



# DRS Radar

## Software Version History

**Model: DRS2D, DRS4D, DRS4A, DRS6A, DRS12A, DRS25A**

FURUNO has taken its NMEA award-winning radar technology to the next level with Ultra High Definition Digital Radar. Furuno DRS Radar offers crystal clear, noise-free target presentation with automatic real-time digital signal processing. This document describes the software history of the DRS Radars listed above.

# **DRS2D, 4D, 4A, 6A, 12A AND 25A Radar Sensor Software History**

## **DRS Version 1.18 Software (July 2016)**

New: Added "Bird mode" with TZtouch software version 4.21 and TZtouch2 software version 3.05 and higher.

Fixed: "No radar" indication in the center of the TZtouch display even if the DRS setting in the TZtouch is correct.

## **DRS Version 1.17 Software (March 2016)**

No updates or fixes. Change was made for internal use only.

## **DRS Version 1.16 Software (April 2012)**

New: For compatibility with TZtouch MFD's

## **DRS Version 1.14 Software (October 2010)**

Changes made:

- 1) Improved Auto Rain function.
- 2) The "product information" request signal being output to the NMEA2000 device only once when it is connected.
- 3) Improved ARPA function.
- 4) QV echoes around 24-nm range to be displayed normally in "S1 pulse" and "S2 pulse" modes.
- 5) CPA alarm working normally with a setting of more than 3.2nm

## **DRS Version 1.13 Software (June 2009)**

Changes made:

- 1) Removed the problem that when the SC-30 software update fails, the replacement of DRS is necessary to continue update of SC-30.
- 2) Auto sea signal processing algorithm improved.
- 3) Auto sea "Coastal" mode added.
- 4) Output feature of GPS satellite status data to the MFD added (The DRS with new software sends the GPS satellite status data received by the GP330B and WS200 to the MFD via the DRS.) - MFD software version of V2.01 required.
- 5) Data used to calculate ARPA true vector changed from Heading to COG.

- 6) The minimum detection size of ARPA echo changed from 0.8 times the beamwidth to 0.5 to enhance the acquisition of small targets.
- 7) Antenna rotation control algorithm changed to maintain the antenna speed in the middle of the acceptable range.

## DRS Version 1.12 Software (November 2008)

The SPU software for DRS series, DRS4A/6A/12A/25A is updated

Model	Current Program	Previous Program
DRS2D/4D	0359235-01.11	0359235-01.11
DRS4A/6A/12A/25A	0359235- <b>01.12</b>	0359235-01.11

Change from V01.11 to V01.12 is made only for the DRS25A with a MD board of -33, or 03P9451B-33. If the DRS25A with 03P9451B-33 uses V01.11, the radar becomes detuned.

For other models and DRS25A with 03P9451B-22 software, V01.10 to V01.12 provide the same features and functions. It is NOT necessary to upgrade existing software to the highest version number.

## DRS Version 1.11 Software (September 2008)

Changes made:

- 1) Optimizing S1 magnetron current detection algorithm (only for DRS4D).
- 2) Optimizing S2 pulsewidth correction algorithm (only for the DRS25A).

## DRS Version 1.10 Software (May 2008)

New SPU FPGA software features:

- 1) Output power is set correctly from the first transmission in Dual range mode.
- 2) No blank sectors appear when the range of the other radar display is changed in Dual range mode.

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