

July 10, 2015

Dear Customers,

Thank you for your long support on our products.
We would like express our gratitude to your understandings and actions to be taken to below mentioned AIS Rollover issue.

**Additional information on
GPS Week Rollover Notice embedded in Tokyo Keiki's AIS type TRA-2000**

Regarding above, we got information from our AIS device supplier that the Rollover date was changed as below despite fact that it was initially advised 'after year 2020', which we would like relay to you with additional information and countermeasures.

Model name: TOKYO KEIKI AIS type TRA-2000
(Shipped from September 2005 to September 2011. AIS product serial number before s/n2535)

Expected Rollover Condition:

After August 16, 2015, Rollover (see note *1) condition may happen when the main GPS power source is turned off and the power is turned on again. The momentary power loss will not cause the problem.
And the power on/off on the AIS display will not cause the problem either.

Symptoms:

- 1) Date on the operation display does not indicate the correct one.
- 2) "UTC clock lost" appears on STATUS INDICATION LIST and then AIS transmitting mode goes to "UTC Indirect". On this occasion you cannot do manual change to "UTC direct".
In this case, Coast Guard might judge that the GPS receiver mounted on your ship has failed or cannot catch the GPS satellite. And they may instruct to remedy it. Please take care.
- 3) No alarm will be provided at the moment with this Rollover.
- 4) Even if the above condition, the function of transmitting own ship's position and receiving other ship's position, continue to work without any problem.

Attention:

Please do not turn off the main power of the AIS until we do below mentioned version up, because the Rollover will not happen as far as main power for AIS remains 'On'.

Recommendation:

Software has to be updated to Ver5.3.1.
Please contact Marine Sales department or Service department for the software version update as follows.
If you upgrade this software without contacting us, we cannot guarantee for that product.

Contact information: Tel: +81- 3- 3737- 8611 Fax: +81-3- 3737- 8663
Web form: <http://www.tokyo-keiki.co.jp/marine/e/office.html>
<http://www.tokyo-keiki.co.jp/marine/e/inquiry.html>

Note: For the products shipped after November 2011(AIS product serial number after s/n2536)
Rollover will happen after 2019. We will inform you later on our website with countermeasures.

*1 GPS Week Rollover

GPS satellite transmits the elapsed time from the January 6, 1980.

The elapsed time is provided with two of "week number" and "second". Because "week number" is made by 10 bits data, it covers the number between 0 and 1023rd week. When it exceeds the 1023rd week, the date comes back to the zeroth week.

It is called as the GPS Week Rollover. When the GPS Week Rollover happens, the date goes back to 1024 weeks ago.

The date of AIS display uses the "week number". Therefore, this influence is unavoidable. Periodical maintenance is essential to keep the performance.

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**Marine Systems Company
TOKYO KEIKI INC.**