DAYTONA Switch Relay *EZ*

Product no. 81255

Features

Experience comprehensive control with the Daytona Switch Relay EZ, offering all the essential functions you need for a seamless ride:

- Turn signals
- Hi/Low beam switching
- Horn
- Start
- Kill switch*
- Pass switch*
- Accessory on/off
- Hazard

*Utilizing offered options.

Versatile Compatibility:

- Supports both 6V and 12V systems. (Operating voltage: 6~18V DC)
- Accommodates high-ampere parts and accessories, including:
  - > 5A for turn signals
  - > 10A for headlights
  - > 10A&15A for Accessories
  - > 15A for starter relay
  - > 20A for Input

Smart Design:

- Built-in turn signal relay for simplified wiring.
- Auto-cancel function for turn signals.
- Up to 8 switch connections possible for a customizable setup.
- Reverse current protection feature to protect relay from short circuits.

Warnings ⚠

- Ensure a smooth installation process by adhering to these warnings.
- Thoroughly read the instruction manual before initiating any wiring.
- Keep your motorcycle's user manual on hand to refer to the wiring diagram.
- If uncertain about the installation process, consider having a technician perform the installation.
- Installation of the Daytona Switch Relay EZ requires skills in wiring, soldering, and wire insulation.
- Wrong wiring may cause damage to the relay or the motorcycle, and void your warranty.
- Note, modification to original factory wiring may be required to install certain connections.
- The Daytona Switch Relay EZ requires separate switches for operation (sold separately).

Input&Output Wire Ampere Ratings

⚠ Using accessories, or parts with a higher amperage rating than listed below may result in irreversible damage to the relay or motorcycle.

INPUT		OUTPUT							
ACC IN	20A	L OUT	5A	START OUT	15A	LOW OUT	10A	OPT2 OUT	10A
		R OUT	5A	ACC OUT	10A	HORN OUT	10A	OPT3 OUT	15A
		HI OUT	10A	OPT1 OUT	10A				

⚠ Pay attention that total output doesn't exceed 20A which is the maximum amperage ACC IN can handle.

Wires

⚠ Chart below shows the general wire connections. Please read each section for detailed explanation. Each wire is labeled, and refer to the labels before doing any wiring.

DAYTONA CE
Switch Relay *EZ*
81255   Made in China

INPUT WIRES

ACC IN	Connects to the power source that is on when main key is on. See "**1.Power**" section.
GND IN	Connects GND of motorcycle. See "**1.Power**" section.

OUTPUT WIRES

L OUT	Connects to the left side turn signals. See "**2.Turn Signals**" section.
R OUT	Connects to the right side turn signals. See "**2.Turn Signals**" section.
HI OUT	Connects to the Hi-Beam power input of the headlight. See "**4.Headlight**" section.
LOW OUT	Connects to the Low-Beam power input of the headlight. See "**4.Headlight**" section.
HORN OUT	Connects to the Horn power input. See "**5.Horn**" section.
START OUT	Connects to the Starter Relay power input. See "**6.Start**" section.
ACC OUT	Outputs power for accessories. See "**1.Power**" section.
OPT1 OUT	
OPT2 OUT	See "**7.Options**" section.
OPT3 OUT	

SWITCH WIRES

SW L	Connects to the left turn signal switch.
SW R	Connects to the right turn signal switch.
SW HEADLIGHT	Connects to the HI/LOW headlight switch.
SW COM	Common wire for the switches. See "**8.Switches**" section.
SW HORN	Connects to the Horn switch.
SW START	Connects to the Start switch.
SW OPT1	Connects to the OP1 switch.
SW COM	Common wire for the switches. See "**8.Switches**" section.
SW OPT2	Connects to the OP2 switch.
SW OPT3	Connects to the OP3 switch.

AUTO CANCEL WIRES

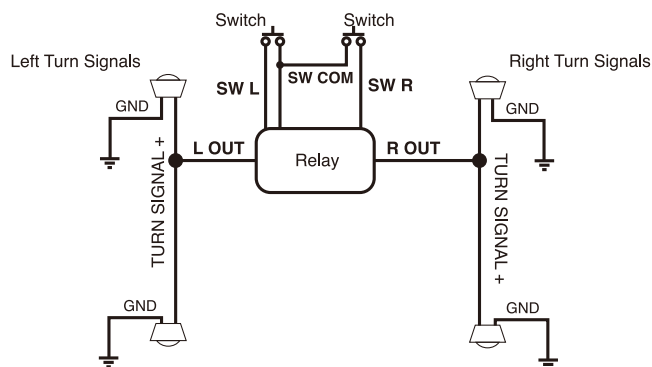| CANCEL	
CANCEL1	See "**2.Turn Signals**" section.
CANCEL2	

1- Power

・Connect **ACC IN** to a 12V or 6V DC source on the motorcycle that outputs power when the main key is on. Be careful to choose a wire that supports 20A at least. Any other wires that are too thin or with less amperage rating may cause relay to malfunction or short-circuit. Check with a multimeter before connection.

・Connect **GND** to a ground wire or the frame on the motorcycle. Check with a multimeter before connection to prevent short-circuit.

・**ACC IN** wire is protected by a 20A fuse. In case of a malfunction, check the fuse if it is blown or not.

・**ACC OUT** outputs max.10A power constantly for accessories. Do not use accessories with high ampere ratings.

2- Turn Signals

・Daytona Switch Relay EZ has an in-built turn signal relay. Installation of an additional relay is not required. Connect **L OUT** to left turn signals and **R OUT** to right turn signal power input accordingly. There is one wire each for left front&back, right front&back. Front and back turn signals can not be operated seperately.

・This product supports most LED turn signals. Each side supports up to 5A(60W).

Operation

・Turn signals operate when **SW L** or **SW R** wire connected to the **SW COM** momentarily. First press of the switch will turn on the turn signals, and second press will turn off.

・If left turn signal is turned on, pressing the **SW R** will cancel the left turn signal, and right turn signal will turn on. Similarly, If right turn signal is turned on, pressing the **SW L** will cancel the right turn signal, and left turn signal will turn on.

・Even if Auto-Cancel option is activated, you can still cancel manually by pressing buttons. (See "**Turn Signal Auto-Cancel Feature**" section for more details.)

Turn Signal Auto-Cancel Feature

・Daytona Switch Relay EZ supports auto cancelling of turn signals by time-out function.

・Out of the box, auto cancelling is turned off. To enable auto cancelling;

    To turn off turn signals automatically after 10 seconds;

    Connect **CANCEL** and **CANCEL 1**.

    To turn off turn signals automatically after 20 seconds;

    Connect **CANCEL** and **CANCEL 2**.

    To turn off turn signals automatically after 30 seconds;

   Connect **CANCEL**, **CANCEL 1** and **CANCEL 2** all together.
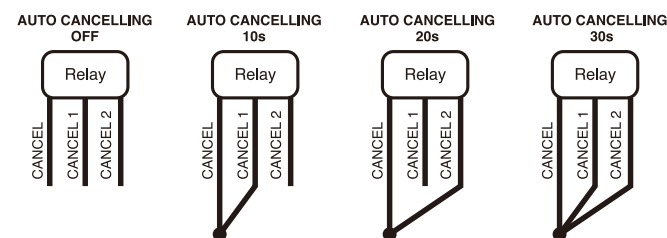
・After setting up the auto cancelling function, make sure to insulate the wires that are not used with electrical type, heat shrink tube or a wire seal.

・Auto cancelling does not affect Hazard function. Hazard function stays on until turned off manually. If hazard is cancelled by pushing of any of the turn signals, turn signal will take over and gets auto cancelled if auto cancel options is selected. See "**Hazard**" section.

3- Hazard

・Pushing **SW L** and **SW R** at the same time will turn on the hazard function. Hazard lights will stay on until one of the **SW L** or **SW R** buttons is pressed, or **SW L** and **SW R** are pressed at the same time. Pressing **SW L** and **SW R** buttons at the same time will cancel the hazard.

・Pressing **SW L** or **SW R** will cancel the hazard operations, and pressed turn signal will turn on.

4- Headlight

・Connect **HI OUT** to hi-beam power input of your headlight, and connect **LOW OUT** to low-beam power input of your headlight. Pressing **SW HEADLIGHT** button will switch between **HI** and **LOW** beam. When hi-beam is on, **LOW OUT** will not output any power. Similarly, when low-beam is on, **HI OUT** will not output any power. *Headlight will turn off while the SW START button is pressed.

・If your headlight requires constant low-beam power, connect to the **ACC OUT** or a power source on the motorcycle that outputs power when the main key is on. **ACC OUT** supports up to 10A.
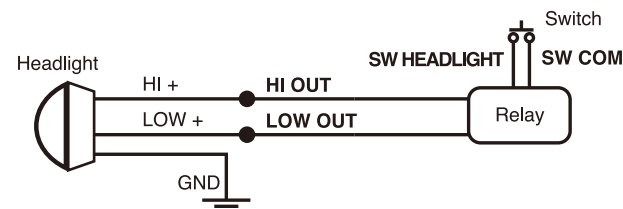
5- Horn

· Connect **HORN OUT** to power input of your horn. Pressing **SW HORN** button will turn on horn for the duration of the button pressed, horn will turn off when button is released.
· **HORN OUT** supports up to 10A.

Switch
SW HORN | SW COM
Relay
HORN OUT — HORN+ — Horn
GND
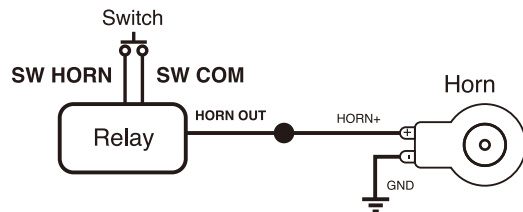
6- Start

· Connect **START OUT** to positive input of starter relay. Pressing **SW START** button will make the **START** cable to output 12V for the duration of the button pressed. When the SW START button is pressed, headlights will turn off.
· **START** supports up to 15A.

Switch
SW START | SW COM
Relay
START — STARTER RELAY + — **Starter Relay**
GND
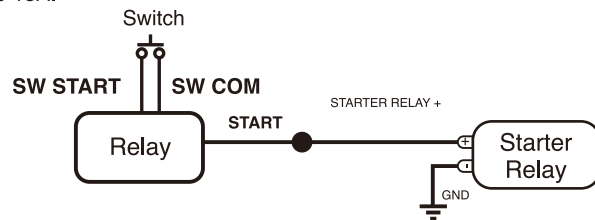
7- Options

· Daytona Switch Relay EZ has 3 different option in and switch wires for different needs.
· You can use them alone or combine them according to your needs. Additionally, option cables can be used as a killswitch for your motorcycle. Option 1 and 2 support 10A. Option 3 supports 15A.
· Please make sure total amperage of the options and accessories do not exceed 20A. Daytona Switch Relay EZ is protected by a 20A fuse. Amperage over 20A may cause fuse to blow, or damage the relay.
· Options can output 6~12V DC. Options can not be used for accessories that require GND connected activation. For such devices and kill switches, please use an additional relay.

OPTION 1

· Pressing **SW OP1** switch will output power from **OPT1 OUT** line. Pressing once will output power, and second press will stop the output. Option 1 is normally open, and acts as an alternate switching (like ON/OFF type switches.) Can be used for auxiliary lights, USB chargers, and other accessories.
**Fog Light Example;**

Switch
SW OPT1 | SW COM
Fog Light
Fog Light + — OP1 OUT — Relay
GND
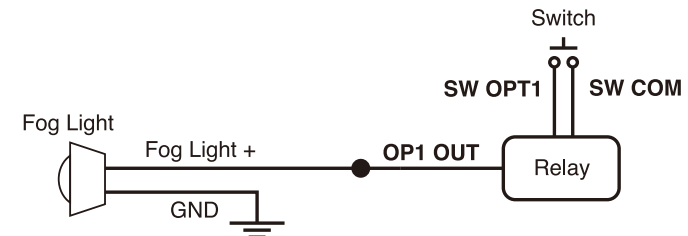
OPTION 2

· Pressing **SW OP2** switch will output power from **OPT2 OUT** line. Pressing once will output power, and once you release the switch, output will be cut. Option 2 is normally open, and acts as momentary switching. Can be used as a passing signal switch or other devices that needs to be turned on momentarily.
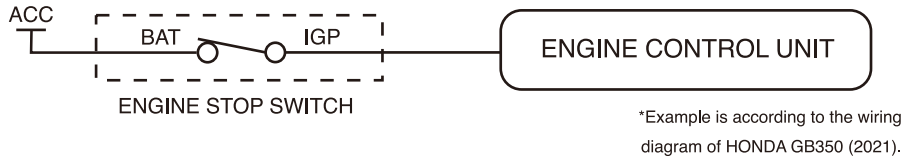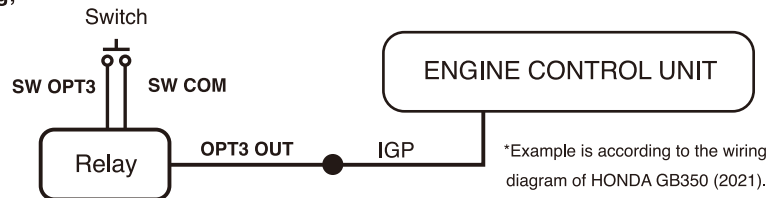**Passing Switch Example;**

Switch
SW OPT2 | SW COM
OP2 OUT — Relay
Headlight
HI + — HI OUT
LOW + — LOW OUT
GND
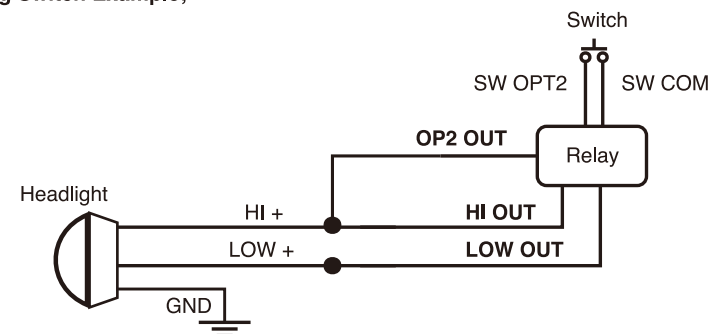
· **OPT3 OUT** outputs 6~12V DC when the main key is on. Pressing **SW OP3** switch will stop the output. This option is the most suitable for using as a kill switch for most motorcycles. Pressing the switch will disconnect the connection, and the second press will connect again. Option 3 is normally closed, and acts as an alternate switching (like ON/OFF switches.) Example;

Original wiring;

ACC

BAT   IGP

ENGINE CONTROL UNIT

ENGINE STOP SWITCH

*Example is according to the wiring diagram of HONDA GB350 (2021).

Relay wiring;

Switch

SW OPT3   SW COM

Relay   OPT3 OUT   IGP

ENGINE CONTROL UNIT

*Example is according to the wiring diagram of HONDA GB350 (2021).

· When **Option 3** is used as a kill switch, once the **SW OP3** switch is pressed, engine will stop and pressing **START** switch will not start the engine since the connection is cut. To be able to start the engine again, press **SW OP3** one more time, then press **START** switch.

*Kill switches are different from motorcycle to motorcycle. Refer to your motorcycle manual or wiring diagram. Example shown for Option 3 is for Honda GB350S(2021). Your connections may differ. If you are not sure about the wiring, consult to a professional.
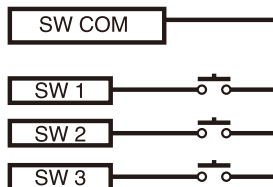
⚠ *Warning*

Prolonged use with 15A accessories will cause relay to overheat, which may lead to irreversible damage to both motorcycle and relay.
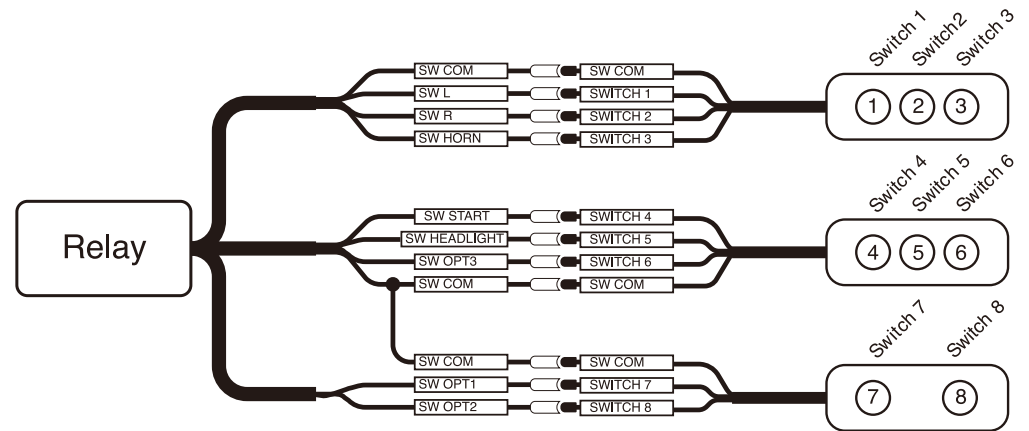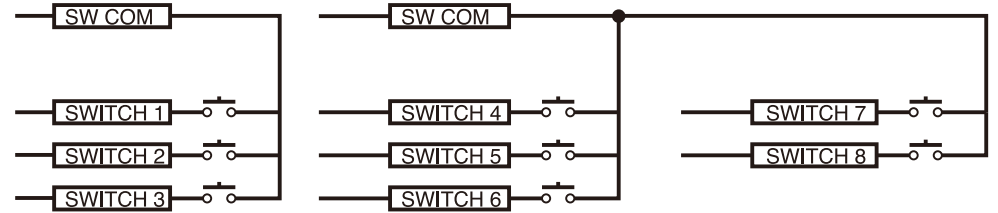
8- Switches

· Daytona Relay Switch EZ requires momentary switches that will connect **SW COM** and other switch cables (**SW L, SW R, SW START**...) Alternate switches will not work with the relay.
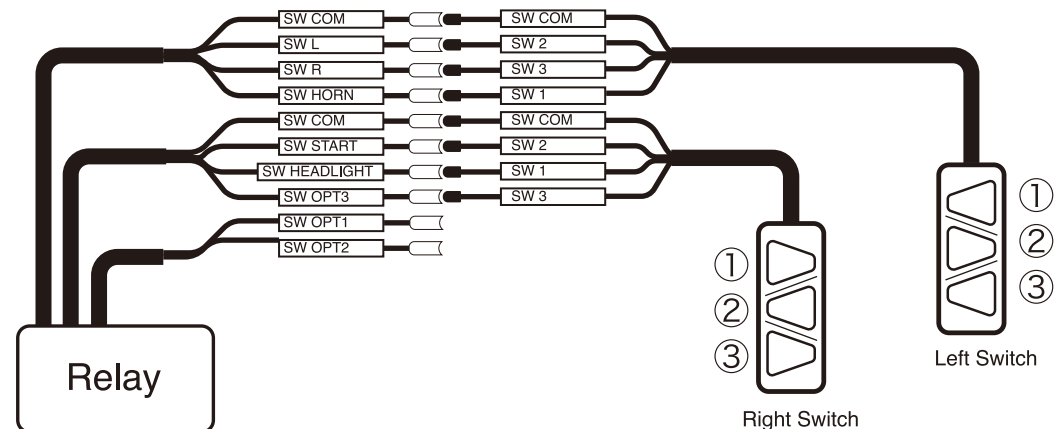
Example;

SW COM

SW 1

SW 2

SW 3

· There are 2 **SW COM** connections for left and right side switches. **SW COM** wires are the same line, and if you want to connect more than 2 switch bodies, one **SW COM** can be splitted into two cables.

SW COM   SW COM
SWITCH 1   SWITCH 4   SWITCH 7
SWITCH 2   SWITCH 5   SWITCH 8
SWITCH 3   SWITCH 6

Switch 1 Switch 2 Switch 3

SW COM   SW COM
SW L   SWITCH 1
SW R   SWITCH 2
SW HORN   SWITCH 3

① ② ③

Switch 4 Switch 5 Switch 6

Relay

SW START   SWITCH 4
SW HEADLIGHT SWITCH 5
SW OPT3   SWITCH 6
SW COM   SW COM

④ ⑤ ⑥

Switch 7 Switch 8

SW COM   SW COM
SW OPT1   SWITCH 7
SW OPT2   SWITCH 8

⑦ ⑧

· Daytona Switch Relay EZ is fully compatible with Daytona 3-Button Handlebar Switch. Example connection;

SW COM   SW COM
SW L   SW 2
SW R   SW 3
SW HORN   SW 1
SW COM   SW COM
SW START   SW 2
SW HEADLIGHT SW 1
SW OPT3   SW 3
SW OPT1
SW OPT2

① ② ③

Relay

① ② ③

Right Switch

Left Switch

Q1. How to connect to the power?

    A1. Refer to the "1-Power" section.

Q2. How to wire turn signals?

   **A2.** Refer to the "2-Turn Signals" section.

Q3. Do I need a turn signal relay?

    A3. The Daytona Switch Relay EZ has a built-in turn signal relay function.
No additional connection to a turn signal relay is required.

Q4. How to switch between Auto-Cancel modes during operation?

    A4. You can add an alternate switch that switches between the desired options.

    Example;

RELAY — CANCEL / CANCEL1 / CANCEL2
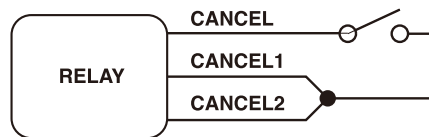
Switching between OFF and 30s

Q5. What is the maximum wattage of the turn signals Daytona Switch Relay EZ can handle?

    A5. The Daytona Switch Relay EZ supports up to 60W for each side and 30W for each turn signal.

Q6. Can I use bulb-type turn signals?

    A6. Yes, as long as the wattage of each turn signal doesn't exceed 30W.

Q7. How to use Hazard function?

    A7. Refer to the "3-Hazard" section.

Q8. How to use turn signals with front position light function?

    A8. The Daytona Switch Relay EZ does not support front position light turn signals.

Q9. How to use turn signals with tail/brake light function?

    A9. Connect turn signal wires to the Daytona Switch Relay EZ L & R out respectively,
and follow the tail/brake light connections in the turn signal instruction manual.

Q10. How to connect the headlight?

    A10. Refer to the "4-Headlight" section.

Q11. What is the maximum wattage of the headlight output?

    A11. The Daytona Switch Relay EZ supports up to 120W for both low & high beam.

Q12. What if my motorcycle has always-on low beam?

    A12. Use the "ACC OUT" from the Daytona Switch Relay EZ, supporting headlights up to 120W,
providing continuous power when the main key is on.

Q13. How to connect running lights on my headlight?

    A13. Utilize the "ACC OUT" from the Daytona Switch Relay EZ, offering continuous
power when the main key is on.

Q14. How to use pass switch?

    A14. Refer to "7-OPTION-OPTION 2" section for details.

Q15. How to connect the horn?

    A15. Refer to the "5-Horn" section.

Q16. What if my horn is switched on by GND?

    A16. The Daytona Switch Relay EZ outputs positive(+) for the horn. For GND-activated horns,
please use an additional relay. If unsure, seek professional advice.

Q17. How to connect the starter relay?

    A17. Refer to the "6-START" section.

Q18. What if my motorcycle starter relay gets activated by the ECU on the motorcycle?

    A18. Consult your user manual for relevant wires. If unsure, seek professional advice.

Q19. What if my motorcycle ECU sends a GND signal to turn on the starter relay?

    A19. For such cases, please use an additional relay. If unsure, seek professional advice.

Q20. How to turn on or off my accessories?

    A20. Refer to "7-Options-Option1" section for details. Note that this option supports up to 10A;
accessories requiring more may damage the motorcycle or the Daytona Switch Relay EZ.

Q21. How to do wiring for a kill switch?

    A21. Wiring may vary; refer to your motorcycle's user manual. See "7-OPTIONS- OPTION 3"
sections for more details.

Q22. How to choose switches for Daytona Switch Relay EZ?

    A22. Daytona Switch Relay EZ works with momentary switches. Use momentary switches that
support at least 50mA. The Daytona 3-Button Handlebar Switch (sold separately) is fully
supported.

Q23. How to use more than 3 switch bodies?

    A23. Refer to the "8-SWITCHES" section for details.

Q24. Daytona Switch Relay EZ doesn't operate.

    A24. Check the ACC IN wire fuse; replace with Mini Blade type 20A fuse if blown.
Check wire connections for short-circuits.
Use a multimeter to check the wire providing power to the Daytona Switch Relay EZ.

Note : Daytona Switch Relay EZ utilizes chips to control various functions.
Incorrect wiring may cause irreversible damage. Refer to your user's manual for the wiring diagram,
and consult a professional if unsure about wiring.