

Mercury 310 Controller Firmware Features

SUBJECT: Mercury 310 Controller Firmware Features

DATE: 05/2026

OPERATORS: All operators using the Mercury 310 Controller

FIELD PROGRAMMING DEVICE: USB flash drive (16GB or smaller)

LATEST FILENAME: Mercury310update_H7_05build3_11_06_2025.bin

IMPORTANT NOTICE!

A factory reset is performed automatically on startup after updating the firmware from older firmware!

Notes:

- After a firmware update, normal operator provisioning will have to be performed. This includes re-learning limits and other settings.
- Reference operator manuals for detailed instructions (select manual updates pending).

LIST OF FEATURES:

- Compatible with Apollo, Titan, Vanguard and Juno gate operators
- Updated IES threshold during acceleration for linear actuators
- Ability to define and adjust the slowdown points before or after learning the limits.
 - Previously, slowdown points could only be adjusted AFTER limit learning process.
 - Default slowdown points for Juno are 85% / 15%.
 - Slowdown points are only reset during a factory reset.
- Updated maximum run time:
 - Learn mode run time timeout set to 2 minutes.
 - Run time timeout when position is unknown is set to 2 minutes.
 - Run time timeout when position is known is set to 1 minute for swing gates and 1min 30s for slide gates (Juno).
- Updated default deceleration points for Juno to prevent the gate from running past the limit.
- A detection code is displayed during the limit learn procedure when the gate is running at slow speed. If a motor is already learned, a detection code is displayed when the function knob is turned to LRN MOTOR 1 or LRN MOTOR 2 (see table below for codes and descriptions)

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TABLE 1 – DETECTION CODES

DISPLAY	CODE	DESCRIPTION
d1	d1	816 linear actuator
d2	d2	Titan linear actuator
d3	d3	Vanguard motor
d4	d4	Juno motor

FIRMWARE UPGRADE INSTRUCTIONS:

- Place the firmware upgrade file on a USB drive (FAT file system - 16GB or less).
 - If the firmware upgrade file is within a .zip file, then extract the firmware upgrade file (binary file format .bin) and copy it to the USB drive.
 - Do not place the firmware upgrade file in a folder. It must be on the root of the USB drive.
- On the Mercury 310 controller, press and hold the firmware upgrade button (located next to the USB port) until “bL” is displayed to enter the bootloader.
- Insert the USB drive containing the firmware upgrade file.
- The upgrade should be finished within 5 seconds and will automatically reset and show the new firmware version on the display during startup.
 - It is recommended to leave the USB drive inserted after upgrading to enable data logging. Logs are stored on the USB drive and can provide valuable information for troubleshooting at installation sites.

Note: The USB drive can be safely removed when the USB LED is OFF.