TS1811

7 OUTLET TIER 2 ADVANCED POWERSTRIP+ ZIGBEE® MULTI-SENSOR

Premium quality, fireproof surge protection that reduces standby and active power waste from electronics

OVERVIEW

The Tier 2 ZigBee® Multi-Sensor Advanced PowerStrip+ (APS+) provides premium quality surge protection and reduces the amount of standby and active power wasted by electronics.

The APS+ is designed for use with set-top box systems.

The APS+ includes a low voltage RJ11 port which supports the connection of a Zigbee®-enabled multi-sensor that senses radio frequency (RF), infrared (IR), and motion.

The APS+ includes advanced power measurement and patented auto-threshold detection. This allows the APS to accurately support all types of televisions from old to new high efficiency types. It provides automation to reduce wasteful standby and active power, and it is suitable for TV/home theater applications.

In addition to standard power switching, the APS+ also supports "soft switching" via high-level CEC commands from the multi-sensor to an HDMI port on the TV; this feature is known as TAV-Link and will result in placement of connected HDMI devices into a power-saving state by high-level commands.

KEY FEATURES

- 7 Outlets
  - 2 Always On Outlets (1 outlet transformer spaced)
  - 5 Switched Outlets (1 outlet transformer spaced)
- 15A resettable circuit breaker
- Auto threshold detection
- Intelligently adjusts to new equipment
- True RMS power sensing
- 72,000 Amps/1080 Joules
- Ceramic surge protection
- Low-voltage, optically-isolated RJ11 input
- LED status indication (ground, surge status, switched)
- <40dB noice filtering
- Angled space saver plug
- ZigBee enabled multi-sensor
- CEC TAV-Link function

FIREPROOF SURGE PROTECTION

Traditional surge suppression products use standard MOV (metal oxide varistor) components. TrickleStar Tier 2 APS+ incorporates advanced surge protection technology. The MOVs are encased in ceramic and are capable of suppressing more energy and dissipating heat faster than traditional MOVs. More importantly, the ceramic casing is fireproof and therefore is capable of preventing fire during surge conditions.

PRODUCT WARRANTY

10-year product warranty
$20,000 connected equipment warranty

ZIGBEE® MULTI-SENSOR

- Detects ZigBee RF4CE* RF, IR remote control signals and motion. Includes a configurable countdown timer that will switch off the TV and peripherals if no RF, IR or motion is detected.

- Status LED flashes when RF, IR or motion is detected.

- Patented sensing hardware and algorithm looks for RF and IR commands first. It then looks for motion after a period where no RF or IR commands are detected.

- Supports high level CEC* commands via TAV-Link cable to the TV and to the peripherals for soft switch off.

- TAV-Link functionality allows "smart" TVs to store their data and settings safely before powering down. TAV-Link also allows gaming consoles to enter an energy-saving mode earlier and without any corruption of data.

- Supports RF4CE pairing with DirecTV® and Comcast® remote controls (can pair up to 4 remotes).

- Includes a soft chirp, piezo buzzer to warn of a pending shutdown 10 minutes prior to shutdown.
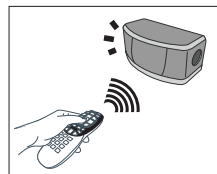
- Manual on/off button.

PAIRING DirecTV® or Comcast® REMOTE CONTROL
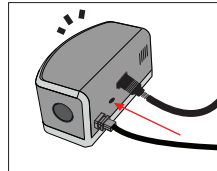
STEP 1

Quickly press the pinhole pairing button located on the back of the multi-sensor to trigger the pairing process.

A blue LED will flash for a period of 15 seconds - indicating the multi-sensor is in pairing mode.
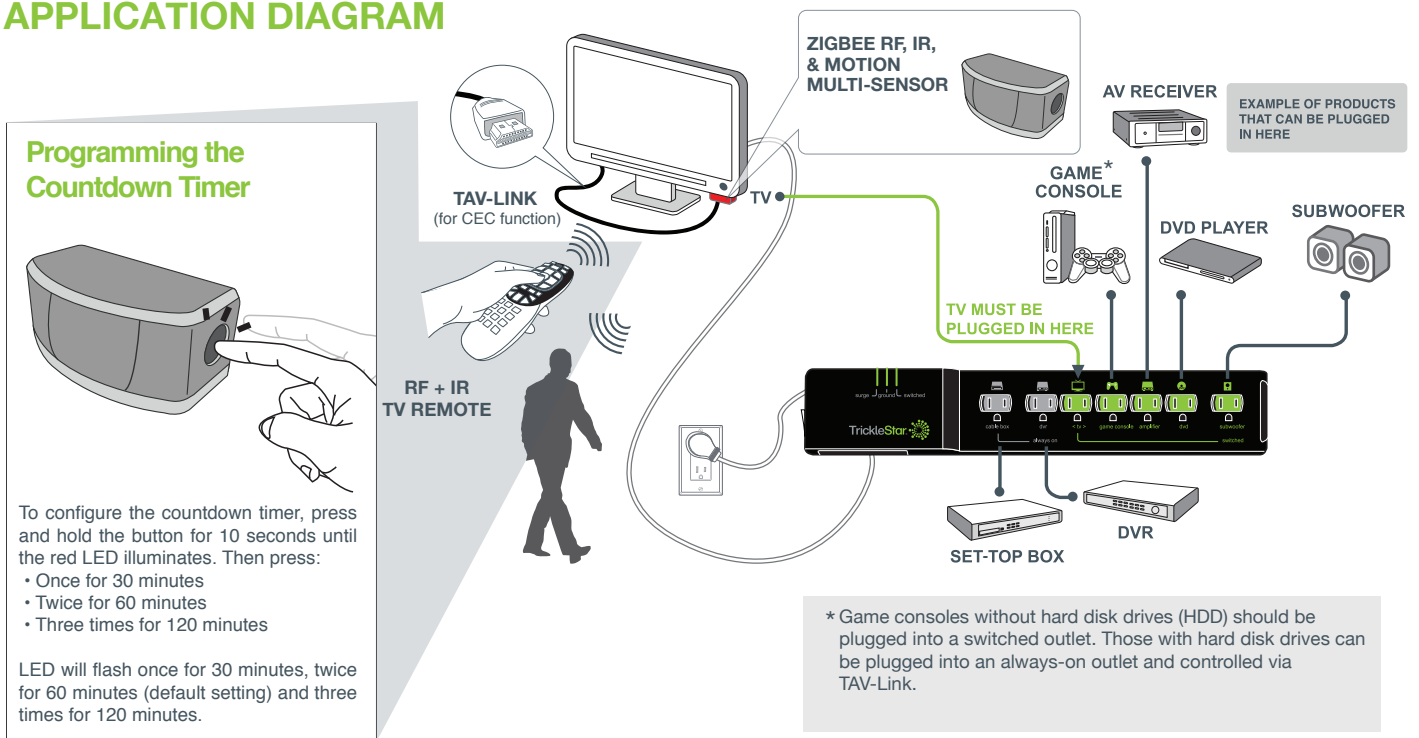
STEP 2

Place the RF4CE DirecTV or Comcast remote near the sensor (within two inches) and press the 0 key on the remote until the red LED illuminates. Repeat with other RF4CE remote controls (up to four).

The multi-sensor will exit pairing mode after 15 seconds if no RF button presses are detected.

*RF4CE (Radio Frequency for Consumer Electronics) is a radio frequency protocol for audio and video device remote controls. It provides two-way, high-speed communications which allow remote signals to transmit through cabinets, obstacles, walls and floors.

*CEC (Consumer Electronics Control) is the control protocol found in HDMI.

APPLICATION DIAGRAM

Programming the Countdown Timer

To configure the countdown timer, press and hold the button for 10 seconds until the red LED illuminates. Then press:
- Once for 30 minutes
- Twice for 60 minutes
- Three times for 120 minutes

LED will flash once for 30 minutes, twice for 60 minutes (default setting) and three times for 120 minutes.

TAV-LINK (for CEC function)

RF + IR TV REMOTE

ZIGBEE RF, IR, & MOTION MULTI-SENSOR

AV RECEIVER

EXAMPLE OF PRODUCTS THAT CAN BE PLUGGED IN HERE

GAME* CONSOLE

DVD PLAYER

SUBWOOFER

TV

TV MUST BE PLUGGED IN HERE

SET-TOP BOX

DVR

* Game consoles without hard disk drives (HDD) should be plugged into a switched outlet. Those with hard disk drives can be plugged into an always-on outlet and controlled via TAV-Link.

TrickleStar®

TIER 2 ZIGBEE® MULTI-SENSOR ADVANCED POWERSTRIP+

ELECTRICAL SPECIFICATIONS

TIER 2 APS+

FOR INDOOR USE

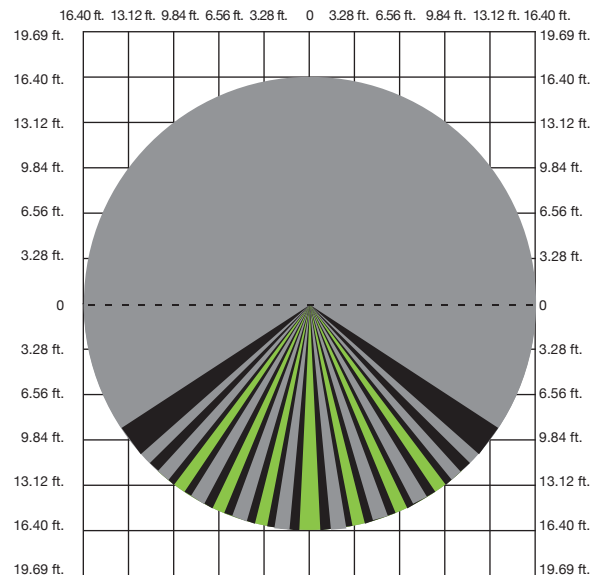|	
Operating Voltage	120 VAC +/- 10% 60Hz
Output Current	15 Amps RMS
Maximum Total Load	1800W
Noise Filtering	<40dB
Power Consumption	<1W at 120VAC, 60Hz (in all modes of operation)
RJ11	3.3V & Optically Isolated
APS+ Cord Length	4 ft. (1.2 meters)
Outlets (7 Outlets)	2 Always ON (1 outlet transformer spaced)
	5 Switched Outlets (1 outlet transformer spaced)
LED Status Indication	Ground, Surge, Switched
Surge Protection	72,000 Amps / 1080 Joules for all outlets (Ceramic Surge Protection)
Input Current	15A Resettable Circuit Breaker

MULTI SENSOR

FOR INDOOR USE

Voltage	3.3V
IR Detection Angle/Range	60°/Up to 16.4 ft. (5 meters)
PIR Detection Angle/Range	90°/Up to 16.4 ft. (5 meters)
RF Detection Range	360°/Up 16.4 ft. (5 meters)
Cord Length	8 ft.
Sensor Detection	Infrared, Passive Infrared and ZigBee RF4CE

PHYSICAL SPECIFICATIONS

Operating Temperature	32° to 113° F
Storage Temperature	14° to 140° F
Humidity	5 to 90% N/C
IP Rating	IP20

PIR & IR DETECTION PATTERN

SENSOR OPTICAL VIEW PATTERN

RF Detection
Range: 16.4 ft.
Degree: 360°

IR Detection
Range: 16.4 ft.
Degree: 60°

PIR Detection
Range: 16.4 ft.
Degree: 90°

APPROVALS

Conformity to product standards for safety and EMC
UL (US & Canada), 2002/95/EG (RoHs), 2002/96/EC (WEEE),
1999/5/EC (RTTE), FCC Approved, ZigBee Certified

ORDER INFORMATION

TS1811 — 7 Outlet APS+, 1080 Joules, 4 ft. Cord, Auto Threshold, Zigbee Multi-Sensor, TAV-Link

designed to **US Utility** specifications

RoHS COMPLIANT

c UL us LISTED

FC

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.