



HY-LITE WATER QUALITY INDICATOR SYSTEM INSTRUCTIONS

The Hy-Lite Water Quality Indicator System incorporates Auto Temperature Compensation and Surface Mount Technology circuitry for accuracy unequaled by other pure water "quality lights." Proper TC design is especially important in high purity applications because the effect of temperature on resistivity/conductivity values varies significantly with purity level. For increased accuracy, the Hy-Lite ATC has been range-tuned to the appropriate TC factor for the particular setpoint resistivity.

- Flashing Red LED and Integral Audible Alarm (non-alarm optional) insures fast response to changing water quality.
- Hy-Lites can perform as a controller or remote indicator by connecting Relay and Remote Alarm Modules to the output port.
- An insertion style resistivity cell allows for easy installation and rotational positioning. Stainless steel electrodes require no special care.
- Unique unit-to-unit power sourcing allows up to six Hy-Lites to be plugged into each other, reducing congestion at the wall outlet. Operational power is a safe 12 VDC supplied by a plug-in style transformer.
- The Hy-Lite is virtually maintenance free in many applications, and will provide years of trouble free service.

OPERATIONAL MODES

The Hy-Lite green and red LEDs continuously display the status of water purity relative to the setpoint resistivity indicated on the top label. Whenever the water is of higher purity than the setpoint, the green light remains on. Should the water purity fall below the setpoint, the red light begins flashing and the audible alarm (HLA models only) will sound. The alarm is automatically silenced and circuit reset by the return to a green light status. The alarm can be manually silenced during the red light condition by pressing the red "check" symbol on the front label. Once silenced manually, the alarm will not resound until the next green-to-red shift of the LEDs.

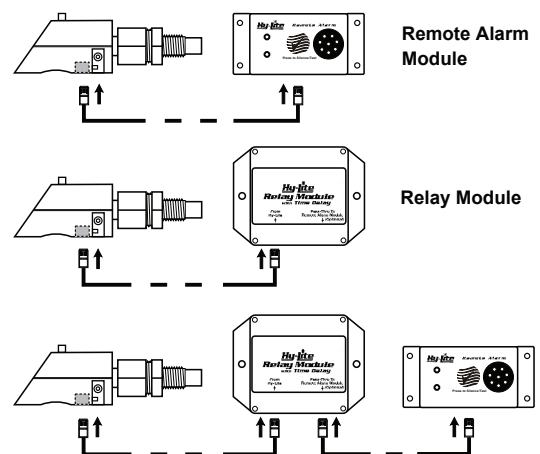
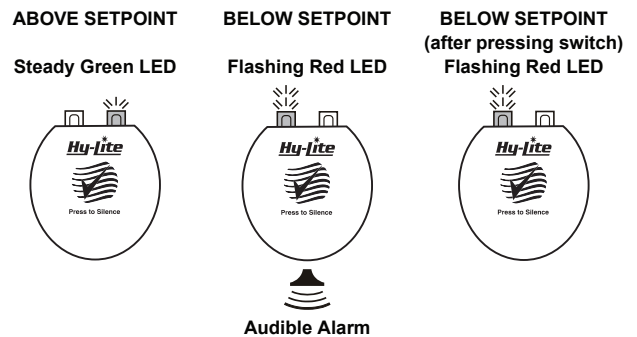
OUTPUT PORT FOR RELAY & REMOTE ALARM MODULES

For applications requiring remote indication or basic control function, both the HLA and HLS model Hy-Lites have an output port for connection to the Hy-Lite Remote Alarm or Relay Modules.

The Hy-Lite Remote Alarm Module is a "repeater" of the HLA Hy-Lite. A peizo alarm is contained in the wall mountable enclosure. As with the Hy-Lite, the module's front label contains an electronic membrane overlay switch for manual silencing of the alarm. This label also contains integral green and red LEDs. Operational status of the alarm module is identical to the connected Hy-Lite. Both units act as a system, since silencing the alarm at either location will silence both alarms.

The Hy-Lite Relay Module allows the Hy-Lite to perform as a controller with the versatility to be connected to valves, custom alarm systems, PLCs, autodialers, etc. A 1 amp SPDT undedicated relay has NO and NC contacts enabling control above or below the Hy-Lite setpoint. The circuit also incorporates an adjustable time delay feature often desired to compensate for expected equipment "rinse-up" times. A special signal pass-thru feature permits the Relay Module to be used in conjunction with a Hy-Lite Alarm Module. The pass-thru can be adjusted to incorporate the relay's time delay, or direct undelayed signal to the Remote Alarm Module.

The Hy-Lite output port and modules utilize a telephone handset style connector for easy installation. Patchcords are available in 10, 50, 100, and 200 foot lengths. The modules can be installed at distances up to 700 feet. Custom lengths can be ordered, or easily fabricated in the field with the aid of an appropriate crimping tool (consult factory).



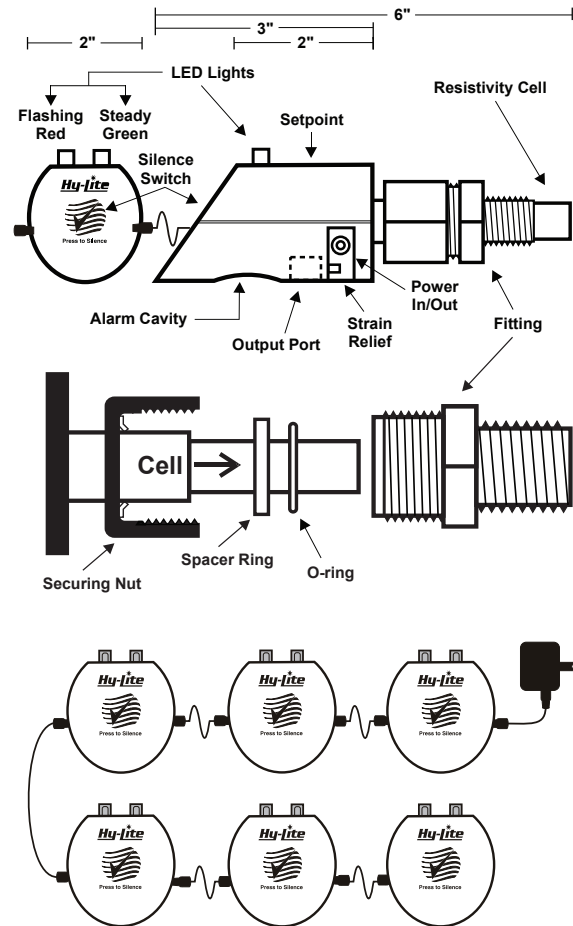


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INSTALLATION

The Hy-Lite resistivity cell is designed for insertion in either the "branch" or "run" of standard tees with 1/2 or 3/4 inch NPT threads. The provided compression fittings allow for easy installation and rotational positioning of the instrument. As with most cells, horizontal orientation is recommended to avoid any possibility of bubble accumulation near the cell in the tee.

1. Select the 1/2 or 3/4 inch MNPT fitting body appropriate for the tee. If the fitting body is already assembled on the Hy-Lite, remove by unscrewing the securing nut and sliding the fitting body off the resistivity cell.
2. Apply a wrap of Teflon tape to the pipe threads of the fitting body.
3. Thread the fitting body into the tee hand-tight. Then tighten an additional 1/2 to 1 turn with a 1-1/8 inch (29 mm) wrench.
4. Before installing the Hy-Lite into the fitting, confirm the o-ring and spacer ring are on the cell in the order shown. NEVER attempt to remove the securing nut.
5. Insert the cell into the fitting body until contact is made with the securing nut. Partially thread the securing nut on the fitting. Rotate and hold the Hy-Lite to the desired position before fully securing the nut—HAND-TIGHTEN ONLY.
6. Plug in the power cable from a Hydro-Check 12VDC transformer OR Hy-Lite patchcord into either of the Hy-Lite's female power jacks. Then loop some of the cable into the adjacent strain relief and gently pull to remove slack.
7. Plug the transformer into an AC outlet OR plug the patchcord into the female power jack of another Hy-Lite.



CARE AND MAINTENANCE

Years of accurate and reliable operation can be expected from your Hy-Lite Water Quality Indicator System. The Hy-Lite requires little or no maintenance when in service with water purities consistent with available setpoints.

Cell Care

The stainless steel electrodes never require any special conditioning or replating. Occasional inspection and cleaning, if necessary, is recommended when a water system is prone to accumulation of "biofilms" or other debris. For many applications, cleaning is never necessary. In critical applications, cleaning annually, or a routine system sanitation is entirely adequate.

If the cell should require cleaning, immerse the cell portion only in a solution of glassware cleaner, bleach, hydrogen peroxide, or HCl (4%) for several minutes. A tissue, brush, or pipe cleaner can be used to aid in the removal of any noticeable coating on the electrodes. Once cleaned, rinse thoroughly with pure water.

General Care

The Hy-Lite electronics enclosure is sealed and designed to withstand splashing. However, never immerse the enclosure in water.

Do not expose the Hy-Lite to solvents or other chemicals potentially damaging to the enclosure, wetted materials, power jacks, or labels.

No more than six units should be powered by a single transformer.

The transformer is not rated for outdoor use.

Do not exceed the pressure and temperature specifications.

Keep all objects and surfaces at least 2 inches from the alarm cavity.

Occasionally inspect power jacks for evidence of corrosion.

Do not attempt to open or repair your Hy-Lite.

Please contact the manufacturer if you have any questions.