

## 5 Light with Valve Assembly

# Stazworks

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## Rear Steer Wire Harness Install Directions

The wires in the harness are the same color as the wires in the aluminum box. If your kit does not have the control box plugs pre-installed it is easiest to match the wires as you install the connector plugs. Just match the wires color in the harness to the color of wire inside the black box. When inserting the pin into the connector you should hear/feel a click indicating the pin is properly installed. If you do not hear the click, flip the pin over and try again. Once you figure out the proper way repeat for all remaining pins. On the face of the plug the white part should be extended past the black housing about a 1/8" to be able to insert the pins. If it is not, the pins will not click into place. After inserting the pins push the white piece in flush with the black housing to lock the pins in place. Most harnesses are shipped with control box plugs installed.

To make installing as simple as can be start by following the steps in order.

#1 Install hydraulic components, pump, valve, cylinder and plumbing.

#2 mount the hard components. Control box, joystick, return switch, master switch (if used), indicator lights.

#3 Mount the sensor. To mount the sensor, have the wheels pointed straight and set the sensor at mid stroke and figure best mounting position. It is best to have the electrical plugs pointing upwards. Also to ensure even stroke in both directions you should have the kingpin center and the pivot points at both ends of the sensor sitting at right angle. It is best to only have your mounts tacked in place until you can cycle the system and be sure further adjustment is not needed.

#4 Install and wire in all main harness wires as described below.

#5 install tail harness as described. Hook up the valve at random and only the two dark color plugs on the rear harness

#6 before hooking up the light harness, get your system fired up and try to steer it. If your left or right orientation is backwards it can be changed at the joystick as described below.

#7 once left/right is established, try centering the rear axle by the momentary return switch.

#8 as described in the Tail harness section, if system returns improperly correct plugs location.

#9 only after the axle centers properly hook up the outer light color plugs on the rear sensor.

#10 Now that the sensor is properly terminated the lights can be wired in. You can test wires for signal to establish which ones are left and right.

#11 Last the sensor should be checked for optimal setting. If the wheels are not turning as far as you would like, the sensor may be limiting them by the anti-stall feature. This can be adjusted by moving the pivot point closer to the kingpin for more travel and away for less.

Keep in mind that sensor should be sitting with the three pivot points at a right angle when the wheels are straight.

### Main Harness, (MH)

Red wire = switched power, this will connect to the return switch at the center position but also daisy chain to a supplied master switch and then to key on, ignition on power source.

Yellow wire = signal from the return switch at the momentary position

Brown = signal from the return switch at the maintained position. This is referred to as "Auto Return Mode."

Most kits have a combination switch for return and "Auto Return Mode" functions.

The switch is a three position. It is momentary one direction, off in its middle position and maintained in the other position. We recommend installing the switch where it is momentary (spring loaded) when pulled to the down position.

The switch will be wired with keyed or switched power to the center position and yellow to the momentary side and brown to the maintained side.

Many people wire the red wire and power to the return switch to “keyed” or “ignition on”. But for people that want to be able to turn all functions of the rear steer off at times an additional on/Off (master) switch is provided to do so. See the provided wire diagram for more details on this.

Orange wire is the power to joystick. It must connect to positions 2 &4 on joystick contact block. White wire goes to left or right side of joystick (#1 or #3). If direction is hooked up wrong, it can be easily changed by moving the contact to opposite side of the contact housing. Note, the contact block will not work in the middle position. It must be attached to one of the side positions. Gray wire hooks up in same manner as white wire (#1 or #3). See diagram for switch wiring.

#### Tail Harness, (TH)

There are only three wires to connect. The white and gray wires are for left and right at the valve. The black wire is a ground for the valve and ECU. Due to limitations on available pins at the connectors, the ECU is grounded through the valve assembly. The (black 1 inch square) DIN connectors are for the valve. Din connectors are only provided when a valve assembly is purchased with the kit. If valve DIN connectors are provided but not installed, the white wire will attach to pin # 1 on one connector and the gray to pin #1 on the other connector. The connector is internally grounded so the black wire can go to pin #2 or the ground pin. Only one connector needs to be grounded. The black wire is only grounding the ECU, the valve is grounded through the body of the valve. The third pin (Ground Pin) is connected (grounded) through the body of the valve. The prewired connectors at the end of the harness are for the sensor. The dark blue and dark green wire goes in the middle two switches. Plug only these two in at first. Install them at random side to side for now on the sensor. At this point fire up the system and try and turn off center and then hit return. This is a simple trial and error procedure. If the axle does not return properly but rather goes to full lock under auto return the two switches are most likely backwards. Once this returns properly install the other two plugs. These control the outer two lights on the dash as well as the anti-stall. Anti stall is when the valve shuts off at full stroke even when the joystick is telling it to keep turning.

It is important that the dark colored wires are on the middle switches and the light color wires are on the outer switches. Also, it is very important that the colors are in order as follows,  
Light green, Dark Blue, Dark green, Light Blue

#### Light Harness, (LH)

Orange wire is signal to the center green light.

Dark blue and Dark green are for the Yellow/Amber lights on each side of the green light.

Light green and Light Blue are the outer red lights.

Black wire is a common ground for all the lights. This wire can also be chassis ground if the valve is not well grounded for the ECU.

It is recommended to ground this if convenient to ensure optimal ground of the ECU.

If the lights indicate backwards as in the left comes on when the right is supposed to be on swap this at the lights not at axle sensor.

Any input we can use to help improve this kit is greatly appreciated. Feel free to call John at 715-333-7467 with any comments, questions, or suggestions.

Thank you for your purchase.

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