

ATLAS RADIO, INC., INSTALLATION INSTRUCTIONS FOR VOX ACCESSORY.
MODEL VX-5 FOR INSTALLATION IN AC CONSOLE SUPPLY.

TRANSCIEVER MODIFICATIONS: Transceiver Serial Numbers begin with 2 letters, a "T" followed by a second letter. If these letters are TB,TC,TD,TE,TF,TG,TH,or TJ, the transceiver will require some modification of wiring to the AUX. socket. However, PLEASE NOTE: These modifications are only required if you expect to use the CW function of the VX-5 kit. If you are strictly a phone man, the following modifications may be ignored, since the VOX will function normally without them.

(1) Remove the transceiver cabinet and bottom cover. Locate the "AUX." 9 pin socket on the rear, just below the ANT. connector.

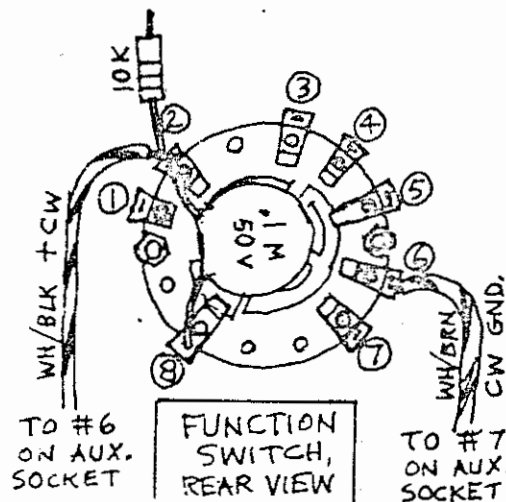
(2) On earlier models you will note that there is small size coaxial cable going to and from the socket. This was done at a time when we expected to have an external noise blanker. After finding that the noise blanker could be an internal accessory, the coax. cable was no longer run to the AUX. socket. If your set is one with coax. on the AUX. socket, disconnect these leads. One of them goes to the input terminal of the crystal filter, the can above the chassis which is marked with the name of Network Sciences. Remove this coax. completely from the set. Take the other piece of coax. which comes from term. #13 of the PC-100 plug-in board, and connect it to the input terminal of the crystal filter. Solder the shield connection to the chassis, and center conductor to the filter terminal.

(3) You will find that terminals 5,7,and 8 of the AUX. socket are connected to chassis ground. Cut these ground connections away, and clear the socket lugs of solder and wire ends.

(4) Remove the PC-100 plug-in board,(or PC-120 if you have the noise blanker board). This will expose the back side of the function switch. Locate terminal #6 on the switch as illustrated, and connect a 7 1/2 in. length of white/brown wire from this terminal to term.#7 of the AUX. socket.

(5) Locate terminal #2 on the switch, and connect an 8 in. length of white/black wire from this terminal to term.#6 of the AUX. socket.

(6) From a bottom view of the transceiver, locate term.#22 of the PC-100 edge connector socket. This is the one on the end nearest the function switch. Connect a 6 1/4 in. length of yellow wire from this terminal to term.#8 of the AUX. socket.



Solder all connections well, and check for possible shorts from solder bridges or strands of wire. Replace cabinet and bottom.

ATLAS VOX/CW ACCESSORY, MODEL VX-5
INSTALLATION INSTRUCTIONS FOR AC CONSOLES

The VX-5 kit may be installed in the lower chassis portion directly under the transceiver cavity on the model AR-117, AR-230, and 220-CS AC Power Supply Consoles. The kit includes a new front lower panel which has the holes and panel markings for the VOX Gain, Anti-trip, and Delay controls, as well as the Key Jack, and SSB-CW switch. Thus, there are 5 additional panel holes.

On the early model AC Consoles, none of these holes were provided in the chassis, so it will be necessary to mark the location and drill or punch all 5 holes before installing the VX-5. Starting from the left, the new holes are a 15/32 in. diam. for the toggle switch, (1/2 in. may be used satisfactorily), followed by three 1/4 in. holes for the control pots, and then a 3/8 in. hole for the Key jack. The new panel may be used as a template, carefully marking the new holes with a sharp pointed scribe or hard pencil. Then, locate the center point of each hole, and carefully center punch. Drill first with a small size drill, such as #50 or 1/16 in. Then up-drill gradually to the finish diam. This will assure getting a good round hole that is right on the center mark.

On most of the AC Consoles manufactured to date, the three 1/4 in. holes are in the chassis, and so only the other 2 will have to be drilled. In the near future, all Consoles will be manufactured with all 5 holes in place.

INSTALLATION PROCEDURE:

(1) Remove the bottom cover of the AC Console, and then remove the lower front panel by removing the nuts that hold the headphone jack, toggle switch, and Mic. jack.

(2) Drill the chassis holes as discussed above.

(3) Install the new front panel, securing it loosely with the nuts for the original jacks and switch. Then, position the VOX circuit board so the 3 control shafts pass through the 1/4 in. holes. Install and tighten the front nuts. Use care so as not to scratch the front panel during this part of the installation.

(4) Insert the new toggle switch and Key jack through their panel holes, and secure them with appropriate nuts and washers.

Note: The best way to tighten the toggle switches is to use a thin open end wrench on the inside nut. This helps avoid panel scratches.

(5) Install the 3 control knobs, using the internal shaft bushings.

(5a) Solder the U-shaped copper bracket, located at the rear of the circuit board, to the AC console chassis bottom.

(6) Connect the Green audio lead from the circuit board to the headphone jack, as illustrated. Make sure to connect it to the same terminal that has the wire coming from the transceiver speaker plug at the rear bracket, top side of chassis. Do not connect it to the terminals that have wires going up to the Console speaker.

(7) Connect the Red +13 volt lead from the circuit board to the lower banana jack on the rear bracket, top side of chassis. There is a banana plug at the top, and two banana jacks in a line below the plug. Make sure that you connect the red lead to the bottom jack. This is the +13 volt regulated circuit. The upper jack is the high current, non regulated circuit.

(8) Connect the shielded cable from the circuit board to the Mic. Jack, as illustrated. It should be connected in parallel with the shielded cable already going to the jack. Connect the shield to the shield terminal, and center conductor to the center conductor terminal.

(9) Connect the Blue lead from the circuit board to the third terminal on the Mic. Jack. This is the terminal which has a non-shielded wire connected to it, and is the key line, or push-to-talk circuit.

(10) Make certain that all connections have been made neatly, and soldered well. Check for possible short circuits from wire strands or solder bridges.

(11) Insert the 9 pin plug and the key plug coming from the circuit board up through the end ventilating hole of the AC Console chassis, and plug them into their respective places in back of the transceiver. The 9 pin plug goes into the socket labeled "AUX." The key plug goes into the CW jack. Both are on the same side of the transceiver, adjacent to the ANT. connector.

NOTE: Insertion of these connectors into the transceiver is only required if you are going to work CW. If you are strictly a phone man, the plugs need not be used.

OPERATION:

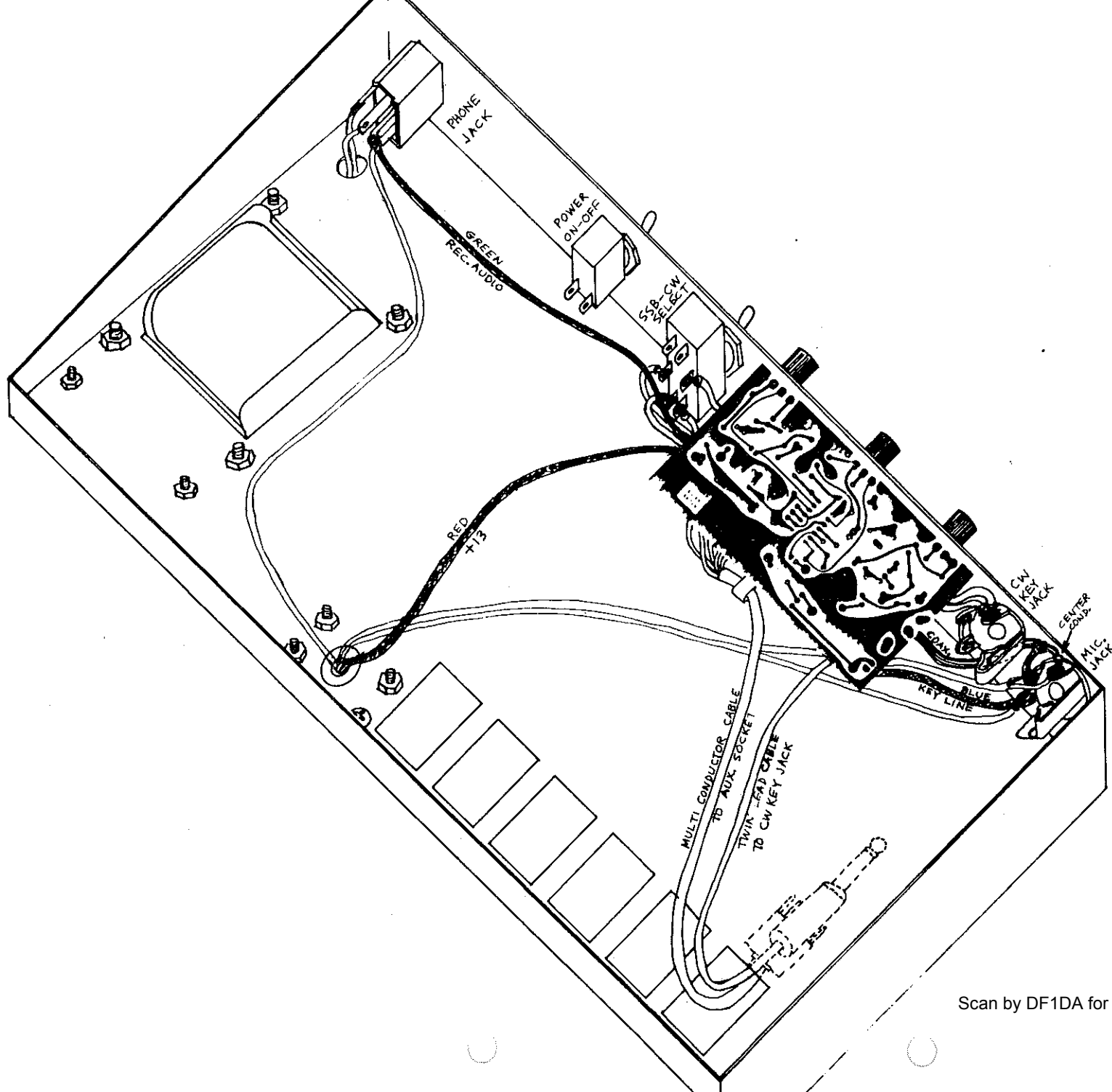
PTT (Push-to-Talk): Switch in "SSB" position. Turn "VOX GAIN" control to minimum, full counter clockwise.

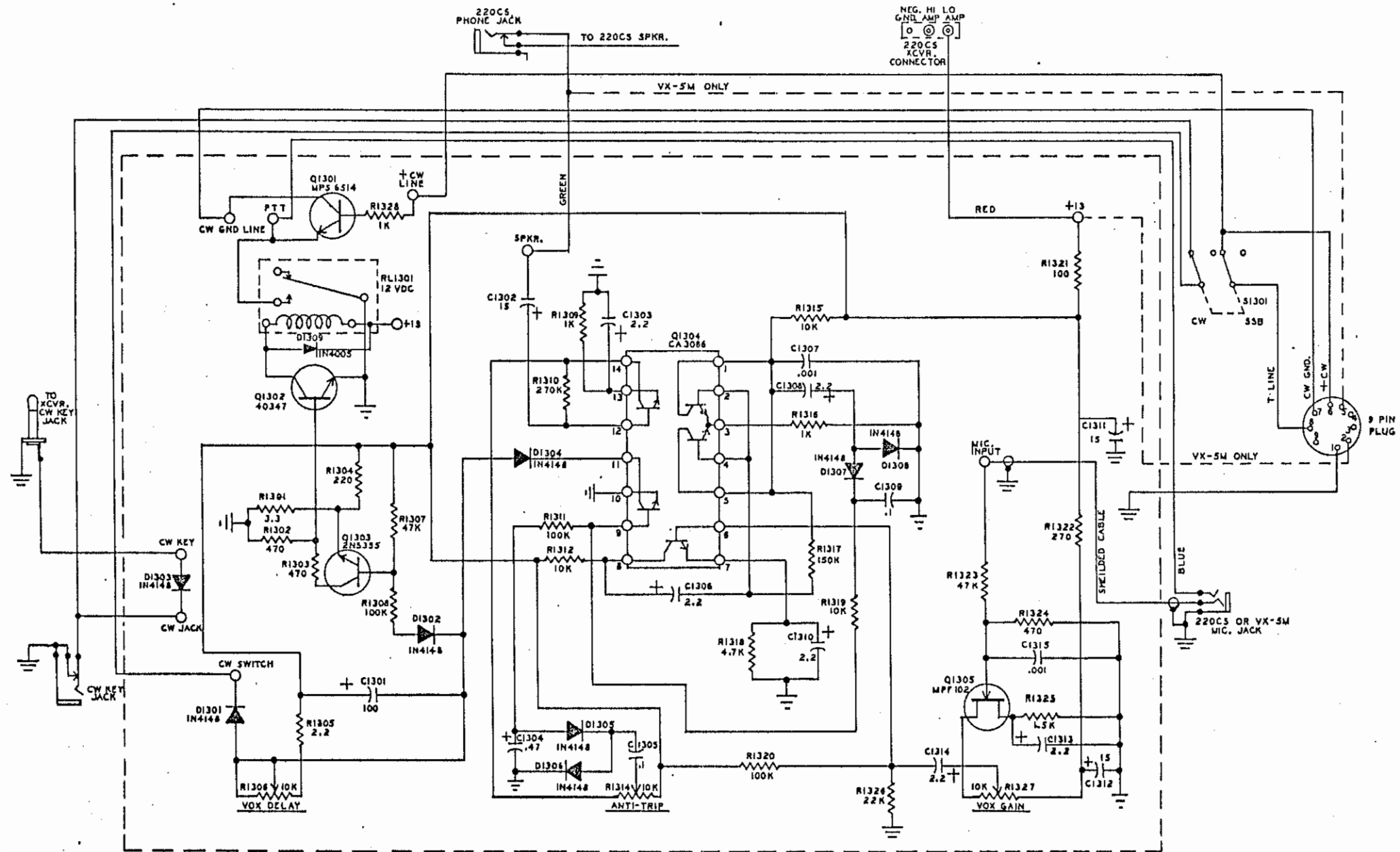
VOX (Voice Controlled Transmit): (a) Switch in SSB position. Advance "VOX GAIN" control until speaking normally into the Mic. causes transceiver to go into transmit mode. If control is set too high, background sounds will trip the VOX.

(b) Adjust "ANTI-TRIP" control so sounds coming from the receiver speaker do not trip the VOX, causing it to cycle on and off. Keep the Mic. away from the speaker as far as is practical, since close proximity makes adjustment of Anti-Trip more critical.

(c) Adjust the "DELAY" control for the amount of time you want before the transceiver goes back to receive mode.

CW TRANSMIT: Move toggle switch to "CW" position. Insert key into Key Jack. When you press the key, the transceiver will automatically go into CW Transmit mode with offset frequency transmission. NOTE: Sideband Selector switch on the transceiver must be in NORM. position. Adjust the "DELAY" control for the amount of time you want before the transceiver returns to receive mode.





MODEL VX-5/VX-5M SCHEMATIC
ATLAS RADIO 5-4-78