

**Product: Decca BridgeMaster E Series Radars**

**Subject: AIS Interface Installation/Commissioning/Setting to Work**

The following information is a set of guidelines to assist in the Installation, Commissioning and Setting to Work of the AIS Interface option. This assumes there is an AIS system already installed on board and a Serial output from it is readily available.

- **Ensure the Processor has the correct Software version**  
The software **MUST** be version **C5.03** or higher. If it is versions C5.00, C5.01 or C5.02, carry out modification DX15.
- **Ensure the Hardware is compatible (for field upgraded systems)**  
For field upgraded Processors (i.e. when upgrade kit 65800725 is being used) both the Display Processor and Radar Processor PCBs **MUST** be issue 5 or higher. This can only be confirmed by physically looking at the label displaying the part number. The issue number is the number after the '-' following the part number. e.g. 65800811-5
- **Ensure the AIS serial data is connected to Serial Input Ports 3, 4 or 5**  
The AIS data **MUST** be connected to the Processor Unit via a **Serial Interface Unit** type **65847A**. Choose any of the 3 ports in this unit. **Do not connect to Ports 1 or 2 on the I/O Panel of the Processor Unit.** Treat as any serial input data wiring up for RS232 or RS422 as described in the Ship's Manual, Chapter 3. If all Input Ports are used up see additional notes at the end of this document.
- **Connecting the AIS Output Port (optional)**  
If required an AIS Output may be connected to the AIS Transponder. This allows the Operator to remotely acknowledge any AIS Integrity alarm from the AIS Transponder. Connect from the **same** Port number chosen for the AIS Input. Treat as any serial output data wiring up for RS232 or RS422 as described in the Ship's Manual, Chapter 3.
- **Ensure the appropriate Serial Input Port is set up correctly**  
Select the INITIALISATION mode and select the I/O OPTIONS page. Left click the INPUT DEVICE of the Serial Port the AIS data is connected to (3, 4 or 5) and select AIS INPUT from the drop down menu.  
**NOTE: Port 3 is TSJ, Port 4 is TSH and Port 5 is TSG on the SIU**
- **Ensure the AIS Output is set up correctly**  
If connected, left click the OUTPUT DEVICE of the Serial Port chosen for AIS and select AIS OUTPUT from the drop down menu.
- **Ensure the BAUD RATE is correctly set to 38k4**  
When the above action is carried out the Baud Rate will be automatically set to 38k4. **Ensure this is NOT accidentally changed to 4800.**

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- **Setting up the Track Table Output**  
With the AIS Interface option enabled, the Track Table Output can be set to transmit AIS Targets too. This option should be selected with IBS systems where the BridgeMaster E sends Track Table data to a VMS. The VMS must have the correct software to accept this. To enable left click the OUTPUT DEVICE of the RADAR PORT and select TRACK TABLE from the drop down menu. Then left click over 'Tracked Targets Only' to change to 'AIS & Tracked Targets'. For non IBS systems the choice can be offered to the Master.
  
- **Setting to Work**  
If everything is correctly set up, there will be an AIS ON/OFF soft key to the left of the Temporary Prompt Box at the bottom right of the Display. When in Transmit select the soft key to 'AIS ON'. AIS targets (if available) will be displayed on the PPI to a maximum of 40 closest to own ship.

**Additional notes**

- With software version C5.xx it is possible to configure the Nav Input port to accept serial log speed supplied in a VBW sentence. This will be of particular use in systems where the VMS is connected to the BridgeMaster E and all serial input ports are in use, as it is possible to configure the VMS to supply the VBW sentence.
  
- Further AIS diagnostic information is available on the AIS menu, reached from the Target menu. For example, if an AIS Integrity alarm is seen, this does **NOT** indicate a fault on the radar, but instead indicates that the AIS unit is on alarm. The nature of the alarm can be seen on the AIS unit, or on the AIS menu on the radar. The AIS menu also reports the number of targets being received by the radar from the AIS. The grey shaded area in the background of the AIS ON soft key indicates the number of AIS targets being displayed, e.g. 50% grey means 20 targets displayed etc.
  
- For full descriptions of the AIS features see the *new* User Guide, part number **65800010A-5 Revision B** or later.
  
- For more information on C5.xx software releases see Service Bulletin No. 43
  
- For more Sales/Marketing information on AIS see Marketing Information Bulletin No. 41
  
- Attached to release 1 of this bulletin was a .pdf document which is a DNV guideline for installation of AIS systems onboard DNV classed vessels. File name: AIS installation guiderev1.pdf