

June 16th, 2020

SubDrive Utility™ Firmware Release Notes

Consult the SubDrive Utility™ Owner's Manual for instructions on how to update drive firmware via USB storage device.

Firmware Version	Release Date	Description of Changes
1.1.2	07/14/2017	Initial Production Release
1.3.1	02/02/2018	<p>Added compatibility with the following pump types rated 115 VAC or 230VAC with motor overload current ratings of 4.6A to 13.1A:</p> <ul style="list-style-type: none"> - Submersible permanent split capacitor (PSC) [i.e. C1] - Above ground booster [i.e. MH, BT4] - Jet pumps [i.e. VersaJet] <p>Added the ability to download fault and configuration history file to a USB device.</p>
3.4.1	02/27/2019	<p>Contains improvements for applications in which customer may be experiencing erroneous locked rotor fault codes (Fault Code 3) when:</p> <ul style="list-style-type: none"> - Total motor cable length (offset and drop) exceeds 300 feet and/or - Input Voltage is below 208VAC or above 240VAC
3.5.1	05/31/2019	<p>Corrects an issue with firmware version 3.4.1 where the off time following an underload fault (Fault Code 1) is shorter than expected. Underload off time corrected to 5 minutes.</p> <ul style="list-style-type: none"> - The underload off time in firmware version 3.4.1 will be 15 seconds when the drive is configured for use with a Franklin Electric 2-wire submersible motor - The underload off time in firmware version 3.4.1 will be 6 seconds when configured for use with a submersible PSC or above-ground motor
4.1.1	06/16/2020	<p>Added product robustness for situations where the drive power connections are mis-wired (i.e. input power connected to output/motor terminals):</p> <ul style="list-style-type: none"> - Drives will now indicate fault code F2 (undervoltage) rather than fault code F6 (short circuit) - Drives manufactured prior to date code 20F (June 2020) may experience product failure when input power is mis-wired. <p>Drives manufactured starting with date code 20F (June 2020) include hardware updates to prevent product failure when the input power is mis-wired</p>

The firmware version currently installed on the drive can be determined in two ways:

Shipping Carton Label

The firmware version of the drive can be found on the shipping carton label as shown in the example to the right.

Or

Firmware Readout Procedure

SubDrive Utility firmware version 1.3.1 or later introduces the ability for the drive to use the three (3) drive LEDs to perform a flash sequence to indicate the version of firmware currently installed on the drive in X.Y.Z format. This procedure is activated as follows:

1. Remove power from the SubDrive Utility controller and allow 5 minutes for internal voltage to dissipate.
2. Remove the drive cover.
3. Place DIP Switch 2 – Position 8 in the “ON” (up) position.
4. Reinstall the drive cover before applying power to the drive.
5. Apply power to the SubDrive Utility controller. The firmware readout procedure will begin automatically as follows:
 - a. All three (3) LEDs will rapidly flash together to indicate that the readout procedure is starting.
 - b. The POWER LED (top/green) will slowly flash at a rate of 1 flash/second. The number of flashes indicates the X value of the drive firmware version.
 - c. The RUNNING LED (middle/green) will slowly flash at a rate of 1 flash/second. The number of flashes indicates the Y value of the drive firmware version.
 - d. The FAULT LED (bottom/red) will slowly flash at a rate of 1 flash/second. The number of flashes indicates the Z value of the drive firmware version.
 - e. Steps a-d will repeat indefinitely.
6. Remove power from the SubDrive Utility controller and allow 5 minutes for internal voltage to dissipate.
7. Remove the drive cover.
8. Place DIP Switch 2 – Position 8 in the “OFF” (down) position.
9. Reinstall the drive cover.
10. Power on the drive. The drive will return to normal operation.

