

ltem Number	Code Number	Part Number	Description
1	3315016	EBF-10-A	Faucet and Sensor Assembly (EBF-85)
	0315115	EBF-179-A	Fiber Optic Sensor Cable Assembly Only (replaces EBF-12-A)
	ТВА	EBF-1009-A	Fiber Optic Sensor Cable Assembly Only (replaces EBF-12-A, includes lens holder)
2	3365091	ETF-1021-A	0.5 gpm (1.9 Lpm) Spray Head with Key (female thread)
	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 0.5 gpm (1.9 Lpm) Spray Head and ETF-1022-A 2.2 gpm (8.3 Lpm) Aerator Spray Head (NOT required for ETF-237 2.2 gpm/8.3 Lpm Laminar Flow Spray Head)
ЗA	3365466	ETF-295-A	4" (102 mm) Centerset Trim Plate Kit for Faucet (Faucet Only) includes two (2) Nuts, two (2) Hex Screws, two (2) Flat Washers, Single Hole Cover Plate, and CP Base Plate
3B	3365467	ETF-299-A	4" (102 mm) Centerset Trim Plate Kit for Faucet with Optional Mixing Valve includes two (2) Nuts, two (2) Hex Screws, two (2) Flat Washers, Dual Hole Cover Plate, and CP Base Plate
4	0305626	ETF-290-A	Faucet Mounting Kit includes Rubber Gasket, Mounting Washer, Mounting Nut, and ETF-297 Compression Fitting Connector
5	0305736	ETF-297	1/4" to 3/8" Compression Fitting Connector
6	0305891	MIX-19	20" (508 mm) Flex Hose
7	3315011	EBF-11-A	Solenoid Valve Module Assembly includes Solenoid Enclosure, Solenoid Body, and Filter Cap
8A	0305510	ETF-208	3/8" (10 mm) Ferrule
8B	0305511	ETF-209	3/8" (10 mm) Compression Nut
9	3315014	EBF-25-A	Mounting Bracket Kit includes Base Plate, Wall Bracket Base, Wall Bracket, Mounting Screw, Self-tapping Screw, two (2) Wood Screws plus Washers and Plastic Anchors, two (2) Screws plus Washers and Toggle Nuts, two (2) Screws plus Washers and Hollow Wall Anchors
10	0305728	ETF-259	3/8" Tee Compression Fitting
11	3365001	ETF-470-A	Back Check
12	0315004	EBF-17	3/8" to 1/4" Compression Fitting Connector
_	3315009	EBF-1001-A	Solenoid Filter Replacement Kit for old solenoid includes Filter Screen Assembly and O-ring
—	3315028	EBF-1004-A	Solenoid Filter Replacement Kit for <i>current</i> solenoid includes Filter Screen Assembly and O-ring
—	3315051	EBF-1005-A	Filter Cap Assembly for old solenoid includes metal Filter Cover and O-ring





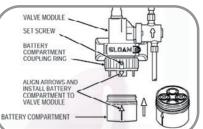
### G u i d e • BATTERY OPERATED FAUCETS

### **Troubleshooting Guide for EBF-85 Faucets**

**NOTE:** BEEP sounds are emitted from the Solenoid Valve Module (not from the Spout of the Faucet). For the first ten (10) minutes of operation (or after battery replacement), the unit BEEPs every time the faucet is activated to indicate that range limits are set. To conserve battery power, the unit will not BEEP again until it indicates low battery power.

**Calibration Procedure:** When the battery compartment is assembled to the valve module with active batteries, the faucet initiates a self-calibration mode and uses BEEPs to indicate the status of this mode. To prevent improper calibration, ensure that the Spout is centered properly and that no targets are in the detection range of the sensor when the batteries are connected. An initial series of BEEPs indicates that power is being supplied from the batteries to the faucet. For the next thirty (30) seconds, the sensor determines the most suitable range setting for its environment. Water will not flow from the faucet during this automatic range calibration. After the range is calibrated, a second series of BEEPs indicates that the faucet is ready for use. Under normal operation, this faucet adapts its range to changes in the

1.	PROBLEM: CAUSE:	Module emits audible "BEEPs" when activated. Battery power is nearly exhausted.
	SOLUTION:	To ensure proper operation, insert four (4) new C-size Alkaline batteries. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown in the bottom of the Battery Compartment. Reattach Battery Compartment to Control Module.
2.	PROBLEM:	Sensor is activated but faucet does not deliver water.
	INDICATOR:	Module DOES NOT produce audible "BEEPs".
	CAUSE:	Battery power is fully exhausted.
	SOLUTION:	To ensure proper operation, insert four (4) new C-size Alkaline batteries. Check that the orientation of each battery matches the positive (+) and negative (–) symbols shown in the bottom of the Battery Compartment. Reattach Battery Compartment to Control Module.
	CAUSE:	Batteries are not installed properly.
	SOLUTION:	Check that the orientation of the batteries match the positive (+) and negative (–) symbols shown in the bottom of the battery compartment. Reattach the Battery Compartment to the Control Module.
	CAUSE:	Solenoid Valve Module is defective.
	SOLUTION:	Replace EBF-11-A Solenoid Valve Module.
	INDICATOR:	Module produces audible "BEEPs" when batteries are installed and after 30-second calibration procedure, but NOT when a target is placed in the detection zone of the Sensor.
	CAUSE:	Fiber Optic Cable is not connected correctly to Solenoid
		Valve Module or was not connected when batteries were installed.
	SOLUTION:	Reconnect Fiber Optic Cable to Solenoid Valve Module. Open Battery Compartment to reset electrical system. Check that the orientation of each battery matches the positive (+) and negative (–) symbols shown in the bottom of the battery compartment. Reattach the Battery Compartment to the Control Module.
	CAUSE:	Fiber Optic Cable is defective.
	SOLUTION:	Replace <i>EBF-179-A</i> Sensor Cable, <i>EBF-1009-A</i> Sensor Cable, or <i>EBF-10-A</i> Faucet/Sensor Assembly.
	CAUSE:	Solenoid Valve Module is defective.
	SOLUTION:	Replace EBF-11-A Solenoid Valve Module.
	INDICATOR:	Module produces audible "BEEPs" when a target is placed in the detection zone of the Sensor and Solenoid Valve produces an audible "CLICK", but NO water flows.
	CAUSE:	Water supply to faucet is not open.
	SOLUTION:	Open supply stop(s).
	CAUSE:	Back Check is installed backwards.
	SOLUTION:	Reinstall Back Check(s).
	CAUSE:	Solenoid Filter is clogged.



Battery Replacement Procedure:

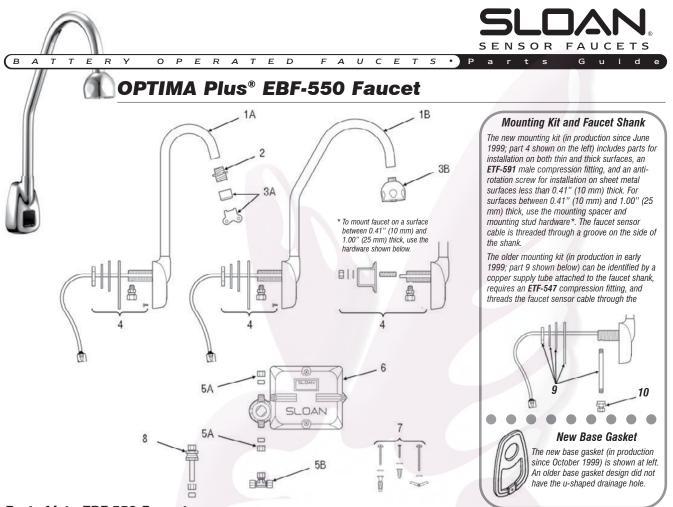
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Loosen security set screw on the Coupling Ring with a 0.05" hex or allen wrench. Unscrew Battery Compartment Coupling Ring. Remove Battery Compartment. To ensure proper operation, remove old batteries and insert four (4) new C-size Alkaline batteries. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown in the bottom of the Battery Compartment Beattach the Battery Compartment to the

ensure proper operation, remove old batteries and insert four (4) new C-size Alkaline batteries. Check that the orientation of each battery matches the positive (+) and negative (-) symbols shown in the bottom of the Battery Compartment. Reattach the Battery Compartment to the Control Module by aligning the arrow on the Battery Compartment with the arrow on the solid tab of the Solenoid Valve Module. Secure by tightening Battery Compartment Coupling Ring. To deter unauthorized removal of batteries, use a 0.05" hex or allen wrench to tighten the Security Set Screw on the Coupling Ring.

	SOLUTION:	Remove, clean, and reinsert. Replace with <i>EBF-1001-A</i> or <i>EBF-1004-A</i> Solenoid Filter Kit if necessary.
	CAUSE:	Aerator or Spray head is clogged.
	SOLUTION:	Remove, clean, and reinsert.
	INDICATOR:	Module produces audible "BEEPs" when a target is placed in the detection zone of the Sensor, but Solenoid Valve does NOT produce an audible "CLICK" and NO water flows.
	CAUSE:	Solenoid Valve Module is defective.
	SOLUTION:	Replace EBF-11-A Solenoid Valve Module.
3.	PROBLEM:	Faucet delivers only a slow flow or dribble when Sensor is activated.
	CAUSE:	Water supply valve is partially closed.
	SOLUTION:	Open the Supply Stop(s) completely.
	CAUSE:	Solenoid Filter is clogged.
	SOLUTION:	Remove, clean, and reinsert. Replace with <i>EBF-1001-A</i> or <i>EBF-1004-A</i> Solenoid Filter if necessary.
	CAUSE:	Aerator or Spray head is clogged.
	SOLUTION:	Remove, clean, and reinsert.
4.	PROBLEM:	Faucet does not stop delivering water or continues to drip after user is no longer detected (automatic shut- off fails even when batteries are removed).
	CAUSE:	Solenoid Valve has been connected backwards.
	SOLUTION:	Disassemble Solenoid Valve compression fittings at the inlet and outlet positions. Water should flow from inlet through the Solenoid Valve to outlet according to the direction shown by the arrow on the side of the Solenoid Valve. Reconnect the fittings in the correct orientation.
	CAUSE:	Solenoid Valve seat is dirty.
	SOLUTION:	Remove, clean, and reinsert Solenoid Filter. Activate faucet several times to flush out dirt.
	CAUSE:	Solenoid Valve is dirty.
	Solution:	Backflush by reversing water flow (opposite to the direction shown by the arrow on the side of the Solenoid Valve) through the Solenoid Valve. Reconnect the compression fittings in the correct orientation. Activate faucet.
	CAUSE:	Solenoid Valve Module is defective.
	SOLUTION:	Replace EBF-11-A Solenoid Valve Module.
5.	PROBLEM:	The water temperature is too hot or too cold on a faucet connected to hot and cold supply lines with two Back Checks.
	CAUSE:	Supply Stops are not adjusted properly.
	SOLUTION:	Adjust Supply Stops.
	CAUSE:	One Back Check is installed backwards.
	SOLUTION:	Reinstall Back Check.
	NOTE:	For some systems, a Thermostatic Mixing Valve may be required.





## Parts List—EBF-550 Faucet

ltem Number	Code Number	Part Number	Description
1A	0315061	EBF-94-A	Faucet and Sensor Assembly with Standard Gooseneck Spout ( <i>EBF-550</i> )
1B	0315062	EBF-95-A	Faucet and Sensor Assembly with Surgical Bend Gooseneck Spout (EBF-550-S)
2	0305784	ETF-178	Adapter for Spray Heads (not required for AC-55-A Shower Spray Head)
ЗA	3365091	ETF-1021-A	0.5 gpm (1.9 Lpm) Spray Head with Key (female thread)
	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 <i>ETF-1021-A</i> 0.5 gpm (1.9 Lpm) Spray Head and <i>ETF-1022-A</i> 2.2 gpm (8.3 Lpm) Aerator Spray Head (NOT required for <i>ETF-237</i> 2.2 gpm/8.3 Lpm Laminar Flow Spray Head)
3B	0328134	AC-55-A	Shower Spray Head Assembly, 2.2 gpm (8.3 Lpm)
4	0315060	EBF-110-A	Faucet Mounting Kit includes Base Gasket, large Flat Washer, large Lockwasher, large Nut, Mounting Spacer, Mounting Stud, small Flat Washer, small Lockwasher, small Nut, Anti-Rotation Screw, and <i>ETF-591</i> Compression Fitting Connector (male)
	0365152	ETF-591	1/8" NPT Pipe to 3/8" Tube Male Compression Fitting Connector
5A	3315029	EBF-113-A	Single Solenoid Supply Kit includes two (2) Compression Nuts, two (2) Compression Sleeves, and Screwdriver
5B	0305728	ETF-259	3/8" Tee Compression Fitting
6	0315104	EBF-60-A	Control Module Assembly includes Base Enclosure, Cover Enclosure, two (2) Gaskets, Solenoid Body, Solenoid Enclosure, Solenoid Filter Cap, and Battery Stop
7	3315018	EBF-79-A	Mounting Hardware Kit for Control Module Assembly includes four (4) Anchor Nuts, four (4) Toggle Nuts, four (4) Mounting Screws for Base Plate, four (4) Flat Washers, four (4) Anchors, and four (4) Metal Screws
8	3365001	ETF-470-A	Back Check
9	n/a	EBF-110-A	Old Faucet Mounting Kit includes 3/8" Water Supply Tube, Base Gasket, large Flat Washer, large Lockwasher, large Nut, and <i>ETF-547</i> Compression Fitting Connector (order items 4 and 10 as replacement parts)
10	0365058	ETF-547	1/8" NPT Pipe to 3/8" Tube Female Compression Fitting Connector
—	0315048	EBF-107-A	Sensor Housing and Cable Assembly Replacement Kit
—	0315035	EBF-62-A	Solenoid Replacement Kit includes Solenoid Body, Solenoid Enclosure, and Solenoid Filter Cap
_	3315028	EBF-1004-A	Solenoid Filter Replacement Kit includes Filter Screen Assembly and O-ring
_	3315073	EBF-1006-A	Repair Kit for EBF-60 Control Module Assembly includes EBF-61-A Battery Holder Assembly and EBF-159 Battery Gasket
—	0315034	EBF-50-A	Control Module Replacement Gaskets (2 Required)



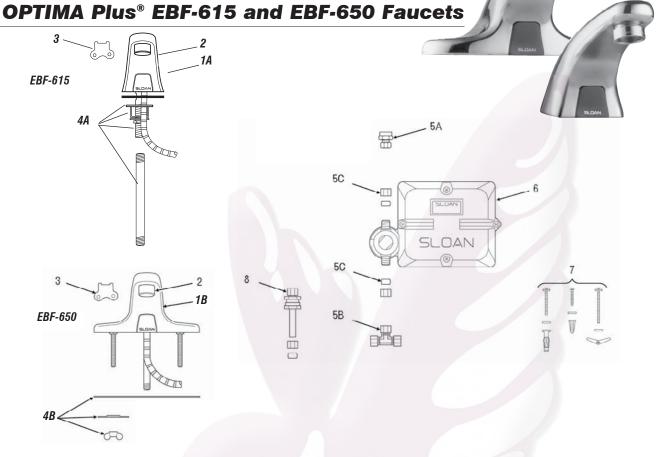


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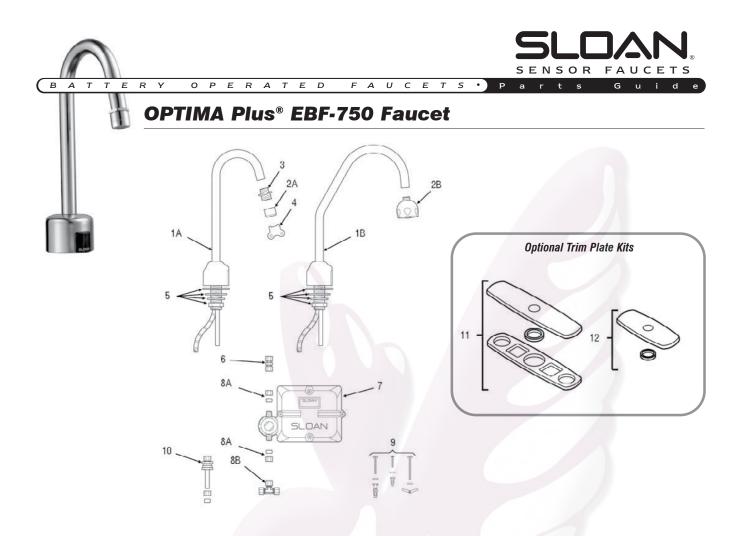
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# Parts List—EBF-615 and EBF-650 Faucets

ltem Number	Code Number	Part Number	Description
1A	0315083	EBF-120-A	Pedestal Faucet Spout and Sensor Assembly (EBF-615)
1B	0315054	EBF-81-A	Faucet Spout and Sensor Assembly (EBF-650)
2	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)
3	0305927	ETF-435	Replacement Key Only for <i>ETF-1023-A</i> 0.5 gpm (1.9 Lpm) Spray Head and <i>ETF-1024-A</i> 2.2 gpm (8.3 Lpm) Aerator Spray Head (NOT required for <i>F-175-L</i> 2.2 gpm/8.3 Lpm Laminar Flow Spray Head)
4A	0315085	EBF-123-A	Faucet Mounting Kit for <i>EBF-615</i> includes Spacer, Base Gasket, 1/4" NPSM Hex Nut, Washer, 9/16" Lockwasher, <i>ETF-547</i> Compression Fitting Connector, and 3/8" RB Water Supply Tube
4B	3365088	ETF-546-A	Faucet Mounting Kit for <i>EBF-650</i> includes Base Gasket, two (2) Slotted Mounting Washers, two (2) Wing Nuts, and <i>ETF-547</i> Compression Fitting Connector
5A	0365058	ETF-547	1/8" NPT Pipe to 3/8" Tube Compression Fitting Connector (female)
5B	0305728	ETF-259	3/8" Tee Compression Fitting
5C	3315029	EBF-113-A	Single Solenoid Supply Kit includes two (2) Compression Nuts, two (2) Compression Sleeves, and Screwdriver
6	0315104	EBF-60-A	Control Module Assembly includes Base Enclosure, Cover Enclosure, two (2) Gaskets, Solenoid Body, Solenoid Enclosure, Solenoid Filter Cap, and Battery Stop
7	3315018	EBF-79-A	Mounting Hardware Kit for Control Module Assembly includes four (4) Anchor Nuts, four (4) Toggle Nuts, four (4) Mounting Screws for Base Plate, four (4) Flat Washers, four (4) Anchors, and four (4) Metal Screws
8	3365001	ETF-470-A	Back Check
_	0315040	EBF-80-A	Sensor Replacement Kit includes Cable Assembly, Retainer for PC Board Assembly, and Housing for Sensor Window
—	0315035	EBF-62-A	Solenoid Replacement Kit includes Solenoid Body, Solenoid Enclosure, and Solenoid Filter Cap
_	3315028	EBF-1004-A	Solenoid Filter Replacement Kit includes Filter Screen Assembly and O-ring
—	3315073	EBF-1006-A	Repair Kit for EBF-60 Control Module Assembly includes EBF-61-A Battery Holder Assembly and EBF-159 Battery Gasket
—	0315034	EBF-50	Control Module Replacement Gasket (two required)
—	3315074	EBF-1007-A	Faucet Cable Assembly Repair Kit for EBF-650 includes Sensor Window Housing Assembly and Bracket for Sensor Window

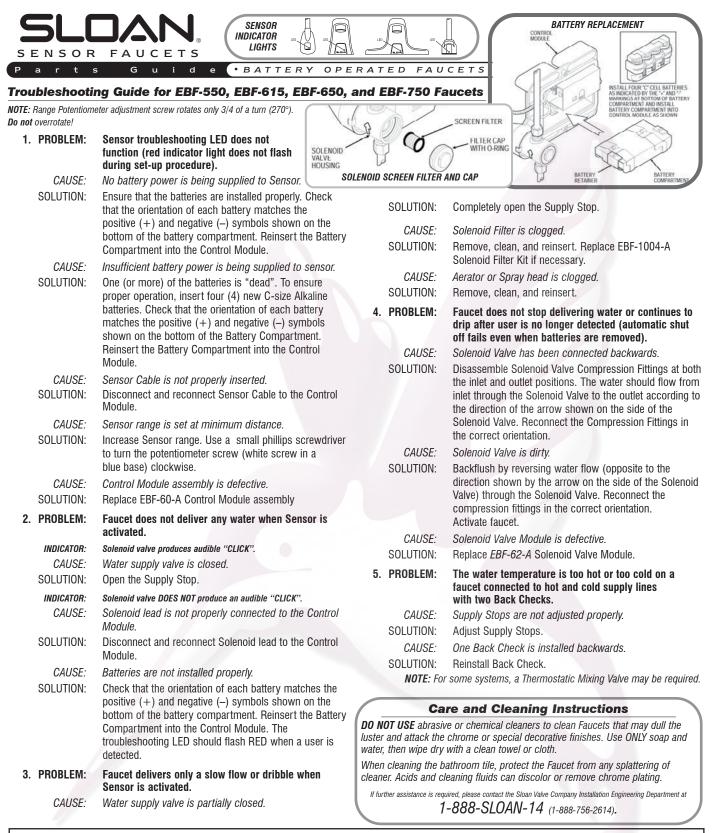




### Parts List—EBF-750 Faucet

ltem Number	Code Number	Part Number	Description
1A	0315076	EBF-140-A	Faucet/Sensor Assembly with Standard Gooseneck Spout (EBF-750)
1B	0315077	EBF-141-A	Faucet/Sensor Assembly with Surgical Bend Gooseneck Spout (EBF-750-S)
2A	3365091	ETF-1021-A	0.5 gpm (1.9 Lpm) Spray Head with Key (female thread)
	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)
2B	0328134	AC-55-A	Shower Spray Head Assembly, 2.2 gpm (8.3 Lpm)
3	0305784	ETF-178	Adapter for Spray Heads (not required for AC-55-A Shower Spray Head)
4	0305927	ETF-435	Replacement Key Only for <i>ETF-1021-A</i> 0.5 gpm (1.9 Lpm) Spray Head and <i>ETF-1022-A</i> 2.2 gpm (8.3 Lpm) Aerator Spray Head (NOT required for <i>ETF-237</i> 2.2 gpm/8.3 Lpm Laminar Flow Spray Head)
5	0365110	ETF-503-A	Spout Mounting Kit includes Rubber Gasket, Flat Washer, Lockwasher, Mounting Nut, and ETF-530 Union Compression Fitting
6	0365057	ETF-530	3/8" x 3/8" Union Compression Fitting (female)
7	0315104	EBF-60-A	Control Module Assembly includes Base Enclosure, Cover Enclosure, two (2) Gaskets, Solenoid Body, Solenoid Enclosure, Solenoid Filter Cap, and Battery Stop
8A	3315029	EBF-113-A	Single Solenoid Supply Kit includes two (2) Compression Nuts, two (2) Compression Sleeves, and Screwdriver
8B	0305728	ETF-259	3/8" Tee Compression Fitting
9	3315018	EBF-79-A	Mounting Hardware Kit for Control Module Assembly includes four (4) Anchor Nuts, four (4) Toggle Nuts, four (4) Mounting Screws for Base Plate, four (4) Flat Washers, four (4) Anchors, and four (4) Metal Screws
10	3365001	ETF-470-A	Back Check
11	3365601	ETF-431-A	Optional 8" (203 mm) Centerset Trim Plate Kit includes Seal, two (2) Washer Fenders, two (2) Gaskets, two (2) Finger Nuts, Trim Plate Spacer, and Single Hole Trim Plate Assembly
12	3365468	ETF-312-A	Optional 4" (102 mm) Centerset Trim Plate Kit includes Trim Plate Spacer and Single Hole Trim Plate Assembly
_	0315057	EBF-138-A	Sensor Replacement Kit includes Sensor Housing and Cable Assembly
_	0315035	EBF-62-A	Solenoid Replacement Kit includes Solenoid Body, Solenoid Enclosure, and Solenoid Filter Cap
_	3315028	EBF-1004-A	Solenoid Filter Replacement Kit includes Filter Screen Assembly and 0-ring
_	3315073	EBF-1006-A	Repair Kit includes for EBF-60 Control Module Assembly includes EBF-61-A Battery Holder Assembly and EBF-159 Battery Gasket
—	0315034	EBF-50	Control Module Replacement Gaskets (two Required)





## 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.

