

TDM850 Dual Fiamm Horn Installation

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As with most bikes, my TDM's stock horn is pitiful. Because getting attention is sometimes becomes quite important, I thought I'd install a set of Fiamm horns.

I mounted the horns near the location of the stock horns, getting them out in the open but not too conspicuous. They are black and blend in with the radiator. Peering down by the front wheel, [here is what they look like](#):

I used a high/low pair of 132 db Fiamm horns purchased at CarQuest. The [packaging](#) was CarQuest, but the horns are clearly labeled FIAMM. These horns each came with a mounting strap approximately 4 inches long and 1 inch wide. Slightly modifying this strap turns it into a nice TDM mounting bracket that can be secured at the side radiator mounting points. They are LOUD!

Here is the parts list. Except the horns, I found most of this at Advance Auto Parts.

- High Tone Fiamm Horn. CarQuest part# 40140. (\$14.50)
- Low Tone Fiamm Horn. CarQuest part# 40141). (\$14.50)
- Satin black spray paint and primer.
- (2) M6 x 30mm bolts with flat washers. (stainless is nice) (\$1.00)
- Buss ATC Blade Type [Fuse Holder](#) with protective cap. Catalog# BP/HHF. (\$2.00)
- (4) 1/4" ring connector for 12 - 10 gauge wire (yellow ones) (\$1.00)
- Assortment of black heat-shrink tubing. (\$2.00)

- 20 amp ATC fuse (\$0.50)
- 30 amp [Optronics relay](#) with ground connector. Night Blaster part# A-715. (\$4.00)
- 20' rolls of 14 gauge automotive copper wire (\$4.00)

Here are some tools that were needed other than basic hand tools:

- 11/32" drill bit
- Soldering iron (and a propane torch for soldering larger ring connectors)
- Vice to clamp and cleanly bend the strap

Below are the steps I followed:

1 - Drill out the smaller hole on the supplied mounting straps to 11/32" so that the nylon "hat" washers that came with the horns can be used on the rounded end of the strap. File any burrs smooth.

2 - Bend the straps to form an "L" shaped bracket. The rounded end of the strap forms the short leg (1 inch long). Making the short leg longer than 1 inch will cause the horn to interfere with the radiator screen. The bend angle needs to be slightly sharper than 90 degrees to help angle the horns away from the radiator screen. [Here is a picture of the finished bracket.](#)

3 - The brackets' plating was rough after drilling/bending and need to be painted black anyway. Wire brush the brackets before priming/painting so the paint can stick better. The backs of the horns also have shiny plating that looks better after the same wire brush and paint treatment. Before painting mask the horns, especially on the positive connector and grounding surface around the mounting stud.

4 - Remove upper and lower fairings. Loosen fuel tank bolts and, remove the tank or prop up at rear to allow access.

5 - Disconnect negative battery terminal. Disconnect battery cable from starter solenoid.

6 - Remove old horn and mounting bracket, which is bolted under the front brake line junction block. Bolt junction block back in place.

7 - Trim one nylon "hat" washer supplied with each horn bracket so that it fits inside the short leg of the "L" bracket. [Here is a picture of the modified washer and other mounting hardware](#). The radiator side mounting points were used to mount the brackets but needed slightly longer bolts (M6 x 30mm).

8 - Mount brackets one at a time, keeping the radiator in place. [Here is a picture of a mounted bracket](#).

9 - I found a nice Buss brand fuse holder that uses the same blade-type fuses used in the TDM, and has a weather-tight cap. Solder a 1/4" ring connector for connection at the starter solenoid on one end and insulate with heat-shrink tubing. It is important that this lead is kept short and protected with extra shrink tubing because it is non-fused on that end. [Here is a picture of the holder with ring connector](#). A long section of 14 gauge yellow wire (long enough to route up to the front of the bike) was soldered to the other end of the fuse and covered in heat shrink. The ring connector end of the fuse holder was pushed through the rubber boot on the solenoid cable and both [connected back to the solenoid](#). The fuse holder was then [tucked cleanly out of the way](#).

10 - [Route the wire](#) along the main wiring harness and secure it with tie wraps.

11 - The [relay](#) has a plastic housing with a separate ground connection. The package has a very clear [connection diagram](#) but the connection diagram on the relay itself is difficult to figure out. The [relay can be mounted](#) under the dash panel using the panel's center mounting screw (the one directly below the tachometer and speedometer). The black wire w/white stripes from the original horn is +12V and goes to the "from switch" connection on the relay. The black wire from the original horn is switched to ground and is connected to the "relay ground" connection on the relay.

12 - With the relay was in place, the power wire from the fuse is cut to length and a female blade connector soldered on. Because the connectors supplied with the horn are not insulated, a piece of shrink tubing or other proper insulation

must be added before connecting it to power connector on the relay. [Here is a picture of the finished power connector:](#)

13 – Make a “Y” lead as a [connector from the relay to the horns](#) and insulate with shrink tubing. The existing wires from the old horn connect directly to the ground and switch connectors on the relay. [Route the horn wires](#) down by the mounting brackets. Solder on female blade connectors and insulate.

14 – Make another “Y” lead from black 14 gauge wire to serve as a ground for the horns. Two wires are soldered to a single ring connector for grounding under the top-center radiator mounting bolt. Make sure that the ground bolt provides a bare metal contact. Two ring connectors are then soldered on the other ends of the wires. [Here is a picture of one of the horn's connectors.](#)

15 – Mount the horns, placing the ground ring connector under the mounting nut being sure that all contact surfaces are free of corrosion and paint..

16 – Test everything, and reassemble the bike.