



## TECHNICAL UPDATE

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Product

Description

& Models:

**Raymarine GPS Receivers (See list)**

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Subject:

**GPS Week Number Rollover**

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The GPS Satellite system week counter reaches its count limit of 1023 and will be set to zero on 6<sup>th</sup> April 2019. The GPS Satellites transmit a week count number from 0 to 1023 which relates to the last Rollover date of 1999 to the next Rollover date of 6<sup>th</sup> April 2019, (19.7yrs), in which it will once again return to zero and start the count again. All GPS Receivers use this week count number to calculate the current UTC date. Therefore, the date of launch / manufacture of the GPS chip set built into the GPS Receiver will dictate the date the GPS will roll over. (Date of Launch + 19.7yrs = Rollover date). This in turn will dictate the date error displayed.

**Raymarine are pleased to advise that none of the current products that include a GPS Receiver are impacted by the pending GPS week count rollover in April 2019. That includes the Axiom & Element MFDs, Dragonfly, RS150, AR200 & AIS700. Recent products such as the a/c/e/eS/gS MFDs, RS130, AIS650 are also not affected.**

Through our vetting of Raymarine Products some early legacy products will have date related performance issues now and at a future date. - The following table gives an approximate indication of the rollover date and any corrective action required.

Please note GPS Receivers effected by this may still generate a valid position fix and SOG/COG but display the wrong date. This will affect the accuracy of chart functions such as Tide & Currents due to the date rolling back by 1024 weeks from the rollover date.

Products that are interfaced to a GPS Receiver that use date for certain functions would also need to be checked.

If you have a GPS Product affected by the Week number Rollover the following actions should be considered:

- Check the list below for GPS products affected.
- Check the accuracy of the position fix. – If inaccurate, this may be recovered by cold starting the GPS.
- If the position fix is not restored the GPS may have a genuine fault and not related to the Rollover.
- GPS Receivers that are affected and are used in a system that needs accurate date. - The GPS Receiver should be replaced.

The following table includes current & legacy Raymarine GPS Antennas & products with inbuilt GPS Receivers and gives an approximate indication of the week number rollover and any corrective action required:

Product	Part Number	GPS Date potentially incorrect after year listed below	Corrective Action: If Position fix is good and accurate date is not required, continue using. For current & future products check WEB site for corrective software.
Earlier than 1998 GPS products	n/a	2015 or earlier	Replace Product
RS112	E32001/E32002	2015	Replace GPS Antenna
RC420	E32012E	2016	Replace Product
RN300	E32017	2017	Replace GPS Antenna
RC320	E32015	2017	Replace Product
RS120	E32025/E32026	2017	Replace GPS Antenna
RC425	E32032	2017	Replace Product
RC435	E32040	2019	Replace Product
RC435i	E33019	2019	Replace Product
RC400	E33018	2020	Replace Product
RS125	E32119	2022	Replace GPS Antenna
RS125+	E32119	2022	Replace GPS Antenna
RS12	E33021	2022	Replace GPS Antenna
A50	E62184	2025	Replace Product or use an external GPS
A50D	E62186	2025	Replace Product or use an external GPS
A57	E62342	2025	Replace Product or use an external GPS
A57D	E62188	2025	Replace Product or use an external GPS
A70	E62190	2025	Replace Product or use an external GPS
A70D	E62192	2025	Replace Product or use an external GPS
C120W DISPLAY EU REMAN	E62113R-EU	2025	Replace Product or use an external GPS
C120W DISPLAY ROW REMAN	E62113R-RW	2025	Replace Product or use an external GPS
C120W DISPLAY US	E62113R-US	2025	Replace Product or use an external GPS
C140W DISPLAY EU	E62115-EU	2025	Replace Product or use an external GPS
C140W DISPLAY EU REMAN	E62115R-EU	2025	Replace Product or use an external GPS
C140W DISPLAY ROW REMAN	E62115R-RW	2025	Replace Product or use an external GPS
C140W DISPLAY US	E62115R-US	2025	Replace Product or use an external GPS
C120W DISPLAY ROW	E62113-RW	2025	Replace Product or use an external GPS
C140W DISPLAY ROW	E62115-RW	2025	Replace Product or use an external GPS
C120W DISPLAY US	E62113-US	2025	Replace Product or use an external GPS
C140W DISPLAY US	E62115-US	2025	Replace Product or use an external GPS
C90W DISPLAY EU	E62111-EU	2025	Replace Product or use an external GPS
C90W DISPLAY EU REMAN	E62111R-EU	2025	Replace Product or use an external GPS
C120W DISPLAY EU	E62113-EU	2025	Replace Product or use an external GPS
C90W DISPLAY ROW REMAN	E62111R-RW	2025	Replace Product or use an external GPS



C90W DISPLAY US	E62111R-US	2025	Replace Product or use an external GPS
C90W DISPLAY ROW	E62111-RW	2025	Replace Product or use an external GPS
C90W DISPLAY US	E62111-US	2025	Replace Product or use an external GPS
AIS500	E62235	2026	Replace Product
RS130	E32153	2027	Replace GPS Antenna
AIS650	E32158	2028	Replace Product
e7D MFD without cartography	E62355	2028	Replace Product or use an external GPS
e97 - Hybridtouch MFD w/ FF	E70022	2028	Replace Product or use an external GPS
e95 - Hybridtouch MFD	E70021	2028	Replace Product or use an external GPS
c97 - MFD w/ FF	E70012	2028	Replace Product or use an external GPS
c95 - MFD	E70011	2028	Replace Product or use an external GPS
e7 - 7" MFD - NO CHART	E62354	2028	Replace Product or use an external GPS
e127 - Hybridtouch MFD w/ FF	E70024	2028	Replace Product or use an external GPS
e125 - Hybridtouch MFD	E70023	2028	Replace Product or use an external GPS
c127 - MFD w/FF	E70014	2028	Replace Product or use an external GPS
c125 - MFD	E70013	2028	Replace Product or use an external GPS
c125 - MFD	E70013	2028	Replace Product or use an external GPS
a77 7" MFD SONAR - NO CHART	E70165	2028	Replace Product or use an external GPS
a78 - 7" MFD - NO CHART	E70202	2028	Replace Product or use an external GPS
a67 5.7" MFD SONAR - NO CHART	E70077	2028	Replace Product or use an external GPS
a68 - 5.7" MFD - NO CHART	E70200	2028	Replace Product or use an external GPS
a65 5.7" MFD - NO CHART	E70076	2028	Replace Product or use an external GPS
a67 5.7" MFD SONAR WIFI - NO CHART	E70163	2028	Replace Product or use an external GPS
a67 5.7" MFD SONAR WIFI - NO CHART - SINSII	E70163-S2	2028	Replace Product or use an external GPS
a68 - 5.7" MFD WIFI - NO CHRT	E70201	2028	Replace Product or use an external GPS
a65 5.7" MFD WITH WIFI - NO CHART	E70162	2028	Replace Product or use an external GPS
a75 7" MFD - NO CHART	E70164	2028	Replace Product or use an external GPS
a77 7" MFD SONAR WIFI - NO CHART	E70167	2028	Replace Product or use an external GPS
a78 - 7" MFD WIFI - NO CHART	E70203	2028	Replace Product or use an external GPS
a75 7" MFD WIFI - NO CHART	E70166	2028	Replace Product or use an external GPS
a95 9" MFD WIFI	E70232	2028	Replace Product or use an external GPS
a97 9" MFD WIFI 50/200KHZ SONAR	E70233	2028	Replace Product or use an external GPS
a98 - 9" MFD WIFI DWNVS SONAR	E70234	2028	Replace Product or use an external GPS
a98 - 9" MFD WIFI DWNVS SONAR	E70234	2028	Replace Product or use an external GPS
a125 12.1" MFD WIFI	E70235	2028	Replace Product or use an external GPS
a127 12.1" MFD WIFI 50/200KHZ SONAR	E70236	2028	Replace Product or use an external GPS
a128 -12.1" MFD WIFI DWNVS SONAR	E70237	2028	Replace Product or use an external GPS



AIS950	E70050	2028	Replace Product
DRAGONFLY - NO CARTOGRAPHY	E70085	2029	Replace Product
DRAGONFLY NO DUCER	E70226	2029	Replace Product
DRAGONFLY 7 NO TRANSDUCER	E70230	2029	Replace Product
DRAGONFLY 7 W/ CPT-60 TM DUCER	E70231	2029	Replace Product
eS75 7" MFD WIFI	E70263	2031	Replace Product or use an external GPS
eS75 7" MULTIFUNCTION DISPLAY	E70263-S2	2031	Replace Product or use an external GPS
eS78 7" MFD WIFI DWNVS SONAR	E70265	2031	Replace Product or use an external GPS
eS78 7" MFD DWNVS SONAR	E70265-S2	2031	Replace Product or use an external GPS
eS98 9" MFD WIFI DWNVS SONAR	E70275	2031	Replace Product or use an external GPS
eS97 9" MFD 600W SONAR	E70274	2031	Replace Product or use an external GPS
eS128 12.1" MFD WIFI DWNVS SONAR	E70285	2031	Replace Product or use an external GPS
eS127 12.1" MFD 600W SONAR	E70284	2031	Replace Product or use an external GPS
eS127 12.1" MFD 600W SONAR	E70284-S2	2031	Replace Product or use an external GPS
Dragonfly-5 pro	E70293	2031	Replace Product
Dragonfly-5-pro unit only	E70303	2031	Replace Product
Dragonfly 5-PRO (No Transducer	E70496	2031	Replace Product
Dragonfly-5m	E70295	2031	Replace Product
Dragonfly-4 Pro	E70294	2031	Replace Product
Dragonfly-4-pro unit only	E70302	2031	Replace Product
Dragonfly 4-PRO (No Transducer	E70495	2031	Replace Product
Dragonfly-7 PRO Display only	E70319	2031	Replace Product
Dragonfly-7 PRO NO CHART	E70320	2031	Replace Product
Dragonfly 7-PRO (No Transducer	E70497	2031	Replace Product
RS150	E70310	2033	Replace GPS Antenna
AXIOM 9 - 9" MFD	E70366	2033	Check software or use an external GPS
AXIOM 12 RV - 12" MFD	E70369	2033	Check software or use an external GPS
AXIOM 12 - 12" MFD	E70368	2033	Check software or use an external GPS
AXIOM 9 RV - 9" MFD	E70367	2033	Check software or use an external GPS
AXIOM 7 - 7" MFD	E70363	2033	Check software or use an external GPS
AXIOM 7 RV - 7" MFD	E70365	2033	Check software or use an external GPS
AXIOM 7 DV - 7" MFD DOWNVISION	E70364	2033	Check software or use an external GPS
AXIOM OEM 12" - UNBRANDED	E70446	2033	Check software or use an external GPS
AXIOM OEM 9" - UNBRANDED	E70445	2033	Check software or use an external GPS
AXIOM OEM 7" - UNBRANDED	E70444	2033	Check software or use an external GPS
AXIOM-Pro 9 DNVS/SDVSN/1KW SONAR - NO DXR	E70371	2033	Check software or use an external GPS
AXIOM 9 PRO-S HIGH CHRIP CONICAL	E70481	2033	Check software or use an external GPS

AXIOM-Pro 16 RVX DNVSN/SDVSN/1KW SONAR - NO DXR	E70373	2033	Check software or use an external GPS
AXIOM-Pro 12 DNVSN/SDVSN/1KW SONAR - NO DXR	E70372	2033	Check software or use an external GPS
AXIOM 12 PRO-S HIGH CHRIP CONICAL	E70482	2033	Check software or use an external GPS
AXIOM 16 PRO-S / HIGH CHRIP CONICAL	E70483	2033	Check software or use an external GPS
Axiom XL 22	E70515	2033	Check software or use an external GPS
Axiom XL 16	E70399	2033	Check software or use an external GPS
Axiom XL 19	E70400	2033	Check software or use an external GPS
Axiom XL 24	E70401	2033	Check software or use an external GPS
AIS700	E70476	2034	Perform s/w update
AIS5000	E70529	2035	Keep software up to date
Element 7 MFD	E70532	2035	Check software or use an external GPS
Element 9 MFD	E70534	2035	Check software or use an external GPS
Element 12 MFD	E70536	2035	Check software or use an external GPS
AR200 Augmented Reality	E70537	2035	Check software or use an external GPS

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