

## DETECTION AND ACTIVATION

### Urinals (EL-1500 Sensor)

When the sensor detects a user, a slow flashing red light appears in the sensor window. After sixteen (16) seconds, the light flashes rapidly to indicate that the sensor is armed. When the sensor no longer detects a user, the sensor immediately activates the solenoid valve after a 0.5 second delay.

### Water Closets (EL-1500-L Sensor)

Detection and activation are the same as for the urinal EL-1500 sensor (ABOVE) except after sixteen (16) seconds, the light flashes rapidly to indicate that the sensor is armed. When the sensor no longer detects a user after, the sensor activates the solenoid valve after a three (3) second delay.

### Lavatories (EL-1500-LL and EL-1500-LL-T Sensors)

When the sensor detects a user, a slow flashing red light appears in the sensor window. After one (1) second, the light flashes rapidly and the sensor immediately activates the solenoid valve to begin water flow.

The solenoid valve remains open as long as the user is detected. The solenoid valve turns off after the user is no longer detected for two (2) seconds. The EL-1500-LL-T sensor is set to activate the solenoid for a maximum of thirty (30) seconds before automatically shutting off.

**NOTE:** The information contained in this document is subject to change without notice.

## DETECTION AND ACTIVATION

### Urinals (EL-1500 Sensor)

When the sensor detects a user, a slow flashing red light appears in the sensor window. After eight (8) seconds, the light flashes rapidly to indicate that the sensor is armed. When the sensor no longer detects a user, the sensor immediately activates the solenoid valve after a 0.5 second delay.

### Water Closets (EL-1500-L Sensor)

Detection and activation are the same as for the urinal EL-1500 sensor (ABOVE) except after sixteen (16) seconds, the light flashes rapidly to indicate that the sensor is armed. When the sensor no longer detects an user after, the sensor activates the solenoid valve after a three (3) second delay.

### Lavatories (EL-1500-LL and EL-1500-LL-T Sensors)

When the sensor detects a user, a slow flashing red light appears in the sensor window. After one (1) second, the light flashes rapidly and the sensor immediately activates the solenoid valve to begin water flow.

The solenoid valve remains open as long as the user is detected. The solenoid valve turns off after the user is no longer detected for two (2) seconds. The EL-1500-LL-T sensor is set to activate the solenoid for a maximum of thirty (30) seconds before automatically shutting off.

**NOTE:** The information contained in this document is subject to change without notice.

## SLOAN EL-1500 SERIES SELF-ADAPTIVE OPTIMA SENSOR

The EL-1500 Series Optima Sensor represents the most advanced technology used in any sensor activated plumbing product available today.

### ABOUT SLOAN EL-1500 SERIES OPTIMA SENSORS

The EL-1500 Series Optima Sensor is the first sensor used with a plumbing product that “thinks.” An EL-1500 sensor adapts itself to its environment. The sensor self adjusts its own range setting based on what it “sees” in front of it, and therefore needs no manual range adjustment. It automatically compensates for the depth and reflectivity of the opposite wall or stall door and for the ambient lighting conditions of the restroom.

**When further assistance is required, please contact your local Sloan Representative or Sloan Technical Support at:  
+1.888.SLOAN.14 (+1.888.756.2614)  
or visit us online at [www.sloan.com](http://www.sloan.com)**

**SLOAN HEADQUARTERS  
15000 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131  
PH: +1.800.9-VALVE.9 • FAX: +1.800.447.8329  
[www.sloan.com](http://www.sloan.com)**

© 2017 SLOAN

0816196 – Rev. 4 (02/17)

## SLOAN EL-1500 SERIES SELF-ADAPTIVE OPTIMA SENSOR

The EL-1500 Series Optima Sensor represents the most advanced technology used in any sensor activated plumbing product available today.

### ABOUT SLOAN EL-1500 SERIES OPTIMA SENSORS

The EL-1500 Series Optima Sensor is the first sensor used with a plumbing product that “thinks.” An EL-1500 sensor adapts itself to its environment. The sensor self adjusts its own range setting based on what it “sees” in front of it, and therefore needs no manual range adjustment. It automatically compensates for the depth and reflectivity of the opposite wall or stall door and for the ambient lighting conditions of the restroom.

**When further assistance is required, please contact your local Sloan Representative or Sloan Technical Support at:  
+1.888.SLOAN.14 (+1.888.756.2614)  
or visit us online at [www.sloan.com](http://www.sloan.com)**

**SLOAN HEADQUARTERS  
15000 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131  
PH: +1.800.9-VALVE.9 • FAX: +1.800.447.8329  
[www.sloan.com](http://www.sloan.com)**

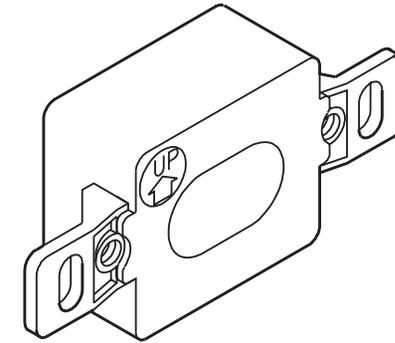
© 2017 SLOAN

0816196 – Rev. 4 (02/17)

# SLOAN®

Water Connects Us™

## OPTIMA® SENSOR REPLACEMENT KIT INSTALLATION INSTRUCTIONS



**EL-1500  
Urinal Sensor**

**EL-1500-L  
Water Closet  
Sensor**

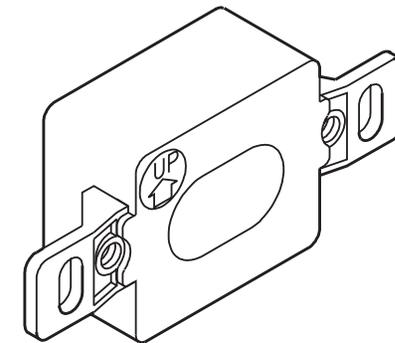
**EL-1500-LL  
Lavatory Sensor**

**EL-1500-LL-T  
Lavatory Sensor  
with 30 Second Time Out**

# SLOAN®

Water Connects Us™

## OPTIMA® SENSOR REPLACEMENT KIT INSTALLATION INSTRUCTIONS



**EL-1500  
Urinal Sensor**

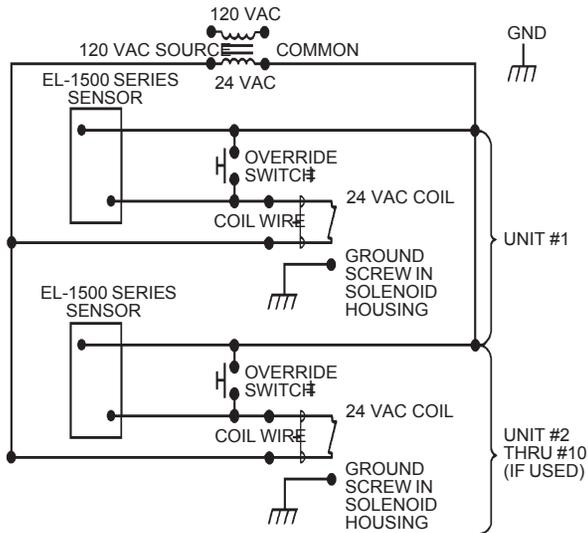
**EL-1500-L  
Water Closet  
Sensor**

**EL-1500-LL  
Lavatory Sensor**

**EL-1500-LL-T  
Lavatory Sensor  
with 30 Second Time Out**

Code No. 0816196  
Rev. 4 (02/17)

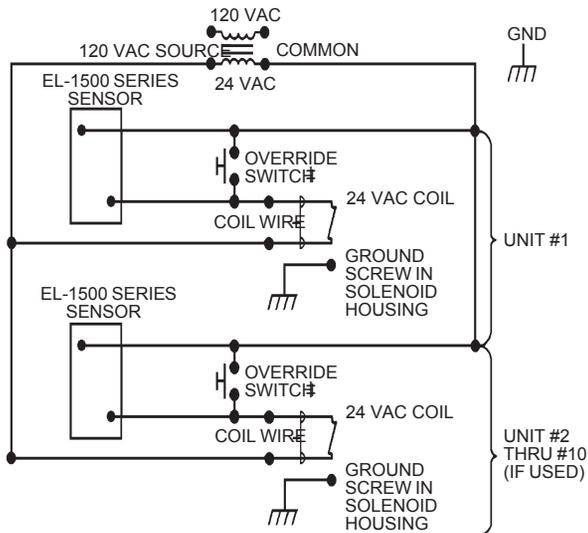
**NOTE: A MAXIMUM OF TEN (10) SENSOR FLUSHMETERS OR THREE (3) LAVATORY FAUCET UNITS CAN ACTIVATE FROM ONE (1) SLOAN EL-154 TRANSFORMER.**



**FIG. 1  
WIRING DIAGRAM**

‡ OVERRIDE SWITCH USED WITH WATER CLOSETS ONLY.

**NOTE: A MAXIMUM OF TEN (10) SENSOR FLUSHMETERS OR THREE (3) LAVATORY FAUCET UNITS CAN ACTIVATE FROM ONE (1) SLOAN EL-154 TRANSFORMER.**



**FIG. 1  
WIRING DIAGRAM**

‡ OVERRIDE SWITCH USED WITH WATER CLOSETS ONLY.

## INSTALLATION AND REPLACEMENT

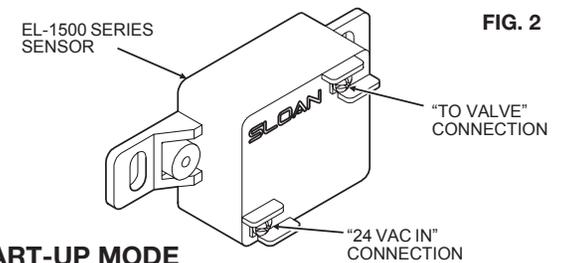
1. Disconnect 24 VAC power supply at the transformer or fuse box.
2. Remove the cover plate and old sensor from the wall installation. Use a hex wrench to remove the cover plate.
3. Connect one 24 VAC lead to the sensor terminal labeled "24 VAC IN." (See Fig. 2)
4. Connect one solenoid lead to the sensor terminal labeled "TO VALVE." (See Fig. 1)
5. Connect the remaining 24 VAC lead to the remaining solenoid lead.
6. On water closet installations ONLY, connect the override button (shown as Override Switch in Fig. 1 Wiring Diagram) parallel to the EL-1500-L sensor.
7. The illustration of the sensor on the front cover of these installation instructions shows an orientation arrow on the lens side of the sensor. Reinstall the sensor with the arrow pointing UP. Replace the cover plate and tighten the cover plate to the wall.
8. Reconnect the 24 VAC power supply at the transformer or the fuse box.

**When further assistance is required, please contact your local Sloan Representative or Sloan Technical Support at:  
+1.888.SLOAN.14 (+1.888.756.2614)  
or visit us online at [www.sloan.com](http://www.sloan.com)**

## INSTALLATION AND REPLACEMENT

1. Disconnect 24 VAC power supply at the transformer or fuse box.
2. Remove the cover plate and old sensor from the wall installation. Use a hex wrench to remove the cover plate.
3. Connect one 24 VAC lead to the sensor terminal labeled "24 VAC IN." (See Fig. 2)
4. Connect one solenoid lead to the sensor terminal labeled "TO VALVE." (See Fig. 1)
5. Connect the remaining 24 VAC lead to the remaining solenoid lead.
6. On water closet installations ONLY, connect the override button (shown as Override Switch in Fig. 1 Wiring Diagram) parallel to the EL-1500-L sensor.
7. The illustration of the sensor on the front cover of these installation instructions shows an orientation arrow on the lens side of the sensor. Reinstall the sensor with the arrow pointing UP. Replace the cover plate and tighten the cover plate to the wall.
8. Reconnect the 24 VAC power supply at the transformer or the fuse box.

**When further assistance is required, please contact your local Sloan Representative or Sloan Technical Support at:  
+1.888.SLOAN.14 (+1.888.756.2614)  
or visit us online at [www.sloan.com](http://www.sloan.com)**



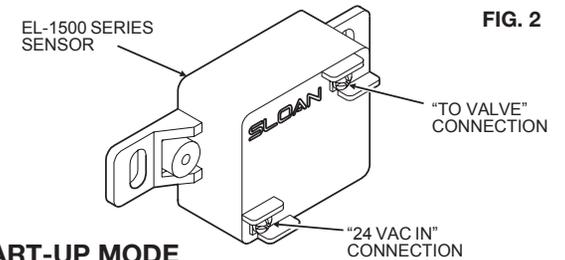
**FIG. 2**

## START-UP MODE

The self-adaptive sensor automatically adapts to the surrounding environment when 24 volt supply is activated. No manual adjustments are required. Start-up mode will take approximately one (1) minute to complete its cycle and is important that no non-permanent target is present at this time. A continuous red light visible in sensor window indicates sensor is in the start-up mode. If the red light is flashing, this indicates that the sensor is picking up a target. Unless this target is a permanent fixture in the sensor's environment (i.e., wall or stall door), it must be removed from the view of the sensor. Then, either disconnect the 24 volt supply for twenty (20) seconds or more, or push the manual override button for more than twenty (20) seconds in closet set-up. Reconnect the 24 VAC power supply at the transformer or the fuse box. When the start-up cycle is complete, there will be no light visible in the sensor window.

**NOTE: If the 24 volt power supply is ever interrupted for longer than twenty (20) seconds, the start-up mode automatically begins when power is restored.**

Incorrect wiring or a short in the 24 volt power supply is indicated by a continuous warning signal seen in the sensor window. The visible red light flashes an "SOS" signal: three (3) slow, three (3) fast, three (3) slow flashes.



**FIG. 2**

## START-UP MODE

The self-adaptive sensor automatically adapts to the surrounding environment when 24 volt supply is activated. No manual adjustments are required. Start-up mode will take approximately one (1) minute to complete its cycle and is important that no non-permanent target is present at this time. A continuous red light visible in sensor window indicates sensor is in the start-up mode. If the red light is flashing, this indicates that the sensor is picking up a target. Unless this target is a permanent fixture in the sensor's environment (i.e., wall or stall door), it must be removed from the view of the sensor. Then, either disconnect the 24 volt supply for twenty (20) seconds or more, or push the manual override button for more than twenty (20) seconds in closet set-up. Reconnect the 24 VAC power supply at the transformer or the fuse box. When the start-up cycle is complete, there will be no light visible in the sensor window.

**NOTE: If the 24 volt power supply is ever interrupted for longer than twenty (20) seconds, the start-up mode automatically begins when power is restored.**

Incorrect wiring or a short in the 24 volt power supply is indicated by a continuous warning signal seen in the sensor window. The visible red light flashes an "SOS" signal: three (3) slow, three (3) fast, three (3) slow flashes.