

# Cello-CANiQ FW33j

## Release Notes



Cellocator Division  
Pointer Telocation Ltd.

Proprietary and Confidential

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**POINTER**



## Cello-CANiQ FW33j Release Notes



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### Disclaimer

Cello-CANiQ is an open platform allowing the user to implement various CANBUS connectivity configurations with regards to the ECU parameters being captured or queried, as well as the querying rate. While using the vehicle's OBDII port, the Cello-CANiQ sends queries to the diagnostics ECU. In such installations, it is possible that unprofessional user defines configuration which results in errors on the OBD port. In other cases, the installer may choose to connect the device directly to the vehicle bus, via wired connection and not a dedicated connector – installation type which may be referred by a vehicle manufacturer as a cause for warranty remit . User shall use only validated installation and device configuration which were officially recommended by Cellocator.

In no event shall Pointer be liable for any direct, indirect, incidental, special, punitive or consequential damage, losses or expenses relating to or arising from the Cello-CANiQ, including without limitation, its installation, programming, configuration and use thereto; provided however, that Pointer warrants to the buyer that during the period of one year commencing on the date the Cello-CANiQ is purchased the Cello-CANiQ shall conform in all material respects with the performance specifications, attached to the unit purchased.



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# Cello-CANiQ FW33j Release Notes



## 1 Introduction

The Cello-CANiQ is an advanced evolution unit related to Cello-IQ with additional capabilities and functionalities. These Release Notes highlight those advantages over the Cello-IQ, and also contain a list of the released components and related documentation.

Cello-CANiQ firmware version 33j runs on the new GNSS hardware platform.

The new HW platform introduced in this release includes 2G/3G (EU, NA) GSM variants and advanced GNSS capabilities including both GPS and GLONASS satellite positioning systems for fast and accurate positioning. The HW platform also supports enhanced 1-Wire power driving capability, designed to support up to 4 temperature sensors on 1-Wire.

The 33j release also uses new protocol Type number 11. Type 11 messages are used by the unit for configuration and for CAN events. The CAN Editor was added to the programmer to enable GUI based CAN triggering configuration; for further information, refer to the *Cello-CANiQ Integration Manual*.

The changes and improvements provided by the new FW version are described in the *What's New* section.

A full list of related documents can be found in the *Documentation Versions* section. Further explanations and descriptions for the Cello-CANiQ GNSS can be found in the *Product Overview*.

Please note the following:

- ◆ After upgrading the unit's FW from a previous FW version to 33j, it is mandatory to send to the unit a "Restore Default Vehicle Preset" command, as described in section 4.2.2.39 of the *Cellocator Wireless Communication Protocol*.
- ◆ To disable Driver Behavior functionality, the user needs to set the Driver Behavior (CSA) Disable configuration bit, as described in section 23.1.1 of the *Cellocator Cello Programming Manual*.

### Note:

Please note that the HW type presentation will be changed in future products starting at the CelloTrack Nano. The new method is backward compatible and no changes are required for the Cello-CANiQ or any other existing product. You are welcome to review the Hardware ID application notes for further information. The existing evaluation suite already supports the upcoming CelloTrack Nano and consequently supports also the new representation method of the HW ID.



## 2 What's New in FW33j

This version release introduces new features, as described in the following list.

- ◆ CANBUS:
  - CAN Editor: New graphical programming tool for CAN filters/operators/triggers configuration.
  - Improved DBM using parameters obtained from CANBUS connectivity (Speed, RPM, etc.).
  - Flexible CAN parameters evaluation for triggering via operators, timers and conditions.
  - Type 11 messages: Generic CAN message templates for optimized data collection.
  - Support for OBDII and J1939 filtering and monitoring parameters.
  - Full compatibility with J1939 for medium and heavy trucks including FMS.
  - DTC request / report for supported CANBUS protocols.
- ◆ 1-Wire bus support for up to four Temperature Sensors.
- ◆ Different odometer units for Fleet and CSA.
- ◆ Trip Management improvements: GPIO can now function as trip start/stop, in addition to Ignition.
- ◆ Crash while in Parking mode (not in full hibernation mode).
- ◆ New Severity level multipliers: The FW allocates one byte for each severity multiplier (instead of only one Nibble).
- ◆ Over Speeding Hysteresis: Added hysteresis mechanism for over-speeding events. The FW will not trigger a new event unless the monitored value goes below the lowest thresholds by at least 10%.
- ◆ RPM Hysteresis: Added hysteresis mechanism for RPM events. The FW will not trigger a new event unless the monitored value goes below the lowest thresholds by at least 10%.
- ◆ Improved Driver Reminder: Added new "beeps" reminders via DFD for driver identification in addition to the voice message.
- ◆ Geo Fence mechanism now supports the approach angle as new criteria (in addition to crossing fence and time). The feature can be used for Speed Camera detection.
- ◆ Disable CSA option: Ignores CSA functionality (unit behaves as fleet system only).
- ◆ Cell ID (working only in 2G Modems).
- ◆ Improved "GPS Factory Reset" (conditioned by "Engine ON").
- ◆ Enable IMEI transmission via TYPE 0.
- ◆ User command retrieves both IMSI and IMEI.
- ◆ Basic Satellite Power Control (switching between GSM and Satellite upon GSM network availability).
- ◆ Maintenance Server Manifest update: Added Release Candidate Revision ID.
- ◆ Updated Modular Manifest: Added new module for IMSI, IMEI.



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- ◆ Updated Modular Platform Manifest: Released base version ID.
- ◆ DFD enhancements:
  - Added DFD Feedback control for off-road
  - DFD Communication events reported to server
  - DFD Hibernation Control
- ◆ HW readiness:
  - SDIO infrastructure
  - AGPS ready
  - DTCO D8 port interface
- ◆ Pin-out changes (relative to Cello/Cello-IQ):
  - CAN L and CAN H instead of Lock/Unlock inputs
  - DTCO D8 instead of Siren output



## Cello-CANiQ FW33j Release Notes



### 3 **Applicability Table**

The following table lists the products to which this document applies.

<b>Product Name</b>	<b>Catalog Number</b>	<b>Applicability</b>
<b>Cellocator Cello-CAN IQ (2G GNSS)</b>	CT7800130-000	YES
<b>Cellocator Cello-CAN IQ (3G NAR GNSS)</b>	CT7800140-000	YES
<b>Cellocator Cello-CAN IQ (3G EUR GNSS)</b>	CT7800150-000	YES





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## 4 Content

Cello-CANiQ FW33j includes the components listed in the following sections.

### 4.1 FW Versions

- ◆ F04D5\_PCelloHW20\_TelitGE910V3\_STM32F103RDT6\_S8192\_33j\_CANiQ.HEX
- ◆ F04D6\_PCelloHW20\_TelitUE910NAR\_STM32F103RDT6\_S8192\_33j\_CANiQ.HEX
- ◆ F04D7\_PCelloHW20\_TelitUE910EUR\_STM32F103RDT6\_S8192\_33j\_CANiQ.HEX

### 4.2 PL File

- ◆ hw\_20\_fw\_33j\_CelloCANiQ\_3G\_V1435.PL
- ◆ hw\_20\_fw\_33j\_CelloCANiQ\_2G\_V1435.PL
- ◆ CanConfig.xml

### 4.3 Integration Package

- ◆ Integration package 2.4.1

### 4.4 Software Utilities

- ◆ Cellocator evaluation suite installer v3.3.18.2 (x64).msi
- ◆ Cellocator evaluation suite installer v3.3.18.2.msi

### 4.5 Documentation Versions

- ◆ Cello-CANiQ FW33j Release Notes (this document)
- ◆ Cellocator Serial Communication Protocol
- ◆ Cellocator Wireless Communication Protocol
- ◆ Cellocator Cello Programming Manual
- ◆ Cellocator CSA Programming Manual
- ◆ Cello-CANiQ Integration Manual
- ◆ PL Programming 8K



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## 5 Fixed Bugs

The following table lists bugs and issues that were resolved during the current release project.

ALM	Description
807	After OTA reflashing, the unit odometer reset.



## 6 Known Issues

The following table summarizes the known issues which have been encountered during applications and system tests.

#	Description	Comments/ Workaround
<b>o101</b>	The trip duration is not calculated correctly in the Communication Center	
<b>o102</b>	In some cases, after the reflashing process, the CSA numerator will temporarily change to a high value.	
<b>o79</b>	A message response by SMS causes the unit to stay offline for about 90 seconds.	
<b>89</b>	Geo-fence over-speed uses the idle-speed-duration parameter instead of the regular-over-speed-session parameter for session time out.	
<b>185</b>	The DFD will not function if the "RT Event server CSA - IP Address" parameter is set to 0.0.0.0.	
<b>527</b>	DFD hibernation is based on "physical" ignition and not "logical".	Enable the <i>Start&amp;Stop detection using voltage level and acceler</i> parameter.
<b>723</b>	The DFD repeats notification of long maneuvers (such as speeding) and does not terminate them if a GPS "not fix" event occurs.	
<b>785</b>	Background calibration maintenance does not function properly.	Calibration maintenance is turned off by default in the PL.
<b>833</b>	Unit does not send ACK message when Programming Command in message type 11 is received.	
<b>1096</b>	After main power up the CSA messages numerator has a sudden positive change of more than 8000 numerators and a CSA memory overflow event is sent to the server.	
<b>279</b>	While ABC maneuvers occur the DFD does not trigger vocal notifications.	
<b>303</b>	CSA Speeding event does not consider the "speed filter" in case the GPS fix is regained.	



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#	Description	Comments/ Workaround
<b>1540</b>	Unit cannot handle returned data length with Length different than 8 bytes.	