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REF: Engine Control - Sub-50H

TC88A Wire Connections For Programming

The TC88A is programmable with the right connections to a computer. It can be done with the unit mounted on the motorcycle or with the unit off the bike in a bench situation.

Installing & Connecting to the TC88A

(Edited post & pics from ESteid of the XLForum - https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-electrical/sportster-motorcycle-electrical-and-ignition/140699-installing-a-twin-tech-tc88a-on-an-04?t=1525483)

NOTE: Always remove the Maxi-Fuse while working on the electrical system of the bike to prevent unexpected shorts!

Disconnect the 12-pin connector that plugs into the stock ignition module (under the seat). Remove the two bolts holding the OEM module in place and mount the TC88A unit in it's place.

Using a small screwdriver, or a pick, remove the plastic plug from the face of the 12-pin main harness connector. **Remove** the BROWN/Gray wire from Pin 2 location. This is a power wire, so be sure to tape it up & shrink-wrap it well to prevent it from shorting anywhere. Using the WHITE jumper wire that comes with the tuner, feed the open ended side through the rubber plug (into Pin 2 position) until it is flush with the face of the connector. Then snap the plug back into the face.

2004-06 Sportster Harness 12-Pin Deutsch Connector
WHITE Jumper Wire (Pin2) used for TC88A Programming

There is a 4 pin connector (SDLC Serial Data Link Connector) to the left of the battery under the battery cover. Pull it straight up and unplug the weather pack cap. On the back there is a white plug in the 4th hole (Pin 1). Use a pair of pliers to remove it.

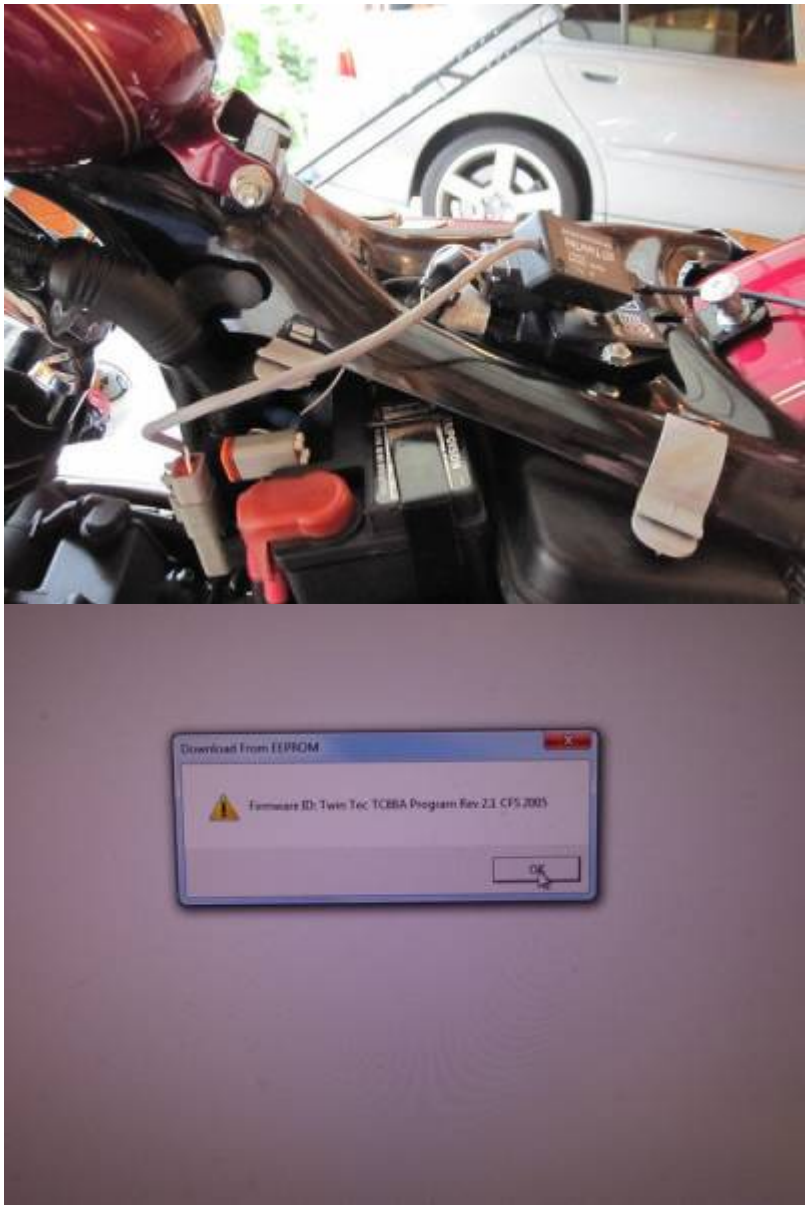
Using your pick remove the rubber plug from the connector. After routing the white wire cleanly to the connector you can feed it through the rubber plug (into Pin 1 position). Then push it in until the pin is equal distance from the other pins. Finally replace the rubber plug. Push the rubber back in and replace the cap, and snap the connector back into its holder.

If you want to use the 4 knobs on the top of the tuner, the unit is now ready to operate. You can adjust the ignition as well as the rev limiter. If you are going to program the unit, the following directions came from Rico05r.

I downloaded the PC-Link software, as well as the TC88A log software. I also set up both to connect thru COM 4 of my computer using the USB Interface (USB-INTF P/N 18014) I purchased from Daytona Twin Tec.

I plugged the Deutsch connector of the USB cable into the 4-pin SDLC and the USB end into the connector of the laptop so I could get started.

Before programming the unit, Rico suggested to first set the knobs to 5 and 5 for initial timing & slope - then set the rev limit to what I wanted. I chose 6,000 (the knobs will control the rpm limit if you do not program a 'fixedlimit').



Reinstall the Maxi-Fuse - Then turn on the ignition key and set the RUN/OFF switch to RUN.

I started up the logging software and used it to Clear Data Buffer from the communications drop down. Once this was done I opened the PC Link software. I opened Rico's map. And then from the communications menu I chose “Upload to EPROM”. I did it twice to make sure everything was worked correctly. Afterwards I started it up. It worked great. I used the logging software to play with it in real time.

I was in the process of installing a mini tach as well. I learned that you needed to use the PC Link software to download the EPROM. Then in the edit menu you can set the Tach signal to on. Then you can reload the map to set the flag. I turned the bike off, and back on to reload the new map and settings.

I used a wire tap to connect the tach to the white jumper.

Many thanks to Rico and the rest of the forum for the great info and maps. I look forward to lots of fun riding.

Connecting to the TC88A Off the bike

(Edited pics by Rocketmangb of the XLForum - https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-electrical/sportster-motorcycle-electrical-and-ignition/198923-tc88a-programming-hardware?t=2075733)

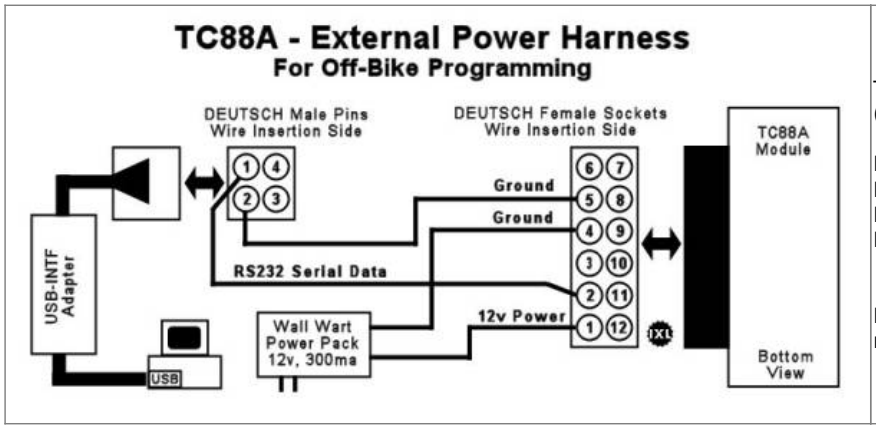
You will need the TC88A unit and the USB Interface USB-INTF (P/N 18014 from Daytona Twin Tec). Set the switch on the USB-INTF to 'TC88A and All Others'.

You will need an external Power Pack to supply power. You can buy these from Daytona Twin Tec as Power Adapter TC88A-ADAPT (P/N 18006). It will come with a short harness to connect the TC88A, USB Interface & power pack.

Or - You can make your own…

You will need a power pack that is rated at 12v, 300ma, or better. Pay for a decent quality power pack. It is important to have a clean 12v power source with low-ripple. You will also need to create a small harness to connect the TC88A to the USB Interface and to the 12v Power Pack.

Here is a wiring diagram to help you create your DIY External Power Harness:



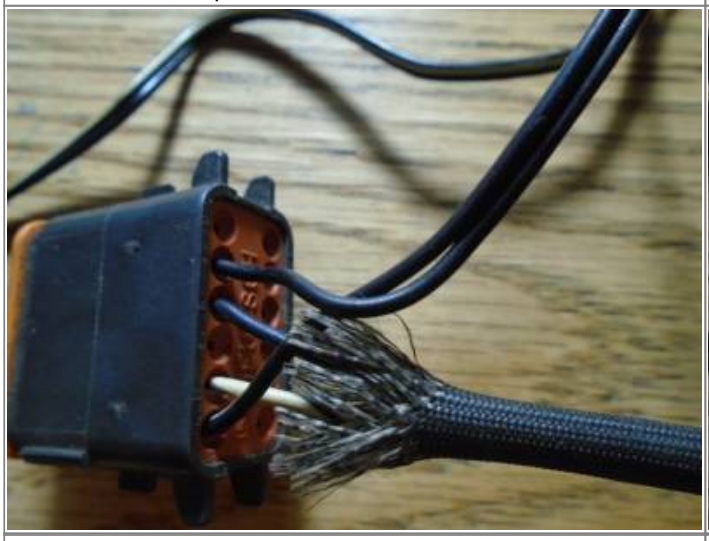
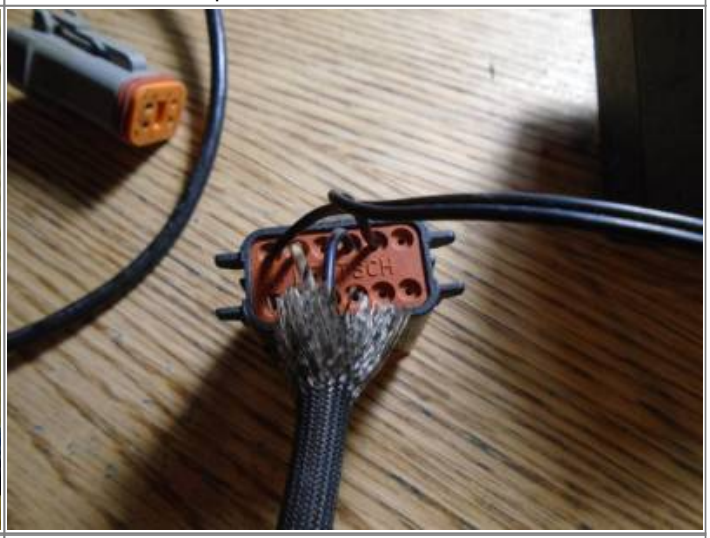
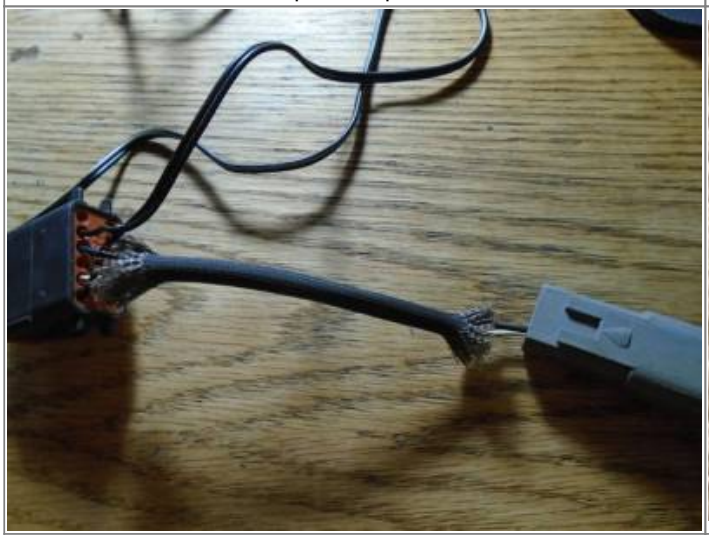
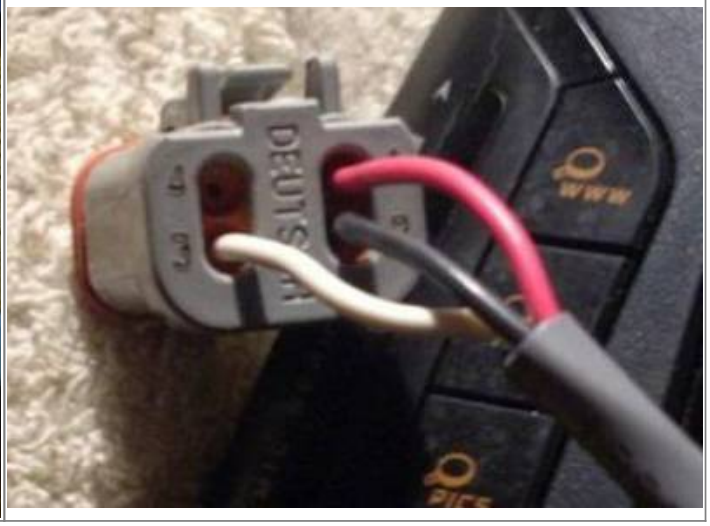
The External Power Harness Connector (12-pin Deutsch) for the TC88A uses:

Pin 1 - 12v power wire from the Power Pack
Pin 2 - RS232 data from the USB-INTF
Pin 4 - Ground wire from the Power Pack
Pin 5 - Ground from the USB-INTF

Pin 4 & Pin 5 connections may be reversed as both are ground.

You will need the following connectors & pins:

12-pin Deutsch DT Series Connector	**4-pin Deutsch DT Series Connector**
P/N DT06-12SB Plug	P/N DT04-4P Receptacle
P/N W12S Secondary Lock	P/N W4P Secondary Lock
P/N 1062-16-0122 Female Terminals (4)	P/N 1060-16-0122 Male Terminals (2)

Harness 12-pin Deutsch Connector to the TC88A	Harness 12-pin Deutsch Connector to the TC88A
	
Harness 12-pin & 4-pin connectors	USB-INTF Adapter 4-pin Deutsch Connector
	

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