

## Installation instructions for Tonti relay solution

*For fitment to 1000 S models that mount the coils behind the side cover.*

1. Route the wiring such that the bank of three relays is positioned behind the battery. The sheathing should be routed toward the front of the motorcycle.
  - a. The sheath containing five wires (two green, two brown, one black) should be routed to the rear of the headlight bucket.
  - b. The sheath containing two wires (both white) should be routed to the coils.
2. Connect all black wires with ring terminals to ground.
  - a. In the rear of the battery tray area, the three black wires should be grounded to one of the bolts that secures the rear fender to the frame.
3. Coil
  - a. Identify the existing white/brown wire in the main harness that connects to the positive terminal of one of the coils. Disconnect that wire from the coil and plug it into the white wire with the male spade terminal.
  - b. Connect the other white wire to the coil positive terminal.
4. Headlight connections
  - a. Disconnect the existing black, brown, and gray/green wires from the rear of the headlight bucket. Leave the yellow wire plugged into the rear of the headlight bucket.
    - i. As you disconnect the black, brown and gray/green wires, plug in the black, brown, and green wires into the same location.
  - b. Connect the brown wire you disconnected to the brown wire with the male spade terminal.
  - c. Connect the gray/green wire you disconnected to the green wire with the male spade terminal.
  - d. You will not connect the disconnected black wire to anything.
5. Connect all red wires with ring terminals to the battery positive terminal.

## Notes

1. I chose to use similar colors for the same functions as Moto Guzzi.
  - a. Coil = White
  - b. Headlight high beam = Brown
  - c. Headlight low beam = Green
2. From left to right, the bank of relays is organized in the following order.
  - a. Coil
  - b. Headlight high beam
  - c. Headlight low beam
3. The relays simply plug in to each receptacle. You may remove them to mount the relay or to replace them, should the need ever arise. You may need to wiggle them a bit as you remove them.

4. The relays are standard automotive micro relays. Replacements may be purchased directly from me or from any auto parts store.
  - a. I chose to fit 5 pin relays, but I do not use terminal 87a. A 4 pin replacement relay would work just fine.
  - b. I chose 20/35 amp relays. The 20 amp circuit covers terminal 87a (which I do not use). Hence, 35 amp is the sizing I chose for all circuits. This is way more than ample for the devices in use.