

Boost by Smith's Dual Purpose Shift Light



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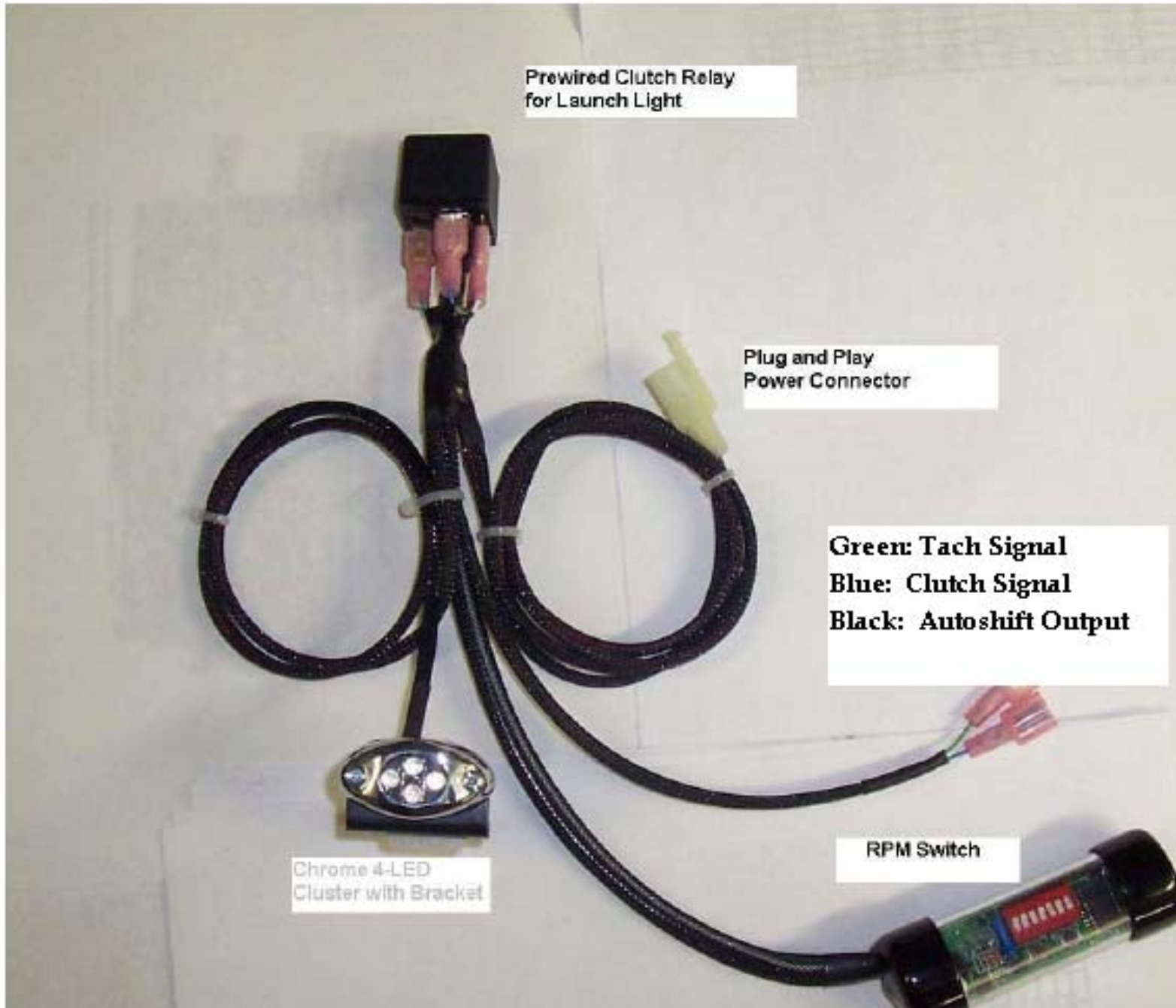
Prewired Clutch Relay
for Launch Light

Plug and Play
Power Connector

Green: Tach Signal
Blue: Clutch Signal
Black: Auto shift Output

Chrome 4-LED
Cluster with Bracket

RPM Switch



*****WARNING*****

This Dual-Purpose Launch-Shift Light can cause damage to both you and your motorcycle if not used properly.

There are few things to keep in mind and suggestions for this product:

- The auto-shift function is active whenever the shift light illuminates. The launch light activating will not trigger the auto-shift, but the shift light will trigger the auto-shift output. When you make changes to your Shift RPM Setpoint, the settings are then flashed back across the shift light. When this happens be sure to have your toggle switch off, and your air shifter kill box and bottle pressure deactivated and turned off. If you fail to do this and change your shift RPM setting this could result in the bike trying to shift the transmission multiple times rapidly while sitting still. **THIS WILL CAUSE DAMAGE TO YOUR TRANSMISSION!!!** For this reason, see the next item below.
- Run the auto-shift wire (Black wire with female spade connector) through a toggle switch before hooking it to your kill box trigger input and air solenoid ground wires. This will allow you to manually turn auto-shift on or off.
- When performing your burnout, it would be advised to turn the auto-shift off in case you over rev during burnout, you don't want the bike shifting into the next gear during your burnout.
- Never rev the engine to redline in neutral, if the shift light activates and your toggle switch is on it will try to shift most likely resulting in transmission damage as well as possibly throwing you off the bike.
- It is my suggestion to leave your current shift button hooked up (horn button most commonly used) in case the bike ever starts to wheelie and you need to short shift. If you connect the horn signal to the same wire as auto-shift (after the toggle switch) you will be able to hit the button and shift the bike manually earlier than what auto-shift is set for.

If there are any questions or concerns on the operation or safety of this product feel free to contact me at the phone number and email address listed on the cover page.

*****WARNING*****

Launch Light Setup Instructions

To set # of cylinders: Set dip switch setting to desired # of cylinders, then hold down push buttons 1 & 2, then power the RPM switch up by turning the key on, continue to hold the buttons until the launch light flashes rapidly, the setting will be flashed back to you for verification. *Note: Suzuki Hayabusa should be set to 2 cylinder mode for proper RPM settings.*

To set Launch RPM: Set dip switch setting to desired launch RPM, then hold down button 2 until it flashes rapidly, the setting will be flashed back to you for verification. This value is adjustable from 3,000 – 15,700 RPM in 100 RPM increments. *In order to see the launch light setting, you must pull the clutch lever in the entire time the settings are being flashed back. Zero is display as two very quick flashes.*

To set Launch Upper Window: Set dip switch setting to desired upper launch window, then hold down buttons 1 & 2 until it flashes rapidly, the setting will be flashed back to you for verification. This value is adjustable from 100-3,000 RPM and doesn't need to be changed when changing the actual launch RPM. For example, once you set the launch window to say 500 RPM, no matter what you set the launch RPM to, the upper window will always be 500 RPM higher than the launch RPM. Setting this value to 0 will allow the launch light to stay illuminated anytime you are over the rpm set point (same as shift light). *In order to see the launch window setting, you must pull the clutch lever in the entire time the settings are being displayed. Zero is displayed as two very quick flashes.*

To set Shift RPM: Set dip switch setting to desired Shift RPM, then hold down button 1 until it flashes rapidly, the setting will be flashed back to you for verification. This value is adjustable from 3,000 – 15,700 RPM in 100 RPM increments. *Note: Zero is displayed as two very quick flashes of the light. 10,600 for example would be displayed as: 1.....pause.....two quick flashes for zero.....pause.....1.2.3.4.5.6*

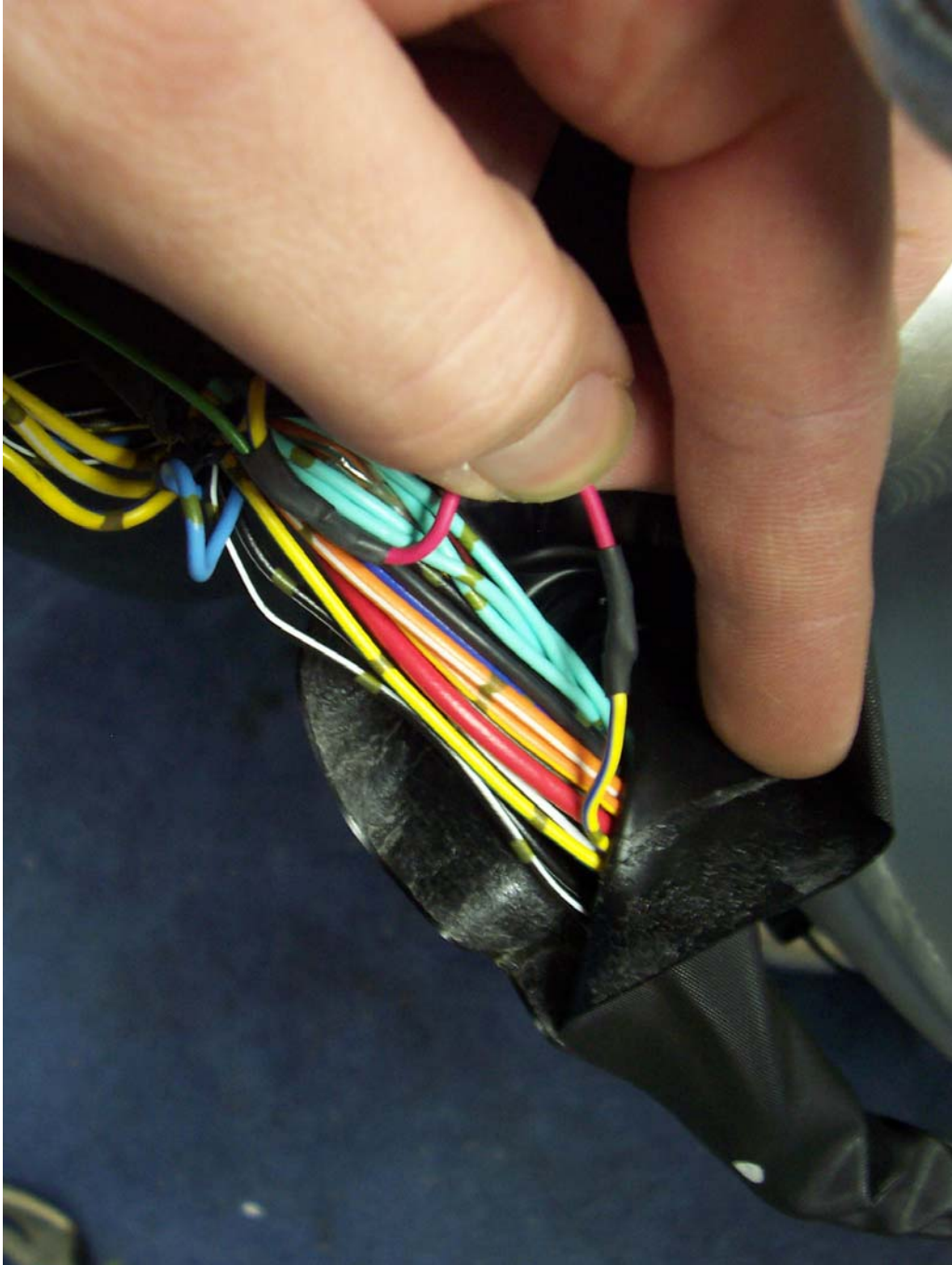
Wiring:

The clutch signal wire must be tapped into if you have purchased a Launch Light. On the Hayabusa, the switched clutch signal wire is on the left hand side of the bike in the taped up harness as well as visible at the large yellow connector. The wire is **black with a yellow tracer**. Align the wire in the yellow scotch lock connector and press down firmly.

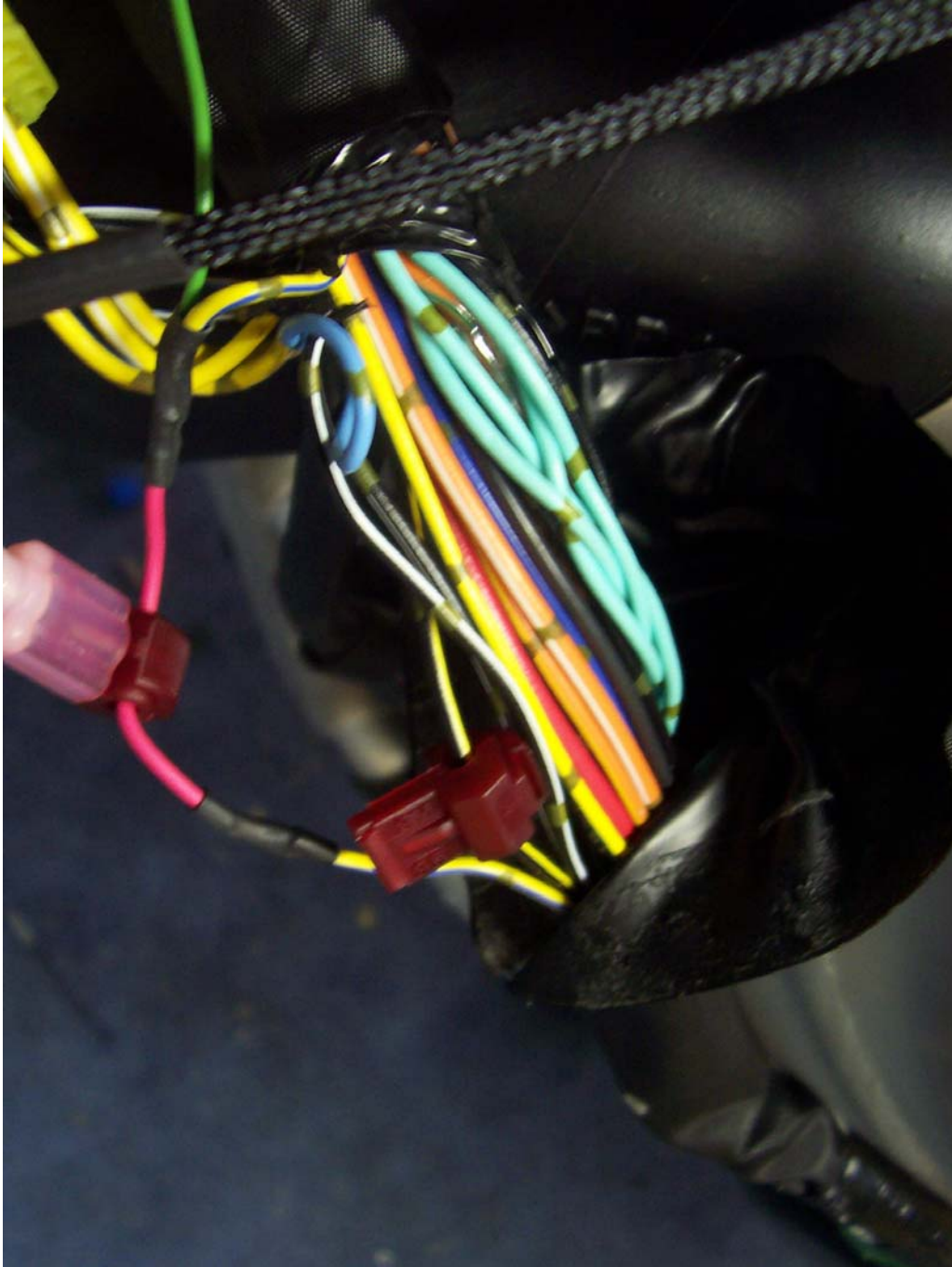
The tach signal wire must be tapped into if you have purchased a Shift Light. On the Hayabusa, the tach signal wire is on the left hand side of the bike in the taped up harness. The wire is **yellow with a blue tracer**. DO NOT mistake the other yellow wire with blue tracer that is visible at the large yellow connector, this is NOT the correct wire. Again, use the red scotch lock connector included and make sure it seats firmly.

The Auto-Shift wire (black wire with female spade connector) should be ran through a toggle switch, then to your kill box trigger input wire (should be inline with horn signal wire.)

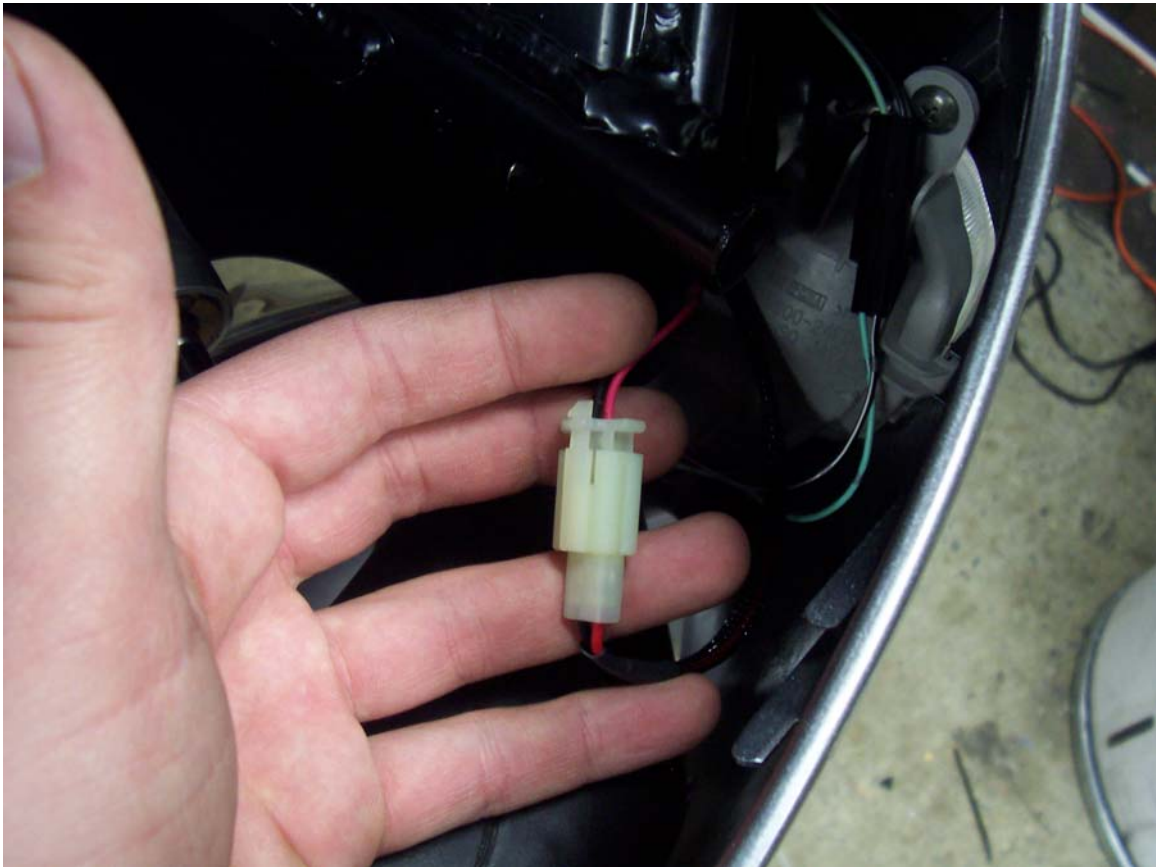
TACH SIGNAL ILLUSTRATION
CRIMP THE RED SCOTCH-LOCK CONNECTOR
ON THE YELLOW WIRE WITH BLUE TRACER INSIDE THIS HARNESS.
NOW CONNECT THE GREEN LEAD FROM THE SHIFT LIGHT
HARNESS TO THE RED SCOTCH LOCK CONNECTOR



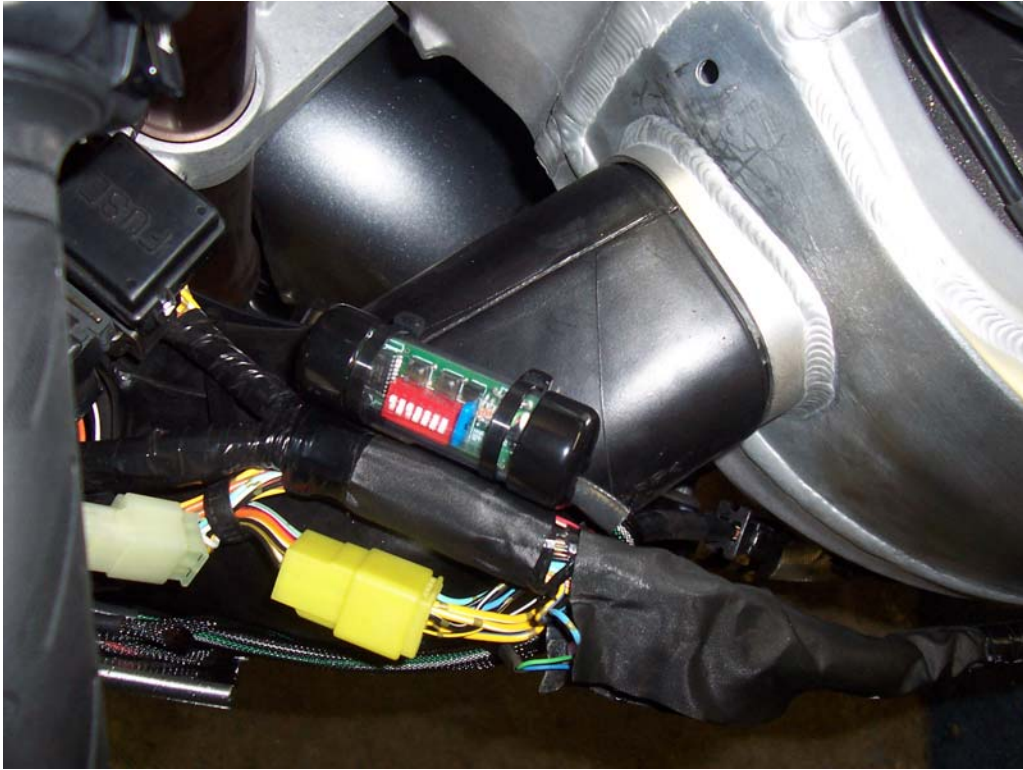
CLUTCH SIGNAL ILLUSTRATION
CRIMP THE RED SCOTCH-LOCK CONNECTOR
ON THE BLACK WIRE WITH YELLOW TRACER INSIDE THIS HARNESS.
NOW CONNECT THE BLUE LEAD FROM THE SHIFT LIGHT
HARNESS TO THE RED SCOTCH LOCK CONNECTOR



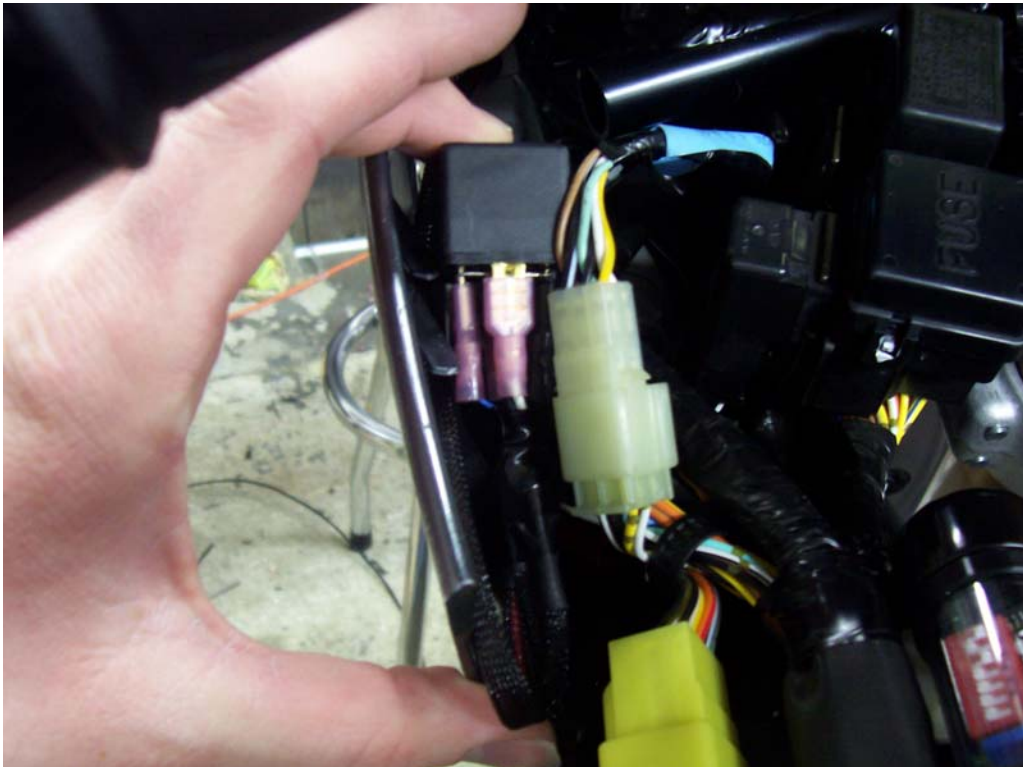
**POWER AND GROUND CONNECTOR
(INSIDE THE NOSE NEAR THE RIGHT TURN SIGNAL,
PLUG INTO THE 2 PIN CONNECTOR.**



RPM SWITCH PLACEMENT



CLUTCH RELAY PLACEMENT



SWITCH POSITIONS							
RPM	1	2	3	4	5	6	7
3000	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3100	ON	OFF	OFF	OFF	OFF	OFF	OFF
3200	OFF	ON	OFF	OFF	OFF	OFF	OFF
3300	ON	ON	OFF	OFF	OFF	OFF	OFF
3400	OFF	OFF	ON	OFF	OFF	OFF	OFF
3500	ON	OFF	ON	OFF	OFF	OFF	OFF
3600	OFF	ON	ON	OFF	OFF	OFF	OFF
3700	ON	ON	ON	OFF	OFF	OFF	OFF
3800	OFF	OFF	OFF	ON	OFF	OFF	OFF
3900	ON	OFF	OFF	ON	OFF	OFF	OFF
4000	OFF	ON	OFF	ON	OFF	OFF	OFF
4100	ON	ON	OFF	ON	OFF	OFF	OFF
4200	OFF	OFF	ON	ON	OFF	OFF	OFF
4300	ON	OFF	ON	ON	OFF	OFF	OFF
4400	OFF	ON	ON	ON	OFF	OFF	OFF
4500	ON	ON	ON	ON	OFF	OFF	OFF
4600	OFF	OFF	OFF	OFF	ON	OFF	OFF
4700	ON	OFF	OFF	OFF	ON	OFF	OFF
4800	OFF	ON	OFF	OFF	ON	OFF	OFF
4900	ON	ON	OFF	OFF	ON	OFF	OFF
5000	OFF	OFF	ON	OFF	ON	OFF	OFF
5100	ON	OFF	ON	OFF	ON	OFF	OFF
5200	OFF	ON	ON	OFF	ON	OFF	OFF
5300	ON	ON	ON	OFF	ON	OFF	OFF
5400	OFF	OFF	OFF	ON	ON	OFF	OFF
5500	ON	OFF	OFF	ON	ON	OFF	OFF
5600	OFF	ON	OFF	ON	ON	OFF	OFF
5700	ON	ON	OFF	ON	ON	OFF	OFF
5800	OFF	OFF	ON	ON	ON	OFF	OFF
5900	ON	OFF	ON	ON	ON	OFF	OFF
6000	OFF	ON	ON	ON	ON	OFF	OFF
6100	ON	ON	ON	ON	ON	OFF	OFF
6200	OFF	OFF	OFF	OFF	OFF	ON	OFF
6300	ON	OFF	OFF	OFF	OFF	ON	OFF
6400	OFF	ON	OFF	OFF	OFF	ON	OFF
6500	ON	ON	OFF	OFF	OFF	ON	OFF
6600	OFF	OFF	ON	OFF	OFF	ON	OFF
6700	ON	OFF	ON	OFF	OFF	ON	OFF
6800	OFF	ON	ON	OFF	OFF	ON	OFF
6900	ON	ON	ON	OFF	OFF	ON	OFF
7000	OFF	OFF	OFF	ON	OFF	ON	OFF
7100	ON	OFF	OFF	ON	OFF	ON	OFF
7200	OFF	ON	OFF	ON	OFF	ON	OFF
7300	ON	ON	OFF	ON	OFF	ON	OFF
7400	OFF	OFF	ON	ON	OFF	ON	OFF
7500	ON	OFF	ON	ON	OFF	ON	OFF
7600	OFF	ON	ON	ON	OFF	ON	OFF
7700	ON	ON	ON	ON	OFF	ON	OFF
7800	OFF	OFF	OFF	OFF	ON	ON	OFF
7900	ON	OFF	OFF	OFF	ON	ON	OFF
8000	OFF	ON	OFF	OFF	ON	ON	OFF
8100	ON	ON	OFF	OFF	ON	ON	OFF
8200	OFF	OFF	ON	OFF	ON	ON	OFF
8300	ON	OFF	ON	OFF	ON	ON	OFF
8400	OFF	ON	ON	OFF	ON	ON	OFF
8500	ON	ON	ON	OFF	ON	ON	OFF
8600	OFF	OFF	OFF	ON	ON	ON	OFF
8700	ON	OFF	OFF	ON	ON	ON	OFF
8800	OFF	ON	OFF	ON	ON	ON	OFF
8900	ON	ON	OFF	ON	ON	ON	OFF
9000	OFF	OFF	ON	ON	ON	ON	OFF
9100	ON	OFF	ON	ON	ON	ON	OFF
9200	OFF	ON	ON	ON	ON	ON	OFF
9300	ON	ON	ON	ON	ON	ON	OFF

SWITCH POSITIONS							
RPM	1	2	3	4	5	6	7
9400	OFF	OFF	OFF	OFF	OFF	OFF	ON
9500	ON	OFF	OFF	OFF	OFF	OFF	ON
9600	OFF	ON	OFF	OFF	OFF	OFF	ON
9700	ON	ON	OFF	OFF	OFF	OFF	ON
9800	OFF	OFF	ON	OFF	OFF	OFF	ON
9900	ON	OFF	ON	OFF	OFF	OFF	ON
10000	OFF	ON	ON	OFF	OFF	OFF	ON
10100	ON	ON	ON	OFF	OFF	OFF	ON
10200	OFF	OFF	OFF	ON	OFF	OFF	ON
10300	ON	OFF	OFF	ON	OFF	OFF	ON
10400	OFF	ON	OFF	ON	OFF	OFF	ON
10500	ON	ON	OFF	ON	OFF	OFF	ON
10600	OFF	OFF	ON	ON	OFF	OFF	ON
10700	ON	OFF	ON	ON	OFF	OFF	ON
10800	OFF	ON	ON	ON	OFF	OFF	ON
10900	ON	ON	ON	ON	OFF	OFF	ON
11000	OFF	OFF	OFF	OFF	ON	OFF	ON
11100	ON	OFF	OFF	OFF	ON	OFF	ON
11200	OFF	ON	OFF	OFF	ON	OFF	ON
11300	ON	ON	OFF	OFF	ON	OFF	ON
11400	OFF	OFF	ON	OFF	ON	OFF	ON
11500	ON	OFF	ON	OFF	ON	OFF	ON
11600	OFF	ON	ON	OFF	ON	OFF	ON
11700	ON	ON	ON	OFF	ON	OFF	ON
11800	OFF	OFF	OFF	ON	ON	OFF	ON
11900	ON	OFF	OFF	ON	ON	OFF	ON
12000	OFF	ON	OFF	ON	ON	OFF	ON
12100	ON	ON	OFF	ON	ON	OFF	ON
12200	OFF	OFF	ON	ON	ON	OFF	ON
12300	ON	OFF	ON	ON	ON	OFF	ON
12400	OFF	ON	ON	ON	ON	OFF	ON
12500	ON	ON	ON	ON	ON	OFF	ON
12600	OFF	OFF	OFF	OFF	OFF	ON	ON
12700	ON	OFF	OFF	OFF	OFF	ON	ON
12800	OFF	ON	OFF	OFF	OFF	ON	ON
12900	ON	ON	OFF	OFF	OFF	ON	ON
13000	OFF	OFF	ON	OFF	OFF	ON	ON
13100	ON	OFF	ON	OFF	OFF	ON	ON
13200	OFF	ON	ON	OFF	OFF	ON	ON
13300	ON	ON	ON	OFF	OFF	ON	ON
13400	OFF	OFF	OFF	ON	OFF	ON	ON
13500	ON	OFF	OFF	ON	OFF	ON	ON
13600	OFF	ON	OFF	ON	OFF	ON	ON
13700	ON	ON	OFF	ON	OFF	ON	ON
13800	OFF	OFF	ON	ON	OFF	ON	ON
13900	ON	OFF	ON	ON	OFF	ON	ON
14000	OFF	ON	ON	ON	OFF	ON	ON
14100	ON	ON	ON	ON	OFF	ON	ON
14200	OFF	OFF	OFF	OFF	ON	ON	ON
14300	ON	OFF	OFF	OFF	ON	ON	ON
14400	OFF	ON	OFF	OFF	ON	ON	ON
14500	ON	ON	OFF	OFF	ON	ON	ON
14600	OFF	OFF	ON	OFF	ON	ON	ON
14700	ON	OFF	ON	OFF	ON	ON	ON
14800	OFF	ON	ON	OFF	ON	ON	ON
14900	ON	ON	ON	OFF	ON	ON	ON
15000	OFF	OFF	OFF	ON	ON	ON	ON
15100	ON	OFF	OFF	ON	ON	ON	ON
15200	OFF	ON	OFF	ON	ON	ON	ON
15300	ON	ON	OFF	ON	ON	ON	ON
15400	OFF	OFF	ON	ON	ON	ON	ON
15500	ON	OFF	ON	ON	ON	ON	ON
15600	OFF	ON	ON	ON	ON	ON	ON
15700	ON	ON	ON	ON	ON	ON	ON

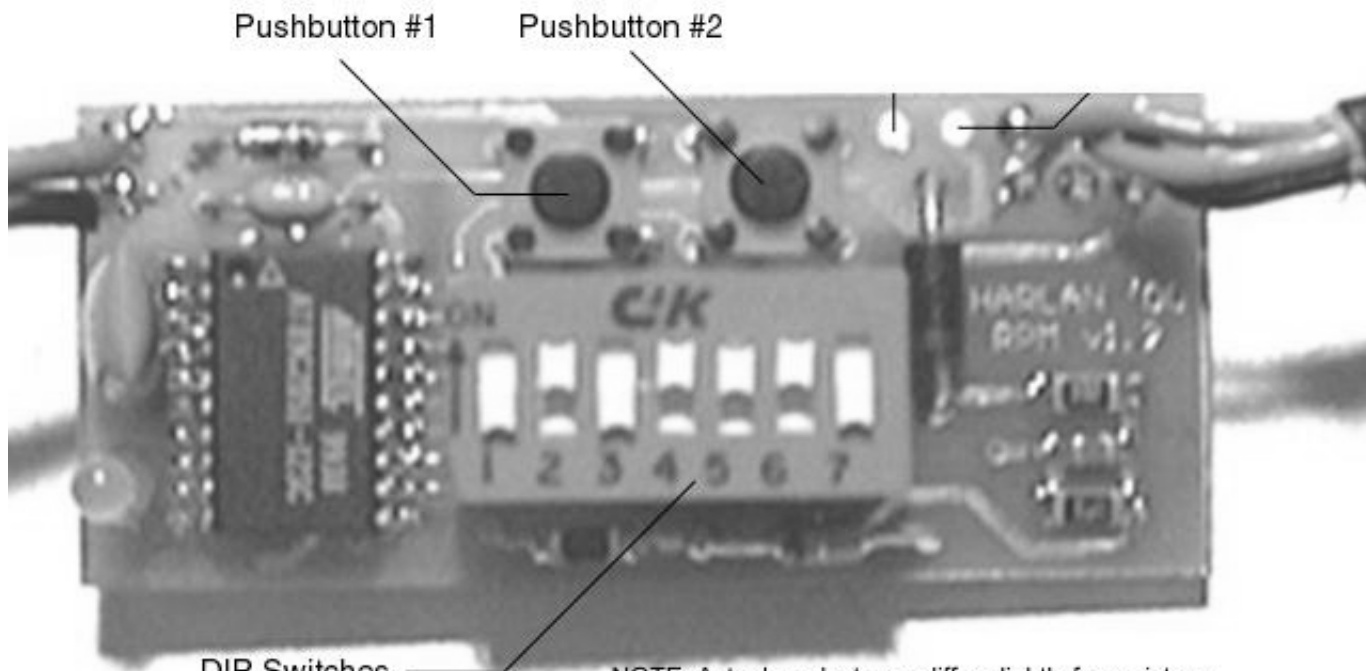
LAUNCH WINDOW SWITCH POSITIONS

RPM	1	2	3	4	5	6	7
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF
100	ON	OFF	OFF	OFF	OFF	OFF	OFF
200	OFF	ON	OFF	OFF	OFF	OFF	OFF
300	ON	ON	OFF	OFF	OFF	OFF	OFF
400	OFF	OFF	ON	OFF	OFF	OFF	OFF
500	ON	OFF	ON	OFF	OFF	OFF	OFF
600	OFF	ON	ON	OFF	OFF	OFF	OFF
700	ON	ON	ON	OFF	OFF	OFF	OFF
800	OFF	OFF	OFF	ON	OFF	OFF	OFF
900	ON	OFF	OFF	ON	OFF	OFF	OFF
1000	OFF	ON	OFF	ON	OFF	OFF	OFF
1100	ON	ON	OFF	ON	OFF	OFF	OFF
1200	OFF	OFF	ON	ON	OFF	OFF	OFF
1300	ON	OFF	ON	ON	OFF	OFF	OFF
1400	OFF	ON	ON	ON	OFF	OFF	OFF
1500	ON	ON	ON	ON	OFF	OFF	OFF
1600	OFF	OFF	OFF	OFF	ON	OFF	OFF
1700	ON	OFF	OFF	OFF	ON	OFF	OFF
1800	OFF	ON	OFF	OFF	ON	OFF	OFF
1900	ON	ON	OFF	OFF	ON	OFF	OFF
2000	OFF	OFF	ON	OFF	ON	OFF	OFF
2100	ON	OFF	ON	OFF	ON	OFF	OFF
2200	OFF	ON	ON	OFF	ON	OFF	OFF
2300	ON	ON	ON	OFF	ON	OFF	OFF
2400	OFF	OFF	OFF	ON	ON	OFF	OFF
2500	ON	OFF	OFF	ON	ON	OFF	OFF
2600	OFF	ON	OFF	ON	ON	OFF	OFF
2700	ON	ON	OFF	ON	ON	OFF	OFF
2800	OFF	OFF	ON	ON	ON	OFF	OFF
2900	ON	OFF	ON	ON	ON	OFF	OFF
3000	OFF	ON	ON	ON	ON	OFF	OFF

SWITCH POSITIONS

# Cylinders	1	2	3	4	5	6	7
2	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	OFF	ON	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF
Coil Per Plug	OFF	OFF	OFF	OFF	ON	OFF	OFF

NOTE: Suzuki Hayabusa should be set to 2 Cylinder Mode



Pushbutton #1

Pushbutton #2

DIP Switches

NOTE: Actual product may differ slightly from picture.
Relative position of buttons and switches is unchanged.