



Model S15 Shown

S Type Power Conditioner with Battery Backup Owner's Manual

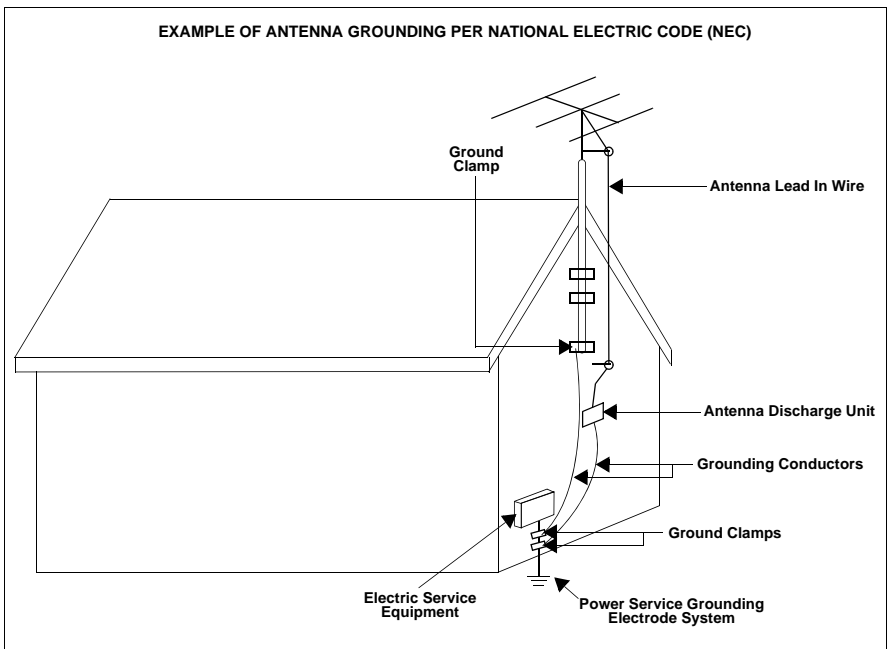
**Models: S10, S10BLK, S15,
and S15BLK**

Safety Information

1. **Read this manual** - Read all of the safety and operating instructions before installing and operating this device.
2. **Keep this manual** - Retain this manual, and all of the safety information that came with this device.
3. **Warnings** - Comply with all warnings presented in this manual, as well as any warnings found on the device.
4. **Follow Instructions** - Follow all instructions that pertain to operating and using the this device.
5. **Cleaning** - Shut off and unplug this device from the wall outlet, and disconnect the battery before cleaning. Use a soft damp cloth for cleaning. Do not use liquid or aerosol cleaners.
Note: Any equipment connected to this device will not be powered or protected from uninterrupted service during this process.
6. **Water and Moisture** - Do not use this product near any source of water, or in an environment where the relative humidity may exceed 95% (non-condensing).
7. **Placement** - Do not install this device on an unsteady surface. Do not install this device on any type of heat source.
8. **Ventilation** - Do not install this device in an area where the device's vents, provided for cooling purposes, may become blocked and impede air flow.
9. **Power** - Ensure this device is connected to a properly grounded AC power source. Further ensure the device is plugged into a source that provides the required 120 Vac. Do not use a plug adapter to defeat the AC plug ground pin.
10. **Polarization** - This device has a polarized AC line plug and one blade is wider than the other. This plug will only fit into the wall outlet in one orientation, which is a safety feature. Do not remove the round grounding pin, or use an adapter that defeats this safety feature.
11. **Power Cord** - Ensure power cords are routed in a manner that will ensure they are not pinched, frayed, or stepped on. After connecting other devices to this device, do not push the rear of the device up against any surface (wall or shelving unit). This can cause power cords to bend excessively, which can break the strands of wire inside the cord.
12. **Antenna Grounding** - Although this device provides protection against electrical surges, if you are connecting an outside antenna or cable system to this device, ensure the antenna or cable system is grounded to provide additional protection against voltage surges and static discharges in accordance with Section 810 of the National Electric Code, ANSI/NFPA No.70 (and as shown in the illustration on the next page).
13. **Other Grounding** - This device provides a grounding lug on the rear panel for grounding the device to an external transient voltage surge suppression (TVSS) device. Ensure these ground connections are made in accordance with the instructions provided with the TVSS device.
14. **Lightning** - This device employs metal oxide varistors (MOVs), and other circuitry to protect against lightning and other sources of sudden voltage surges and sags. It is not necessary to turn this device off, or the devices connected to this device off during a lightning storm.

Safety Information (Continued)

15. **Power Lines** - Do not locate outside antenna systems near overhead power lines, or other electric light or power circuits, or where they may fall on or otherwise come in contact with these power sources. If you allow the ladder being used, or the antenna itself to come into contact with these power sources it could be fatal.
16. **Overloading** - Do not overload the wall outlet where this device is connected, and do not overload this device. Ensure the total load to this device does not exceed the value listed in the **Specifications** section of this manual.
17. **Openings** - Do not insert any object through the device's cooling vents. It may come in contact with high-voltage components and cause injury, death, or damage to the device. Do not allow liquids to enter any opening in this device.
18. **Servicing** - This device does not contain any user-serviceable components. Removing the cover from this device may present a shock hazard and/or may void the warranty.
19. **Damage Requiring Service** - If any damage occurs to this device, immediately disconnect (unplug) the AC power cord from the wall outlet. Do not use the Power switch or disconnect the AC power cord from the connector on the rear of the device to disconnect power. Notify APC Technical Support or Customer Service at once.
20. **Replacement Parts** - None of the components in this device can or should be removed or replaced unless it is by an APC-qualified technician.
21. **Periodic Inspection** - Inspect the line cords, telephone/data cords, and DSS/CATV coaxial cables connected to this device to ensure they are fully inserted or attached.



Protect Your Investment

Thank you for selecting APC's S Type Power Conditioner with Battery Backup. We at APC know you have made an intelligent choice sure to reward you for many years. To ensure you receive all the benefits and protection that accompany your purchase, please take a few minutes to fill out and mail the enclosed Warranty Registration Card, or complete the online form at www.apcav.com.

Note: Under California law, failure to register your purchase may not exclude you from provisions of the Warranty and Equipment Protection Policy. The benefits of warranty registration are outlined below.

Registration

Registering your purchase now guarantees that you will receive all the information and special offers you qualify for as the owner of this product.

Verification

Registering your purchase now confirms your right to maximum protection under the terms and conditions of the Warranty, and Equipment Protection Policy.

Confirmation

Registering your purchase now provides you with a way to confirm yourself as the owner of the product in the event of fire, theft or loss.

Safety Symbols



This “bolt of lightning” indicates uninsulated material within your unit that may cause an electrical shock. For the safety of everyone in your home, please do not remove the product cover.



This “exclamation point” symbol calls attention to features for which you should read about in this Manual to avoid operating and maintenance problems.

Warnings, Cautions and Notes

Warnings

Warnings provide information about a procedure that, if not performed exactly as stated, may result in injury or death.

Cautions

Cautions provide information about a procedure that, if not performed exactly as stated, may result in equipment damage.

Notes

Notes provide information that is essential to highlight.

Table of Contents

Safety Information	i
Protect Your Investment	iii
Chapter 1 - Introduction	1-1
Proven Expertise... Proven Reliability	1-2
Package Contents	1-2
Safety Precautions	1-3
Unit Power Capacity	1-3
Features	1-3
Front and Rear Panels	1-5
Rear Panel Connectors and Circuit Breaker	1-8
Chapter 2 - Installation	2-1
Removing the Battery Pack	2-1
Installing the Unit	2-2
Inserting and Connecting the Battery	2-3
Powering On and Connecting Equipment	2-5
Performing the System Test	2-5
Status and Informational Screens	2-9
Connecting the Components	2-14
S10/S15 Setup Using Front-Panel Controls	2-15
Limited Warranty	2-23
Technical Specifications	2-24
Chapter 3 - Troubleshooting	3-1
Unit will not turn on.	3-1
Connected equipment reboots or turns off during or after the unit switches to battery power	3-2
REPLACE BATTERY LED is illuminated	3-3
Contact Information	3-4

Chapter 1

Introduction

Congratulations on purchasing your APC Model S Type Power Conditioner with Battery Backup. Two S Type Power Conditioners with Battery Backup are covered in this manual, the S10 and S15. The S15 is shown in Figure 1. Your power conditioner is guaranteed to protect your high performance audio and video (AV) system from damaging power surges, spikes and lightning, as well as power outages. Isolated noise filter banks (INFBs) and automatic voltage regulation (AVR) will eliminate power as a source of audio and video signal degradation. Pure sine wave battery backup power will prevent interruptions, lost pre-sets, missed DVR recordings and lost media server data when the power goes down. Data-line surge protection jacks stop surges from traveling over phone or data lines.

Digital satellite system (DSS), cable modem (CM), and cable TV (CATV) coaxial cable lines are equally protected. With an APC Model S10 or S15 Power Conditioner with Battery Backup, your entire home entertainment experience is protected from damage or interruption as a result of bad power. You can enjoy your home theater experience confident that your equipment's performance is optimized, and protection is guaranteed.



Figure 1. S15 Power Conditioner with Battery Backup (Front View)

Proven Expertise... Proven Reliability

From corporate data centers to home offices, APC is regarded as a leading innovator, designer and manufacturer of high-quality power protection solutions. With its proven reputation for *Legendary Reliability*[™], leading companies depend on APC every day, 24 x 7 to protect and support many of the most critical networks in the world. Over the last 20 years, APC has been a pioneer in the development of innovative power protection technologies that have resulted in countless industry awards, design patents, and an installed base numbering in the tens of millions of units. Multiple R&D centers, in conjunction with APC-owned and controlled factories ensure APC solutions are the safest, most advanced and most reliable products available. When you buy APC, you buy “peace of mind”.

Package Contents

Note: The Sxx and SxxBLK models have the same performance, features and functionality. The only difference is color. In this manual, "S10" and "S15" will be used to refer to both the silver and black models.

Check your Model S Power Conditioner shipping container for the following items:

Item	Item Description	Quantity Shipped
1.	Model S type Power Conditioner with Battery Backup (battery pack included)	1 ea.
2.	Front Panel Display (bezel)	1 ea.
3.	AC Input Power Cord	1 ea.
4.	Coaxial Patch Cables	3 ea.
5.	DC Trigger Cable	1 ea.
6.	PowerChute Personal Edition Software CD	1 ea.
7.	USB Interface Cable	1 ea.
8.	Telephone Patch Cable	1 ea.
9.	Ethernet Patch Cable (not available with S10)	1 ea.
10.	Model S10/S15 User Manual	1 ea.
11.	Equipment Protection Policy Sheet	1 ea.
12.	Warranty Registration Card	1 ea.
13.	Rack-mount Kit (two rails, two ear brackets, two cleats, screws, and instruction sheet).	1 ea.

Note: If any items are missing, contact APC Customer Service immediately.

Safety Precautions

Please ensure you have read and understand all of the safety information located in the front of this manual. If you have any questions concerning any of the safety information, or if you are concerned that your home may not be properly wired for this equipment, please contact APC Technical Support or a qualified and licensed electrician.

Unit Power Capacity

The S10 Power Conditioner is rated for 700 watts (continuous), and the S15 is rated for 1000 watts (continuous). However, they are designed to support component inrush currents that are much higher than their continuous power rating. The S10 and S15 are capable of supplying the dynamic peak current draws required by any component designed to work on a 15 amp circuit. Despite the power ratings listed on their nameplates, high performance AV equipment draws much less than their listed power ratings. The S10 and S15 also allow the user to determine how much power is still available as each device is connected to the S10 or S15 unit.

Features

The Model S10 and S15 Power Conditioners' major features are covered in the following descriptions.

Pure Sine Wave Battery Backup

Both the S10 and S15 provide battery backup power to maintain pure, uninterrupted power for your home theater and automation systems in the event of a power blackout. Battery backup power not only prevents interruptions in your audio and video entertainment, it also helps prevent lost pre-sets, lost multimedia server data, damaged hard drives, and premature projector bulb wear and tear.

Automatic Voltage Regulation (AVR)

The S10 and S15 are unique in that they provide automatic voltage regulation (AVR), which compensates for excessive high and low voltage conditions. With AVR, all devices connected to the S10 or S15 are protected against voltage fluctuations, which also prolongs the life of your AV equipment. Low voltage conditions can also negatively impact video quality, and AVR can help improve picture quality if low voltage conditions are present.

Surge Protection

The S10 and S15 provide guaranteed protection against damaging surges, spikes and even lightning strikes. The S-Type conditioners not only provide protection from surges traveling over AC power lines, protection is also offered against surges traveling over system data lines including COAX, telephone and Ethernet lines (This varies by model, reference the Specifications section for more information).

Isolated Noise Filter Banks

Both the S10 and S15 eliminate electromagnetic and radio frequency interference (EMI and RFI) that, when severe enough, can negatively impact sound and video quality. Each filter bank is electrically isolated from the other filter banks to prevent noise generated by one component from polluting other connected components. APC's noise filtering helps enable your system perform to its maximum capabilities.

DC Trigger

This only works with devices that support DC triggering. When the unit is connected to a device that is acting as a DC trigger, the device controls when the 'delayed outlet banks' are turned on and off. The S10 and S15 can also allow the DC signal to pass through to another connected device. For more information on how triggering works, or to determine if your system has this capability, refer to your equipment owner's manual.



Caution: When connecting to the DC Trigger jacks, connect the DC trigger source to the IN jack. The OUT jack should **only** be used as a pass-through. The DC Trigger signal can be short circuited if the input and output cables are reversed. The maximum input voltage for the DC Trigger is 30VDC. **Do not** apply an AC voltage to the DC trigger jacks. Failure to comply with this Caution may damage your equipment.

Rack-mountable

Rack-mount hardware is included to mount the unit into any 4-post, 19" rack. See below for more information.

ON/OFF Sequencing

This feature ensures connected equipment is powered up and powered down in the proper sequence, with the right amount of delay between stages. It allows you to program a delay into a sequence ranging between 0 and 10 seconds. This delay eliminates transients that can affect connected components, or that may cause the building circuit breaker to trip.

Removable Support Feet

The feet on the bottom of the unit can be unscrewed and removed to save space when the unit is rack-mounted.

Front and Rear Panels

The following sections describe the controls and indicators on the front and rear panels.

Front Panel Controls and Indicators

The front panel controls and indicators for the S10 and S15 Power Conditioners are identical, and are detailed in Figure 2. Each numbered callout refers to a corresponding numbered description contained in the list that immediately follows Figure 2.

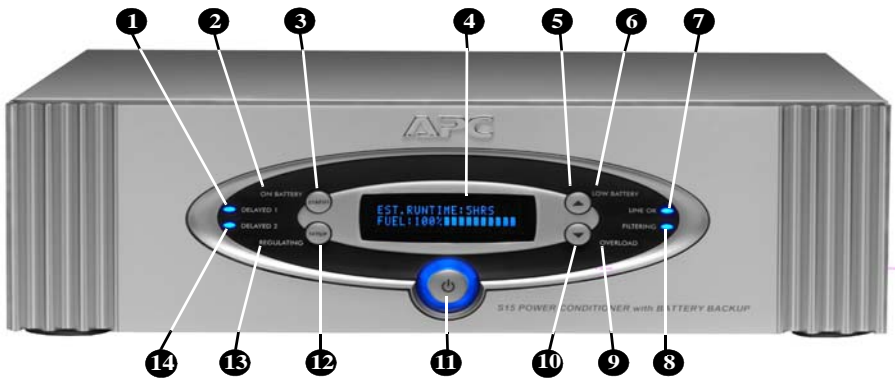


Figure 2. S15 Front Panel Controls and Indicators

1 DELAYED 1 Status Indicator

When lit (blue), conditioned power is being supplied to equipment connected to the rear-panel outlets marked **Delayed 1**.

2 ON BATTERY Status Indicator

When lit (orange), the Power Conditioner is operating on power from the internal Battery Pack and is providing clean power to the connected equipment. The unit will go **On Battery** when the input utility voltage either drops below the user-selectable level, goes above the user-selectable level, or experiences an outage, or momentary input utility voltage drops or surges.

3 STATUS Push Button

When you press this pushbutton, it provides the unit status for: **Input and Output Voltage, Input and Output Frequency, Telephone and Internet** contact information, **Model** and **Serial Number, Firmware (FW) Version** number, **Source (Standby, Battery, or Utility), Estimated Runtime** (in hours or minutes), and **Estimated Runtime** (in hours) with a **Fuel** indication (as a percentage with bar graph) indication, as well as **System Load** (in watts), and **Load** (as a percentage in bar graph form).

This push button can also be used to set a *default screen*, which is a screen that is automatically displayed all the time.

4 Vacuum Fluorescent Display*

The vacuum fluorescent display (VFD) conveys information about unit and power status. It is also used to display information when changing unit settings.

Note: The VFD and light emitting diodes (LEDs) can be dimmed or turned off independently of each other via the front control panel SETUP push button.

5 Up Arrow Push Button

This button is used to increase or turn on parameters for various user-selectable settings such as: **Audible Alarms, Sensitivity, Display Dimmer, LED Dimmer, Go To Bat If, Outlet 1 & 2 Delay** (in seconds), **Low Bat Warning**, and so on.

6 **LOW BATTERY Status Indicator**

When lit (orange) it indicates the battery pack charge level is low. When this indicator turns on it indicates that there is minimum, time remaining. The purpose of this warning is to allow time to shut off power to the equipment before the battery pack is fully discharged. The user can set the value (from **2** to **25** minutes). When the indicator is lit, leave the unit plugged in to allow batteries to recharge.

Note: The unit does not have to be powered on for batteries to recharge.

7 **LINE OK Status Indicator**

When this indicator is lit, it indicates the input voltage from the utility is within the acceptable range (90V to 144V) for the S10 and S15. If it is not lit, the input voltage from the utility is outside the acceptable range, and it will go into *boost mode* or *trim mode* to compensate for the (low or high) incoming AC line voltage.

8 **FILTERING Status Indicator**

When this indicator is lit, it notifies the user that the electromagnetic interference and radio frequency interference (EMI and RFI) noise reduction circuit is active.

9 **OVERLOAD Status Indicator**

When lit (red) the unit is overloaded; unplug the devices connected to the unit one at a time until the indicator is no longer lit.

10 **Down Arrow Push Button**

This pushbutton is used to change (decrease or turn off) parameters for various user-selectable settings such as: **Audible Alarms, Sensitivity, Display Dimmer, LED Dimmer, Go To Bat If, Outlet 1 & 2 Delay** (in seconds), **Low Bat Warning, Bat Rep Date**, and so on.

11 **On/Off Switch**

This switch controls power to all of the 12 outlets located on the rear of the unit. APC recommends the unit be left ON at all times. Control power to your system components as you normally would, instead of using the S10/S15 **On/Off Switch**.

12 SETUP Push Button

This pushbutton is used to advance the display through the various user-selectable set up functions provided by the unit such as: **Audible Alarms, Sensitivity, Display Dimmer, LED Dimmer, Go To Bat If, Outlet 1 & 2 Delay** (in seconds), **Low Bat Warning, Bat Rep Date**, and so on.

13 REGULATING Status Indicator

When lit (blue), it indicates automatic voltage regulation (AVR) is enabled and operating to correct low or high voltage conditions.

14 DELAYED 2 Status Indicator

When lit (blue), conditioned power is being supplied to equipment connected to the rear-panel outlets marked **Delayed 2**.

Rear Panel Connectors and Circuit Breaker

The rear panel connectors for the S10 and S15 Power Conditioner are shown in Figure 3. The only difference between the rear panels of the S10 and S15 is the S15 provides a coaxial cable splitter and jacks for Ethernet equipment surge-protection, and a connector for an external Battery Pack (sold separately). Each numbered callout corresponds to a numbered description in the list that follows Figure 3.

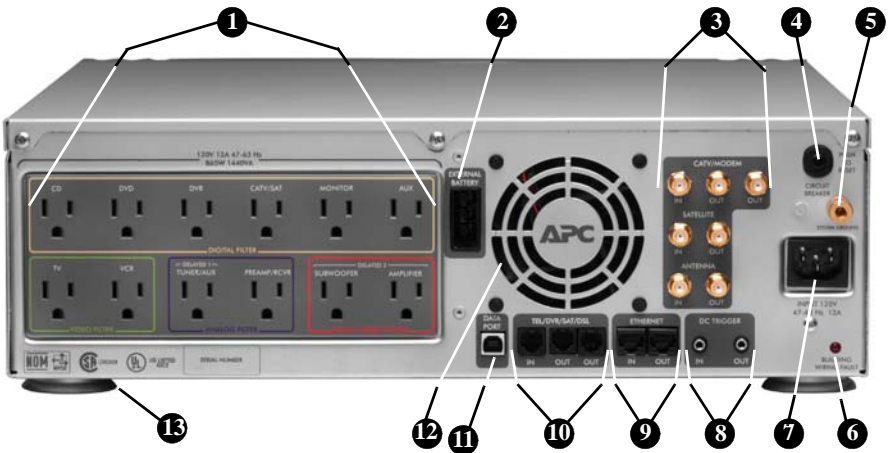


Figure 3. S15 Rear Panel Connectors, Indicator, and Circuit Breaker

All outlets provide surge protection, voltage regulation, noise filtering and pure sine wave battery backup power.

- | | | | |
|---|---------------------------------|---|----------------------|
| ① | Outlet Banks | ⑧ | ENVIRONMENTAL Port |
| ② | EXTERNAL BATTERY | ⑨ | Ethernet Port |
| ③ | COAX/RF Connectors | ⑩ | TEL/DVR/SAT/DSL |
| ④ | CIRCUIT BREAKER | ⑪ | DATA PORT Jack (USB) |
| ⑤ | SYSTEM GROUND Screw | ⑫ | Cooling Fan |
| ⑥ | BUILDING WIRING FAULT Indicator | ⑬ | Support feet |
| ⑦ | Input power connector | | |

① **Outlets** - These include the two rows of six outlets (total of 12 outlets) on the rear of the S Type Power Conditioner, shown in Figure 3. These outlets are arranged based on the type of filtering protection (**DIGITAL**, **VIDEO**, **Analog**). Isolated noise filter banks (INFBs) eliminate electromagnetic interference (EMI), and radio frequency interference (RFI) that can negatively affect sound and video quality. APC recommends that you examine the types of outlets provided, review your equipment requirements, and plug devices into the appropriate outlets to assure optimum protection for your equipment. The various types of outlets are defined in the following subparagraphs:

- **DIGITAL FILTER** Outlets eliminate noise interference for Digital Components (**CD**, **DVD**, **DVR**, **CATV/SAT**, Flat Panel **MONITOR**, **AUX**, hi-definition tuners, and so on.).
- **VIDEO FILTER** Outlets provide filtering for video devices (**TV** and **VCR**).

Note: Any digital device can be plugged into the **DIGITAL FILTER** outlets, any video device can be plugged into either of the **VIDEO FILTER** outlets, etc. Example, if you have a cable box and a satellite receiver, but no monitor, you can plug the cable box into the "**CATV/SAT**" outlet, and the satellite receiver into the "**Monitor**" outlet.

- **ANALOG FILTER** Outlets provides filtering for analog-based equipment (**TUNER/AUX** and **Preamp/Receiver**).
- **HIGH CURRENT FILTER** outlets provide filtering for high-current devices (**POWERED SUBWOOFER** and **AMPLIFIER**).

2 EXTERNAL BATTERY Connector

This is only available with the S15, and provides a connection for APC's optional S-Type Extended Battery Pack. For additional information, please go to www.apcav.com, or contact your local APC retailer.

3 Surge Protected COAX/RF Connectors

The surge protection feature prevents surges that may travel over coaxial data lines from damaging the system. Connect the coaxial cable from the CATV or cable modem provider to the connector marked **IN**, connect other cables from the connectors marked **OUT** to the device(s) being protected (CATV box or cable modem).

Note: In some cases, the input for both CATV box and cable modem are derived via a single cable from the provider, similar to how TV and Internet access occurs through one cable.

The S15 model provides a *cable splitter* for your CATV system or cable modem. The S10 model only provides a connection for a single output.

Additional Surge Protected COAX/RF Connectors

The S10 and S15 also provide surge protection for your satellite, cable, or RF antenna system. The surge protection feature prevents surges that travel over a coaxial cable from damaging your equipment. Connect the coaxial cable from the satellite, cable, or antenna system to the connector marked **IN**, connect another coaxial cable from the connector marked **OUT** to the device being protected (satellite, cable, or antenna).

4 **CIRCUIT BREAKER** – Provides a *press-to-reset* circuit breaker. When it is “tripped” due to an electrical surge or overload, it pops out and shuts down output power to the outlets. To reset the Circuit Breaker, press it in.



Caution: When resetting the Circuit Breaker, push the button in quickly, and release the button. **Do not** hold the Circuit Breaker button in. Failure to comply may result in equipment damage.

5 SYSTEM GROUND Screw

The S10 and S15 allow the grounding wires from your equipment to be connected to a central terminal screw located on the rear of the unit. This ground connection eliminates *ground loop* problems. Connect all equipment ground wires to this terminal to break any possible ground loops that can cause an audible ‘hum’.

6**BUILDING WIRING FAULT Indicator**

If this indicator is lit, then one of three wiring problems exists in the building wiring circuit:



- Missing ground
- Overloaded neutral
- Reversed polarity

Contact a licensed electrician to resolve the problem.

7**Input Power Connector**

Connect one end of the supplied AC power cord to the S10 or S15 AC Input Power Connector. Connect the other end of the power cord to the AC utility power source (120 Vac, 15A, 50 to 60 Hz).

8**DC TRIGGER Jacks**

Provides for connection of a component acting as a DC trigger, which controls turn on/off, as well as sequencing of the **DELAYED1 and 2** outlet banks. The S10 and S15 also allows that DC signal to pass through to another connected component.



Caution: When connecting to the DC Trigger jacks, connect the source of the DC Trigger to the IN jack. The OUT jack should be used only as a pass-through. The DC Trigger signal can be short circuited if the input and output cables are reversed. The maximum input voltage for the DC Trigger is 30VDC. Do not apply an AC voltage to the DC Trigger jacks. Failure to comply with this statement may result in equipment damage.

9**ETHERNET Surge Protected Jacks**

The S15 protects a device connected to a home network from surges traveling over Ethernet data lines. Connect the supplied RJ45 cable from the wall jack (source) to the connector marked **IN**. Connect another network cable from the connector marked **OUT** to the network equipment to be protected.

10 Surge Protected Telephone Jacks (TEL/DVR/SAT/DSL)

The S15 has a telephone line splitter (2-line 4-wire with splitter) with surge protection for components connected via telephone line. Connect the supplied RJ11 telephone cable from the wall jack (source) to the telephone line connector marked **IN**. Connect the other telephone cables to the connectors marked **OUT A** and/or **OUT B** to the equipment to be protected (telephone, DVR, DSS, or DSL). The S10 has 1-line 2-wire (no splitter) connector.

Note: The splitter only splits two lines (two lines running through one phone cable). It cannot be used to physically separate a single line into two lines, such as with a Y connection.

11 DATA PORT Jack (USB)

Enables the S10 and S15 to communicate with the included PowerChute Personal Edition software. If the unit is also protecting a home computer, the software will automatically save files and gracefully shutdown the operating system if the S10 or S15 are about to shutdown due to a low battery condition. For more information regarding the installation and use of this software, see the documentation contained on the PowerChute Personal Edition CD.

12 Cooling Fan

Both units provide a microprocessor controlled, ultra-quiet cooling fan, which keeps the unit cool when operating on battery power.

C h a p t e r **2**

Installation

This chapter contains the following procedures:

- Removing the Battery Pack
- Installing the Unit
- Inserting and Connecting the Battery
- Powering On and Connecting Equipment
- Performing the System Test
- Status and Informational Screens
- Connecting the Components
- S10/S15 Set Up Using Front-Panel Controls

Removing the Battery Pack

1. Remove the battery retaining bar.
2. Pull the battery straight back.
3. Push in the retaining tabs to allow the battery to come out completely.

Installing the Unit

The S10 and S15 may be installed on a flat, solid surface or rack-mounted.

Warning: The S10 and S15 weigh approximately 60 pounds each, and we recommend that two people lift the unit. If you remove the battery, as described above, it will make lifting and positioning the unit much easier. Lift the unit carefully by firmly grasping both sides of the unit in the middle. Failure to comply may result in personal injury and/or damage to the equipment.

Proper placement of the S10 or S15 should be accomplished in accordance with the following procedures:

Installing on a flat surface - Place the unit on a solid, flat surface that is capable of supporting at least 60 lbs.

Note: Avoid placing other components directly on top of or behind the unit. Leave at least one inch of space on all sides to allow for proper air ventilation. Do not block the fan.

Rack mounting- If the S Type unit is to be rack-mounted, please follow these four basic steps:

Note: The rack-mounting hardware that is shipped with the unit is designed for 19-inch wide racks only.

1. Install the *rack-mount rails*. (See the installation sheet located in the box containing the rack-mount rails.)
2. Install the *rail cleats*. (See the installation sheet located with the cleats in the box marked “Accessories.”)
3. Install *rack-mount ears*. (Optional — See the installation sheet located with the cleats in the box marked “Accessories.”)

Note: Rack-mount ears are required only if you desire to lock the unit to the front of the rack to prevent movement from front to rear.

Caution: Rack-mount ears should **not** be used alone to support the unit. Rack-mount rails should always be used to support the unit’s weight when it is mounted in a rack.

4. Slide the unit into the rack so that the cleats mounted on the side of the unit fit within the track of the rack-mount rails. If the ears were mounted, screw the mounted ears into the rack to lock unit into position. (See the installation sheet located in the box marked, “Accessories.”)

Note: Avoid placing other components directly on top of or behind the unit. Leave at least one inch of space on all sides to allow for proper air ventilation. Do not block the vents or fan.

Inserting and Connecting the Battery

In accordance with APC's interpretation of Department of Transportation regulations, APC ships this device with the internal battery pack disconnected. The front bezel of the unit is also not attached to the unit when it is shipped.

This procedure is for connecting the battery when the front bezel has been prematurely installed onto the chassis. Perform the following steps to connect the internal battery pack:

1. Grasp the *front panel* at the sides, as shown in Figure 4, and pull the front bezel from the unit.



Figure 4. Front Bezel Removal

2. Remove the battery retaining bar, and continue to Step 3.

3. Push the *battery wire connector* into the hole located to the left of the battery pack, as shown in Figure 5. Ensure that the battery wire connector is pushed into the hole, and securely connected by gently pulling on the wire to ensure it is attached to the connector.



Figure 5. Battery Wire Connection

Caution: Failure to install the battery retaining bar can be hazardous.

4. Install the *battery retaining bar*.
5. Install the *front bezel*, as shown in Figure 6, by aligning the four pins located on the back-side of the bezel with the holes at the left and right sides of the unit. Gently push the front bezel into place.



Figure 6. Front Bezel Installation

Powering On and Connecting Equipment

1. Power on the S10/S15 unit.
2. Connect the equipment.
3. Connect the data line cables.
4. Power on the connected equipment.

Performing the System Test

Before connecting equipment to the S10 or S15 Power Conditioner with Battery Backup, ensure that the unit is functional by connecting the AC Power Cord (provided) at the rear panel. Press the front panel power switch. Once power is applied to the unit, the display provides the information screens shown in Figures 7 through 15, and defined as follows:

APC - LEGENDARY RELIABILITY screen — this screen, shown in Figure 7, indicates that the unit has power and is functioning.

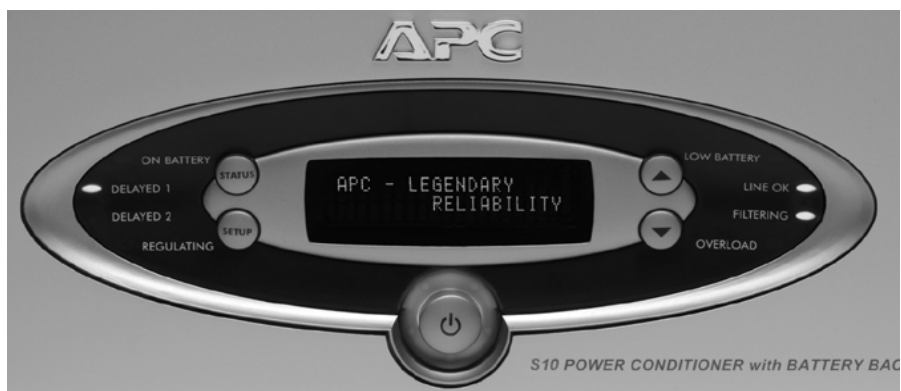


Figure 7. APC - LEGENDARY RELIABILITY Screen

Model Identification screen – the message displayed in Figure 8 indicates that the proper firmware was installed for the model purchased.



Figure 8. Model Identification Screen

DELAYED OUTLET1: ON; DELAYED OUTLET1: OFF screen – this message, shown in Figure 9, indicates that power is available to the device (**TUNER/AUX**) that is connected to the rear-panel outlet marked **Delayed 1**.

It also shows that power is not yet available to the devices that are connected to rear-panel outlets marked **Delayed 2** (**SUBWOOFER** and/or **AMPLIFIER**). Power to **Delayed 2** devices will be available after the factory preset delay (5 seconds) has elapsed. See “*Setup the S10 or S15*” to change the delay period. Once power is available for **Delayed 2** devices, the screen will change to **DELAYED OUTLET2: ON**.



Figure 9. DELAYED OUTLET1: ON; DELAYED OUTLET1: OFF Screen

SELFTEST IS ON; ON-LINE SELFTEST screen – this screen, shown in Figure 10, indicates that **Selftest** is on, and **On-Line Selftest** is active. This **Selftest** is conducted using utility power.



Figure 10. SELFTEST IS ON; ON-LINE SELFTEST Screen

SELFTEST IS ON; ON-BATTERY SELFTEST screen – Figure 11 shows that an **ON-BATTERY SELFTEST** is active with the unit internally switched to derive power from the internal battery pack, which should already be connected within the unit. The **ON BATTERY** LED is also lit (on) during this test. The unit will also test to determine if an optional external battery pack (Model SBATT) is connected to the unit. If no external battery pack is connected to the unit, the message **NO EXTERNAL BATTERY CONNECTED**) will be displayed, as shown in Figure 12.



Figure 11. SELFTEST IS ON; ON-BATTERY SELFTEST Screen

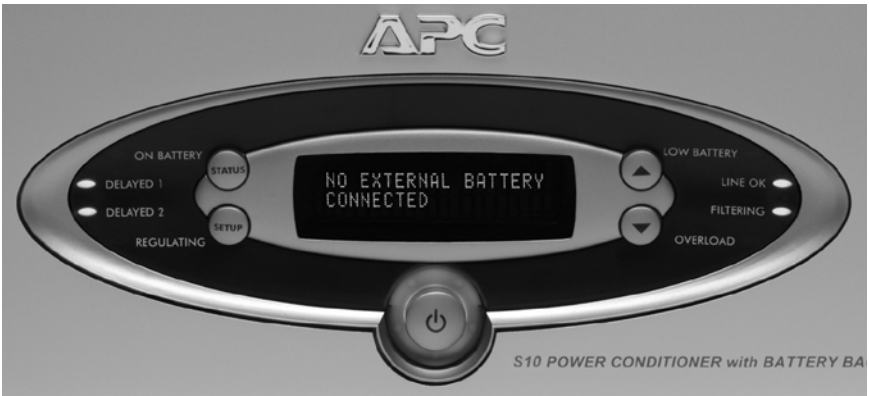


Figure 12. NO EXTERNAL BATTERY CONNECTED Screen

SELFTEST RESULT; SELFTEST HAS PASSED screen – Figure 13 displays the message **TEST HAS PASSED**, which indicates that self-test ran successfully to completion. If the message **TEST HAS FAILED** is displayed, please contact APC Technical Support.



Figure 13. SELFTEST RESULT; SELFTEST HAS PASSED Screen

Status and Informational Screens

The following paragraphs describe the various status and informational screens that are available with the S10 and S15.

Status Screens

The most important status screens available after the **Selftest** has completed include:

- INPUT VOLTAGE: XXXV; OUTPUT VOLTAGE: XXXV
- SYSTEM LOAD: <XXXW; LOAD: <XXX%
- EST. RUNTIME: XHRS; FUEL: XXX%

INPUT VOLTAGE: XXXV; OUTPUT VOLTAGE: XXXV

This screen is shown in Figure 14 and, displays the actual *input utility voltage level*, as well as the *actual voltage level* being output to the connected devices.

Note: As shown in Figure 14, at times, the voltage values on this screen may not match. This may be because separate circuits are used to make these voltage measurements, and there is a time delay between the two circuits when updating this status screen. This condition is considered part of the normal operation of the unit. Also, the voltage values may not match if the AVR is active.

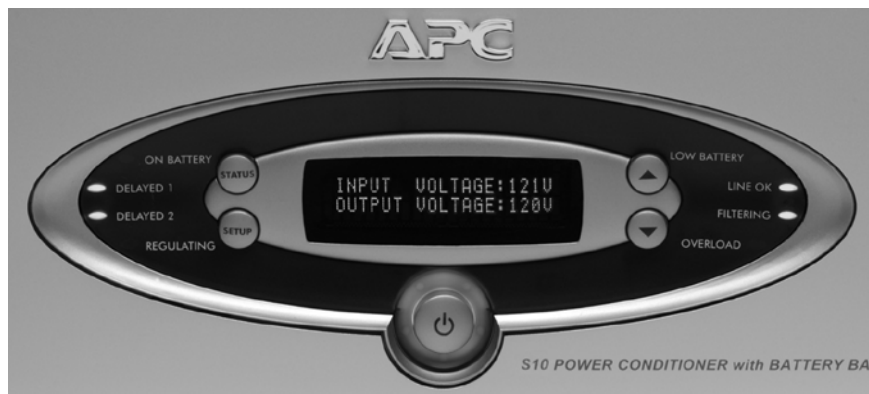


Figure 14. INPUT VOLTAGE: XXXV; OUTPUT VOLTAGE: XXXV Screen

SYSTEM LOAD: <XXXW; LOAD: <XXX%

This screen is shown in Figure 15. The S10 and S15 can also display the *value* (load) of the connected equipment *in watts*, and as a *percentage of the total allowable load* connected to the unit. Loads less than 5% of rated load (35 watts for the S10; 45watts for the S15) will be displayed as < 5%.

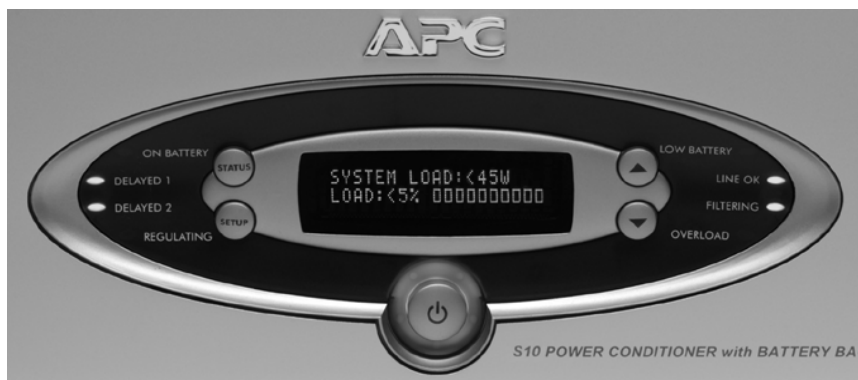


Figure 15. SYSTEM LOAD: <XXXW; LOAD: <XXX% Screen

EST. RUNTIME: XHRS; FUEL: XXX%

This screen is shown in Figure 16. Each unit can also display the estimated runtime as **EST. RUNTIME** (in hours), as well as the **FUEL** capacity of the internal battery pack (as a percentage) based on the total load connected to the device. If the estimated runtime is < 1 hour, the **EST. RUNTIME** will show in minutes.

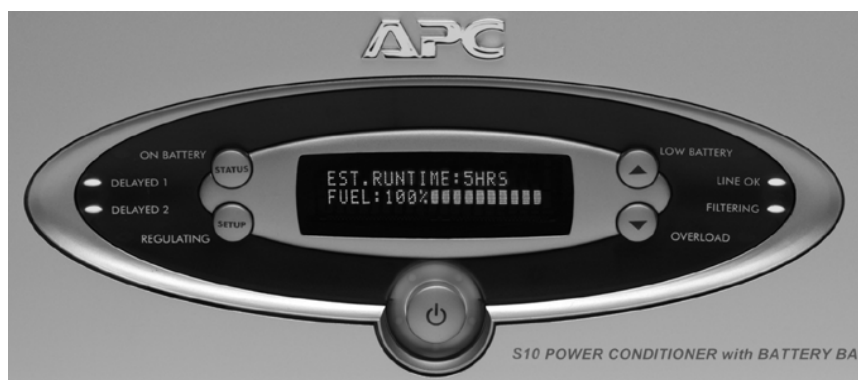


Figure 16. EST. RUNTIME: XHRS; FUEL: XXX% Screen

Note: For your convenience, you can set the unit to display any of the screens as the “default” screen. The default screen is the screen that the system will return to once the preset time has expired for other screens that are being displayed. APC recommends that you set the default screen to show the **EST. RUNTIME** and **FUEL** values, shown in Figure 16.

Note: The display will revert to the default informational screen after about 30 seconds of inactivity. To change the default informational screen, first press the **STATUS** button until the desired screen is displayed. Then press the **STATUS** button down for approximately 3 seconds until the screen displays **CURRENT SCREEN IS SAVED AS DEFAULT**.

The **SOURCE: XXXXXXXX; EST. RUNTIME: XHRS** screen, is as shown in Figure 17 below.



Figure 17. Default SOURCE: XXXXXXXX; EST. RUNTIME: XHRS Screen

Informational Screens

The S10 and S15 Power Conditioners with Battery Backup provide the following informational screens, which are accessed using the **STATUS** pushbutton:

- Source: XXXXXXXX screen
- FW Version: XXXXXXXX screen
- Model Number and Serial Number screen
- Phone Number and Technical Support Internet Address screen
- Input Frequency; Output Frequency screen

SOURCE: XXXXXXXX; EST. RUNTIME: XHRS Screen

This screen, shown previously in Figure 17, indicates which *type of source* the unit is deriving power from (**UTILITY**, **BATTERY**, or **STANDBY**). It also displays the **EST. RUNTIME** (in hours) based on the power source, and connected equipment **LOAD**. In **Standby** mode, the unit does not provide an output to the rear panel outlets.

Note: Whenever the S10 or S15 is connected to utility power, the electronics inside of each unit are active. If the front panel Power Switch is turned off, the unit goes into Standby mode and shuts off power to the rear-panel outlets, but the display remains active.



Figure 17. SOURCE: XXXXXXXX; EST. RUNTIME: XHRS Screen

Firmware Version: XXXXXXXX Screen

This screen, shown in Figure 18, provides information about the version of firmware that is loaded in the unit.

Always have the firmware version available any time you contact APC Technical Support. You should also have the model and serial numbers.



Figure 18. Firmware Version: XXXXXXXX Screen

Model Number and Serial Number Screen

This screen, shown in Figure 19, provides information about the S10 or S15 model that you have purchased. It also provides the correct serial number for the unit.

Note: Always have this information available any time you contact APC Technical Support. You should also have the firmware version.

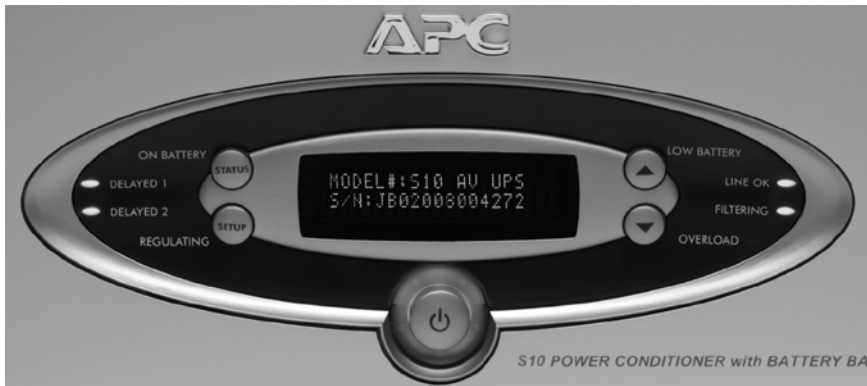


Figure 19. Model and Serial Number Screen

Phone Number and Technical Support Internet Address

This screen, shown in Figure 20, provides the world-wide telephone number for APC, as well as the Internet address for APC Technical Support and Customer Service. Please use this information any time you need to contact APC Technical Support or APC Customer Service.



Figure 20. Phone Number and Technical Support Internet Address Screen

INPUT FREQUENCY/OUTPUT FREQUENCY Screen

This screen, shown in Figure 21, shows the actual input utility voltage frequency, as well as the actual voltage frequency being output to the connected devices.

Note: At times, the frequency values on this screen may not match. This is because separate circuits are used to make frequency measurements, and there is a time delay between the two circuits for updating this status screen. This condition is considered unit normal operation.



Figure 21. INPUT FREQUENCY; OUTPUT FREQUENCY Screen

Connecting the Components

Warning: Do not make telephone, cable, Ethernet, antenna, electrical, or ground system connections during a lightning storm. Failure to comply may result in personal injury or death.

Note: Due to the unique filtering and surge protection provided by the S10 and S15, APC recommends connecting AV components as shown on the labels on the rear panel of the unit.

Connect your AV components as marked on the rear panel, and as described in the section *Rear Panel Connectors and Circuit Breaker*. To ensure ground loops are eliminated, and to ensure there is no audible hum in your speaker system, ground all AV components to the **GROUND SYSTEM** screw located on the rear panel.

S10/S15 Set Up Using Front-Panel Controls

You can use the front panel **SETUP** and **Arrow Up/Down** pushbuttons to configure (or turn on/off) various functions provided by each S Type unit. When you press the **SETUP** pushbutton, the unit functions are displayed in the following order:

1. Audible Alarm
2. Sensitivity, Display Dimmer
3. LED Dimmer
4. Go To Battery If <XX Volts, Go To Battery if >XX Volts
5. Outlet Delay1
6. Outlet Delay2
7. Low Battery Warning
8. Battery Replacement Date
9. Do Quick Selftest
10. Do Runtime Calculation
11. Display Beep Test
12. Screen Saver On/Off, or Reset to Default

AUDIBLE ALARM Setting – When the alarm is set to **ON**, as shown in Figure 22, it indicates an abnormal condition with the power or unit. It provides an *audible tone (beep)* whenever the unit detects an internal problem, or a problem with an externally connected battery pack. When it is set to **OFF** the audible tone is silenced.

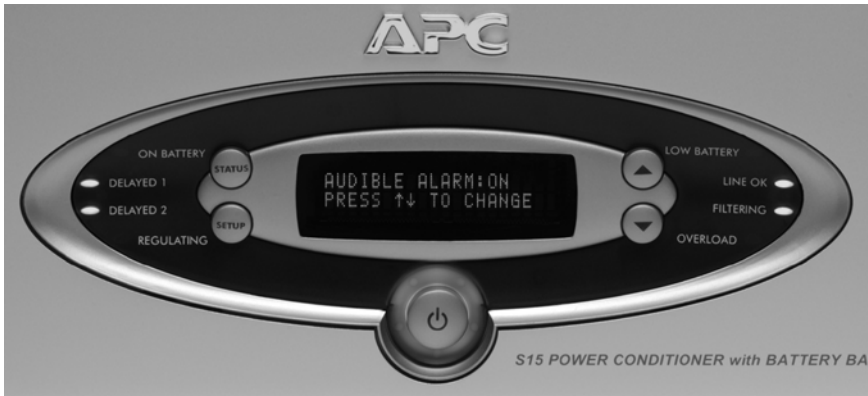


Figure 22. AUDIBLE ALARM Setting Screen

SENSITIVITY Setting – Press the **SETUP** pushbutton to advance to the **SENSITIVITY** function. This feature is used to adjust how the S Type unit reacts to input voltage waveform distortion and momentary power fluctuations. It allows you to adjust the sensitivity of the S10 and S15 to **LOW**, **MEDIUM**, and **HIGH** (as shown in Figure 23) using the **SETUP** and **Up/Down Arrow** pushbuttons. The Sensitivity adjustments have the following values:

HIGH Sensitivity – This should be used when the connected equipment is sensitive to momentary low voltage or brief power fluctuations. When it is set to **HIGH** sensitivity the unit is very sensitive to voltage distortion and is more likely to switch back and forth to battery power than it would under a **MEDIUM** or **LOW** sensitivity setting.

MEDIUM Sensitivity – This is the default setting suitable for most situations.

LOW Sensitivity – This setting should be used when the UPS frequently goes to battery (even though the utility voltage appears normal).



Figure 23. SENSITIVITY (HIGH) Setting Screen

DISPLAY DIMMER Setting – This lets you set a brightness level for the VFD of **HIGH, LOW, or OFF**. Use the **SETUP** pushbutton to advance to the Display Dimmer screen (shown in Figure 24). Once the display is shown, repeatedly pressing the **Up** or **Down Arrow** pushbutton allows you to set the brightness of the display. Once the display brightness is to the desired value, press the **SETUP** pushbutton to store the setting.

Note: Even when the display dimmer is set to **OFF**, the screen will turn back on momentarily when there is a significant change in system status, such as a power outage or a low battery condition.

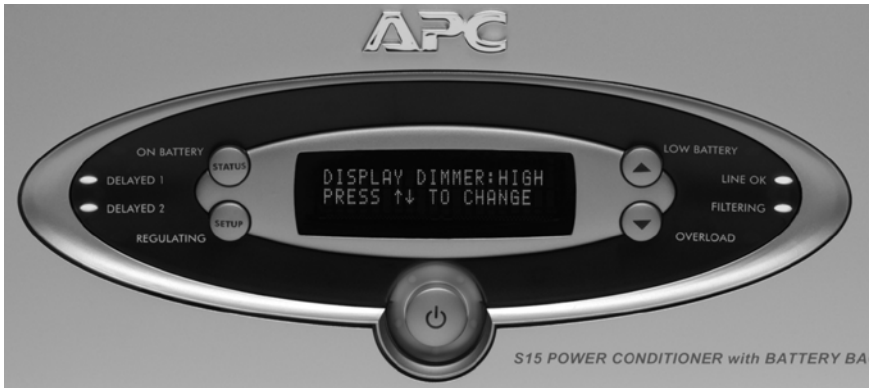


Figure 24. DISPLAY DIMMER (HIGH) Setting Screen

LED DIMMER Setting – This lets you set a brightness level for the front-panel light emitting diode (LED) indicators of **HIGH, LOW, or OFF**. Use the **SETUP** pushbutton to advance to the **LED DIMMER** screen (not shown). Once the display is shown, press the **Up Arrow** and **Down Arrow** pushbuttons to set the brightness level of the LEDs.

GO TO BATTERY IF > XXXV Setting – This function allows you to set a high voltage threshold for the unit, which forces it to switch to power from the *internal battery pack* once the threshold has been reached. The settings range is from **134** to **144** volts, as shown in Figure 25.



Figure 25. GO TO BATTERY IF > XXXV Setting Screen

GO TO BATTERY IF < XXXV Setting (not shown) – This lets you set a low voltage threshold for the unit, which will force it to switch to power from the internal battery pack when the threshold is reached. Settings range from **90** to **100** volts.

OUTLET DELAY1 and **OUTLET DELAY2 Setting** (not shown) screens – let you set a defined time delay (**0** to **10** seconds) for when the unit provides power to the rear panel outlet marked **Delayed1 (TUNER/AUX)** or **Delayed2 (SUBWOOFER and/or AMPLIFIER)**. By setting this delay it prevents power on or power off glitches from affecting other equipment connected to the unit. Outlet Delay1 is shown in Figure 26; the Outlet Delay2 screen is not shown.

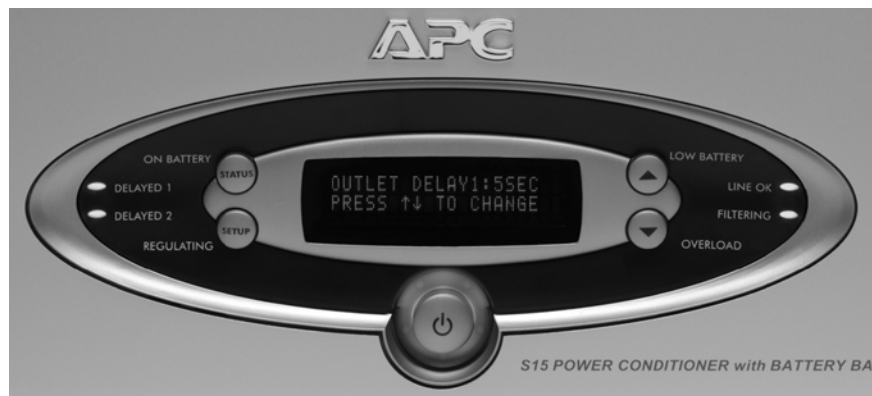


Figure 26. Outlet Delay1 Setting Screen

LOWBATTWARNING: XMIN Setting – This screen, shown in Figure 27, lets you set the unit to sound an alarm, and illuminate the **LOWBATTWARNING** LED whenever the battery pack’s *estimated runtime remaining* drops to or below the programmed setting (2 to 25 minutes).

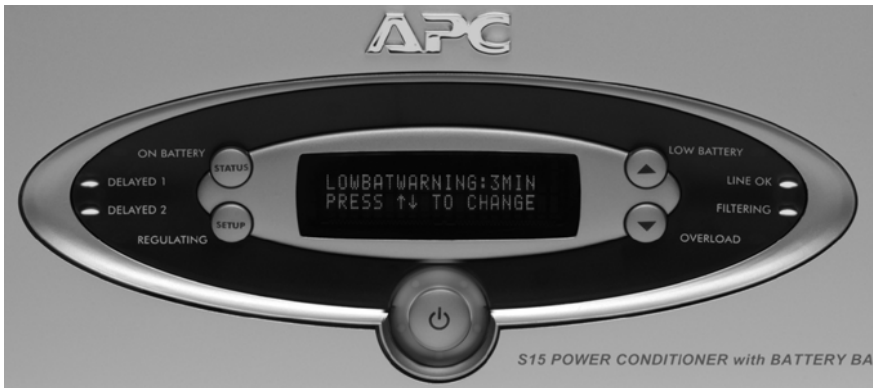


Figure 27. LOWBATTWARNING Setting Screen

BATREPDATE: XX/XX/XX Setting – This function allows you to input the exact date a replacement battery pack is installed in the unit, as shown in Figure 28. First, use the **Up/Down Arrow** pushbuttons to set the correct *month*, then press the **SETUP** pushbutton to move the cursor to the *day of the month* field. Set the day of the month using the **Up/Down Arrow** pushbuttons. Press the **SETUP** pushbutton to move the cursor to the *year* field. Set the year using the **Up/Down Arrow** buttons.



Figure 28. BATREPDATE: XX/XX/XX Setting Screen

DO QUIK SELFTEST screen – This function lets you manually initiate a self-test to ensure that the battery pack is in good health and the unit is operating properly.

Note: When you advance to this screen, press the **Up/Down Arrow** pushbuttons to start the **Selftest**. During **Selftest**, the same screens previously defined in this manual, are displayed.



Figure 29. DO QUIK SELFTEST Screen

DO RUNTIME CAL screen – This function, shown in Figure 30, allows you to manually initiate a **Runtime Calculation** test to calibrate internal measurements, which should result in more accurate runtime estimates. This should be done once every six months, or when the connected load size changes significantly. Once initiated, the unit will operate on battery power until a low battery condition occurs.



Figure 30. DO RUNTIME CAL Screen

DISPLY-BEEP TEST: screen – This function, shown in Figure 31, allows you to force the unit to perform **DISPLAY** and **BEEP** tests. Simply advance to the **DISPLY-BEEP TEST** screen and press either the **Up Arrow** or **Down Arrow** pushbutton. This will cause all the indicators and display fields to illuminate (as shown in Figure 32), and an audible beep to sound.



Figure 31. DISPLY-BEEP TEST: Screen



Figure 32. DISPLY-BEEP TEST: Screen (all indicators/fields lit)

SCREEN SAVER: ON/OFF screen — This function, shown in Figure 33, allows you to force the unit to continuously alternate a message **S10** (or **S15**) **POWER CONDITIONER WITH BATTERY BACKUP** between the two lines of fields on the VFD. This feature helps to maintain display quality, as well as extending the life of the VFD.

Note: Even when the screen saver is set to ON, the screen saver message will only display when the system load is less than 5%.

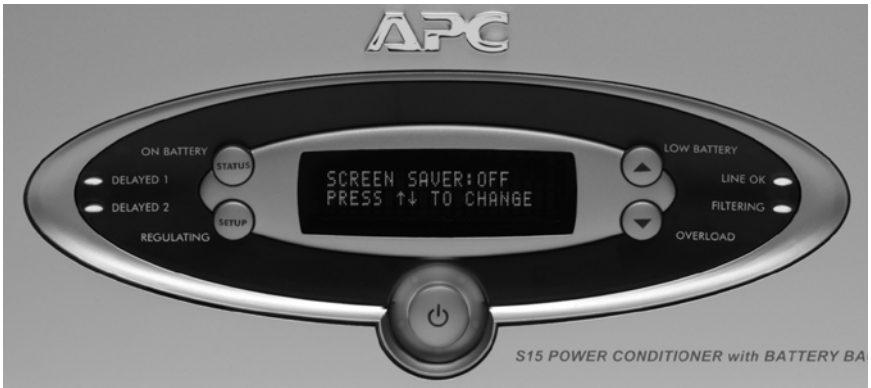


Figure 33. SCREEN SAVER Screen

RESET TO DEFAULT: YES/NO Setting — This function (see Figure 34) allows you to force the unit to reset all previous settings to the *factory default* values. Simply advance to this screen, then press either the **Up Arrow** or **Down Arrow** pushbutton. The system will display two messages:

INITIALIZING SETUP TO FACTORY DEFAULT and
INITIALIZATION COMPLETE”.

The system then returns to the **RESET TO DEFAULT** screen.

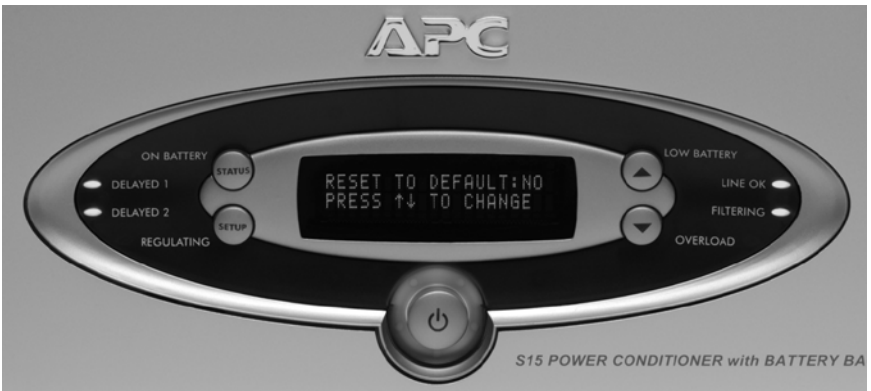


Figure 34. RESET TO DEFAULT Screen

Limited Warranty

American Power Conversion (APC) warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. To obtain service under warranty you must first obtain a *Returned Material Authorization (RMA)* number from customer support.

The following items are required to return a product:

- Prepaid transportation charges
- Brief description of the problem you encountered
- Proof of place and date of purchase

This warranty does not apply to equipment damaged by accident, negligence, or misapplication, or equipment that has been altered or modified in any way. This warranty applies only to the original purchaser of the product who must have properly registered the product within 10 days of purchase.

EXCEPT AS PROVIDED HEREIN, AMERICAN POWER CONVERSION MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to those purchasers.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL APC BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, APC is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

For more information concerning APC's Lifetime Equipment Protection Policy, please refer to the enclosed Equipment Protection Policy Sheet.

Technical Specifications

The table on the following pages contains the technical specifications for the Model S15 and S10 S Type Power Conditioner with Battery Backup.

FCC Compliance Information

This device complies with Part 68 and Part 15 of the Federal Communications Commission (FCC) rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

As required, the bottom of this equipment contains the Registration Number and Ringer Equivalence Number (REN) for this equipment, as well as other information. If requested, this information must be provided to the telephone company.

	S10 & S10BLK	S15 & S15BLK	External Battery Pack (SBATT & SBATTBLK)
Input:			
Voltage Range for Operating on Utility	90V to 144V	90V to 144V	N/A
Nominal Voltage	120 Vac	120 Vac	48 Vdc
Allowable Frequency for Operating on Utility	47 to 63 Hz	47 to 63 Hz	N/A
Rated Input Current	9 Amps	12 Amps	N/A
Circuit Breaker Rating	15 Amps	15 Amps	N/A
Output:			
Number of Outlets	12 (all outlets surge protected, conditioned, regulated with battery backup)	12 (all outlets surge protected, conditioned, regulated with battery backup)	N/A
Outlet Type	NEMA 5-15R	NEMA 5-15R	N/A
Rated VA Capacity	1000 VA	1440 VA	N/A
Rated Watt Capacity, continuous	700 Watts	1000 Watts	N/A
Rated Output Current	9 Amps	12 Amps	N/A

Battery Backup:			
Transfer Time to Battery during blackout	7 ms typical, 10ms maximum	7 ms typical, 10ms maximum	N/A
Battery Type & Quantity	Four 12V/9A hr sealed, lead-acid, maintenance free	Four 12V/9A hr sealed, lead-acid, maintenance free	Eight 12V/9A hr sealed, lead-acid, maintenance free
Typical Recharge Time to 90% capacity	<8 hrs	<8 hrs	N/A
Battery Service	User replaceable & Hot-swappable	User replaceable & Hot-swappable	Not User Serviceable
Battery Life ¹	2 to 5 Years	2 to 5 Years	2 to 5 Years
Battery Runtime ²	33 min. (half load) & 12 min. (full load)	20 min (half load) & 7.5 min. (full load)	N/A
Surge Protection:			
Let-Through Voltage Rating	<50V	<50V	N/A
Data Line Protection Jacks	RJ45	RJ45	N/A
Coaxial Cable	3 pair + splitter	3 pair	N/A
Ethernet	8 wire, 10/100BaseT	None	N/A
Telephone/DSL	2 line, 4 wire with splitter	1 line, 2 wire protection	N/A
DC Trigger	Two 3.5mm mini-jack plugs (5 to 30V)	Two 3.5mm mini-jack plugs (5 to 30V)	N/A
Physical:			
Unit Dimensions	17 x 5.25 x 18.55 in 43.2 x 13 x 47.1 cm	17 x 5.25 x 18.55 in 43.2 x 13 x 47.1 cm	17 x 3.5 x 18.55 in 43.2 x 8.9 x 47.1 cm
Unit Weight	62 lbs / 28 kgs	60 lbs / 27 kgs	65 lbs / 30 kgs
Warranty:	2 years including battery	2 years including battery	2 years
<p>Note₁: Depends on usage, environment and operating temperature.</p> <p>Note₂: Actual runtimes are determined based on load, charge level, battery health, and the number of batteries installed.</p>			

As required, the bottom of this equipment contains, among other information, the *Registration Number* and *Ringer Equivalence Number (REN)* for this equipment. If requested, this information must be provided to the telephone company.

Troubleshooting

This chapter describes some possible problems that might occur, and the probable causes and solutions. They include:

1. Unit will not turn on.
2. The AV equipment connected to the S Type unit reboots or turns off during or after the unit switches to battery power.
3. The REPLACE BATTERY indicator is illuminated (on).

Note: The VFD screen will display any faults or warning conditions that occur with an accompanying message that explains what action to take. If you are ever in doubt about what action to take, please contact APC Technical Support. Contact information is provided at the end of this section.

Unit will not turn on

<i>Probable Cause:</i>	Battery is not connected.
<i>Solution:</i>	Remove the front display panel by grasping the sides and pulling straight back. The battery is located on the right side of the unit. The black battery connector should be pushed snugly into the battery socket located just to the left of the battery pack. Reference the Connect Battery section to view photographs related to this procedure.
<i>Probable Cause:</i>	No power or insufficient power available at the wall outlet.
<i>Solution:</i>	Ensure that the wall outlet has good power by checking it with a voltmeter, or by plugging the power cord of a known good device into the outlet.

Note: The unit will not turn on and accept incoming utility power if the power is out of range. The unit can still be "cold-started" using battery power by pressing and holding the power switch in until the unit beeps.	
Probable Cause:	Circuit breaker has tripped.
Solution:	Check both your home and unit circuit breakers. If the circuit breaker on the rear of the APC unit has "tripped", the center post will be extended out about 1/4 to 1/2 inch. Push it back in to reset it. If it trips again, reduce the number of devices that are plugged into the unit one at a time, and try again.
Note: The unit circuit breaker is rated for 15 Amps; however, the National Electrical Code (NEC) dictates that any particular home circuit should not be loaded to more than 80% of its rating.	

Connected equipment reboots or turns off during or after the unit is on battery power

Probable Cause:	Battery was disconnected after the unit was installed and powered on.
Solution:	The unit will warn you via the LCD if the battery is disconnected, but this warning could go unnoticed. Remove the front bezel by grasping the sides of the bezel and pulling straight back. Check the battery connection to ensure that it is fully pushed into its battery connector socket.
Probable Cause:	The unit is overloaded.
Solution:	If the unit has too many devices plugged into the outlets, the runtime when operating on battery will become very short. If you check the display, you can determine how much of the UPS load capacity is used. Also, there is a red OVERLOAD LED on the front panel that will light if the unit is overloaded (greater than 95%), we recommend that you reduce the load by unplugging one or more devices.
Probable Cause:	Battery charge was low when the unit switched to battery power.
Solution:	Allow the unit to fully recharge by leaving the unit plugged in. It must charge approximately 8 hours to recharge a discharged battery to 90% capacity.

REPLACE BATTERY LED is illuminated

<i>Probable Cause:</i>	Battery is nearing the end of its useful life.
<i>Solution:</i>	Based on the date of purchase, if the unit is older than its 2 year warranty, a replacement battery cartridge (Part No. RBC63) can be ordered from your APC AV dealer.

Contact Information

Technical Support

Internet Address:	http://www.apc.com/support
Email Support:	support.apcc.com
Toll free:	(888) 88-APCAV

General Information

Address:	American Power Conversion 132 Fairgrounds Rd. West Kingston, RI 02892 USA
Toll free (U.S. and Canada):	(800) 800-4272
Fax:	(401) 789-3710

APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
 - **www.apc.com** (Corporate Headquarters)
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
 - **www.apc.com/support/**
Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
 - Regional centers

APC headquarters U.S., Canada	(1)(800)800-4272 (toll free)
Latin America	(1)(401)789-5735 (USA)
Europe, Middle East, Africa	(353)(91)702000 (Ireland)
Japan	(0) 35434-2021
Australia, New Zealand, South Pacific area	(61) (2) 9955 9366 (Australia)

Local, country-specific centers, for contact information go to:

www.apc.com/support/contact .

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

Entire contents copyright © 2007 American Power Conversion Corporation. All rights reserved. Reproduction in whole or in part without permission is prohibited. APC, the APC logo, and TRADE MARK NAMES are trademarks of American Power Conversion Corporation.

All other trademarks, product names, and corporate names are the property of their respective owners and are used for informational purposes only.

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>