

Magellan - Ashtech BR2G - External RTCM Input

The BR2G receiver is shipped from the manufacturer in its default GBX-3 operating mode. In GBX-3 Mode the internal G-12 engine receives RTCM corrections from the embedded CSI SBX-2 dual channel beacon receiver. The SBX-2 is factory configured for automatic operation, searching for and locating the best 300 kHz DGPS radiobeacon in your area. **In circumstances where this free DGPS service is unavailable, or for applications requiring corrections from another source, it is possible to configure the BR2G for external RTCM input.**

To configure the BR2G for external RTCM input (GBX-E Operating Mode) the CSI Y-Data Cable PN 051-0009-000 is recommended (See Figure 1):

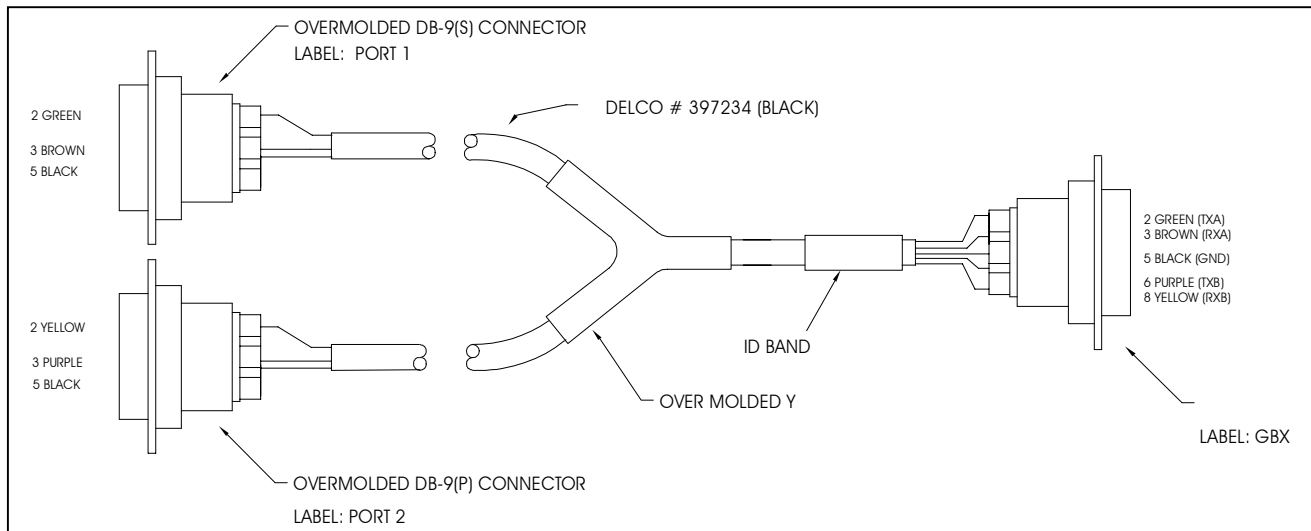


Figure 1 – CSI Y-Data Cable PN 051-0009-000

To configure the BR2G for external RTCM input:

1. Tune the beacon receiver to a frequency for which no DGPS broadcast is available.
2. Set the receiver to GBX-E(GX-E) operating mode.
3. Cycle receiver power.
4. Connect the external RTCM source to Port 2 of CSI cable PN 051-0009-000 ensuring that a null adapter is in place if required.
5. Observe that the output of the BR2G is differentially corrected.

It is important to note that the user tune the beacon receiver to a frequency on which there is no active DGPS broadcast. In the United States, all DGPS radiobeacons broadcast at the integer frequencies {284.0, 285.0, etc} allowing the user to tune to any 0.5 kHz offset to preclude interference with the externally supplied RTCM data.

Once the BR2G has been set to GBX-E(GX-E) operating mode, removal of jumper 'JP2' located on top of the carrier board immediately behind the display is necessary. To remove jumper 'JP2':

1. **Observe proper ESD (grounding) precautions when handling BR2G electronic components outside of the enclosure.**
2. Power down the receiver.
3. Remove the four Philips screws from the front display panel of the BR2G.
4. Gently remove the display faceplate disconnecting the LCD and keypad ribbon cables from the printed circuit board (PCB), and set the display aside (See Figure 2).
5. Look into the front of the receiver and observe the blue two-pin jumper at the far right of the large PCB (See Figure 3).

6. Remove this jumper and set it aside for future use.
7. Carefully reconnect the LCD and switch ribbon cables to the PCB ensuring that undue strain is not placed on the individual wires of the ribbon cable.
8. Reattach the BR2G front plate to the enclosure using the four Philips screws.
9. Power the receiver and confirm proper operation.



Figure 2 – BR2G Receiver with Front Panel Removed

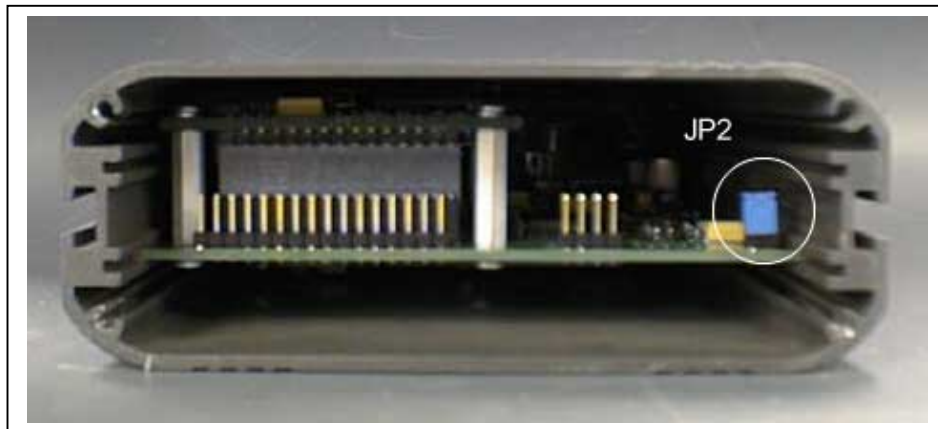


Figure 3 – BR2G Receiver Open with 'JP2' at Far Right