

Hayabusa, 2 Step / Kill Switch
Manual Revision F
5/29/02

Important:

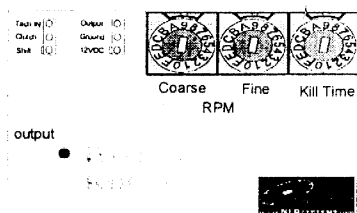
Please read this manual fully and follow all instructions before attempting to install and operate the 2-Step / Kill Switch on your vehicle.

Warranty Information

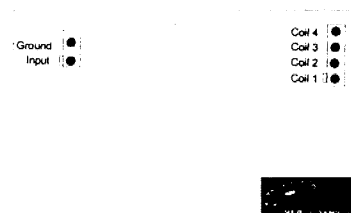
The NXT Level Racing, NLR, 2 Step / Kill Switch is covered by a one year warranty from the date of the original purchase. NLR, liability is limited solely to the replacement of NLR product and only in the case of a defect in materials or workmanship in said product. NLR reserves the right to decline warranty coverage if, in the opinion of NLR, the product has been modified or misused. NLR will not be held responsible for damage caused to engines, vehicles, persons or other personal property, incurred while using NLR products. This warranty is non transferable.

Component Description

The NLR 2-Step is composed of two main components, the head unit, CPU, which is used to program system operation and the Remote Coil Interface, RCI-1, used to control ignition coils. The 2-Step CPU shown below is programmed by use of 3 rotary switches. An output light, on the CPU, is provided to indicate when the 2-Step is active and controlling engine ignition. Also included in this kit is a custom wiring harness that allows you to locate the CPU up front in the dash area for easy access and placement of the RCI-1 in the tail section for convenient connection to coil wires and switched battery.



2-Step CPU



RCI-1

Component Placement

Locate the CPU component up front on the dash of your vehicle. The small size of this unit allows placement in a location that allows easy access for adjusting RPM and/or kill time settings without obstructing your view of other instruments or the track. This is also an ideal location for connecting to the tach signal from the ECM. This signal runs from the ECM, located under the seat, up front to the instrument cluster. This signal is labeled "TACO" and is the Y/BI, YELLOW/BLUE tracer wire.

Locate the RCI-1 in the tail section where connection to the ignition coils and switched battery can be easily made.

Installation/Operation Tips:

The SHIFT input, ignition kill, is ON when the BROWN input is switched to ground. This is sometimes referred to as switched negative. The shift kill timer will only activate ONE time for each SHIFT input. The ignition kill timer is disabled when the CLUTCH input, YELLOW, has 12VDC applied.

NOTE: The horn button may be used as the shift input. The black wire going to the horn is a switched ground.

The CLUTCH input is ON when 12VDC is switched to the YELLOW input. This is the 2-Step mode when the rev limiter is operational. Removing 12VDC from the CLUTCH input causes the 2-Step unit to go into ignition kill mode.

NOTE: If the rev limit is reached and the clutch is released a lock-out timer is activated that prevents re-activation of the rev limiter for 5 seconds. For this reason, the clutch switch must be of high quality and securely mounted.

Clutch Switch Tips: The Hayabusa comes with a factory installed clutch switch that is part of the engine start circuit. You may use this switch as the clutch input to the 2-Step. To do this, remove the two wires from the switch, join them together securely and then tape or heat shrink the connection. Connect the 2-Step YELLOW wire to terminal 1 of the clutch switch and switched battery to the other clutch switch terminal. A test light is a handy tool for finding switched battery and testing the operation of the 2-Step clutch circuit.

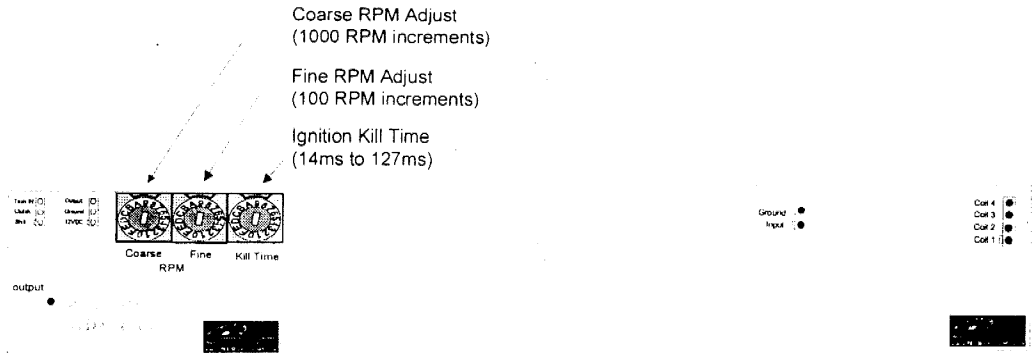
WARNING: As stated above, the factory clutch switch is part of the engine starting circuit. If you chose to use this switch as the 2-Step clutch input, the bike will be able to start without the clutch pulled in. You **must** always start the bike in neutral for safety reasons or the bike can move forward when started, if in gear.

NOTE: Switched Battery is power that comes ON when the key switch is ON.

NOTE: The RCI-1 connects to the ECM side of the ignition coils.

- Coil 1 is ECM wire W/B1
- Coil 2 is ECM wire B
- Coil 3 is ECM wire Y
- Coil 4 is ECM wire G

NOTE: The supplied harness was specifically designed to simplify component placement and connections to the necessary signals.



- Tach IN Tach Signal GREY to ECM, TACO Y/BL
- Clutch Clutch signal is 12VDC when clutch lever is pulled in., YELLOW
- Shift Shift is momentary GOUND signal, BROWN
- Output Output to RCI-1, PURPLE
- Ground System ground, BLACK
- 12VDC System battery, RED.
- Coil 4 Outputs to ECM side of Coil, ORANG YELLOW
- Coil 3
- Coil 2 Outputs to ECM side of Coil, BLUE GREEN
- Coil 1
- Ground System ground, BLACK
- Input Input activates RCI-1, PURPLE

Switch settings

Coarse RPM select.	Fine RPM select.	Kill Time select.
0=4000	0=000	0=14mS
1=5000	1=100	1=21mS
2=6000	2=200	2=28mS
3=7000	3=300	3=35mS
4=8000	4=400	4=42mS
5=9000	5=500	5=49mS
6=10,000	6=600	6=56mS
7=11,000	7=700	7=63mS
8=12,000	8=800	8=70mS
9=13,000	9=900	9=77mS
A=14,000	A=900	A=84mS
B=14,000	B=900	B=91mS
C=14,000	C=900	C=98mS
D=14,000	D=900	D=105mS
E=14,000	E=900	E=120mS
F=14,000	F=900	F=127mS

System Wiring

