

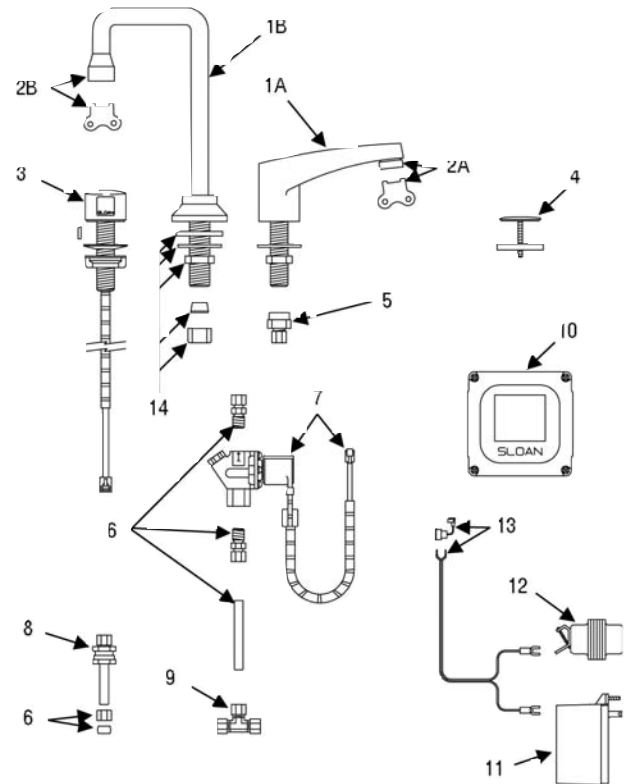
OPTIMA ETF-660 and ETF-770 Faucets

Parts List—ETF-660 and ETF-770 Faucets

Item Number	Code Number	Part Number	Description
1A	0305500	ETF-195-A	Lavatory Faucet Assembly (ETF-660)
1B	0305536	ETF-261-A	Deck-Mounted Gooseneck Faucet Assembly (ETF-770)
2A	3365092	ETF-1023-A	0.5 gpm (1.9 Lpm) Spray Head with Key (male thread)
	3365093	ETF-1024-A	2.2 gpm (8.3 Lpm) Aerator Spray Head with Key (male thread)
	0305607	F-175-L	2.2 gpm (8.3 Lpm) Laminar Flow Spray Head (male thread)
	0306930	F-179	2.0 gpm (7.6 Lpm) Spray Head with Key (male thread)
	0305927	ETF-435	Replacement Key Only for ETF-1023-A Spray Head and ETF-1024-A Aerator Spray Head (NOT required for F-175-L Laminar Flow Spray Head)
2B	3365091	ETF-1021-A	0.5 gpm (1.9 Lpm) Spray Head with Key (female thread)
	discontinued	ETF-235	Spray Head, 2.0 gpm (7.6 Lpm), with Key
	3365090	ETF-1022-A	2.2 gpm (8.3 Lpm) Aerator Spray Head with Key (female thread)
	0305612	ETF-237	2.2 gpm (8.3 Lpm) Laminar Flow Spray Head (female thread)
	0305927	ETF-435	Replacement Key Only for ETF-1021-A Spray Head and ETF-1022-A Aerator Spray Head (NOT required for ETF-237 Laminar Flow Spray Head)
3	0305946	EL-3500-A	Microphone-style "On-Q" Sensor Assembly includes "O" ring, 18" armored Cable, Microphone Sensor Cap, Locking Pin, Microphone Sensor Body, and Emitter/Detector Shroud
—	0305527	EL-350-A	Old-style Microphone Sensor Assembly includes Washer, Beveled Washer, Basin Locknut, Microphone Sensor Subassembly, and flat blade Screwdriver
4	0365524	ETF-199	Cock Hole Cover
5	0365150	ETF-271	3/8" Tube Fitting Connector (female)
6	3365676	ETF-437-A	Single Solenoid Supply Kit includes Supply Tube, two (2) ETF-61 Compression Fittings, Compression Nut, and Ferrule
7	0305849	ETF-370-A	24 VAC Solenoid Valve Assembly includes 18" (153 mm) armored Cable and two (2) Terminal Housings
8	3365001	ETF-470-A	Back Check
9	0305728	ETF-259	3/8" Tee Compression Fitting
10	3306500	ETF-450-A	Control Module Assembly includes splashproof Junction Box and Junction Box Mounting Kit
—	0305533	ETF-214-A	Old-style Control Module Assembly includes Revision 3 Control Board, two (2) Anchor Screws, two (2) small and two (2) large Phillips Screws, Junction Box Bottom, Junction Box Top, Junction Box Hole Plug, and Power Cord Hole Plug
11	0365534	ETF-233	120V/35VA Plug-In Transformer
12	0345370	EL-248-40	24V/40VA Box Mount Transformer
13	0365001	ETF-458-A	Input Power Cable (Transformer to Control Module) includes Strain Relief and two (2) Terminal Crimp Connectors
14	0305768	EL-310-A	Spout Mounting Kit (ETF-770 Only) Includes Rubber Washer, Steel Washer, Lock Nut, Rubber Cone Washer, and Coupling Nut
15	3365602	ETF-432-A	Optional 8" (203 mm) Centerset Trim Plate Kit includes Seal, Washer Fender, Gasket, Finger Nut, Trim Plate Spacer, and Dual Hole Trim Plate Assembly
16	3365468	ETF-313-A	Optional 4" (102 mm) Centerset Trim Plate Kit includes Trim Plate Spacer and Dual Hole Trim Plate Assembly
—	3305577	ETF-1009-A	Solenoid Valve Repair Kit includes Replacement Filter

Old-Style Faucets

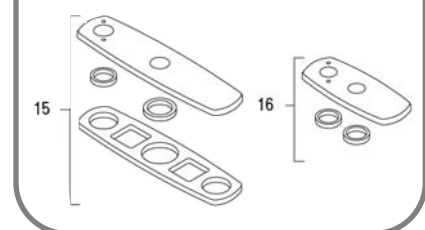
ETF-66 and ETF-77 faucets manufactured before 1996 used an EL-350-A Microphone-Style Sensor with telephone jack connector (0305527) and an ETF-214-A Control Module (0305533).



FAUCET CABLE EXTENSION CORDS

—	0365042	ETF-1005-26	Faucet to Control Module Extension Cord; 26 inch (0.7 meter) Length
—	0365861	ETF-1005-36	Faucet to Control Module Extension Cord; 36 inch (0.9 meter) Length
—	0305862	ETF-1005-72	Faucet to Control Module Extension Cord; 72 inch (1.8 meter) Length
—	0305863	ETF-1005-108	Faucet to Control Module Extension Cord; 108 inch (2.7 meter) Length
—	0365838	ETF-1003-36	Solenoid to Control Module Extension Cord; 36 inch (0.9 meter) Length
—	0365053	ETF-1003-48	Solenoid to Control Module Extension Cord; 48 inch (1.2 meter) Length
—	0365839	ETF-1003-72	Solenoid to Control Module Extension Cord; 72 inch (1.8 meter) Length
—	0365840	ETF-1003-108	Solenoid to Control Module Extension Cord; 108 inch (2.7 meter) Length

Optional Trim Plates



Troubleshooting Guide for ETF-80, ETF-500, ETF-600, ETF-610, ETF-660, ETF-700, and ETF-770 Faucets

NOTE: Revision 2 ETF-450-A Control Modules (manufactured after April 1999) have built-in reset fuses to protect the circuitry if a sensor or solenoid fails or shorts. In earlier models, a sensor or solenoid short or failure could also result in an ETF-450-A Control Module failure.

NOTE: REMOVE COVER FROM ETF-450-A CONTROL MODULE TO CHECK DIAGNOSTIC LIGHTS.

1. **PROBLEM:** No water is delivered when faucet is activated.
 - INDICATOR:** *If no LED lights illuminate:*
 - CAUSE:** No electricity is being supplied to faucet.
 - SOLUTION:** Ensure that the main power is turned "ON". Check all transformer, sensor, solenoid and cable connections. Make sure that transformer is supplying 24 VAC (Volts AC). If no voltage is detected, replace transformer.
 - CAUSE:** There is an electrical system malfunction.
 - SOLUTION:** Reset electrical system. Unplug Sensor connection. Disconnect power to circuit for ten (10) seconds. Reconnect.
 - INDICATOR:** *If the GREEN LED illuminates when power is reconnected:*
 - CAUSE:** There is a short in the Sensor.
 - SOLUTION:** Replace Sensor. Refer to individual faucet parts diagram for appropriate Sensor Assembly.
 - Note:** GREEN LED may illuminate immediately after Sensor disconnection.
 - CAUSE:** There is a short in the Solenoid or Solenoid cable.
 - SOLUTION:** Replace ETF-370-A Solenoid.
 - INDICATOR:** *If the GREEN LED does NOT illuminate when power is reconnected:*
 - CAUSE:** There is an electrical system malfunction.
 - SOLUTION:** Reset electrical system. Unplug Sensor connection. Disconnect power to circuit for ten (10) seconds. Reconnect.
 - CAUSE:** The Control Module circuit is "dead".
 - SOLUTION:** Replace ETF-450-A Control Module.
 - INDICATOR:** *If GREEN LED illuminates AND changes to RED when hands are in the Sensor's detection zone AND the RED Solenoid LED illuminates:*
 - CAUSE:** Water supply stop(s) may be partially closed.
 - SOLUTION:** Open stop(s) if closed.
 - CAUSE:** Debris is clogging Solenoid Filter.
 - SOLUTION:** Shut off water supply. Remove, clean and reinstall Solenoid Filter.
 - INDICATOR:** *If GREEN LED illuminates AND changes to RED when hands are placed in the Sensor's detection zone AND the RED Solenoid LED flickers with a vibrating/clicking noise heard inside the module:*
 - Note:** Applies only to REVISION 2 MODULES.
 - CAUSE:** There is a direct short in the Solenoid or Solenoid cable.
 - SOLUTION:** Replace with ETF-370-A solenoid
 - INDICATOR:** *If green/red LED illuminates AND changes to RED when hands are NOT located in the Sensor's detection zone BUT the red Solenoid LED (in upper left corner of circuit) does NOT illuminate:*
 - CAUSE:** Sensor range is set too long and is detecting the sink.
 - SOLUTION:** Reduce Sensor detection range.
 - CAUSE:** Sensor is faulty.
 - SOLUTION:** Replace Sensor. Refer to individual faucet parts diagram for appropriate Sensor Assembly.
 - INDICATOR:** *If green LED illuminates BUT does NOT change to red when hands are placed in the Sensor's detection zone:*
 - CAUSE:** Sensor range is set too short.
2. **PROBLEM:** Sensing Range is too short.
 - CAUSE:** Extended Range Sensitivity is required.
 - SOLUTION:** Dip Switch number 4 should be in the "DOWN" (Extended Range Sensitivity) position. Increase range by adjusting range potentiometer clockwise (yellow phillips screw in blue base).
 - CAUSE:** Faucet has Surgical Bend Gooseneck Spout.
 - SOLUTION:** For Long Range use (recommended for Surgical Bend Gooseneck Spout faucet models), remove Range Jumper from upper right hand corner of circuit board. Adjust range potentiometer.
 - Note:** *Applies only to REVISION 2 MODULES.*
3. **PROBLEM:** Faucet activates by itself (false triggers).
 - CAUSE:** Sensor range is set too long.
 - SOLUTION:** Decrease range by adjusting range potentiometer counterclockwise. If necessary, flip Dip Switch number 4 into the "UP" (Reduced Range Sensitivity) position. Check surroundings for factors that contribute to Sensor range detection problems (bright lights, highly reflective surfaces, sunlight, etc.).
4. **PROBLEM:** Faucet delivers very low flow or just a dribble.
 - CAUSE:** Water Supply Stop(s) may be partially closed.
 - SOLUTION:** Open stop(s).
 - CAUSE:** Debris is clogging Solenoid Filter.
 - SOLUTION:** Shut off water. Remove, clean, and reinstall Solenoid Filter.
 - CAUSE:** Solenoid is worn or faulty.
 - SOLUTION:** Rebuild with ETF-1009-A Solenoid Repair Kit or replace ETF-370-A Solenoid.
 - CAUSE:** Debris is clogging faucet Aerator or Spray Head.
 - SOLUTION:** Shut off water. Use Key if required to remove. Then clean and reinstall Aerator or Spray Head.
5. **PROBLEM:** Faucet does not stop delivering water or continues to drip after user is no longer detected (even after power to the Module has been disconnected).
 - CAUSE:** Solenoid Valve is installed backward.
 - SOLUTION:** Disconnect Solenoid. Reconnect Solenoid with water flow towards the faucet (see arrow on Solenoid).
 - CAUSE:** Debris is clogging Solenoid.
 - SOLUTION:** Remove and clean Solenoid operator. If necessary, rebuild with ETF-1009-A Repair Kit.
 - CAUSE:** Seat in Solenoid valve body is damaged or pitted.
 - SOLUTION:** Replace with ETF-370-A solenoid.

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

LIMITED WARRANTY

Sloan Valve Company warrants its Faucet Products to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced, for a period of three years (one year for special finishes) from date of purchase. During this period, Sloan Valve Company will, at its option, repair or replace any part or parts which prove to be thus defective if returned to Sloan Valve Company, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs. This warranty extends only to persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.