SafePlug™
Fire, Shock & Surge Protection!™

SafePlug™ Model 12XX

Portable SafePlug™ Outlet Installation Guide

SafePlug™ is based on RightPlug™ technology

Please read completely before getting started.

Specifications

SafePlug Outlet

Electrical Supply	125V 60Hz 15A
Max. Load	15A, 1875W resistive, 1000W tungsten, ¾ hp.
Temperature	0ºC to 40ºC, (32ºF to 104ºF)
Humidity	15% to 95% R.H. (non-condensing)
Location	Indoor use only

RightPlug™

Interface	ISO 14443 type B
Frequency	13.56 MHz
Power	< 90mW
Read Range	< 10mm

How SafePlug Works

Fire Prevention

The SafePlug system protects against fires caused by overloaded wires via an Overload Fault Interrupter™ (also called OFI™). Damaged and defective appliances including lamps and electronics as well as misuse can draw excessive electricity and overheat wires. OFI continuously monitors the electricity flowing to appliances, 24 hours per day, 7 days a week, and automatically turns it off when it exceeds safe limits. It reads the safe limit for each appliance from the RightPlug technology in its cord-set plug.

Important Information

The portable SafePlug Outlet allows you to add extra fire, shock and appliance protection to your home or office. It fits over an existing electrical outlet. To deliver electricity to a load and to obtain safety features from a SafePlug Outlet, only use a cord-set plug equipped with RightPlug™ technology. To retrofit an existing plug with RightPlug technology, use a SafePlug Adapter on each cord plug (see a "SafePlug Adapter Installation Guide").

WARNINGS:

- Read these instructions completely before installing and using the SafePlug system.
- The SafePlug system should be installed by a qualified electrician.
- Your home electrical system contains lethal voltages. Disconnect power before installing this product.
- For maximum safety SafePlug must be installed in an electrical outlet socket with adequate retention force and proper wiring. Installing this product in an improperly wired outlet can disable some of the safety features.
- SafePlug is designed to be plugged directly into a wall outlet; it should NOT be used in any other manner.
- Do not touch plug blades when inserting a plug into any electrical outlet. The SafePlug Outlet may deliver high voltages like a standard electrical outlet when a RightPlug cordset or SafePlug Adapter is partially inserted.
- Operation of any RF generating equipment, including this product, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device if you have any questions. Other electronic equipment may also be subject to interference.
- Use of an extension cord may reduce fire protection provided by SafePlug for an appliance plugged into the extension cord.
- Never move a SafePlug Adapter from one electrical appliance, lamp, electronics or extension cord to another. The Adapter contains safety information specific to that device.

CAUTIONS:

- Use of SafePlug system on a refrigerator or freezer will disconnect power if SafePlug detects any fault. SafePlug protection on a refrigerator or freezer could result in disconnection of power and food spoilage.
- SafePlug may disconnect power from a computer without warning due to an electrical fire hazard or a power fault. This sudden loss of power can result in loss of computer records, information or documents. For computers, use an uninterruptible power supply between SafePlug and the computer.
- Incorrectly configuring a Model 1000 SafePlug Adapter below the appliance's maximum safe operating limit could result in the SafePlug Outlet shutting off electricity to the appliance under normal operating conditions.

NOTES:

- A SafePlug Outlet only delivers electricity to plugs equipped with RightPlug technology. Older appliances and extensions cords that do not have the RightPlug mark must be fitted with a SafePlug Adapter to receive electricity from a SafePlug Outlet.
- When an extension cord is used with an appliance the SafePlug overload threshold may be adjusted to protect the extension cord rather than the appliance. Use of extension cords can prevent the SafePlug system from fully protecting an appliance from overload.
- This device complies with FCC electromagnetic emission limits for mobile devices. This device complies with Health Canada Safety Code 6 electromagnetic exposure limits for the general public. For maximum safety, we recommend against operating any electronic device within 8 inches (20cm) of your body for extended periods of time, unless the device has been specifically designed and tested for such use.

USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

CANADA

This Class B digital apparatus complies with Canadian ICES-003.

This device complies with Canadian RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

How SafePlug Works Continued...

Shock Prevention

The SafePlug system protects against electrical shocks via a Shock Fault Interrupter™ (also called SFI™). SFI keeps electricity normally OFF at each outlet receptacle. SFI will only deliver electricity to a RightPlug-equipped cord-set. SFI delivers electricity to a RightPlug-equipped cord-set. SFI will not deliver electricity to anything else inserted into the receptacle. SFI prevents children from experiencing electrical shocks if they insert foreign objects into a SafePlug socket

Appliance Damage Prevention

The SafePlug system protects your appliances, electronics, and light bulbs from damage caused by poor power quality via a Power Fault Interrupter™ (also called PFI™).

PFI protects against power line surges. PFI shunts the surge before it reaches the appliance.

Features & Components

A) Portable SafePlug Outlet: Adds fire, shock and power-fault protection to an existing electrical outlet. Designed to fit snugly over existing household wall outlet to convert them into safety outlets.

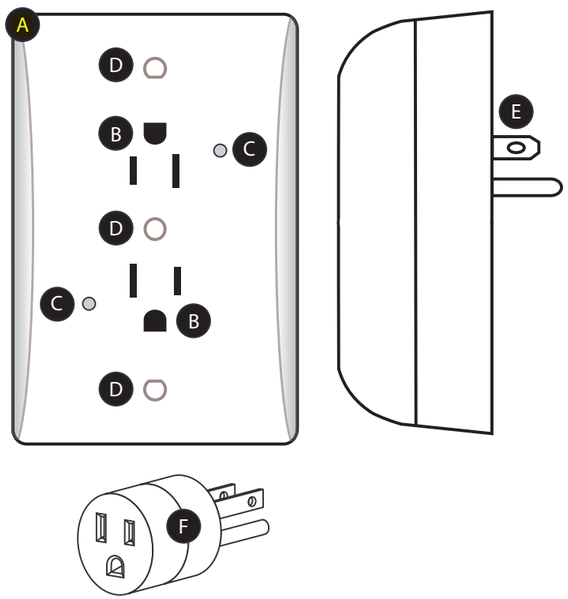
B) Receptacles: Delivers household electricity to appliance plugs when the SafePlug Outlet detects a safe condition.

C) LED Indicator Lights: A red and green light adjacent to each SafePlug outlet receptacle indicates its status. See "Status Indicator Lights" section for details.

D) Screw Holes: Allows a portable SafePlug Outlet to be securely fastened to an existing wall outlet.

E) Plug Blades: Plugs into an existing wall outlet.

F) SafePlug Adapter : A SafePlug Adapter retrofits an electrical cord set to contain RightPlug safety information. It stores and communicates the safe electrical limits of an appliance/lamp/cord to the portable SafePlug Outlet. Not needed if cord-set has RightPlug built in. Look for the RightPlug logo on the plug.



Installation

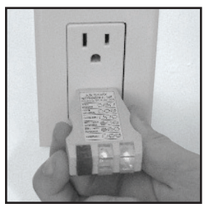
NOTES:
Do not install a SafePlug Outlet over a Ground Fault Interrupt (GFI) outlet. It will prevent access to the Test and Reset pushbuttons. The GFI receptacles are located farther off-center than a standard outlet and SafePlug will not fit properly.

If SafePlug is installed over a split outlet controlled by a 2 x 15 Amp double pole circuit breaker, only one circuit will be used. Thus the receptacle ampacity will be reduced from 30 Amps (2 x 15 Amps) to 15 Amps.

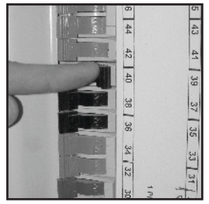
If SafePlug is installed over a split and switched outlet (one receptacle always on, the other connected through a wall switch), then the entire outlet becomes either switched or always-on, depending upon which receptacle SafePlug connects to.

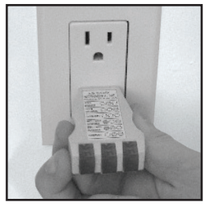
Step #1: Test Outlet and Turn Power Off

a) Identify the wall outlet location where the portable SafePlug Outlet will be installed. Using an electrical receptacle wiring tester, test both receptacles of the outlet for a wiring fault. If a wiring fault exists, have a qualified electrician correct the condition.



b) Locate your circuit breaker panel/fuse box. Locate the breaker/fuse that protects the outlet you are working on. Place the breaker in the OFF position or remove the fuse.





c) Test both receptacles of the outlet with a circuit tester to make sure the power is OFF. If not, repeat step 1b.

Step#2: Test Socket Retention

a) Using an outlet retention-force tester, test all six of the sockets on the wall outlet (two receptacles, each with two blade sockets and one ground pin socket), one at a time. Ensure each socket has adequate retention force. Industry standards require 4 ounces minimum retention force. We recommend 6 ounces minimum. Have a qualified electrician replace any loose outlets.

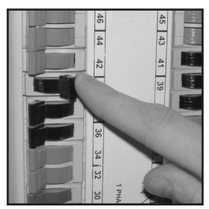
Step #3: Install the Portable SafePlug Outlet

a) Remove the screw(s) from the outlet cover plate. If plastic, **do not remove the cover plate**. If metal, replace the cover plate with a plastic one.

b) Plug in the SafePlug Outlet over the top of both the cover plate and the electrical outlet.

c) Insert and tighten the 1.25” long #6-32 screw(s) provided to firmly secure the SafePlug Outlet in place. Do not over tighten.

d) Return power to the outlet by reconnecting power at the breaker or fuse panel. To confirm that power has returned to the SafePlug Outlet, insert a SafePlug Adapter or RightPlug cord-set into one of the SafePlug Outlet receptacles. A green light (solid on or flashing) next to that SafePlug receptacle indicates power is present. Remove the SafePlug Adapter.



e) Insert the three plastic screw cover plugs into the screw holes. Note that the two outside plugs have sloped faces to match the surface of the portable SafePlug Outlet.

SafePlug outlet installation is complete! Repeat the process for additional SafePlug Outlets.

ATTENTION: Every time you plug a RightPlug-equipped cord into a SafePlug Outlet look for the green light and listen for a click sound as your sign of continued safety!

Extension Cords

To protect both the extension cord and an appliance (recommended), program a Model 1000 SafePlug Adapter for the full appliance load (*see SafePlug Adapter Installation Guide*). Ensure that the extension cord amperage rating exceeds the appliance current draw, or the extension cord itself can become a fire hazard. To protect the extension cord only, attach the following SafePlug Adapter to the extension cord male plug end before inserting it into the SafePlug Outlet:

Adapter	**Extension Cord Wire Gauge**
No. 1014	14 AWG
No. 1012	16 AWG
No. 1010	18 AWG

Do not remove the adapter from the extension cord.

Troubleshooting Using Status LED’s

	LIGHT CONDITION	WHAT DOES CONDITION MEAN?	RECOMMENDED ACTION
GREEN LIGHTS (power is ON)	**SOLID GREEN**	SafePlug Outlet has detected a plug or Model 1000 SafePlug Adapter containing RightPlug technology. SafePlug Outlet power is ON to that appliance. Power line voltages are within range and appliance currrent draw is within read RightPlug limit.	No action is required. The SafePlug system is continuously monitoring electrical conditions for safety. SafePlug will disconnect electricity if it detects a safety hazard.
	SLOW FLASHING GREEN On a two second interval	That SafePlug Outlet receptacle is in “learning” mode because it has found a new Model 1000 SafePlug Adapter in the associated outlet receptacle.	If you are retrofitting an existing appliance with RightPlug technology, continue with the SafePlug Adapter configuration steps. If the cordset is equipped with RightPlug technology, contact the appliance manufacturer.
	FAST FLASHING GREEN On a half second interval, max. 10 second duration.	SafePlug Outlet is ready to complete a Model 1000 SafePlug Adapter configuration sequence (Adapter must be reinserted quickly after removal).	Reinsert the appliance plug (equipped with SafePlug Adapter) to complete programming. If the green flashing light stops before you reinsert the plug, repeat Adapter configuration steps (see *SafePlug Adapter Installation Guide*).
RED LIGHTS (Power is OFF)	**1 FAST-FLASHING RED** Next to one receptacle only	SafePlug Outlet has automatically disconnected power at that receptacle. Measured current draw by the appliance exceeded the RightPlug trip limit (stored in and read from the SafePlug Adapter or cord set).	Turn off and unplug the appliance. Inspect it for damage. If it is a lamp, check that you have not installed an excessive wattage light bulb. If the appliance contains a motor, look for the overload cause (e.g. bad bearing, jammed pulley or fan blade). Have the appliance repaired by a qualified appliance repair expert. After proper repairs, plug the appliance back into the SafePlug Outlet, turn it on, look for the solid green light and listen for the safety "click" next to that receptacle. If the light continues to flash RED, verify a correctly programmed SafePlug Adapter is installed (*see SafePlug Adapter Installation Guide*)
	2 FAST-FLASHING RED Next to <u>both</u> receptacles, ***<u>alternating between them</u>***.	SafePlug Outlet disconnected power due to independent appliance overloads at both receptacles. See instructions beside 1 FAST-FLASHING RED for appliance overload conditions and actions.	See instructions beside 1 FAST-FLASHING RED.
	2 FAST-FLASHING RED Next to ***<u>both</u>*** receptacles, ***<u>flashing together simultaneously.</u>***	SafePlug Outlet has reached the end of its service life.	Replace your SafePlug Outlet to ensure continued protection.
	2 RED Next to ***<u>both</u>*** receptacles, one short flash every 10 seconds.	SafePlug has detected a power fault (high or low line voltage or long duration surge) and disconnected power at the receptacle to protect your electrical appliance.	No action required. SafePlug will turn power ON when good power quality returns.
	1 SOLID RED Next to one receptacle only	RightPlug in plug or SafePlug Adapter is damaged or contains invalid safety information.	Remove & discard the RightPlug cord-set or SafePlug Adapter and replace it.
NO LIGHT	**NO LIGHT** (Power is OFF)	A) Plug does not contain RightPlug technology or SafePlug Adapter missing from plug, OR B) Plug not inserted in SafePlug Outlet, OR C) Adapter/RightPlug damaged, OR D) SafePlug Outlet has no power.	A) Insert plug with \SafePlug Adapter attached. B) Fully insert plug to ensure RightPlug within read range C) Replace and program SafePlug Adapter (*see SafePlug Adapter Installation Guide*) D) Check the circuit breaker or fuse for that SafePlug Outlet.

Maintenance

Test the disconnect capability of each SafePlug Outlet once per month. To test the SafePlug Outlet, perform the following steps:

1) Turn off your appliance.
2) Unplug the cord-set (including the SafePlug Adapter) from the SafePlug Outlet for at least 2 seconds. You should see the green light turn OFF and hear a click as the SafePlug Outlet disconnects power. If you do not see the light go out and the disconnect click, then replace the SafePlug Outlet.
3) Reinsert the plug into the SafePlug Outlet
4) Watch for the green "active" light to turn ON and listen for the "safety" click. If you see the green light and shortly thereafter hear a click, then SafePlug is working properly. If no light and no click, ensure the SafePlug Outlet has power supplied to it. If click but no light, or if green light but no click, then replace the SafePlug Outlet.

SafePlug is a product of:
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