

**CODE NUMBER**

3450147

**DESCRIPTION**

3.5 gpf, Polished Chrome Finish, Fixture Connection Top Spud, Single Flush, 1" Control Stop, Electrical Override, Hardwired, Sensor-Operated, 24V, Royal® Exposed Sensor Hardwired Water Closet Flushometer.

**DETAILS**

- Flush Volume: 3.5 gpf (13.2 Lpf)
- Finish: Polished Chrome (CP)
- Power Type: Hardwired (HW)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Water Closet
- Fixture Connection: Top Spud
- Rough-In Dimension: 11 ½" (292mm)
- Spud Coupling: 1 ½" (38mm)
- Supply Pipe: 1" (25mm)
- Override: Electrical
- Control Stop: 1"
- Voltage: 24V

**FEATURES**

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Handle Packing, Main Seat, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine resistance
- User friendly three (3) second Flush Delay
- Sweat Solder Adapter w/Cover Tube and Cast Wall Flange w/Set Screw
- OPTIMA® EL-1500 Self-Adaptive Infrared Sensor with Indicator Light
- Die Cast Sensor Plate with no visible Fasteners (for 2-gang Electrical Box)
- High Back Pressure Vacuum Breaker Flush Connection with One-Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1½" Top Spud
- Non-Hold-Open Integral Solenoid Operator, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Courtesy Flush® Override Button
- 1" I.P.S. Screwdriver Bak-Chek® Angle Stop with Free Spinning Vandal Resistant Stop Cap

**VIDEOS**

- [ESS Flushometer](#)



**COMPLIANCES & CERTIFICATIONS**



(ADA Compliant, BAA Compliant, BABAA Compliant, UL Certified, UPC Certified)

**RECOMMENDED SPECIFICATION**

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi- Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037 and ANSI/ASME 112.19.2.

**ELECTRICAL SPECIFICATIONS**

- Arming Delay: 16 seconds
- Control Circuit: Solid State/24 VAC Input/24 VAC Output
- Flush Delay: 3s
- Self-Adaptive Window: ±10
- Sensor Range: 22"-42" (559-1,067mm)
- Solenoid Operator: 24 VAC
- Transformers (specify separately):
  - 0345154
  - 0345999

**VALVE OPERATING PRESSURE (FLOWING)**

15-80 PSI (103-552 kPa). Specific fixtures may require greater minimum flowing pressure - consult manufacturer requirements.

**DOWNLOADS**

- [Royal ESS 110/111 Electrical Box Installation Instructions](#)
- [Royal ESS Concealed and Exposed Installation Instructions](#)
- [Control Stop Repair and Maintenance Guide](#)
- [Flush Connections Flanges Repair and Maintenance Guide](#)
- [Tail Piece Repair and Maintenance Guide](#)
- [Optima ESS Repair and Maintenance Guide](#)
- [Additional Downloads](#)

**NOTES**

All information contained within this document subject to change without notice.

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Looking for other variations of the ROYAL 110 ESS product?  
[View the general spec sheet with all options.](#)

**WARRANTY**

[View Warranty Information](#)

**ROUGH-IN**

