

Power Supply Options & Installation Recommendations for Sloan Automatic Sensor Faucets

Presenters



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Agenda

1. Overview of the rush to convert manual to sensor faucets
2. Site specific power supply considerations
3. Faucet power supply options listed from good to better to best
4. Sloan sensor faucet models and power equipment for them

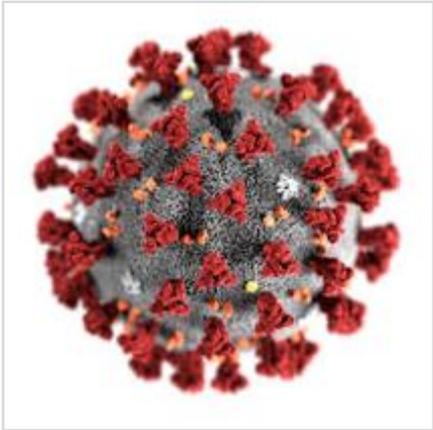
We will not be covering:

- Detailed electrical concepts
- International plug and power options
- Very uncommon product configurations



Conversion from Manual to Sensor

What are the drivers and urgency?



The CAUSE



The EFFECT

The SOLUTION

SLOAN.
Webinar

[Converting from
Manual to Sensor
Faucets](#)

SLOAN.
Webinar

[Intro to Sloan
Sensor Faucet
Models](#)

Site-specific Issues to Consider before Selecting A Faucet Power Supply



Existing power supply



Behind the wall "chase"



Enclosure



Frequency of use



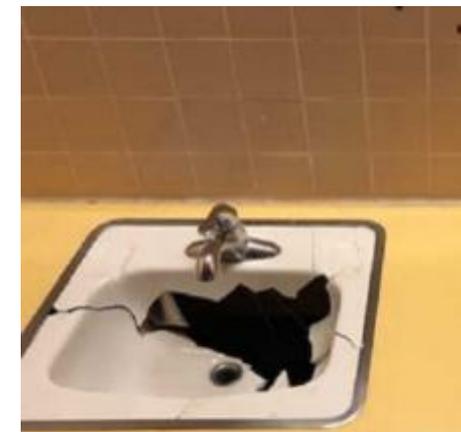
No power supply



No "chase"



No enclosure or shroud



Potential for vandalism

SLOAN.
Webinar
[Commercial Restroom Products and ADA Compliance](#)

Organizational Issues to Consider before Selecting A Faucet Power Supply



Existing maintenance routines and resources



Commitment to sustainability



Project budget



Project deadline

SLOAN.
Webinar
[Battery Truths and Myths](#)

Ranking Faucet Power Supplies

Listed from least to most desired - if site conditions permit



Good

Better

Best



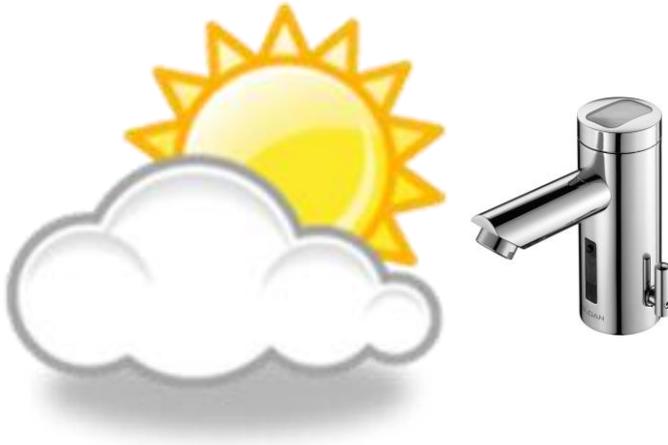
Power Supply Type	Battery	Solar or Turbine Energy Harvesting with Battery Back-up	Hardwired - Adapter Plug with Battery Back-up	Hardwired - Wall Transformer with Battery Back-up
Est. number of activations	288,000 (8,000 activations per month for 36 months)	Up to 500,000 (site-specific variable dependent)	Unlimited	Unlimited
Est. change interval	3 years (site-specific variable dependent)	Up to 8 years (site-specific variable dependent)	Up to 10 years (battery shelf life dependent)	Up to 10 years (battery shelf life dependent)
“Daisy-chain” capable	No	No	Yes	Yes
Sustainability level	Adequate	Very Good	Excellent	Excellent

Solar vs Turbine

when to select one or the other as your hybrid power source

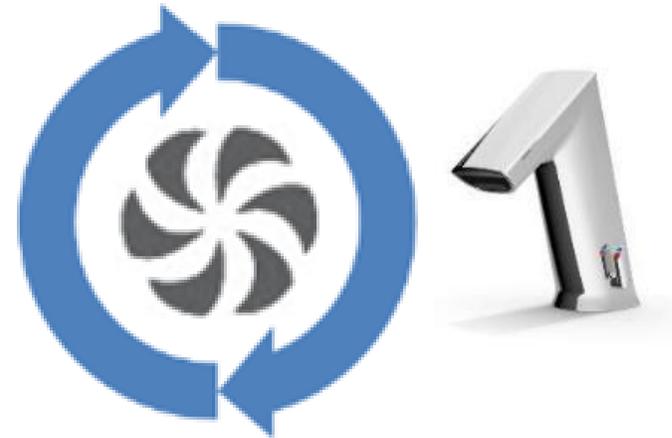
Solar

- **Passive technology – no moving parts**
- **Not in the water stream**
- **Fixed energy harvesting capacity**
- **Built into the spouts**

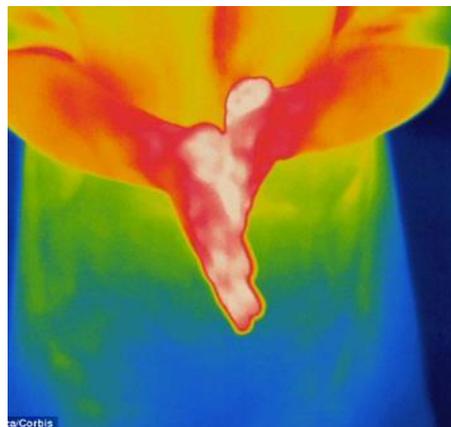


Turbine

- **Active Technology – in the water stream**
- **More use = more power**
- **Built into the spout (EFX180 and EFX280 models), all others in the below deck controls**



Options for Touch-free Sensing Types



Infrared Sensor

- Senses the reflection of infrared light when a valid “target” is within range
- Range can be adjusted



Capacitance (Proximity) Sensor

- Senses the electrical field surrounding a valid “target” when within range
- Range can be adjusted
- Cannot be used on metal sinks
- Can be battery operated
- **Requires special plug adapter**

Shown: SF-2350 Battery-powered Faucets

SF Family

Sloan SF Faucets

SFP-40-A Below-deck Control Box



Hardwired/Plug Adapter Battery-powered	SF-2100 SF-2150	SF-2200 SF-2250	SF-2300 SF-2350	SF-2400 SF-2450
Control box	SFP-40-A (Battery and hardwired with battery back-up)			
Battery type	4x AA Alkaline			
Adapter plug	Single - SFP-6 (110VAC 60Hz in/6 VDC out) – included in all plug adapter models Multiple - SFP-36 (100-240VAC 50/60 Hz in/6 VDC out) - up to eight – order separate			
Box/wall transformer	NA			
Hybrid energy harvesting options	NA			
Gang adapter kit	SFP-35-A Gang adapter kit including connections for up to six faucets – order separate			
Link to installation and maintenance guide	SF FAUCETS SFP-35-A Gang Adapter Kit			

Sloan SF Faucets – Battery-powered



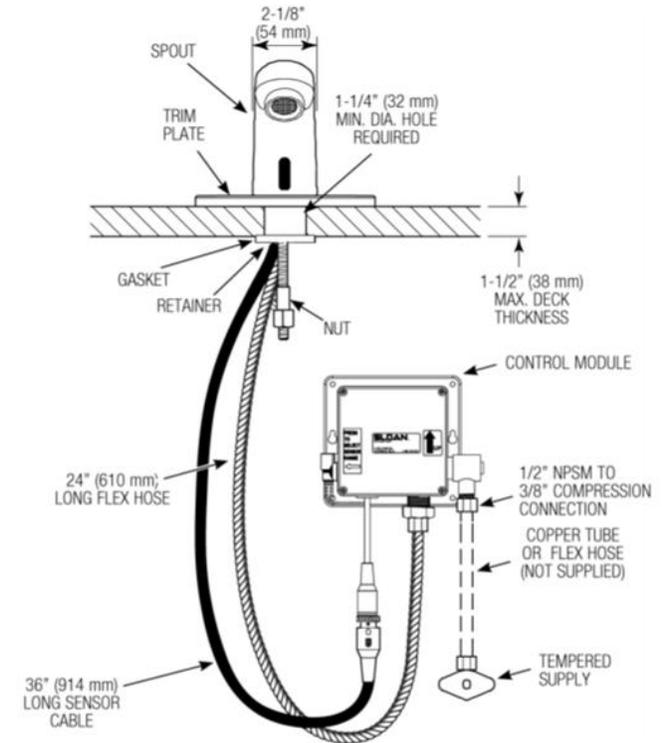
Faucet Spout



SFP-40-A
Below-deck
Control Box

Battery

4x AA Alkaline
(included in box)



Battery-powered SF Faucet model numbers end with “50”

All SF Faucets can be either battery or hardwired (with battery back-up)

Sloan SF Faucets – Plug Adapter (Single Unit)



Faucet Spout



SFP-40-A
Below-deck
Control Box

Adapter Plug
Connection

Hardwired Plug Adapter

SFP-6
110VAC 60Hz in/6 VDC out
(included in box)



Battery Back-up

4x AA Alkaline
(included in box)



Plug adapter-powered SF Faucet model numbers end with “00”

Sloan SF Faucets – Plug Adapter (Multiple Units)



Faucet Spout



SFP-40-A
Below-deck
Control Box

Hardwired Plug Adapter

SFP-36

100-240VAC 50/60Hz in/6 VDC out
(sold separately or as part of the
SFP-35-A gang adapter kit)



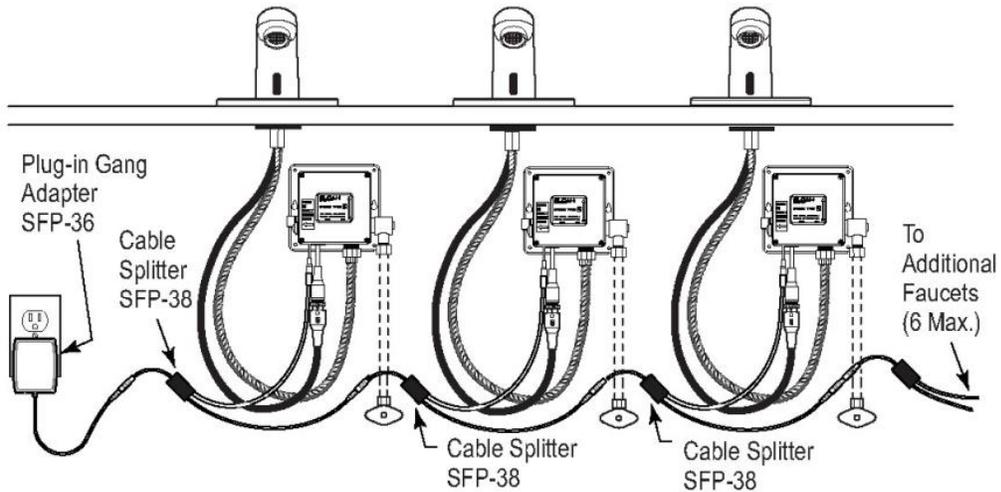
Battery Back-up

4x AA Alkaline
(included in box)



One SFP-36 plug adapter can power up to eight faucets

Sloan SF Faucets – SFP-35-A Gang Adapter Kit



Sloan SFP-35-A Gang Adapter Kit Contents

1x – SFP-36 Plug adapter
100-240VAC 50/60Hz in/6VDC out



1x – SFP-37 Extension cable – 51 in/130 cm



5x – SFP-38 Splitter cables



One SFP-36 plug adapter can power up to eight faucets.

The SFP-35-A kit includes connections for up to six.

Shown: ETF-80 Hardwired Faucets with matching ESD-800 Soap Dispensers

EBF/ETF Family

Sloan EBF & ETF (Optima) Faucets

EFP-39
Below-deck
Control Box



Hardwired/Plug Adapter Battery-powered	ETF-80 EBF-85	ETF-880 EBF-187	ETF-600 EBF-650	ETF-610 EBF-615	ETF-660 EBF-665
Control box	EFP-39-A (no turbine), EFP-40-A (0.5 gpm turbine), EFP-11-A (1.5 gpm turbine)				
Battery type (“BAT” models)	4x AA Alkaline				
Adapter plug (“PLG” models)	Single - SFP-6 (110VAC 60Hz in/6VDC out) – included in all plug adapter models Multiple - SFP-36 (100-240VAC 50/60Hz in/6VDC out) - up to six faucets – order separate				
Box / wall transformer (“BOX” models)	EL-248-40 (120VAC 50/60Hz in/24VAC, 40VA out) – included in all box/wall transformer models. Powers up to three faucets				
Hybrid energy harvesting options (“TUR” models)	EFP-40-A (0.5 gpm turbine) or EFP-11-A (1.5 gpm turbine) control boxes – included in all turbine powered with battery back up models				
Gang adapter kit	SFP-35-A Gang adapter kit including connections for up to six faucets – order separate				
Link to installation and maintenance guide	EBF and ETF (Optima) Faucets SF-35-A Gang Adapter Kit				

Sloan EBF & ETF (Optima) Faucets

EFP-39-A
Below-deck
Control Box



Hardwired/Plug Adapter Battery-powered	ETF-500 EBF-550	ETF-700 EBF-750	ETF-770 EBF-775	ETF-800 EBF-850
Control box	EFP-39-A (no turbine), EFP-40-A (0.5 gpm turbine), EFP-11-A (1.5 gpm turbine)			
Battery type (“BAT” models)	4x AA Alkaline			
Adapter plug (“PLG” models)	Single - SFP-6 (110VAC 60Hz in/6VDC out) – included in all plug adapter models Multiple - SFP-36 (100-240VAC 50/60Hz in/6VDC out) - up to six faucets – order separate			
Box / wall transformer (“BOX” models)	EL-248-40 (120VAC 50/60Hz in/24VAC, 40 VA out) – included in all box/wall transformer models. Powers up to three faucets			
Hybrid energy harvesting options (“TUR” models)	EFP-40-A (0.5 gpm turbine) or EFP-11-A (1.5 gpm turbine) control boxes – included in all turbine powered with battery back up models			
Gang adapter kit	SFP-35-A Gang adapter kit including connections for up to six faucets – order separate			
Link to installation and maintenance guide	EBF and ETF (Optima) Faucets SF-35-A Gang Adapter Kit			

Sloan EBF Faucets – Battery Powered “BAT”



Faucet Spout



EFP-39-A
Below-deck
Control Box
(no turbine)

Battery

4x AA Alkaline
(included in box)



All EBF/ETF Faucets can be either battery or hardwired (with battery back-up)

All EBF/ETF Faucets can use 24VAC or 6VDC power

Sloan EBF Faucets – Turbine with Battery Back-up “TUR”



Faucet Spout



EFP-40-A
(0.5 gpm turbine)
or
EFP-11-A
(1.5 gpm turbine)
Below-deck Control Box

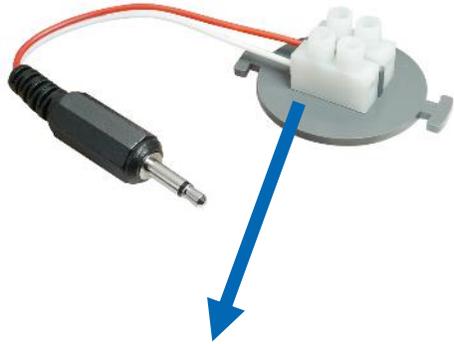
Battery

4x AA Alkaline
(included in box)



Sloan EBF Turbine faucets with battery back-up can be connected to electrical supplies to be “double back-up” units

Sloan EBF Faucets – EFP-98 Power Harness



**EFP-98 Power
Harness**



**Any EBF/ETF
Below-deck
Control Box**

Any Sloan EBF/ETF (Optima) Faucet can function on 24VAC or 6VDC power supplies

- Many “legacy” sensor faucet installations have 24VAC power supplies, because many years ago sensor faucets were less efficient and required 24VAC power
- Today’s Sloan sensor faucets require only 6VDC to power the solenoid
- Every Sloan EBF (Optima) Faucet comes with an EFP-98 power harness in the box to facilitate connections to legacy 24VAC power supplies or to any 24VAC transformer
- Installers can use any common 18-gauge electrical cord to connect them and daisy chain faucets together
- When hardwire connected, the batteries become back-up

The EFP-98 power harness is included with every EBF battery powered faucet to dramatically increase installation and power supply flexibility

Sloan ETF Faucets – Plug Adapter (Single Unit)



Faucet Spout

Adapter Plug
Connection



EFP-39-A
Below-deck
Control Box
(no turbine)

Hardwired Plug Adapter

SFP-6

110VAC 60Hz in/6 VDC out
(included in box)



Battery Back-up

4x AA Alkaline
(included in box)



EBF/ETF "Optima" Faucets use the same adapter
plugs and gang adapter kits as the SF Faucets

Sloan ETF Faucets – Plug Adapter (Multiple Units)



Faucet Spout

Adapter Plug
Connection



EFP-39-A
Below-deck
Control Box
(no turbine)

Hardwired Plug Adapter

SFP-36

100-240VAC 50/60Hz in/6VDC out
(sold separately or as part of the
SFP-35-A gang adapter kit)



Battery Back-up

4x AA Alkaline
(included in box)



EBF/ETF “Optima” Faucets use the same adapter
plugs and gang adapter kits as the SF Faucets

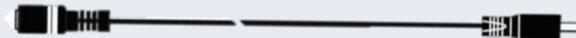
Sloan ETF Faucets – SFP-35-A Gang Adapter Kit

Sloan SFP-35A Gang Adapter Kit Contents

1x – SFP-36 Plug adapter
100-240VAC 50/60Hz in/6VDC out



1x – SFP-37 Extension cable – 51 in. / 130 cm



5x – SFP-38 Splitter cables



One SFP-36 plug adapter can power up to six faucets.

The SFP-35-A kit includes connections for up to six.



Sloan ETF Faucets – Box Transformer (Single or Multiple Units) “BOX”



Faucet Spout



EFP-39-A
Below-deck
Control Box
(no turbine)

Box Transformer	Power Harness	Battery Back-up
<p data-bbox="1276 618 1531 786">EL-248-40 120VAC 50/60Hz in/ 24VAC, 40VA out (included in box)</p> 	<p data-bbox="1615 634 1900 765">EFP-98 Power harness (included in box)</p> 	<p data-bbox="2010 646 2295 725">4x AA Alkaline (included in box)</p> 

Order one ETF “BOX” model with an EL-248-40 box transformer included and two additional EBF “BAT” models to connect up to three EBF/ETF Faucets using the EFP-98 power harnesses and common electrical wire to daisy chain the units together

Shown: EAF-250 Battery-powered Faucet and matching ESD-2000 Soap Dispenser with Brushed Nickel PVD Finish

EAF Family



Sloan EAF Faucets



Plug Adapter Battery-powered	EAF-100 EAF-150	EAF-200 EAF-250	EAF-225	EAF-275	EAF-350	EAF-700 EAF-750
Control box	NA	NA	NA	NA	NA	NA
Battery type	2CR5 Lithium	CRP2 Lithium	NA	CRP2 Lithium	CRP2 Lithium	CRP2 Lithium
Adapter plug	EAF-11	EAF-11	EAF-11	NA	NA	EAF-11
Box/wall transformer	EAF-37	EAF-37	NA	NA	NA	EAF-37
Hybrid energy harvesting	NA	NA	NA	Solar	NA	NA
Gang adapter kit	Components sold separately	Components sold separately	NA	NA	NA	Components sold separately
Link to installation instructions	EAF-100 EAF-150	EAF-200 EAF-250	EAF-225	EAF-275	EAF-350	EAF-700 EAF-750

Unlike all other Sloan faucet families, EAF models can be either hardwired or battery powered – but not both

Sloan EAF Faucets – Battery-powered



Faucet Spout

Battery

1x CRP2 Lithium
(included in faucet)



EAF-200/250/275
EAF-350
EAF-700/750

1x 2CR5 Lithium
(included in faucet)



EAF-100/150

Sloan EAF Faucets – Plug Adapter (Single Unit)



Faucet Spout

Hardwired Plug Adapter

EAF-11

110-240VAC 50/60Hz in/6VDC out
(included in box)



Sloan EAF Faucets – Box Transformer (Single Unit)



Faucet Spout

Box Transformer

EAF-37

110-240VAC 50/60hZ 88mA/6VDC
Plastic box



EAF-70-A

110-240VAC 50/60hZ 88mA/6VDC
CSA certified for use in Canada
Metal box



Sloan EAF Faucets – Gang Adapter Components for Use with Adapter Plugs or Box Transformers

Gang Adapter Components for EAF Faucets

Adapter plug	EAF-11 110-240VAC 50/60Hz in/6VDC out Powers up to six units	
Box transformer (plastic box)	EAF-37 110-240VAC 50/60Hz 88mA/6VDC Powers up to six units	
Box transformer, CSA certified (metal box)	EAF-70-A 110-240VAC 50/60Hz 88mA/6VDC Powers up to six units	
Extension cables	EAF-24-A Extension cable, 12in/.3m EAF-25-A Extension cable, 48in/1.2m EAF-17-A Extension cable, 120in/3m	
Power splitter	EAF-44-A Power splitter	

Shown: EFX-200 Hardwired Faucet with matching ESD-500 Soap Dispenser and EHD-511 Hand Dryer on an AER-DEC Sink

EFX (BASYS) Family

Sloan EFX (BASYS) Infrared Faucets



	EFX-1XX Series “High”	EFX-2XX Series “Mid”	EFX-3XX Series “Low”	EFX-6XX Series “Low IB”	EFX-8XX Series “Wall”
Hardwired Battery Powered Solar Cell Solar + LCD (Guided Handwashing) Turbine	EFX-100 EFX-150 EFX-175 EFX-177 EFX-180	EFX-200 EFX-250 EFX-275 EFX-277 EFX-280	EFX-300 EFX-350 EFX-375 EFX-377	EFX-600 EFX-650 EFX-675 EFX-677	EFX-800 EFX-850
Control box	NA				
Battery type	4x AA Alkaline				1X CRP2 Lithium
Adapter plug	EAF-11 110-240VAC 50/60Hz in/6VDC out				
Box/wall transformer	EAF-37 110-240VAC 50/60Hz in/6 VDC out				
Hybrid energy harvesting	Solar, Turbine				NA
Gang adapter kit	Components sold separately				NA
Link to installation instructions	EFX-1XX Series	EFX-2XX Series	EFX-3XX Series	EFX-6XX Series	EFX-8XX

Sloan EFX (BASYS) Capacitance Faucets

Below-deck
Control Box



	EFX-3XX Series “Low”	EFX-6XX Series “Low IB”
Hardwired Battery Powered Solar Cell Solar + LCD (Guided Handwashing) Turbine	EFX-300 EFX-350 EFX-380	EFX-600 EFX-650 EFX-680
Control box	EFX-1003-A 0.5 gpm, no turbine EFX-1005-A 1.5 gpm, no turbine	EFX-1004-A 0.5 gpm, turbine EFX-1006-A 1.5 gpm, turbine
Battery type	4x AA Alkaline	
Adapter plug	EFX-31 120VAC/6.75VDC	
Box/wall transformer	NA	
Hybrid energy harvesting	Turbine Option (EFX-3XX and EFX-6XX capacitance units use below-deck control boxes)	
Gang adapter kit	Components sold separately	
Link to installation instructions	EFX-3XX Series CAP	EFX-6XX Series CAP

Sloan EFX Faucets – Battery-powered



Faucet Spout

Battery

4x AA Alkaline
(included in box)



EFX-1XX Series “High”
EFX-2XX Series “Mid”
EFX-3XX Series “Low”
EFX-6XX Series “Low IB”

1x CRP2 Lithium
(included in faucet)



EFX-8XX Series “Wall”

Sloan EFX Faucets – Plug Adapter (Single Unit)



Hardwired Plug Adapter (IR faucets)	Hardwired Plug Adapter (Capacitance faucets)	Battery Back-up	
<p data-bbox="733 696 1039 863">EAF-11 110-240VAC 50/60Hz in/6VDC out (Included in box)</p> 	<p data-bbox="1131 696 1437 863">EFX-31 110-240VAC 50/60Hz in/6.75VDC out (Included in box)</p> 	<p data-bbox="1582 639 1862 721">4x AA Alkaline (Included in box)</p>  <p data-bbox="1513 996 1931 1163">EFX-1XX Series “High” EFX-2XX Series “Mid” EFX-3XX Series “Low” EFX-6XX Series “Low IB”</p>	<p data-bbox="2007 654 2328 735">1x CRP2 Lithium (Included in faucet)</p>  <p data-bbox="1982 1053 2354 1092">EFX8XX Series “Wall”</p>

Sloan EFX Faucets – Box Transformer (Single Unit)

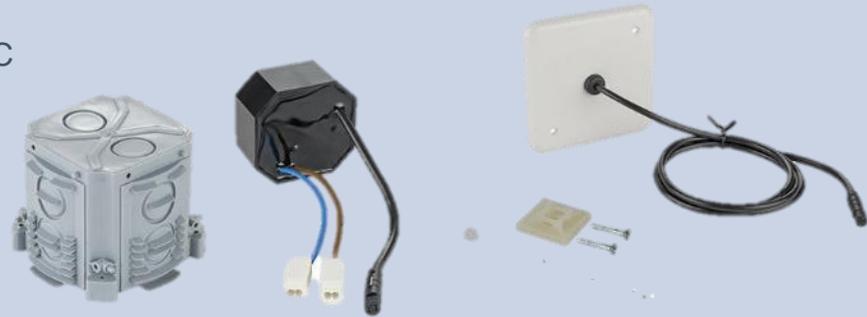


Faucet Spout

Box Transformer (IR faucets only)

EAF-37

110-240VAC 50/60Hz 88mA/6VDC
Plastic box



EAF-70A

110-240VAC 50/60Hz 88mA/6VDC
CSA certified for use in Canada
Metal box



Sloan EFX Faucets – Gang Adapter Components for Use with Adapter Plugs or Box Transformers

Gang Adapter Components for EFX Faucets		
Adapter plug, IR faucets	EAF-11 110-240VAC 50/60Hz in/6VDC out Powers up to six units	
Adapter plug, Capacitance faucets	EFX-31 110-240VAC 50/60Hz in/6VDC out Powers up to six units	
Box transformer, IR faucets only Plastic box	EAF-37 110-240VAC 50/60Hz 88mA/6VDC Powers up to six units	
Box transformer, IR faucets only, CSA cert. Metal box	EAF-70-A 110-240VAC 50/60Hz 88mA/6VDC Powers up to six units	
Extension cables	EAF24-A Extension cable, 12in/.3m EAF25-A Extension cable, 48in/1.2m EAF17-A Extension cable, 120in/3m	
Power splitter	EAF-23-A Power splitter	

Summary

The power supply you select will have a huge impact upon your facility for years

- Maintenance burdens
- Service time commitments
- Labor expenses
- Sustainability impact

Sloan strongly recommends hardwired faucets

If not hardwired, Sloan strongly recommends selecting a hybrid energy harvesting option

With more sensor faucet designs and configurations than any other brand, Sloan is the best option for reliable, dependable and compliant faucets for your facility regardless of the application



Sloan Faucet Finder

Browse automatic sensor faucets by style, features, options, or certifications with the [Sloan Faucet Finder](#). Find your faucet, and easily drill down to individual spec sheets.

The screenshot displays the Sloan Faucet Finder interface with the following sections:

- Spout Design:** A grid of 20 faucet spout design icons.
- Finish:** Selection options for Polished Chrome, Brushed Stainless, Brushed Nickel, Graphite, and Polished Brass.
- Power Type:** Selection options for battery-powered, solar, and other power sources.
- Flow Rate:** A toggle switch between gpm and Lpm, with selection options for 0.35, 0.5, 1.0, 1.5, and 2.2.
- Mixer:** Selection options for different faucet mixer configurations.
- Product Line:** Selection options for BASYS*, Sloan*, and Optima*.
- Trim Plate (In):** Selection options for 4 and 8 inch trim plates.
- Mounting Type:** Selection options for Deck and Wall mounting.
- Compliances:** A list of certification checkboxes including ADA Compliant, ASME A112.18.1 Compliant, BAA Compliant, BREEAM Materials Credit, BREEAM Water Credit, CEC Compliant, CalGreen Compliant, Carbon Neutral, EPD, GPC 0.25 or less, Green Globes Materials & Resources Credit, Green Globes Water Credit, HPD, LEED Materials & Resources EPD Credit, LEED Materials & Resources HPD Credit, and LEED V4 Water Efficiency Credit.

Find your local Sloan representative for more information

Sloan Rep Locator tool

- Local code knowledge
- Familiarity with existing sites
- Product knowledge
- Available for onsite consultation

Sloan Customer Care Center

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Questions?

Upcoming Sloan Training Webinars



July 16th

Sustainability and Sloan
Commercial Restroom
Products



July 30th

WELL Building Standard
and Sloan Commercial
Restroom Products

Training Comments, Questions, or Suggestions?

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