# ONBOARD USER INTERFACE

The initial OptiShift User Interface allows most sensor values to be viewed, while also allowing the transmission to be manually shifted. There are 6 display modes, as listed below. The three letter mode name is shown on the display for 2.5 seconds after the mode is selected by rotating the function knob. The mode name is also displayed at any time when the function knob is pressed in (in all modes other than "Status" mode).

OFF

In this mode the display is blank, and nothing is shown.
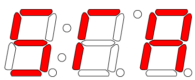
STA = Status Display

This mode is the default display mode. The first character indicates the selected transmission range (P, r, n, o, d, 2, 1). or "E" if there is an error with the PRNDL switch (range sensor or pressure switch module). The second character is normally blank, but will show "P" if Manutronic Pushbutton shift mode is active, or an "L", if manual selection mode is active. The third character indicates the currently commanded or selected transmission gear. There is also a small dot at the upper-left-hand corner of the third display character (similar to an apostrophe). This dot will illuminate when the torque converter clutch is engaged.
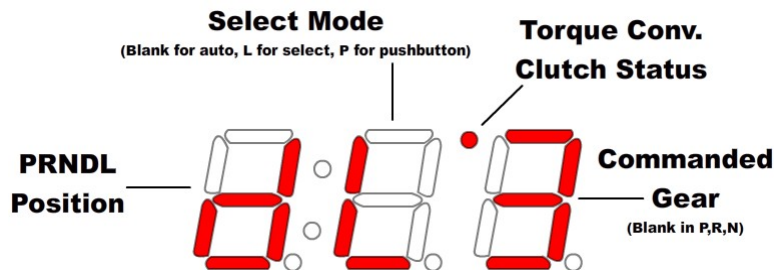
SEL = Manual Select

In status mode, pressing the function knob will activate or deactivate manual selection mode. Like Manutronic mode, this mode enables manual gear selection and includes safety features to prevent inadvertent downshifts. Manual selection mode is intended for diagnostic purposes, so it does not have all of the optional features of Manutronic. No additional connections or configuration options are required to use manual selection mode and the desired gear may be selected by rotating the function knob clockwise to up-shift, or counter-clockwise to down-shift. Manual selection mode remains active until the function knob is pressed again, or until the ignition is turned off.
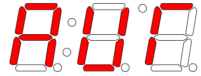
AUT = Automatic Select

Indicates that you have left manual gear select mode and are back in automatic transmission mode.

SPd = Speed

Indicates vehicle speed (from the output shaft speed sensor, or vehicle speed sensor) in MPH.
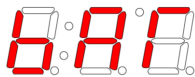
TPS = Throttle Position Sensor

Indicates throttle position sensor value in Volts.

ºF = Transmission Fluid Temperature

Indicates transmission fluid temperature in degrees Fahrenheit. The degree symbol in ºF is represented on the display by a raised lower-case "o".

bAT = Battery

Indicates vehicle battery condition in DC Volts.

SrE = Software Revision

Indicates the software and hardware revision of the controller, in the format "MajorRev.MinorRev.HardwareRev". (ie: 2.0.2)

Error Codes:

If there is an error, the code for various conditions will be displayed in alternating 2.5 second intervals with the current display mode.
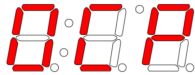
F:TP = Throttle Position Fault

Indicates that the throttle position sensor is in fault mode, due to the voltage being below the idle threshold value that was set.

F:rS = Range Sensor Fault

Indicates a problem with the Range Sensor (PRNDL switch or pressure switch module).
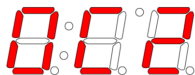
OCP = Over-Current on the Pressure Control Solenoid

An over-current condition was detected with the pressure control solenoid. The controller will attempt to disable the pressure control solenoid until the ignition is turned off. If an OCP fault is detected, the vehicle should not be driven until it is corrected. If you must drive with an OCP failure, it is recommended that you disconnect power from the system by removing the 7.5A fuse, to insure that the transmission will stay in default mode regardless of any wiring problems that may exist.
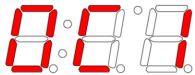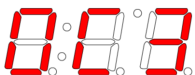
OC1 = Over-Current in Solenoid Bank 1

An over-current condition was detected with solenoid bank 1. The solenoids on bank 1 include shift solenoid B (or 2), and the second TCC (ON/OFF) solenoid (GM 4L60E transmissions only). The controller will attempt to disable these solenoids until the ignition is turned off.

OC2 = Over-Current in Solenoid Bank 2

An over-current condition was detected with solenoid bank 2. The solenoids on bank 2 include shift solenoid A (or 1). The controller will attempt to disable these solenoids until the ignition is turned off.

OC3 = Over-Current in Solenoid Bank 3

An over-current condition was detected with solenoid bank 3. The solenoids on bank 3 include the TCC PWM solenoid, and the 3-2 downshift control solenoid (GM 4L60E transmissions only). The controller will attempt to disable these solenoids until the ignition is turned off.