

Intelligent Charging System

User Manual | PB-80C24



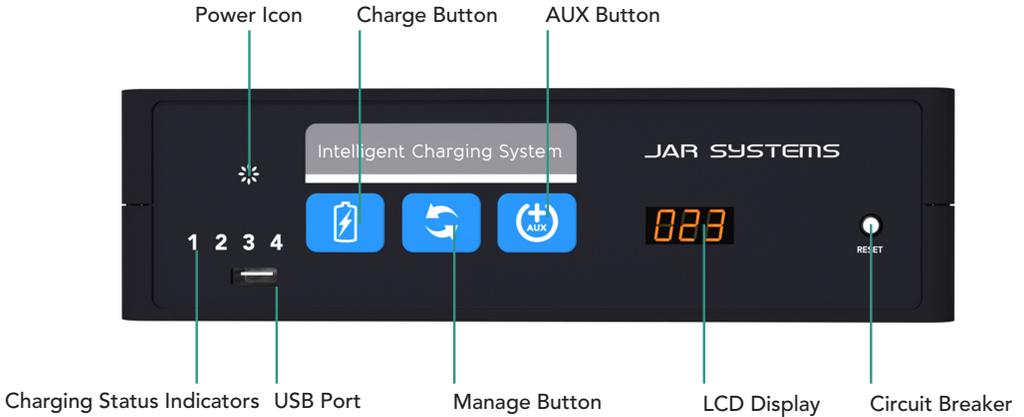
JAR SYSTEMS



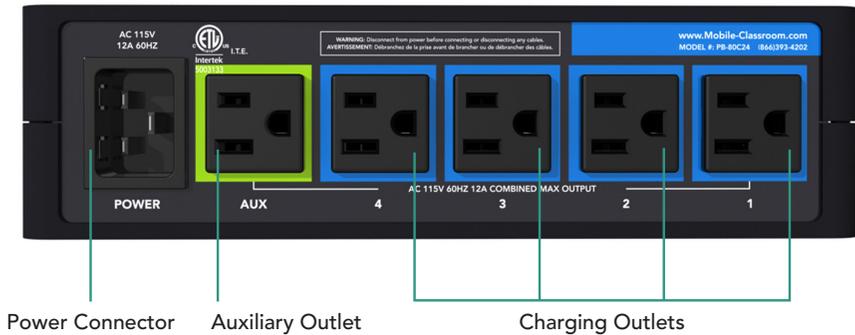
Introduction

The Intelligent Charging System uses power sensors and charging logic to deliver the fastest, most efficient possible charge. The system automatically evaluates the power draw from each charging outlet, directing power to the areas with the most demand first and charging as many devices simultaneously as possible from a single 15A outlet.

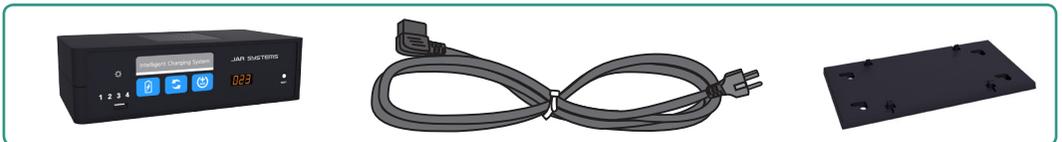
Front



Back



Included



Quick Start Guide

To Begin Charging:



- Connect to Power
(AC 115V 60Hz)
- Select Charging Mode...



CHARGE MODE

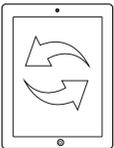
Best used if all devices are powered off and connected at the same time. Power is discontinued when batteries reach full charge to conserve energy.

OR



MANAGE MODE

Best used if all or some devices are left on or are returned at different times. Charging continues until it is manually stopped by pressing manage again.



NOTE: The charging system should always be in MANAGE mode in order to charge iPads and devices that remain in sleep mode.

Basic Functions



Charge Mode

Pressing the CHARGE button will start charge mode. Charging will automatically stop when all batteries are 100% charged. You can also stop charging at any time by pressing the CHARGE button a second time. This is best used when all devices are powered down and returned to the cart at the same time.



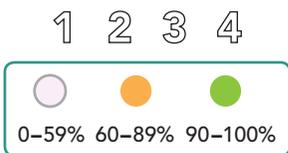
Manage Mode

Pressing the MANAGE button will start manage mode and turn on the auxiliary power. This mode will continuously monitor and distribute power until manually stopped. This mode is best used if some of the devices may be left on when connected or if devices are connected at different times. Press the manage button again to stop manage mode.



Auxiliary Power

Controls power to any peripherals that are connected to the AUX power outlet in the back of the charger. If the AUX devices must be operational during charging then the system must be in manage mode. Be aware that this may lengthen charging time.



Charging Status LED Indicators

Corresponds to the four charging outlets and indicates which sections are active. The system controls this automatically. **As few as one and as many as all four sections may be active at once.** When all four LEDs are solid green, charging is complete.



Power Icon

Indicates when the system is connected to power and is ready.



RESET

Internal Circuit Breaker

The Intelligent Charging System is protected with its own circuit breaker. **If it encounters misuse such as plugging in unsupported devices or if there is a power surge, the breaker will trip and the reset button will pop out.** To reset the system, simply press it back in. Please ensure that everything is plugged in properly and that only supported devices are connected before resetting.

Advanced Settings

Automatic Manage Mode

For environments where the system is consistently being used in manage mode, it can be conveniently configured to automatically start manage mode every time it is plugged in. In manage mode, the system continuously monitors and distributes power until it is manually stopped. Devices can be connected or disconnected at any point in the process without having to restart the charging cycle. If devices are powered on or “sleeping” when connected, the system will charge the devices and then maintain them at full charge.

How to Set Automatic Manage Mode

1. Connect the Intelligent Charging System to a power source. As it turns on, the system will beep, light up, and display the firmware version for one second **(A)**.
2. Immediately press and hold the MANAGE button **(B)** for four seconds until the system chirps. The LCD display will show one of the following:

OFF This indicates the auto power-up modes are off.

A6 This indicates that the auto manage has been enabled.

If the display reads **A6** then automatic manage mode has been enabled successfully **(C)**.

3. Unplug the system from its power source and then plug it back in. The system will now automatically start in manage mode.

How it works: First, the system will evaluate the power draw of all connected devices, then it will begin to distribute power as needed. There may be as few as one or as many as all four sections charging at first. If the connected devices’ batteries are very drained, the system may charge one section first until the charge of the batteries is high enough to add additional devices. Eventually, all devices will be receiving power.

How to Turn Off Automatic Manage Mode

1. Connect the Intelligent Charging System to a power source.
2. As the system powers-up, press and hold the MANAGE button for four seconds until the system chirps. The LCD window will display the word **OFF** when it has been reprogrammed **(D)**.
3. Press the MANAGE button one time to stop the charging cycle, then unplug the system. Automatic charging mode will be disabled next time the system is plugged in.



IMPORTANT: Instructions only valid for firmware A0.9 and up.



MANAGE button



Installation (For Stand-Alone Charging System Only)

Integrating With a Cart

The Intelligent Charging System can be integrated with nearly any cart that meets the following conditions. The power strips in the cart (up to four) must be able to be disconnected from the timer/switch that is currently in the cart so that they can be diverted to connect directly with the Intelligent Charging System. An existing auxiliary power strip may also be connected to the appropriately labeled outlet on the Intelligent Charging System or an extra power strip may be added for this purpose.

WARNING: Always install the Intelligent Charging System in a ventilated space.



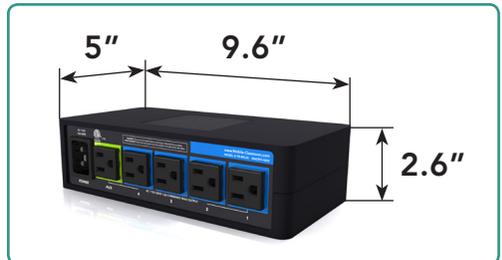
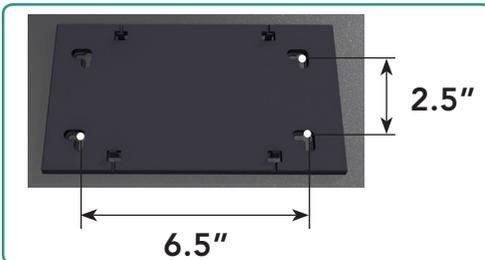
Mounted Inside of the Cart



Mounted on Top of the Cart

Installation Specifications

Installation procedures for the Intelligent Charging System vary depending on the environment it is being used in. **For help or ideas for installation, contact JAR Systems directly.** To utilize the included mounting bracket it is recommended to use four #6 (.1380) self-drilling, tapping, type CSD, cross-recessed pan head screws. The length required must be determined by the surface that it is to be secured to. Be sure to leave enough space for the cables to extend from the back (at least 3.5").



Installation (For Stand-Alone Charging System Only)

Wiring Setup

Capacity

The Intelligent Charging System accommodates up to four power strips with up to 16 outlets on each **(E)** as well as one auxiliary power strip for peripheral devices. The charging outlets on the back of the unit are labeled 1–4 corresponding to the numbered LED indicators on the front of the unit. This allows the user to view the charging status of each power strip.



E

To wire devices for charging:

1. Plug in one or more power strips into the charging outlets in the back of the unit **(F)**.
2. Plug the devices' manufacturer-supplied charging adapters into the power strip(s).
3. Plug the charging system's main power cable into the power connector in the back of the unit. Connect to the wall outlet when ready to begin charging.



F

WARNING: Disconnect from power before connecting or disconnecting any cables.

Using the System with a Network Switch

A network switch can be used with the Intelligent Charging System by connecting it to the auxiliary outlet. Pressing the MANAGE button once prepares all connected devices for remote management. The system will keep the devices charged when they are turned on for management via Wake-on-LAN. If the devices are not fully charged, wait 2–3 hours before starting remote management. Press the MANAGE button a second time to stop manage mode and discontinue power to the auxiliary outlet.



The Intelligent Charging System has been independently tested and certified for product safety.

For help with integrating the Intelligent Charging System:

Call 866.393.4202 or E-mail Sales.Support@JAR-Systems.com

Warranty

This product comes with a five-year warranty that covers any defects in material or workmanship and extends to the original consumer of the product only. JAR Systems LLC will replace the product with a new or refurbished product, repair the product, send replacement parts, or refund the purchase price of the product, at JAR Systems LLC's discretion. This warranty does not cover accidental damage, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship.

Any implied warranties last only as long as the warranty periods listed above except where state law does not allow limitations on how long an implied warranty lasts. This includes but is not limited to the implied warranties or merchantability and fitness. JAR Systems LLC's responsibility is limited to the actions listed above and nothing else.

This warranty does not cover, and JAR Systems, LLC will not be responsible for, any damages due to loss of use of the product, or any other costs or expenses incurred by you or anyone else who uses the product, whether due to defects, breach of contract, negligence, strict liability or otherwise. JAR Systems is not liable for any indirect, special, incidental or consequential damages related to the product or this warranty. Some states do not allow exclusions or limitations on consequential or incidental damages, so these limitations or exclusions may not apply.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state. This warranty is governed by the laws of Florida, excluding its conflict of laws principles, unless your state requires that its law be used.

Maintenance and Warnings

- To clean and disinfect the Intelligent Charging System, wipe the surface with a non-abrasive, lint-free cloth and rubbing alcohol.
- Keep away from moisture. Do not place any objects filled with liquids near the charging system. As with any electronic system, take care not to spill liquids into the unit.
- Operating temperature range is between 41–95°F. Do not operate in extreme temperatures.
- Wiring and installation of the unit should be performed by adults only.
- Do not plug unsupported items into the charging system.
- Do not attempt to dismantle, open, or make modifications to the system. Doing so will void any warranties.
- Do not obstruct any ventilation openings.



Visit [JAR-Systems.com/Support](https://www.jar-systems.com/Support) for instructional videos and more.