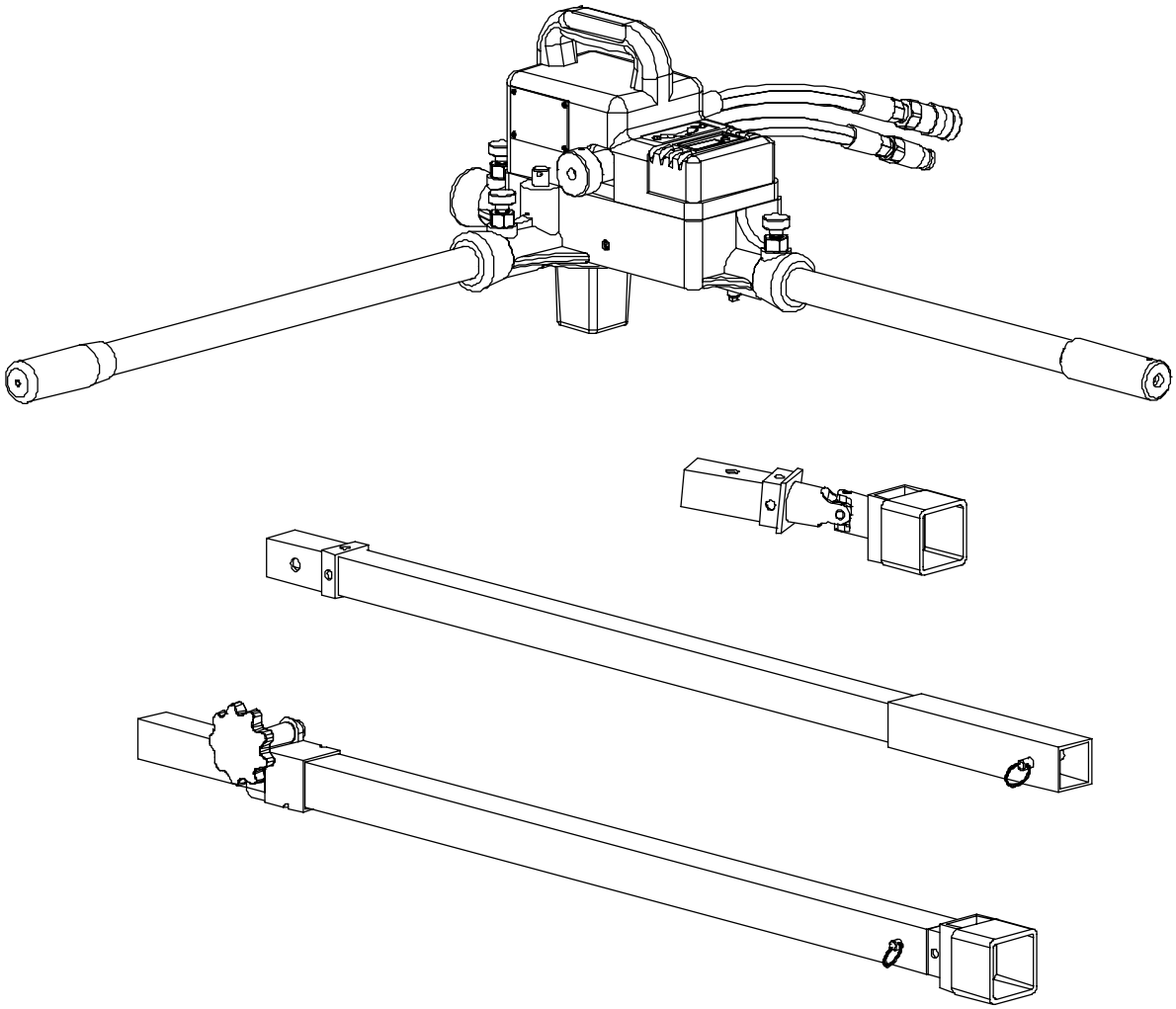
Transmate
a Division of Romac Industries, Inc.

The Exerciser™ Hydraulic Valve Exerciser



WARNING

Before operating this unit read and understand the operator's manual. Become familiar with the potential hazards of this unit.

Be sure operator is free of all stationary objects.

10.17.08

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Conventions used in this manual:

- means this is a POINT OF INFORMATION.

- means CAUTION – damage to valve or equipment is possible.

- means STOP – this is a dangerous situation.

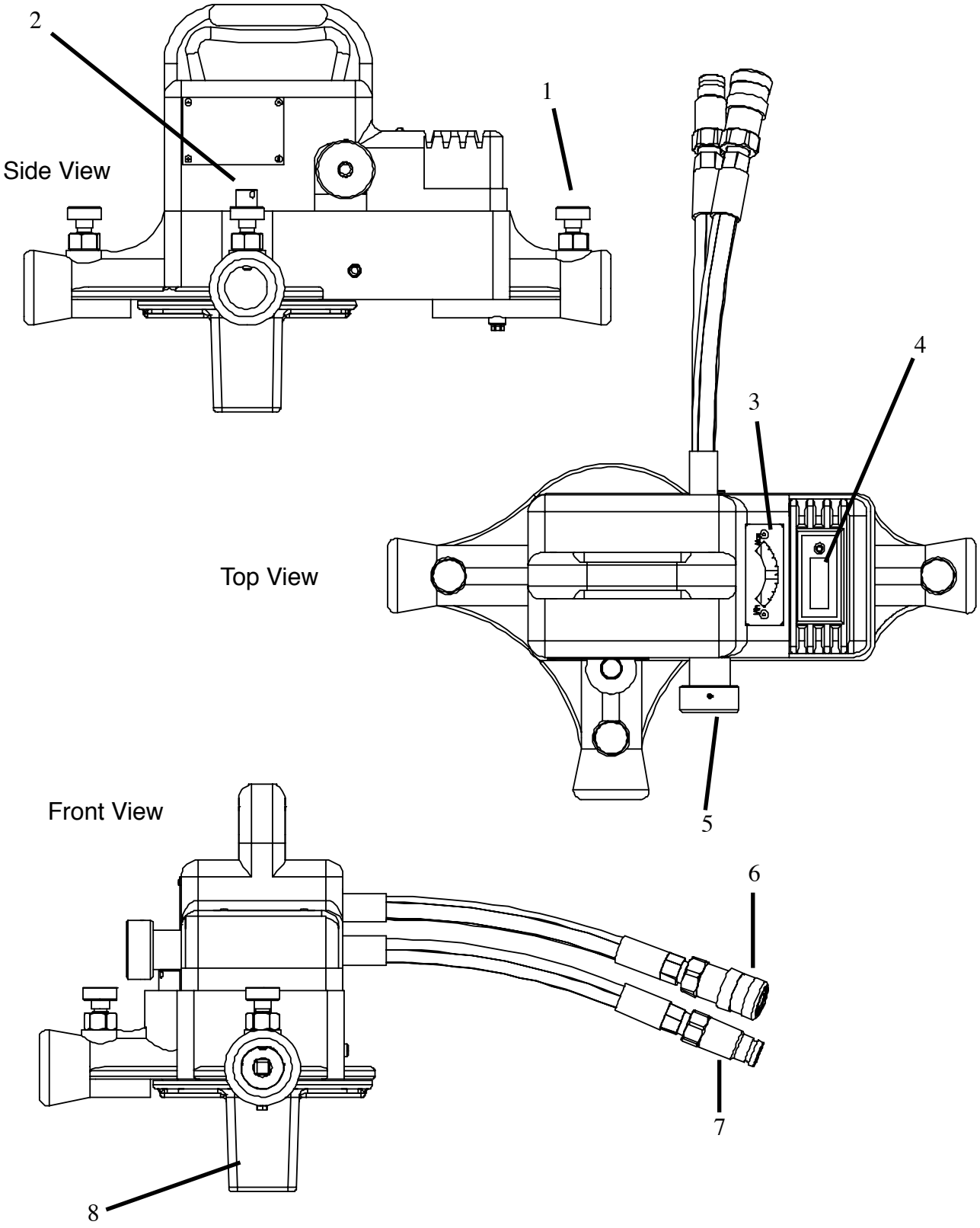
General Description

Congratulations on your purchase of the Exerciser™ valve exercising machine. Please take the time to read and understand this manual. This is a powerful tool, capable of generating up to 250 foot pounds of torque. Your understanding of the machine's controls and use are imperative to the safe and productive operation of the Exerciser™

The Exerciser™ consists of:

a) The Main Drive
b) The Control Handle
c) The Auxiliary Handle
d) The Valve Key

Additionally, you must have a hydraulic system capable of delivering 3.5 - 10 gpm (gallons per minute) at 1750 - 2250 psi (pounds per square inch). The amount of torque available at the Exerciser's™ maximum setting depends upon the pressure output of your hydraulic system.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The Main Drive: consists of a forward and reverse turn counter, a torque control, a torque control gauge, a locking pin, pigtails for hydraulic connection and three handle holes.

1) Handle lock pin: There are three handle sockets, each with a lock pin. The pin is spring loaded. The pin will snap into place when the handle is inserted correctly. (The hole in the handle must align with the spring loaded Handle lock pin.)

2) Spring loaded Lock Button: provides a method to lock down the Exerciser™ so it can be used as a manual wrench. Pushing down on the lock pin drives it into a mating hole in the drive hub (8). The Exerciser™ can now be used as a manual wrench. When the torsional tension is released, the Lock Button will spring back up into the open position

3) Torque Scale: This is a relative reading torque scale to give the operator an idea how much torque is being applied to the valve stem. The torque applied will depend upon the pressure available from the hydraulic drive. This scale reflects the setting of the Torque Control Knob (#5)

4) Electronic Turn Counter: gives a numeric display of the number of turns applied to the valve during the opening process. It will count back down to zero when closing the valve. The round circle in the drawing represents the red reset button on the unit itself. This is a self contained LCD counter and circuit powered by a seven year lithium battery. When the battery runs out, an entire new LCD unit is reinstalled into the case.

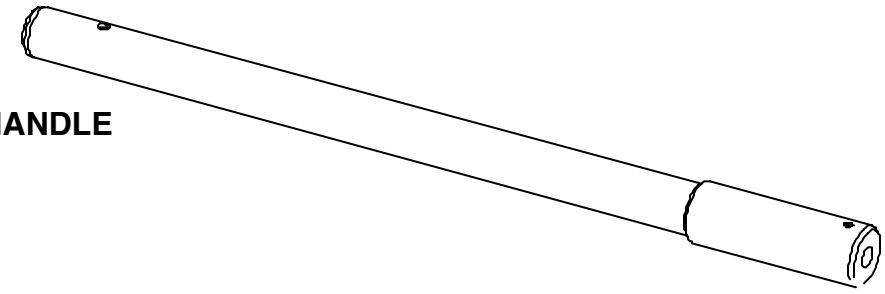
5) Torque Control Knob: adjusts the torque from ZERO or no torque to the maximum allowed by the pressure in your hydraulic system.

6) Hydraulic Fluid Inlet: Hydraulic fluid enters the main drive through the top pigtail (with the female quick-disconnect). Your pressure should be at least 1750 psi with a flow rate of at least 3.3 GPM. You can use pressures up to 2500 psi with a flow rate of up to 10 gpm. Higher hydraulic fluid pressure gives more torque at the top end of the scale. REMEMBER: AWWA C509-94 Section 3.1 stipulates, "the valve assemblyand mechanism shall be capable of withstanding an input torque as follows: 3in. and 4in.(75mm and 100mm) NPS-200 ft-lb (270 N-M); 6in. (150mm), 8in. (200mm), 10in. (250mm), 12in. (300mm) NPS-300 ft-lb (406 N-M)." The stems are bronze and can be broken, or bent at higher torques.

7) Hydraulic Fluid Return: Hydraulic fluid leaves the main unit through this lower port (male quick-disconnect).

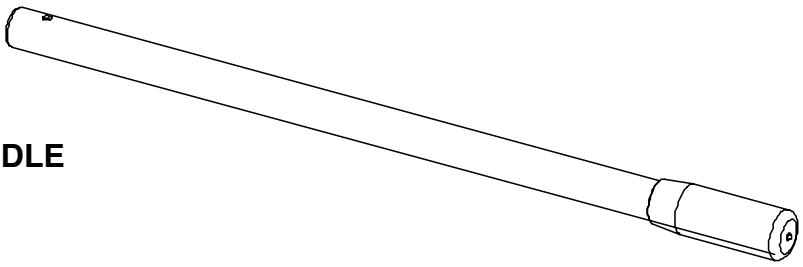
8) Drive Hub: The hub mates to the top of the valve key so torque is applied to the valve nut. You will notice a series of holes around the circumference of the drive hub. These holes allow you to lock the hub so the Exerciser can be used as a manual valve wrench. See item 2 above

NEVER apply hydraulic power when the Lock Buttion is down in the locking position. Damage to the Exerciser™ will result.



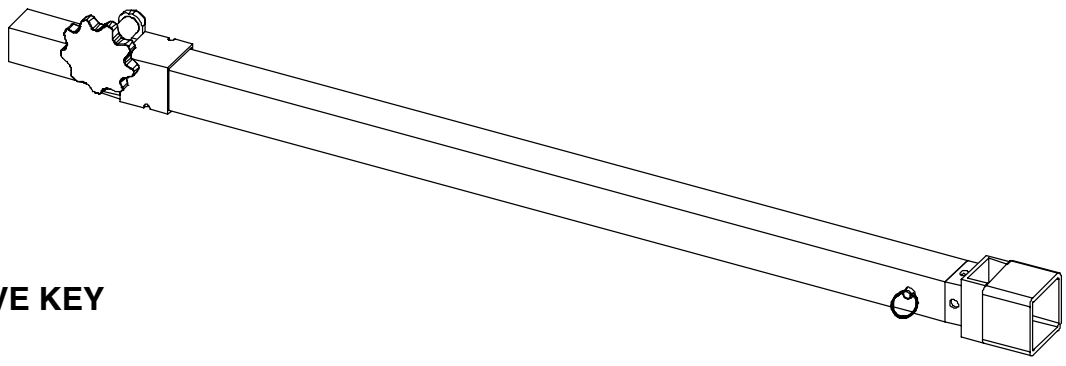
CONTROL HANDLE

9) The Control Handle is identified by its distinctive appearance, with an aluminum control gap, connected through the handle to the square drive socket. The control handle clicks into place into the handle hole that faces the electronic turn counter. The Control Grip gives directional control over the rotation of the valve key. You must turn the Control Grip to activate the main unit. Releasing your grip on the Control Grip stops all rotation immediately.



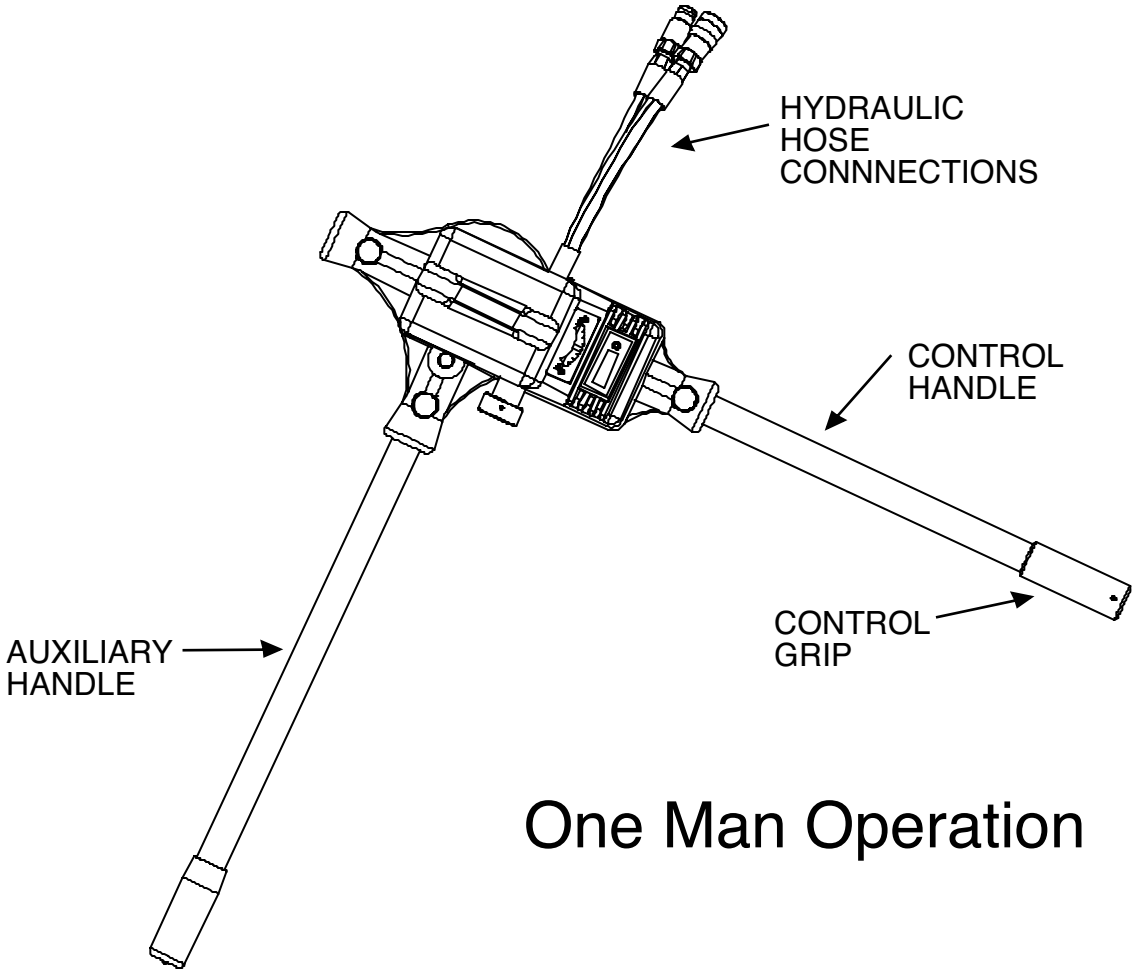
AUXILIARY HANDLE

10) The auxiliary handle can be positioned either opposite the control handle or at a 90 degree angle. These configurations are shown on the following page.

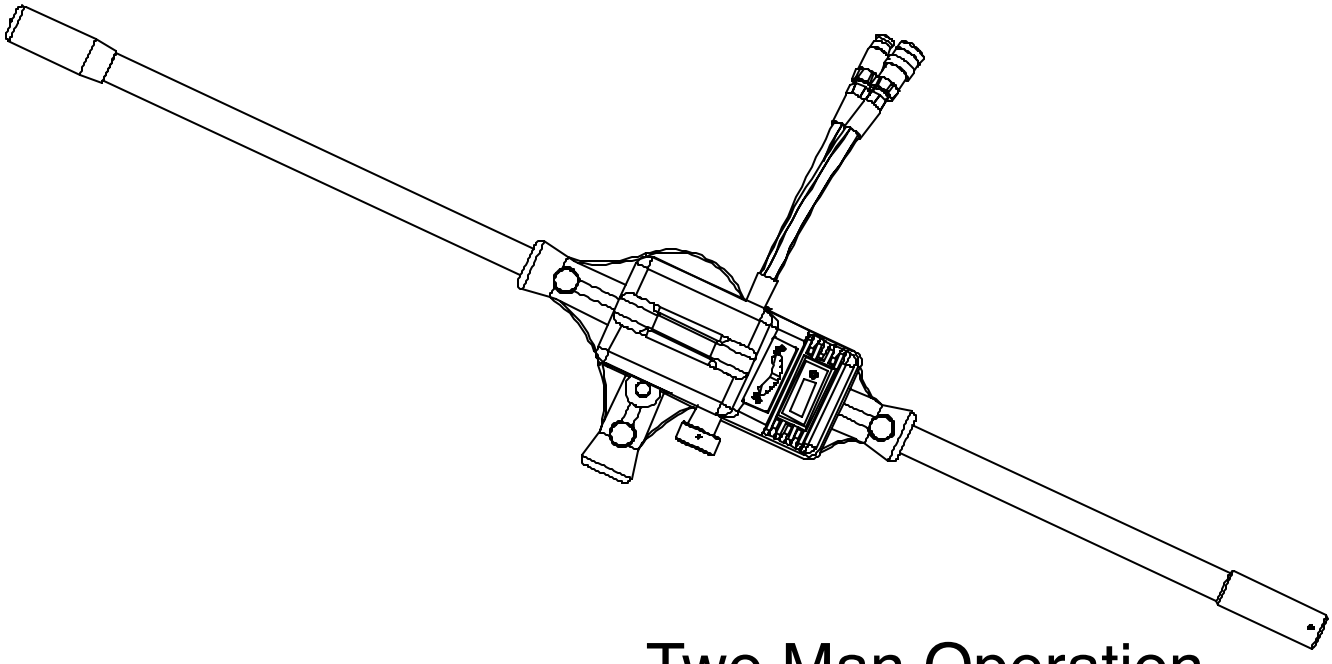


VALVE KEY

11) The Valve Key is a telescoping tube assembly to quickly adjust to various bury depths of valves while keeping the main drive at a comfortable waist height (depths of valves to 38" below the ground). An internal locking mechanism prevents the square tubes from completely separating. Valve Key Extensions are available for valve depths greater than 39". The 2" Drive Cup on the end of the Valve Key and/or the Valve Key Extensions are held in place with a Valve Key Pin.



One Man Operation



Two Man Operation

Set Up:

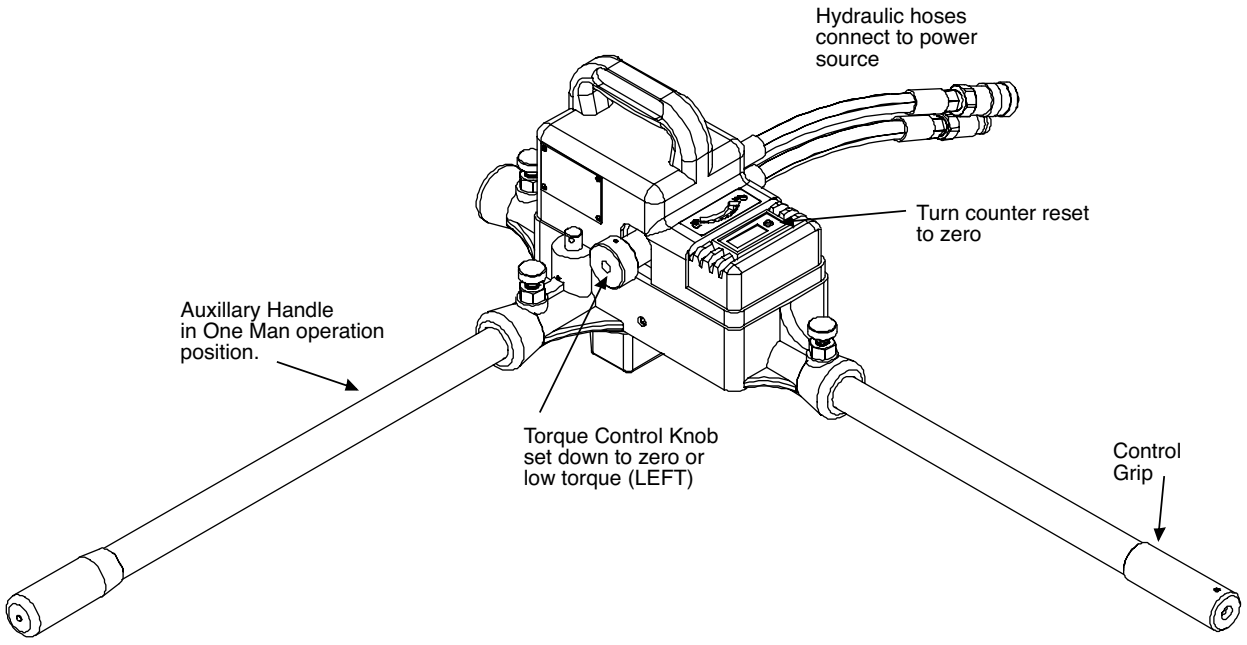
1. Set the valve key to the desired length by loosening the locking knob and allowing the two square tubes to extend, then retighten. Be sure the 2" Drive Cup is in place at the bottom of the valve key and is held securely in place with the Valve Key Pin.

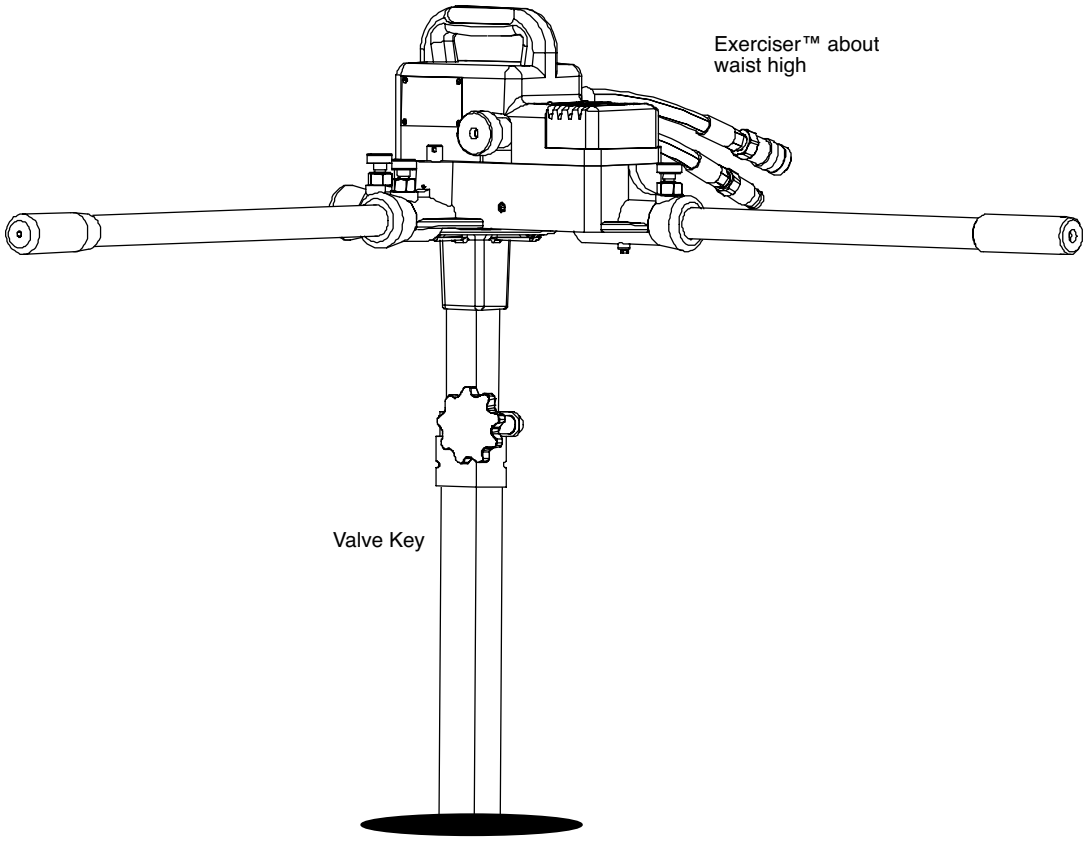
2. Place the control handle into the main unit so that it clicks in place. The control handle MUST be in the handle hole that faces the turn counter. Otherwise, the unit will not activate. Place the auxiliary handle into either of the other two handle holes and be sure that it clicks into place as well.

3. Connect the main unit to your hydraulic power source. In most cases, the best efficiency in operation will be to use a Power Take Off on your vehicle. That way, power is always available when the vehicles engine is running.

4. Depress the red button on the turn counter to reset the turn counter back to zero.

5. We suggest you turn the torque control knob down so that zero or very little torque is applied initially to the valve stem.





Use:

1. Set the valve key down onto the valve nut. It the key does not protrude up to about waist high, then stop and lengthen your setting for the depth of the valve key.

2. Place the Exerciser unit on top of the valve key. Start your hydraulic power source if it is not already on line.

3. Grip the Control Grip and rotate the control handle toward your belt buckle. Now slowly increase the applied torque with the torque control knob until the key begins to turn.

4. A general rule of thumb for 12” and under valves is there are 3 times the OD of the valve plus three turns to open or close the valve. For example, a 12” gate valve will have 3 X 12 + 3 or about 39 turn to open the valve. Be aware of the number of turns expected and watch the turn counter. Slow down your rotational speed when you feel you may be reaching the full open position of the valve.

5. Close the valve by turning the Control Ring in the opposite direction. CARE MUST BE TAKEN TO AVOID A SHARP CLOSING OF ANY VALVE UNDER PRESSURE. This can set up a water hammer that will do damage to your water system.

6. In the event of a stuck valve, avoid the tendency to increase the torque applied to the valve nut. Most valves under 12” will not take more than 250 foot / pounds. Instead, cycle the valve up and down with the Exerciser until you’ve cleared the rough spot.

Cleaning and Storage:

Remove all handles. Replace the Exerciser back into the storage box provided. Clean the valve key. It is important to store this equipment in a dry place. Please check your hydraulic fluid for contamination.

The Exerciser™, if kept clean and out of the elements, will give you many years of trouble free operation.

The battery in your electronic turn counter will have at least a seven year life span. It is not replaceable except by our factory.

The control handle should be checked periodically to assure its smooth operation. This includes the Control Grip. Do not allow dirt to get into the control handle hole on the base unit. If there is dirt within the receptical, clean it out as soon as possible. The Control Grip depends upon the free movement of the control surfaces on the handle, and within the control handle hole on the base unit.

Like all hydraulic tools, you must keep the quality of your hydraulic fluid up to standard. The fluid should be clear. A cloudy fluid always indicates contamination. Follow the recommendations of the manufacturer of your hydraulic power supply.