

GENERAL INSTRUCTIONS

TEN-TEC TRITON IV ACCESSORIES

Service Note SN-1-540
Part Number 74063

When using TRITON IV accessories that plug into the ACCESSORIES socket on the rear panel of the unit, several procedures should be followed, especially when more than one accessory are used in the station set-up. The order in which the accessories are serially connected, and the required jumpers and their location, be it on a dummy plug or in one of the cable connectors, are outlined below for all possible combinations.

Accessories requiring these procedures are:

Model 240	One-Sixty Converter
Model 241	Crystal Oscillator
Model 242	External VFO
Model 244	Digital Readout

In order to simplify these procedures and instructions, it is recommended that the VFO modification detailed below be made, even though the external VFO, Model 242, is not incorporated at this time. This modification will not affect the operation of any other accessory, provided that the jumps in the accessories used are changed to agree with the information given in this Service Note. TRITON IVs with Serial Numbers greater than 1400 already have this modification.

VFO MODIFICATION

This modification is necessary when using the external VFO, Model 242, so that the instant break-in feature of the TRITON system is maintained. Even though Model 242 may not be used at this time, performing the modification now will eliminate further alterations to the jumper positions in the future, and will bring TRITONs with S.N. below 1400 up to present day status. Modified units should be so noted by applying the adhesive label supplied to the TRITON rear panel near the ACCESSORIES socket.

- 1.) Remove top and bottom plates from TRITON IV.
- 2.) Remove SSB GEN. assembly, 80282, and bend fibre insulator up to expose cables underneath.
- 3.) Unsolder the three red wires that are attached to the thru-terminal on the right top side of the VFO compartment. This terminal is the one farthest to the rear of the TRITON and is the +12 volt line.
- 4.) Locate the one red wire that runs to the 47 ohm resistor on the terminal strip near the meter lamp. Clip this wire from the resistor.
- 5.) Work the remaining two wires back through the harness ties to where they emerge from under the CONTROL BOARD assembly.
- 6.) Twist these two leads and dress them to the 47 ohm resistor lug just mentioned. Solder.

- 7.) Unsolder the orange lead from the center VFO thru-terminal and resolder it to the one that had the three red leads. (This lead goes to pin 5 of the ACCESSORIES socket.
- 8.) Take the discarded red lead and solder it between the center thru-terminal on the VFO compartment and the second terminal lug from the right on the front PC socket for the SSB GEN. assembly. This lug is the + regulated line and should already have an orange and a white lead in place.
- 9.) Lay fibre insulator back down and replace SSB GEN. accessory.
- 10.) Remove top plate of VFO compartment.
- 11.) Locate and remove red wire running from rear thru-terminal to PC assembly inside of compartment.
- 12.) Solder one millihenry choke between these two points. Replace top and turn TRITON over.
- 13.) In bottom section of VFO compartment locate and unsolder white wire going to wafer switch mounted on rear inside compartment surface.
- 14.) Resolder this lead to the solder dot on the center switch wafer immediately opposite the lug just vacated. In other words, transfer this lead from the rear wafer to the corresponding lug of the center wafer.
- 15.) With a piece of bare hook-up wire about ¾" long, jumper the vacated lug on the rear wafer to either adjacent lug with green leads already attached. Turn TRITON right side up.

Due to the added current drain through pin 2 of the ACCESSORIES socket when several accessories are used, the voltage drop and power loss of L1, the small choke in series with the +12 volt line may become excessive. The following steps rewire the circuit so that pin 2 of the socket goes directly to the power supply line instead of through L1.

- 16.) Locate the red lead going from pin 2 of the ACCESSORIES socket to the top lug of the four lug terminal strip mounted on the chassis side near the socket. Unsolder only this lead at the terminal lug location.
- 17.) Resolder this lead to the fuse post body terminal, the one with the heavy red lead going to the final amplifier assembly.
- 18.) Again referring to pin 2 of the ACCESSORIES socket, locate the second red lead soldering to it – the one going through the chassis grommet to the bottom side of the chassis. Unsolder only this lead from pin 2 and feed it back through the cable tie to gain additional free length.
- 19.) Re-route the lead under the socket to the top lug of the terminal strip and resolder.
- 20.) Replace top and bottom plates. Affix label noting mod. Change to rear panel.
- 21.) If dummy plug for socket has jumper between pins 4 and 5, remove and jumper pins 2 and 5.

NOTE: To determine whether an existing TRITON IV has the VFO modification, slide back the tip plate and note the wires going to the VFO thru-terminals. If a single orange lead is connected to the rear-most terminal, the modification

has been made. If there area three red wires at this terminal, the modification has not been made.

IT IS VERY IMPORTANT FOR PROPER OPERATION THAT PINS 4 AND 5 OF DUMMY PLUG BE JUMPERED IF MODIFICATION IS NOT INCORPORATED AND PINS 2 AND 5 IF MODIFICATION IS MADE. FAILURE TO COMPLY WILL RESULT IN UNSTABLE VFO PERFORMANCE.

INTERCONNECTING ACCESSORIES

The table below shows all possible accessory combinations what are workable as a system, the jumpers required and their location. When two or three accessories and used together, serially connect them to the same order as listed. Model 241 and 242 and Models 241 and 244 cannot be used together.

SYSTEM	JUMPERS REQUIRED	LOCATION OF JUMPERS	LOCATION OF DUMMY PLUG	NOTE
TRITON alone	2 to 5 *	Dummy Plug	TRITON	
TRITON to Model 240	2 to 5 * 6 to 7 to 8	Dummy Plug	Model 240	
TRITON to Model 241	6 to 7	241 Plug **	Not Used	Coax to Pin 6 Coax to Pin 8
TRITON to Model 242	6 to 7	Dummy Plug	Model 242	VFO Mod. Required
TRITON to Model 244	2 to 5 * 6 to 7 to 8	244 Plug	Not Used	Coax to Pin 6
TRITON to Model 240 Model 241	6 to 7	241 Plug **	Not Used	Coax to Pin 6 Coax to Pin 8
TRITON to Model 240 Model 242	6 to 7	Dummy Plug	Model 242	VFO Mod. Required
TRITON to Model 240 Model 244	2 to 5 * 6 to 7 to 8	244 Plug **	Not Used	Coax to Pin 6
TRITON to Model 242 Model 244	6 to 7	244 Plug **	Not Used	VFO Mod. Required Coax to Pin 6
TRITON to Model 240 Model 242 Model 244	6 to 7	244 Plug **	Not Used	VFO Mod. Required Coax to Pin 6

* Pins 2 to 5 if VFO modification has been made. Pins 4 to 5 if modification has not been made.

** Other wires and/or cables may be connected to pins 6, 7, and 8 that should not be changed.