

6.2 Fault Codes

When the controller detects a fault condition, it signals the specific fault using the red Status LED and the yellow Mode LED (shown below). Under normal conditions with no error present, the red LED is off and the yellow LED blinks at a 1 Hz rate. If no application code is loaded in the controller, the red LED is off and the yellow LED blinks at a 10 Hz rate. All other errors (those specific to the application) are decoded by observing “blink codes” generated by the red and yellow LEDs.

| Yellow LED (Mode) | Red LED (Status) | System Status: |
|-------------------|------------------------------------|---------------------------------|
| 10 Hz blink rate | Off | No application loaded |
| 1 Hz blink rate | Off | Application loaded and no error |
| 1 Hz blink rate | 4 bit blink code to describe fault | Application loaded and error |

6.2.1 Description of Blink Code Algorithm

If the yellow LED blinks at an unvarying 1 Hz rate and the red LED is blinking, the cause of the fault can be decoded from the red LED alone as follows: the red LED will flash a four bit sequence, followed by a pause, followed by the four bit sequence, the pause, and so on. The long flash, symbolized by a “-”, lasts approximately one second. The short flash, symbolized by a “•”, lasts approximately one-half second. The pause between the four bit sequence lasts approximately 3.5 seconds. If more than one fault exists, each fault will be displayed in sequence before being repeated.

6.2.2 Blink Code Translation

| Fault Code | Flash Bit Sequence | Device at Fault | Cause of Fault | Machine Response |
|------------|--------------------|-----------------|--|--|
| 1 | --•• | Inch Pedal | Voltage signal out of range. | Machine decelerate to stop. Last valid value remains in effect. To be able to move with reduced speed (if configured) bring FNR into neutral.. |
| 2 | •---• | Pump Coil | Coil resistance out of range. | Machine decelerate to stop. No output current. |
| 3 | ••-• | Engine PPU | Engine RPM \leq (NFPE Start RPM) / 2 | Machine cannot move. To reset fault bring FNR in neutral. |
| 4 | •-•• | FNR Handle | FNR both switches are on. | Machine cannot move. To reset fault bring FNR in neutral. |

“•” = short flash

“-” = long flash