

Troubleshooting Guide- Horizon Portable Traffic Signals

*In the event of a system error, the Micro-Terminal will display an error message which can be useful for diagnosing problems. Below is a short description of each of these messages.

Error Message	Description	Recommendation
Line Error	A break in communication between signal controllers.	<p>Check radios to make sure they are powered. Radios that are functioning properly should have solid P light, and a solid M1 light. The L light will flash on Master radios and remain solid on Slave radios.</p> <p>Move radio positive from Pin #9 to Pin #16, 26, or 27 and move radio neg from Pin #19 to Pin #15, 24, or 25.</p> <p>If all lights are correct, check your radio antennas to ensure that they are mounted properly and have good connections to the radio unit.</p>
Red Failed	The Red Lamps did not turn on properly.	Check to make sure Red LEDs are properly installed within the signal head; check circuit board connections on Pins #3 and/or #23; check to make sure Red LEDs are not burned out. Note: on SQ3 systems, only 1 LED of each indication is required for the system to operate.
Yellow Failed	The Yellow Lamps did not turn on properly.	Check to make sure Yellow LEDs are properly installed within the signal head; check circuit board connections on Pins #4 and/or #22; check to make sure Yellow LEDs are not burned out. Note: on SQ3 systems, only 1 LED of each indication is required for the system to operate.
Green Failed	The Green Lamps did not turn on properly.	Check to make sure Green LEDs are properly installed within the signal head; check circuit board connections on Pins #5 and/or #21; check to make sure Green LEDs are not burned out. Note: on SQ3 systems, only 1 LED of each indication is required for the system to operate.
Red on, Green/Yellow on, Yellow failed	The Red Lamp is receiving voltage from a source other than the controller.	Check for any crossed or stray wires. Check junction boxes and consoles for moisture. Requires manual reset when corrected. (Note: on any "Lamp On" failure,

Yellow on, Green/Red on, Yellow failed	The Yellow Lamp is receiving voltage from a source other than the controller.	the micro-terminal will always display "Yellow Failed" as well). Check for any crossed or stray wires. Check junction boxes and consoles for moisture. Requires manual reset when corrected. (Note: on any "Lamp On" failure, the micro-terminal will always display "Yellow Failed" as well).
Green On, Red/Yellow on, Yellow failed	The Yellow Lamp is receiving voltage from a source other than the controller.	Check for any crossed or stray wires. Check junction boxes and consoles for moisture. Requires manual reset when corrected. (Note: on any "Lamp On" failure, the micro-terminal will always display "Yellow Failed" as well).
Power Break	The input voltage to the controller is either too high or too low.	If voltage is lower than 10.9, the system is in a Low Voltage power break. Charge your batteries. If voltage is 14.5 or above, turn off your solar charger and contact Horizon technical support @ (800) 852-8796.

SQ3 Set-Up YouTube Link: (How to Deploy a Portable Traffic Signal)

<https://www.youtube.com/watch?v=S-wVuQ0fxwY&t=21s>

Continued Notes:

"New System" - When you plug in the Microterminal (handheld) and then turn the controller on, it will always ask [New System?]

Assuming that you are not changing the quantity of signals (or controllers) in the group, you will always say "NO" to a new system. This option is only to change the quantity of controllers in your group. The MASTER unit will always be 1/2 and the SLAVE unit will always be 2/2. You will always see 2 Icons, representing the 2 signals on the Microterminals main screen when this is correct. The icon that is underlined represents the signal you are plugged into.

When adding another signal to the group: You must change the controller identities for all signals in the group to recognize the others. The master will now be 1/3 and the 2 slave units will be 2/3 and 3/3.

The Radio stations must coordinate as well. Signal 1 will always be the Master. The remainder of the signals in the group (2-8) will always be slaves. *There can only be 1 Master*

Changing Radio Stations: All signals within a group must be on the same radio station or frequency

When adding a signal to the group, you may need to change its radio station to coordinate with the other 2. From the main screen: Hold down the red "R" button until "HORIZON SIGNAL" comes on the screen. Quickly let go and tap the "+" button once. It will direct you to the radio page. Choose the "Master" or "Slave" by hitting + or -. Once your desired station is chosen (1-14) you need to find the "reset/config" button on the black radio on the upper right hand side of the cabinet. Push this and the red "M2" light will come on. Now, repeatedly hit the green "E" button on your handheld until the red "M2" light goes out. You are now synced with the desired radio assignment.