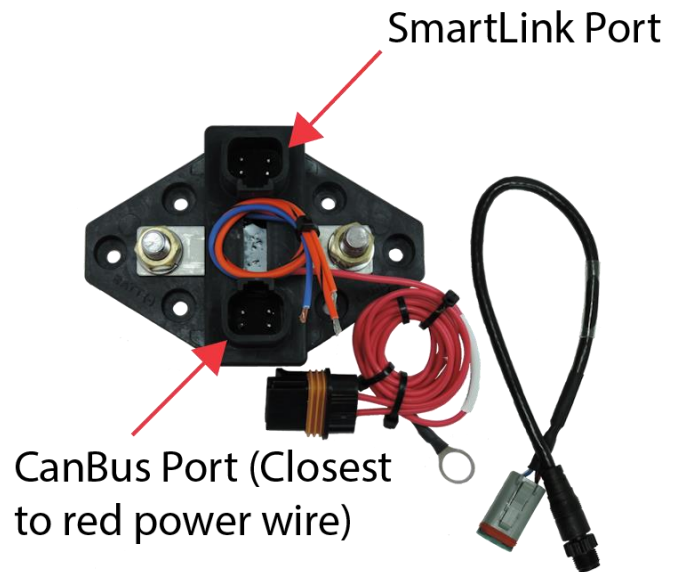


SG240/SG230/SG235/SG2-0130 SmartShunts

July 19,
2023

Balmar has introduced two new SmartShunts into the SG200 Battery monitor family. They both add CANbus capabilities, while retaining compatibility with all SmartLink products, such as the original SG2-0100 SmartShunt, the Color Display and the Bluetooth Gateway. It is physically identical to the original SmartShunt, except for the inclusion of an additional blue wire. The part typically comes with an adapter designed to plug into the port closest to the red power lead. This adapter connects to the CANbus backbone. Two variants are available, communicating on either a NMEA 2000 (SG2-0130) or RV-C (SG240) network (But NOT both)



Technical notes:

1. Data provided onto a network does not always mean it will be available on any display device. What and how data is displayed is controlled by the display manufacturer. For example, a chart plotter may not have the option to display Time Remaining. If you have questions about this problem, please contact your display manufacturer.
2. A SG200 Color Display (SG2-0200) can be used while data is simultaneously provided via RV-C or N2K to a different display device. This can be a good solution for “always on” data.
3. The CANbus (N2K, RV-C) connections are isolated, and power for the CANbus network is not provided by the SmartShunt. If the SmartShunt is connected to a network that has no power, it cannot send data to the network.
4. For purposes of network design, the product is rated at 2 LEN.
5. Only one CANbus (N2k or RV-C) smartShunt can be on the network. This may change in the future.
6. Configuration of the SmartShunt is done through the Bluetooth Gateway. It can also be done though the CANbus connection, details available to qualified OEM builders and display product manufacturers.
7. The blue wire is for a yet-to-be supported relay function.
8. A N2K SmartShunt cannot be converted to an RV-C compatible SmartShunt, nor visa-versa.
9. The bridging of MC-618 data to N2K is planned for a future release.
10. The N2K variants are NMEA 2000 certified.

SG240/SG230/SG235/SG2-0130 SmartShunts

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SG2-0130 SmartShunt (Part of SG230, SG235 Kits or available separately)

| NMEA 2000 Battery Parameter | PGN name and number |
|-----------------------------|-----------------------------|
| State of Charge | DC Detailed Status - 127506 |
| State of Health | DC Detailed Status - 127506 |
| Remaining Capacity | DC Detailed Status - 127506 |
| Time Remaining | DC Detailed Status - 127506 |
| Battery Voltage | Battery Status - 127508 |
| Battery Aux-1 Voltage | Battery Status - 127508 |
| Battery Aux-2 Voltage | Battery Status - 127508 |
| Battery Current | Battery Status - 127508 |

SG240 SmartShunt

| RV-C Battery Parameter | DGN name and number |
|------------------------|---------------------|
| State of Charge | DC_Source_Status_2 |
| State of Health | DC_Source_Status_3 |
| Remaining Capacity | DC_Source_Status_3 |
| Time Remaining | DC_Source_Status_2 |
| Battery Voltage | DC_Source_Status_1 |
| Aux 1 Voltage | DC_Source_Status_1 |
| Aux 2 Voltage | DC_Source_Status_1 |
| Battery Current | DC_Source_Status_1 |

SG240/SG230/SG235/SG2-0130 SmartShunts

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Instance Key - Instances are IAW the RVC Specification

| Instance | Source |
|----------|---------------------------------|
| 1 | Main House Bank |
| 2 | Aux 1 Voltage (Main Crank) |
| 3 | Secondary Bank |
| 4 | Aux 2 Voltage (Generator Crank) |

RV-C real-time Information when connected to MC-618. Availability is subject to MFD/Display support

| RV-C Charge Parameter | DGN name and number | Field Bytes |
|-----------------------------|------------------------|-------------|
| MC-618 (bv) Battery Voltage | CHARGER_STATUS_2 | 3-4 |
| MC-618 Bat Type | CHARGER_CONFIG_COMMAND | 6 |
| MC618 Alt1 Temp | CHARGER_STATUS_2 | 7 |
| MC-618 TARGET V | CHARGER_STATUS | 1-2 |
| MC-618 CHG State | CHARGER STATUS | 6 |

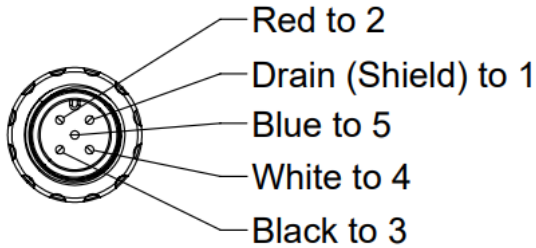
N2K MC-618 data is not currently supported, but will be available in a later release.

SG240/SG230/SG235/SG2-0130 SmartShunts

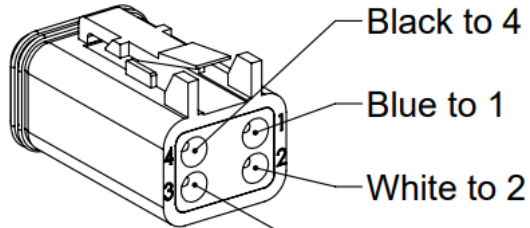
July 19,
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Adapter cable pin-outs:

The SG2-0409 is included with the SG2-0130 SmartShunt and SG230, SG235 Kits.



ISMBM05MCC-SLC70000
 Pin Out
 Front View



Plug, 4 Pin, Male
 (CDI P/N: CON-0217)
 Wire Side

The SG2-0406 wire adapter is included with the SG240 RV-C SmartShunt.

