

READY|BLOCK

- The hardware and software solution for quick, seamless integration of key features into DC Solar Charging and other Morningstar components
- Literally a snap—no additional cabling, network configuration or addressing required. ReadyBlocks are truly “plug ‘n’ play”, saving installation time and improving reliability while reducing system complexity
- May be mixed and matched to support a variety of custom system needs

Along with our new flagship GenStar MPPT Solar DC Charging platform, Morningstar has taken an important step for solar system installers and designers—by eliminating the phrase “add-on accessories” from their vocabulary. Our innovative ReadyBlock™ and ReadyRail™ architecture make it possible to design fully-integrated systems either up-front or later, as system needs expand— by taking the most requested and advanced key features and “building them in” to core components, instead of adding them on.





Making System Integration a Snap

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READY|BLOCK

Morningstar ReadyBlocks are compatible with the new generation of GenStar solar charging platforms, and color-coded for easy identification in the field. ReadyBlocks™ are snap-in modules that make adding new features to a system—including battery BMS, Shunt and Relay capabilities— something that can be done in a matter of seconds. Simply insert the blocks onto the “parent” or host product’s (such as a GenStar DC solar charger) built-in ReadyRail. No additional wiring or connections are needed. The ReadyBlocks activate and are “on-line” in the host system component almost immediately, for an absolutely seamless transition to new functionality.

Because they physically and electronically become a part of the parent/host component hardware and software, the key features supported by the blocks are instantly available and accessible. In addition, any firmware updates are also seamless, because the parent device (such as a GenStar) will automatically update the block firmware when required along with any updates that are available.

READY|RAIL

ReadyBlock expansion system through exclusive ReadyRail design achieves true controller technology integration— all information is instantly available since it’s actually part of the hardware and software of the parent/host component itself, instead of outside the system as with a typical stand-alone accessory device.

ReadyBlocks



READY|SHUNT

RB-SHUNT-KIT-500, RB-SHUNT,
SHUNT-500-50

Battery metering/monitoring, key metrics including lead-acid SOC, energy in/out (amp hours), current measurement for system sources and loads, and more



READY|RELAY

RB-RELAY

Signaling (dry contact), advanced load control



READY|BMS

RB-BMS

Full communications and control (closed-loop operation) with lithium batteries

Compatible Morningstar parent components with ReadyRail access include the GenStar MPPT DC Solar Charging System. Future products will enable ReadyBlock upgrading with other Morningstar controllers, for smarter and better integrated solar electric systems.

ReadyBlock Key Features:

- Can be added to the rail in any combination or quantity
- Auto-detects which blocks are attached and in what order, allowing the user to visually identify each block on the rail in the User Interface of the parent component
- Once attached to the rail, there is no additional power, comms connections or software addressing required to get the blocks to talk to the parent component, because it will auto-detect their presence and auto-enable the associated software functionality in the user interface
- Easy to assign custom labels to shunt readings and dry contacts. Those labels will then be used throughout the user interface so there is no misunderstanding about data and control related to those connections
- ReadyBlock firmware updates are loaded through the parent component using the same firmware update process as the component itself. A block with older firmware will automatically get updated when attached to a GenStar and provided with newer firmware
- Measurements, data, and control provided by each block are seamlessly enabled in an intuitive way in the user interface. No custom programming is needed to get to the endpoint functionality users require in a DC off-grid system

Right: Up to three (3) ReadyBlocks can be easily added to the ReadyRail standard DIN-mount built into a parent component such as the Morningstar GenStar MPPT, in any combination. Other planned Morningstar components will accommodate up to six (6) blocks



ReadyBlock

Installation is EASY



Locate the ReadyRail

With the Parent/Host device (the component equipped with a ReadyRail) turned OFF, locate the ReadyRail DIN rail, and note the location of the Female connecting pins socket on the Parent/Host device.



Position the ReadyBlock

Position the ReadyBlock to be installed by fitting the ReadyBlock slot downward onto the DIN rail with the yellow locking tab pulled out.



Slide the block to the left

Slide the Block to the left, making sure that the pin guards and pins of the Male pins on the Block and the Female connecting socket on the Parent/Host device are lined up correctly. Carefully slide the Block farther to the left to securely join the Block's Male connecting pins with the Parent/Host device's Female socket. Finally, push the yellow tab in, to secure the Block on the rail.



Adding additional blocks is easy

Adding additional blocks is easy—just position them on the ReadyRail, slide them to the left, and press until the second Block's Male pin on the left "docks" with the first Block's Female Connecting socket on the right. That electronically adds the second Block to the system, with its signals and data passing through the first Block.



Up to three blocks can be added

Up to three blocks can be added in this way on a Morningstar GenStar MPPT Controller.