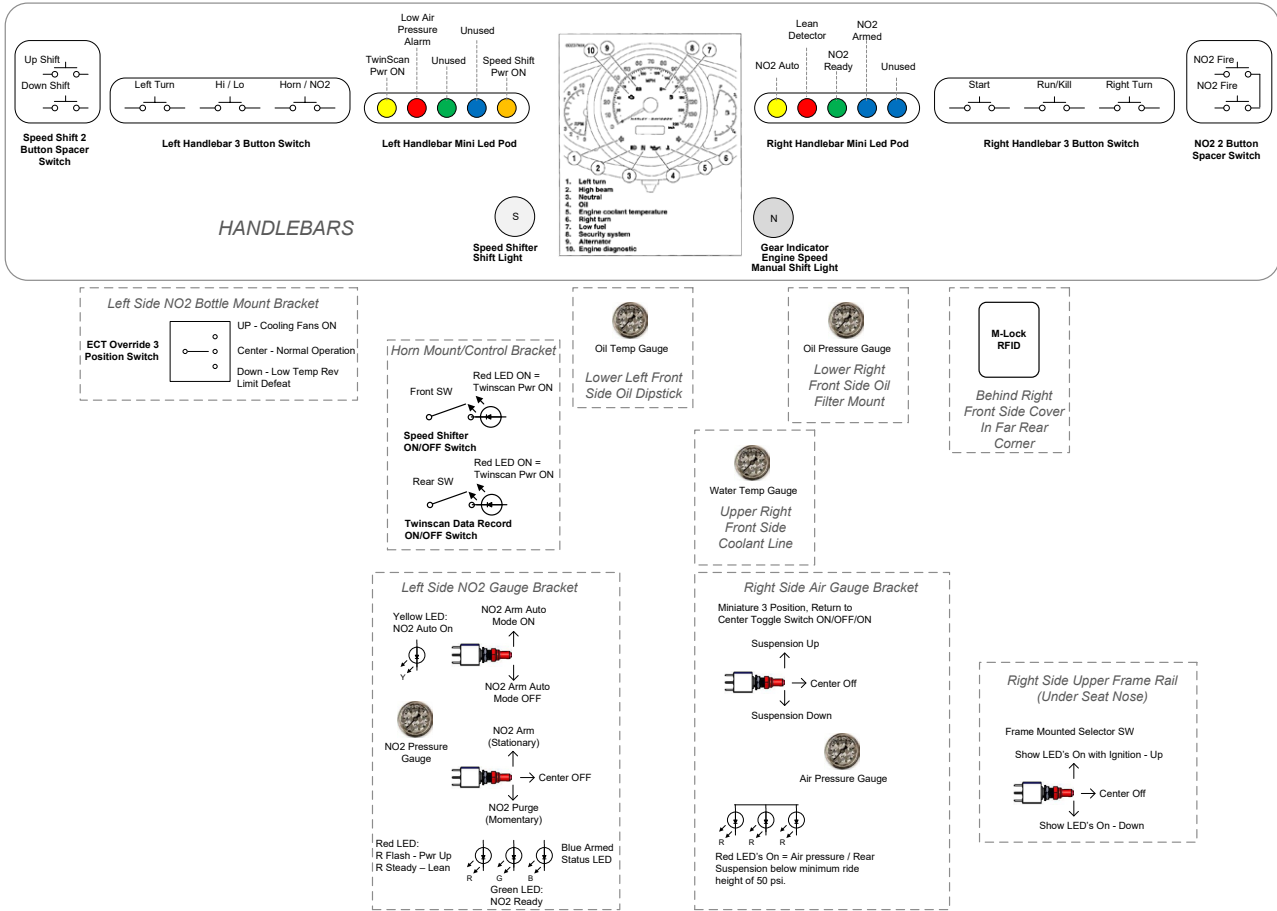


CONTROLS AND INDICATORS

Table of Contents

1.	Controls & Indicators Layout	2
2.	Handlebar LED Indicator Pods (see drawing 03-002).....	2
3.	Handlebar Switch Functions	3
4.	RFID Ignition (Upper Right Front Side Cover) (see drawing 03-022).....	4
5.	Air Gauge/Suspension Basic Operation (see drawing 03-004).....	4
6.	ECT Override 3 Position Switch (see drawing 03-021).....	5
7.	Horn Mount Control Switches (see drawing 03-001, 03-016).....	5
8.	Data Port (Relocation to Top of fuel cell - see drawing 03-001).....	5
9.	Shifting Gears	5
10.	Speed Shift Power ON Switch / Indication (Horn Mount Control Bracket).....	5
11.	Speed Shift Operating Instruction Summary (see drawing 03-016)	5
	Regular Speed Shifting.....	5
	Finding Neutral.....	6
	Automatic Up Shifting	6
	Two-Step Operation	6
12.	Gear Indicator / Shift Light (see drawing 03-018)	6
13.	Speed Shift Shift Light (see drawing 03-016).....	6
14.	Left Side NO2 Gauge Mount / Control (see drawing 03-005)	6
	Bottom Arm / Purge Switch.....	6
	Upper Auto Trigger Switch.....	6
	Trigger.....	6
	Right Handlebar LED Status Indicators	6
	Gauge Mount LED Status Indicators	7
15.	Nitrous Pressure Gauge (0-1500 psi gauge - pressure in the line at the front header)	7
16.	Show LED Control (see drawing 03-003).....	7
17.	Drawing 03-025	8

1. Controls & Indicators Layout



2. Handlebar LED Indicator Pods (see drawing 03-002)

a) Left Pod Functions

From the far right (inside) to the far left (outside) the LED functions are:

- i. Orange - Speed Shift is enabled.
- ii. Blue - unused
- iii. Green - unused
- iv. Red - Low Rear Shock Air Pressure
- v. Yellow – Twin Scan Enabled (see service note “Data Port”)

b) Right Pod Functions

From the far right (outside) to the far left (inside) the LED functions are:

- i. Blue - unused
- ii. Blue - NO2 ARMED
- iii. Green - NO2 READY
- iv. Red flashing - lean detector power up; Red solid: lean condition
- v. Yellow - NO2 in AUTO mode

3. **Handlebar Switch Functions** (see drawing 03-002)

Left 3 Button Control Switch Functions:

From the far left (outside) to the far right (inside):

Left Turn, Headlight Hi/Lo and/or Garage Door Trigger, Horn and/or NO2 Trigger

Left 2 Button Control Switch Functions:

- a. Top - Speed Shift Up Shift
- a. Bottom - Speed Shift Down Shift

Right 3 Button Control Switch Functions:

From the far right (outside) to the far left (inside):

Right Turn, Engine Run/Kill, Engine Start

Engine RUN/KILL Button – Pushbutton functions as both a run and kill switch. After ignition is turned ON, press the button once to enable run/engine start. Once RUN is enabled or the engine is started the pushbutton will function as a kill switch.

Right 2 Button Control Switch Functions:

- a. Top - NO2 Trigger
- b. Bottom - NO2 Trigger

Note: Buttons are in parallel and perform the same function

4. **RFID Ignition (Upper Right Front Side Cover)** (see drawing 03-022)

There is no factory ignition key switch installed. The original factory ignition harness that was attached to the stock ignition switch has been re-routed around the top of the fuel cell to the left side of the fuel cell without alteration.

The ignition connector IG4-A&B can be accessed through the removable left side upper rear frame cover where a bypass connector is also stored should you lose the RFID tag. (See the service notes in the Wireless Ignition drawing 03-022)

The RFID receiver is in the rear corner of the top right-side cover.

To turn the ignition ON or OFF tap the RFID tag against the rear corner of the top right-side cover.

NOTE: The device can operate in a voltage range from 7 V to 18 V DC. The vehicle voltage should larger than 9V. If during cranking the engine the vehicle voltages drop below 6V the relay will release and causes a vehicle power shut down.

5. **Air Gauge/Suspension Basic Operation** (see drawing 03-004)

Air Pressure Gauge - shows the PSI in the air shock lines. Adjust air spring pressure as desired. Excess pressure will result in a firmer ride, too little pressure will allow the suspension to bottom out. Maximum air pressure is 100 PSI.

To increase air pressure and consequently ride height and clearance flip the control switch on the gauge mount up.

To decrease air pressure and consequently ride height and clearance flip the control switch on the gauge mount down.

The system is functional without the ignition switch on excepting the low air pressure alarm indication.

You must have a minimum of 50 PSI before operating the center/display stand.

NOTE: The bike can be ridden with no air pressure in the rear shocks, but cornering clearance is greatly affected. The alarm set point should be at a level you choose to notify you that cornering clearance will be affected so that you can ride accordingly.

The low air pressure alarm LED's on the left handlebar and the air gauge mount are only active when the ignition is switched on. Switch the ignition on or set to the ignition switch to the auxiliary position before adjusting the alarm set point. When the air pressure drops below the alarm set point the Red LED's on the gauge mount and the left handlebar indicator pod will turn ON.

6. **ECT Override 3 Position Switch** (see drawing 03-021)

- 1) When the switch lever is up (in the position towards the notch in the shaft) the ECU is sent a signal that will represent approximately 223F (106C), which is high enough to turn on the fans.
- 2) When the switch is in the center position the ECT and ECU operate normally.
- 3) When the switch lever is down (in the position away from the notch in the shaft) the ECU is sent a signal that will represent approximately 189F (87C), which is high enough to defeat the low temperature rev limit.

7. **Horn Mount Control Switches** (see drawing 03-001, 03-016)

There are two switches with power ON indicators built in on the horn control switch bracket. The forward position control switch turns the Speed Shifter ON/OFF. The rear position control switch turns the Twinscan data logger ON/OFF. Neither switch needs to be turned on for normal riding using traditional shifting. Both should be turned on if using the NO2.

8. **Data Port** (Relocation to Top of fuel cell - see drawing 03-001)

The factory data port under the left top side cover is extended and access is now on the top of the fuel cell under the seat. The Daytona Sensor Twin Scan power/data cable is plugged into the extended data port on the top of the fuel cell. The Twin Scan can be disconnected from the secondary data port on the top of the fuel cell so that the same port can be used with the race tuner or the factory service diagnostics.

9. **Shifting Gears**

There are two modes of operation for gear shifting, manual shifting using the clutch and the toe shift like you would on any motorcycle, or pushbutton shifting using the Speed Shifter. Normal manual shifts can be made anytime even if the Speed Shifter is enabled.

10. **Speed Shift Power ON Switch / Indication** (Horn Mount Control Bracket)

The speed shift power ON switch is located in the forward position in the control switch panel that is part of the horn mount. The switch can be used to enable or disable the speed shift and its handlebar push buttons without losing the program settings. The switch when turned ON, enabling the speed shifter, will light the red LED inside the switch itself and the orange LED, furthest to the Inside, on the left side handlebar LED pod.

NOTE: The speed shift has been calibrated to allow either traditional manual shifting using the foot controls or the speed-shift push button controls on the left handlebar if the speed shift power switch is turned on. Any changes to the speed shift motor mounting location, or adjustments to the speed shift motor shaft and/or adjustments to the shift linkage will require recalibration. (See service notes in drawing 03-016)

11. **Speed Shift Operating Instruction Summary** (see drawing 03-016)

Regular Speed Shifting

For regular shifting pressing the UP button once will allow up shift without the need to pull in clutch. Pressing the Down button will allow for downshifting.

NOTE: You may need to pull in the clutch on some downshifts to unload the transmission.

Finding Neutral

With the motorcycle in 1st gear, give the UP button a quick tap, this allow for neutral. Or with the motorcycle in 2nd gear, give the Down button a quick tap, this will allow for neutral.

Automatic Up Shifting

For automatic shifting, press the Up-shift button for your first up shift and continue to hold button in. The motorcycle will shift according to your shift light rpm setting (Default 8700 RPM). (The clutch must be used for downshifts)

Two-Step Operation

To operate the two-step feature, hold the clutch lever in until shift light flashes. At this point, holding the throttle wide open will hold the rpm at the desired setting.

12. **Gear Indicator / Shift Light** (see drawing 03-018)

The gear indicator on the right side of the instrument cluster is active when the ignition is enabled. In addition, the current engine speed is displayed as an outer ring and the display will flash with maximum brightness when the shift point, (currently set for 8500 rpm) is reached. Use the shift light feature when executing manual shifting only. Use the left side shift light when using the speed shifter and/or the NO2 system.

13. **Speed Shift Shift Light** (see drawing 03-016)

The shift light on the left side of the instrument cluster is only active when the speed shifter is enabled. The shift light will flash at the programmed RPM (currently set for 8750 rpm). Use this shift light and not the one on the right side of the instrument cluster with the speed shifter and/or the NO2 system.

14. **Left Side NO2 Gauge Mount / Control** (see drawing 03-005)

Bottom Arm / Purge Switch - Up will arm the system. Down activates the purge solenoid. The Blue LED on the gauge mount next to the switch and the Blue LED on the right handlebar LED pod will illuminate when the switch is in the armed position.

Upper Auto Trigger Switch – Active only if the bottom arm switch is set to the armed position. The Yellow LED next to the switch and the Yellow LED in the right handlebar LED pod indicates the switch has been set to auto and the system is in Auto Trigger mode.

Trigger - The NO2 can be triggered by pressing either of the buttons on the 2-button switch mounted on the right side handlebar, or the horn switch on the left side handlebar, or automatically once all safeties are satisfied if the Auto Trigger Switch on the gauge pod is set to auto. When the NO2 system is armed the horn switch on the handlebars acts as a NO2 trigger switch. When the system is not armed it functions normally as a horn.

Indicators - the right-side handlebar LED pod is exclusively used as status indication for the NO2 system. There are also 4 LED status indicators on the pressure gauge mount.

Right Handlebar LED Status Indicators

From the far right (outside) to the far left (inside) the LED functions are:

1. Blue – unused
2. Blue - N02 armed
3. Green - N02 ready
4. Red – flashing (5 sec): lean detector power up, steady (20 sec): lean condition
5. Yellow - N02 in auto mode

Gauge Mount LED Status Indicators

Bottom: From the far right (inside) to the far left (outside) the LED functions are:

1. Blue - N02 armed
2. Green - N02 ready
3. Red - flashing (5 sec): lean detector power up, steady (20 sec): lean condition

Top:

1. Yellow - N02 in auto mode

15. **Nitrous Pressure Gauge** (0-1500 psi gauge - pressure in the line at the front header)

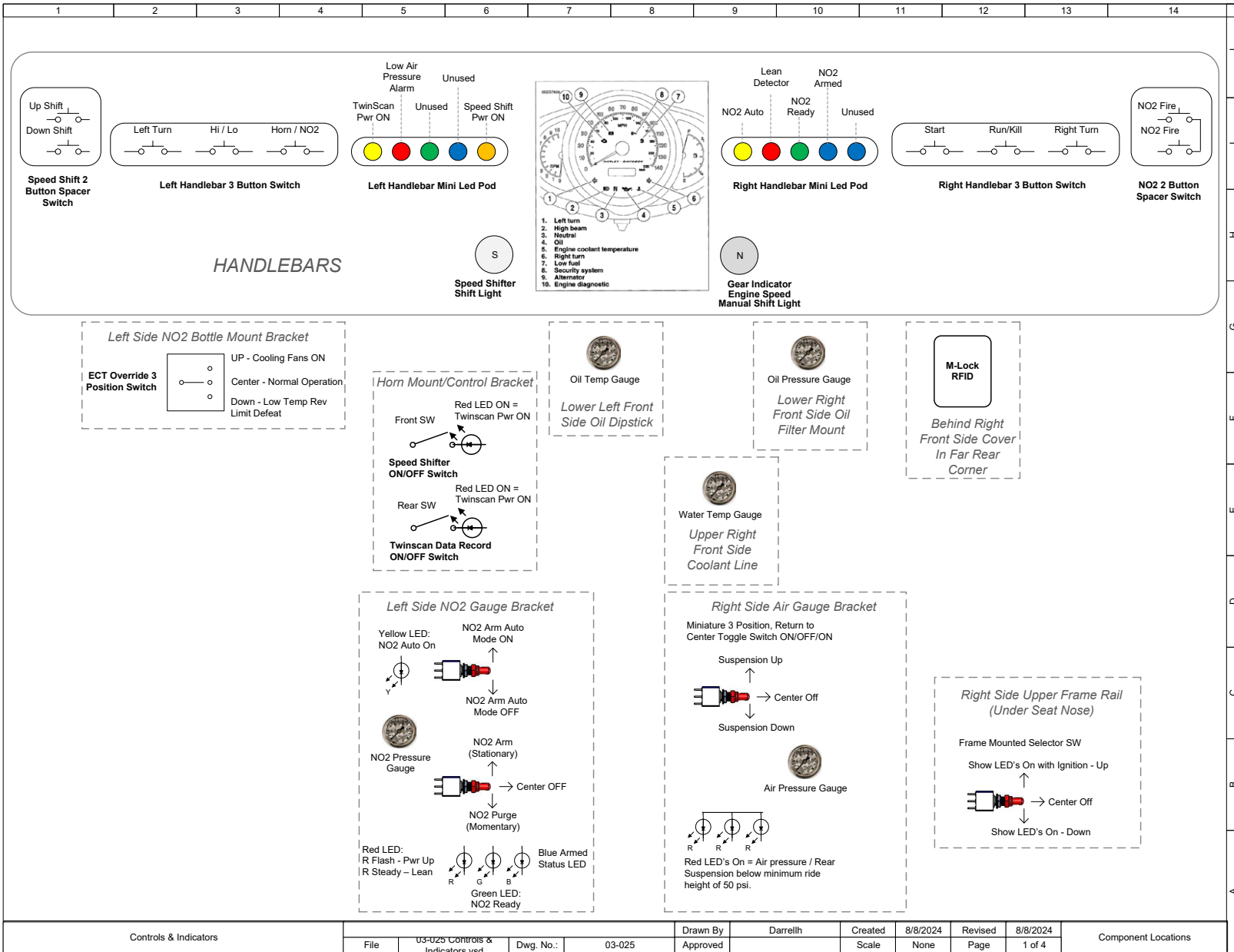
16. **Show LED Control** (see drawing 03-003)

There are three ways to activate the show LED's:

1. The LED's can be turned on or off at any time using the key fob remote control. The ignition does not need to be enabled to use the key fob.
2. Show LED's on or off with the ignition by selecting the forward or up position on the frame mounted selector switch.
3. Show LED's on or off on battery only by selecting the rearward or down position on the frame mounted selector switch.

If the frame mounted selector switch is set to the center off position the LED's are off. The LED's can still be turned on or off using the key fob when the selector switch is in the center off position

17. Drawing 03-025



Controls & Indicators

File	U3-025 Controls & Indicators.vsd	Dwg. No.:	03-025	Drawn By	Darrellh	Created	8/8/2024	Revised	8/8/2024	Component Locations
				Approved		Scale	None	Page	1 of 4	