

Tempest 4 (T4) Installation Instructions Yamaha Super Jet Ignition

For use with the following Yamaha models:

all models years

The T4 Super Jet Ignition System is a plug and play product. The Super Jet T4 Ignition is comprised of two parts, the T4 2-cylinder universal ignition module and a connector adapter. The T4 connects directly to components, such as the electrical connectors, flywheel and trigger coil (Crank Position Sensor). A single connector adapter is available to fit all Super Jet models.

The T4 Ignition module can provide other useful functions on this vehicle

- 3 water control channels
- Hole shot (stutter) limiter
- TPS (Throttle Position Sensor), with additional hardware

Contact the sales department at Advent Ignitions for additional information.

First Things First

 **Disconnect the battery positive cable (red) before proceeding.**

Remove OEM Ignition Module - All model years

1. Remove the electrical box from its mount and remove the top cover.
2. Remove the 6mm bolt holding the black wire from the ignition. Set the bolt aside.
3. Remove the 2-6mm bolts holding the factory ignition in place. Set the bolts aside.
4. Unplug all wires connecting to the ignition module. Remove the ignition and set it aside.

Install the T4 Ignition Module

1. With the connector installed position the T4 ignition on the top cover of the electrical box such that the T4 wires can easily be routed and pass through a hole in the case.
2. Using the alcohol wipe (provided) clean the area where the T4 ignition will be mounted.
3. Remove the protective coverings from the two strips of double-face tape on the back of the T4 ignition, position the ignition over the plate in the desired position and press it in place. Be sure of its position before pressing it into place as the tape cannot be removed once in place.
4. Thread the wires listed below through a hole in the case such as the fuse opening.

Color	Function	Connector	Connect to wire
Red	+Battery	Male	Female - "Y" splitter Red wire
Black	Battery ground	Ring Lug	Ground post
Black/White	Ignition coil	Male	Female - Black coil wire
Orange	Ignition coil	Female	Male - Orange coil wire
Pink	Over temp sensor	Female	Male - Pink wire
White	Stop switch	Female	Male - White wire

All other wires are connected to devices outside the electrical box, such as water solenoids or switches.

4. Locate in-line connector on the red wire connected to the starter relay. Separate the in-line connector and connect the “Y” cable (supplied) between the to separated connector haves. There will be a unused female connector on the “Y” connector.
5. Determine the proper wire length for each of these six wire and cut them to those lengths. Note, the red wire will be connected to the unused red wire of the “Y” connector.
5. Strip 1/8” (3mm) of insulation from each wire then thread appropriate blue connector cover on each wire. Insert the wire into the small end of the blue cover.
6. Referring to the table on the previous page, crimp to proper connector contact on each of the six wires. Slide the connector cover over the contacts after crimping.
7. Connect each of the six wires to the mating wires in the electrical box. See table on previous page.

Note: If your PWC does not have a over temperature sensor, cover the end of the Pink wire from the T4 ignition with black electrical tape and coil it up.

The Installation is Complete

Refer to the next two sections “**Installing Electrical Devices and Switches**” and “**Setting the Switches**”

Last Things Next

1. Reconnect the battery cable removed at the beginning of this installation procedure.
2. Use the Curve Devil® to design your timing curves, rev limiters and other operating parameters of your T4 Ignition.

<p>If you have any questions or comments, please contact us by phone, FAX or e-mail. Be sure to reference the year and model of your watercraft .</p>
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The T4 installation is now complete!

**Continue to sections –
"Installing auxiliary electrical devices and switches"**

Installing Auxiliary Electrical Devices and Switches

The Relay control feature of the T4 Ignition provides the user with the ability to control up to 3 auxiliary electrical engine devices. These may include water control, fuel pumps, bilge pumps, etc. Each relay control circuit is capable of handling up to 1.0A of current.

First Things First, For Safety...

ⓘ Disconnect the battery positive cable (red) before proceeding.

Installation Overview

Three wires are provided to connect to three electrically operated relays, valves auxiliary fuel pumps, etc. One wire provided to connect to a handle bars switch for hole shot control.

Adding Wires to the T4 Connector

If your T4 does not have relay control wires installed in the connector you can order a wire kit that is easily installed.

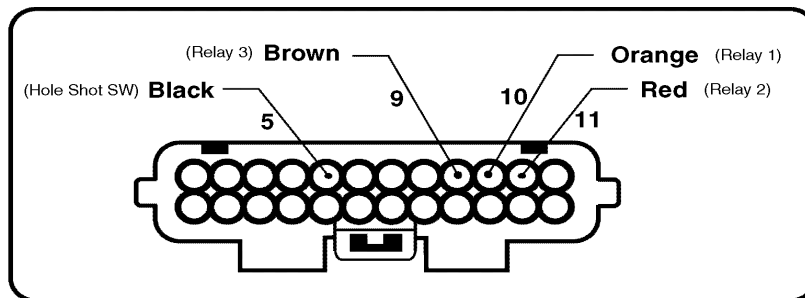


Figure 1

Gray cable for 3 relay outputs & Hole Shot SW

Electrical Devices that Can be Connected to the T4

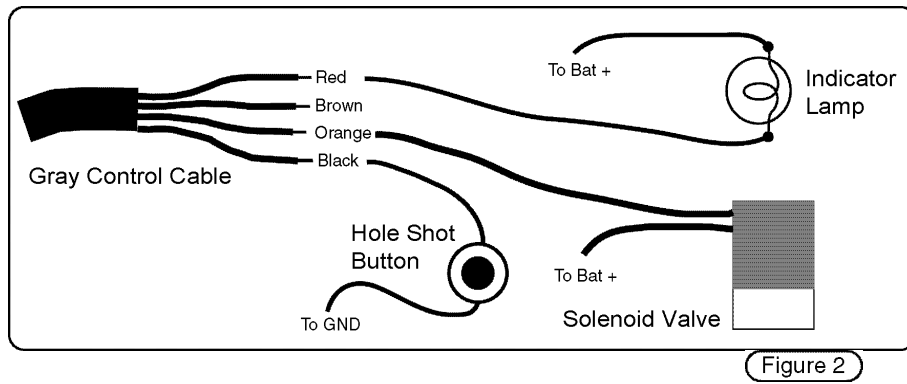
- ◆ Relays used to control high current type electrical devices or motors such as bilge pumps.
- ◆ Electrically operated solenoids
- ◆ Devices designed to operate at 12 to 16Vdc
- ◆ Devices that draw 1.0 amps or less on a 12Vdc circuit

Electrical Devices that Cannot be Connected to the T4

- ◆ Devices such as incandescent lamps over .5 Amp or motors
- ◆ Devices that require more than 1.0 amp of current.
- ◆ Devices that are designed to operate on voltage less than 12Vdc
- ◆ Devices that are designed to operate on AC voltage

ⓘ If any of these types of devices are connected the T4 has internal safety feature that will turn the device off to protect the T4 ignition module.

Wiring Devices to the T4 Gray Control Circuit



NOTE: Devices such as relays, solenoids and lamps do not have an electrical polarity. This is to say that it does not matter how their wires are connected to the T4 circuits and power.

1. Figure 2 shows how to hook up electrical control devices and indicator lamps to T4 relay channels 1 and 2.
2. Figure 2 shows connection of a handle bar mounted Hole Shot switch.

Last Things Next

1. Re-attach the battery terminal.
2. Use the Curve Devil to design your Relay control On/Off profiles and other operating parameters of your T4 ignition.

**If you have any questions or comments, please contact us by phone, FAX or e-mail.
Be sure to reference the year and model of your watercraft.**

This installation is now complete!

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