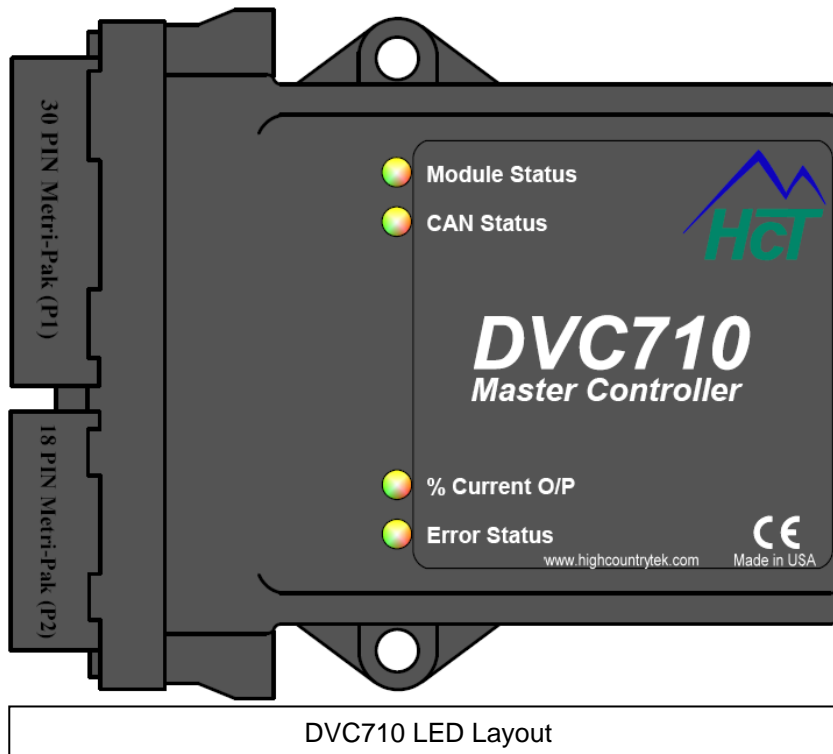


3.17 LED Indicators

The DVC710 has four Red/Green LEDs, positioned on top of the module. They are labeled, Module Status, CAN Status, % Current and Error Status.



Operation

When a BIOS or application is being downloaded to the controller all LED's will be off. The Following is a list of the individual LED behaviors:

| Module Status | |
|-----------------------|---|
| LED STATE | MEANING |
| Off | There is no power applied to the module. |
| On GREEN | The module is operating in a normal condition. |
| Flashing GREEN | Device is in standby state. May need servicing. |
| On RED | Module has an unrecoverable fault. |
| On YELLOW | System Disabled active |
| Flashing RED | Low Supply Voltage. |



| CAN Status | |
|-----------------------|--|
| LED STATE | MEANING |
| Off | There is no J1939 device (or other DVCs) in the project. |
| On GREEN | Communication established with another DVC module through DVC Devicenet. |
| Flashing GREEN | Waiting to establish communication with another DVC (i.e. DVC61) or J1939 Bus Enabled |
| On RED | The device has detected an error that has rendered it incapable of communicating on the network. |
| Flashing RED | The DVC Devicenet communication is in a timed-out state |

| % Current O/P | |
|--|--|
| LED STATE | MEANING |
| Off (Outputs Disabled) GRN (0-33%) YEL (34-66%) RED (66-100%) | |
| Flashing GREEN | PWM or High Side output Open circuit detected |
| Flashing RED | PWM or High Side output Short circuit detected |

| Error Status | |
|------------------------|----------------------------------|
| LED STATE | MEANING |
| Off | No errors |
| On RED | PWM1 Open or Short Detected |
| On GREEN | PWM2 Open or Short Detected |
| Flashing YELLOW | High Side Open or Short Detected |
| Multi Digit Blink Code | Application defined blink codes. |

The Status LED

The programmer can send different single or multi digit blink codes to the status LED by using the application variable "Blinkcode". In the application code, the programmer would assign a 1, 2 or 3 digit non-zero value to the Blinkcode variable (i.e. Blinkcode = 501). The BIOS would then read this value, and then start flashing the Status LED to the assigned code, for example, in the example above (Blinkcode = 501) the Status LED would flash 5 times followed by a short pause then flash 10 times followed by a short pause then flash once then stop if no other code has been assigned. If a new code was assigned during the time that the code was flashing, there would be a longer pause before the next code began flashing. After the BIOS reads a blink code it will reset the Blinkcode variable to 0 allowing the application to test and see if the BIOS is ready for the next blink code assignment.

The following is an example of valid Blink Code assignments:

- [0] No Blink Code Assigned
- [1 – 9] Single Digit Blink Code
- [10 – 99] Two Digit Blink Code
- [100 – 999] Three Digit Blink Code
- [>999] Invalid assignment, BIOS would ignore this and reset the Blinkcode variable to 0