

# POWER DISTRIBUTION MANAGER

## QUICK START GUIDE

Model Number: TTPDM120S



**PRODUCT OVERVIEW / INTENDED USE:** The TOWA Industries PDM Model TTPDM120S is a power management appliance that allows multiple AC battery charging systems to be powered off a single 120V/20A circuit. Each unit can independently power up to 4 AC charge systems, however, multiple TTPDM120S's can be connected to manage charging for any number of chargers off a single 120V / 20A line. This expansion capability to manage larger and larger numbers of chargers is unique to the TTPDM120S, as the total current draw for the system is limited to 16A to allow you manage battery charging reliably.

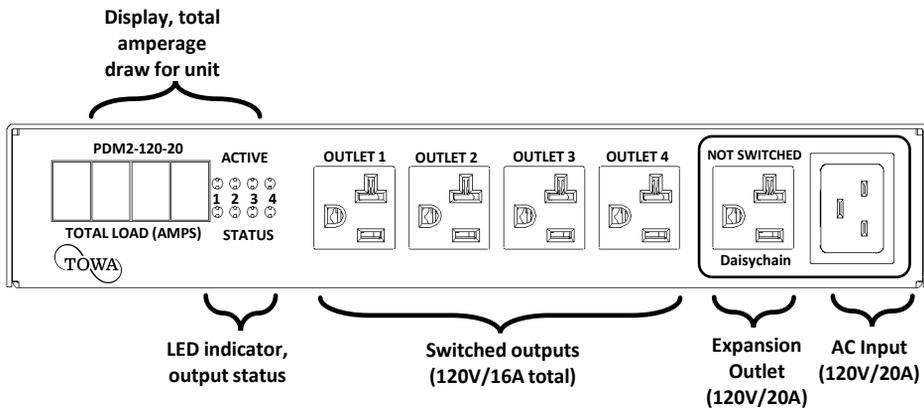
### SYSTEM COMPONENTS AND SETUP INSTRUCTIONS:

- Input requirements: 120V/20A
- Qty-1, TTPDM120S, Power Distribution Manager
- Qty-1, 120V/20A NEMA 5-20P to C19, 6 ft.
- Qty-1, RJ45 patch cable (optional, supplied separately).

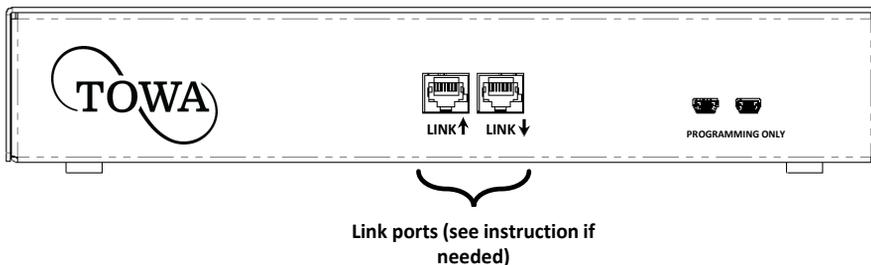
### UNIT APPEARANCE AND IDENTIFICATION:



Unit front



Front of unit, showing input and 4 shared 120V power outputs



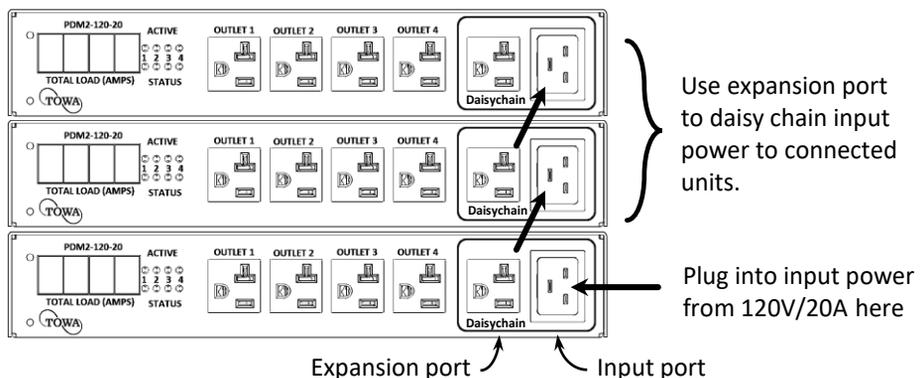
## UNIT STARTUP AND PRINCIPAL OF OPERATION:

1. Connect power cord to input receptacle. Plug cord into 120V outlet to power up unit.
2. Display will show 0.0A, while green status LED for channel 1-4 will illuminate in sequence indicating the outlets 1-4 are active and available to charge.
3. Connect loads to the outlets. If a load draws power (like a battery that needs a charge), the active LED for that channel will display red.
4. As loads draw current, the display will indicate total load drawn through the PDM.
5. As loads are attached, if the load for the last channel connected results in total unit draw to exceed 16A, the relay for that channel will open. This will be evident by both the green and red LEDs for the channel going off.
6. Continue to plug in loads to the outlets as needed.
7. As charging is completed and the overall unit current level draw drops sufficiently, open relays will close to allow charging for channels previously opened.
8. Note: All loads can be connected to outlets at anytime prior to or during unit startup. Procedure outlined above is suggested only to illustrate principal of operation.

## CONNECTING UNITS TOGETHER TO EXPAND SYSTEM CAPABILITY

**NOTE: 4-channel units can be connected to expand power management from 4 to 8, 16 up to 32 loads off a single 120V line.**

1. Identify PDMs to be combined under a single power management. Units under single power management are limited to a total current draw of 16A no matter the total number of units that are connected.
2. Select a convenient PDM and connect it to a second PDM via an RJ45 patch cable. Connect the cable into the first unit at the LINE↑ port. Connect the other end of the ethernet cord to the second unit at the LINE↓ port. The first 2 PDMs are in a daisy chain control configuration and will manage 16A of power across the 8 total outlets available between the 2 units.
3. Additional PDMs can be attached to the first 2 units buy connecting the LINE↓ port of the last unit connected in the daisy chain to the LINE↑ port of the next unit.
4. As indicated in the figure below, connect one of the PDMs to input power. Using the Daisychain port of the first unit, connect power from the first unit to the second unit input port. Daisychain input power to all digitally connected unit as indicated in figure below.
5. Once daisychained units are digitally connected and powered up, all LED current displays will show 0.0A to 0.3A on the total load display and the ACTIVE green leds will illuminate in sequence running channel 1-4 for the first unit connected, then channels 5-8 for the second unit, etc.
6. Loads can be connected anytime during the startup to any of the connected PDMs.
7. The connected PDMs will limit overall current draw to 16A. Switching operation for connected units is the same as for independent PDMs.



### Specifications:

Input – 120V 50/60 Hz NEMA 5-20P 20A  
Output – 120V / 16A total, NEMA 5-20R  
Dimensions – 12" x 7" x 2"

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Indicated presence of potentially harmful electrical shock hazards. De-Energize circuit and consult instruction prior to operation.

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