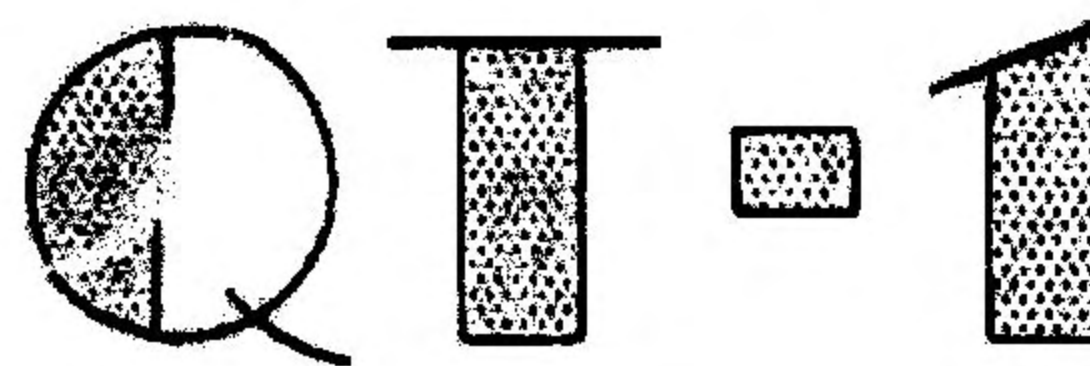
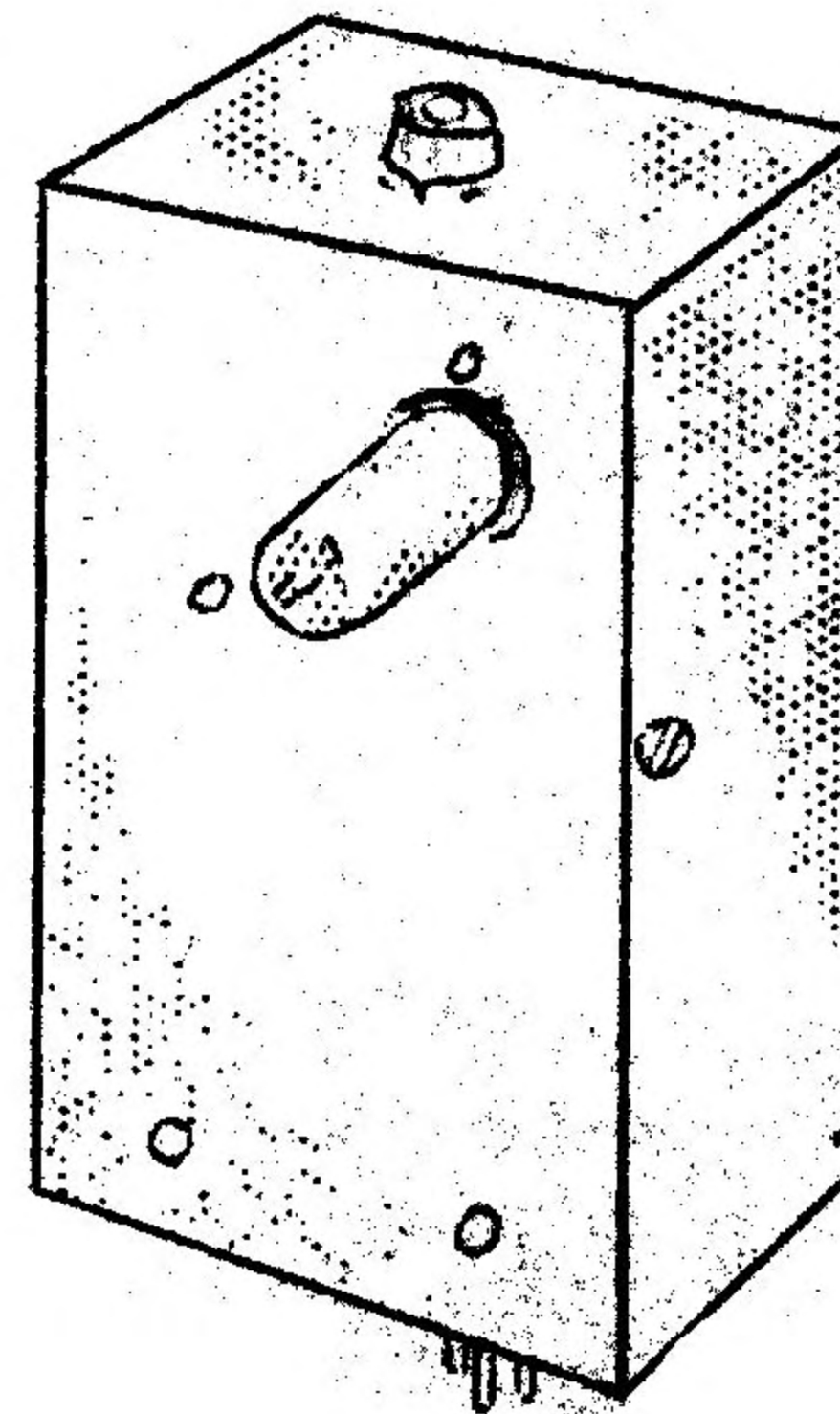


ANNOUNCING THE



1. PLUGS INTO SOCKET INSIDE 10A MULTIPHASE EXCITER CASE
2. PREVENTS OPERATION OF THE VOICE CONTROL CIRCUIT BY THE LOUDSPEAKER
3. HETERODYNES, PULSE NOISES, STATIC AND LOUD SIGNALS WILL NOT TRIP THE VOICE CONTROL RELAY
4. ALL ELECTRONIC, NO RELAYS



A simple conversion kit with complete instructions will be furnished free of charge upon request, to all users of the Model 10A Multiphase Exciter serial #610 and below, with the purchase of the QT-1.

All factory built Multiphase Exciters delivered after January 28, 1953, will be wired for the QT-1. Multiphase Exciter Kits delivered after the above date will be modified to accept the QT-1.

Model QT-1

VOICE CONTROL ANTI-TRIP UNIT

PRICE _____ \$12.50

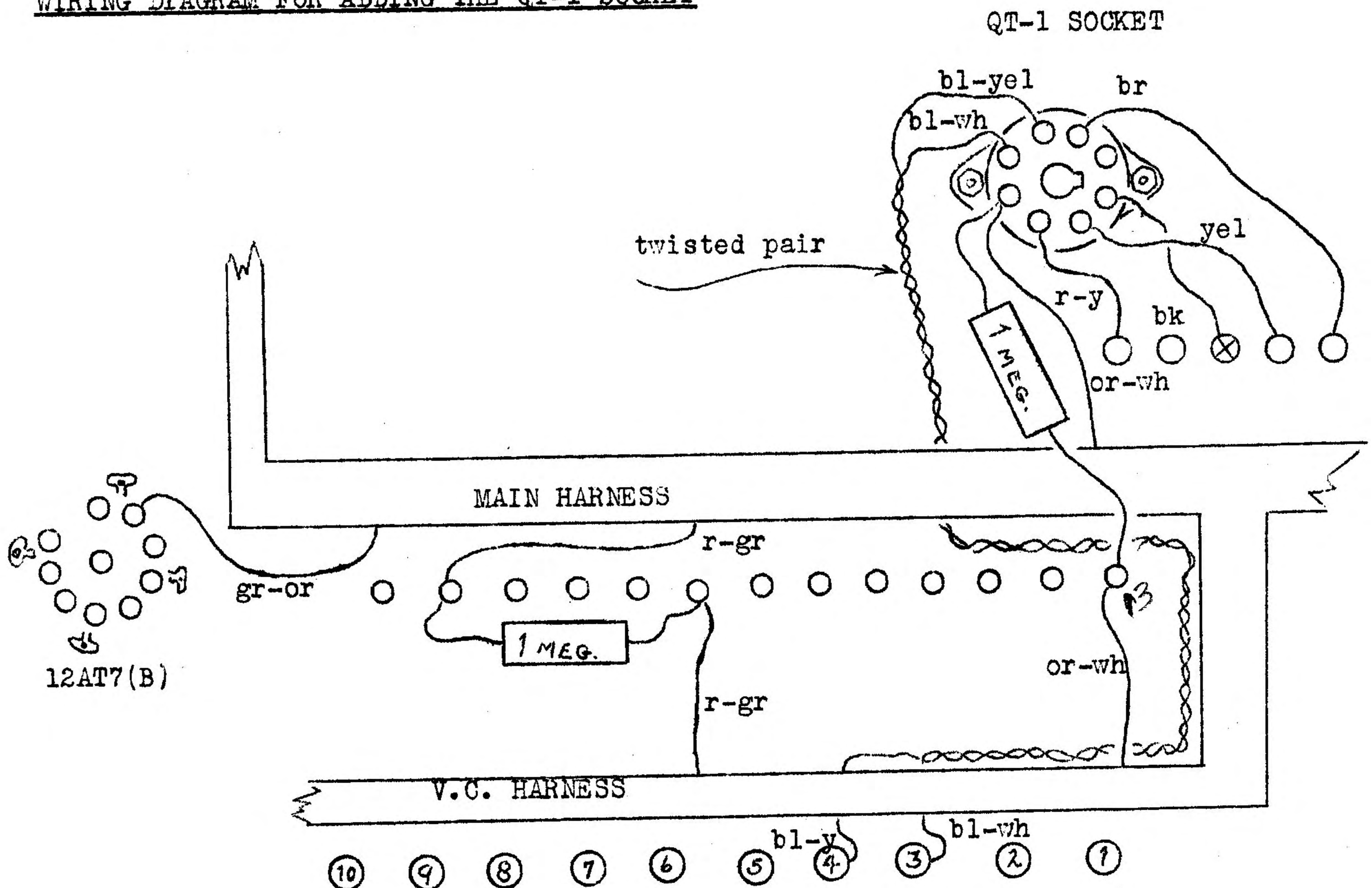
Shipping weight - 2 lbs.

CENTRAL ELECTRONICS, INC.
2125 W. Giddings Street,
Chicago 25, Illinois U.S.A.

INSTRUCTIONS FOR ADDING THE QT-1 SOCKET TO THE MULTIPHASE EXCITER

1. Mount the socket as shown with #6 hardware.
2. Lift one end of a 1 meg resistor (R44) from the 12AT7(B) socket pin #2.
3. Remove the green-orange wire from the 13 lug strip term. #12 and run directly to 12AT7(B) socket pin #2. In most cases the lead will not be long enough and it will be necessary to add about 1" of wire.
4. Remove the red-green lead of the main wiring harness from the 13 lug strip term. #8, and solder to the 13 lug strip term. #12. The heaviest section is the main harness.
5. Solder the loose end of the 1 meg resistor to the 13 lug strip term. #8.
6. Remove the orange-white lead from the 13 lug strip term. #1 and connect it to the QT socket pin #4.
7. Solder a 1 meg resistor from the 13 lug strip term. #1 to the QT socket pin #4.
8. Add a yellow jumper from the 5 lug strip term. #2 to the QT socket pin #2.
9. Add a brown jumper from the 5 lug strip term. #1 to the QT socket pin #7.
10. Add a red-yellow jumper from the 5 lug strip term. #5 to the QT socket pin #3.
11. Add a black jumper from the 5 lug strip term. #3 to the QT socket pin #1.
12. Form a blue-white and a blue-yellow into a twisted pair and solder the blue-white to the 10 screw lug strip term. #3 and the blue-yellow to term. #4.
13. Run the twisted pair underneath the present harness, around the 13 lug strip over to the QT socket as shown in the diagram below.
14. Solder the blue-white to the QT socket pin #5 and the blue-yellow to pin #6.

WIRING DIAGRAM FOR ADDING THE QT-1 SOCKET



MODEL QT-1 VOICE CONTROL ANTI-TRIP UNIT

The QT-1 is a plug-in unit for use with the Multiphase Exciter. It prevents operation of the voice control circuit by the loudspeaker.

In the exciter, the microphone output is amplified, rectified and applied as a positive voltage to the grid of the relay control tube. With positive voltage applied, the control tube's plate current increases and operates the relay. Strong loudspeaker signals will trip the relay.

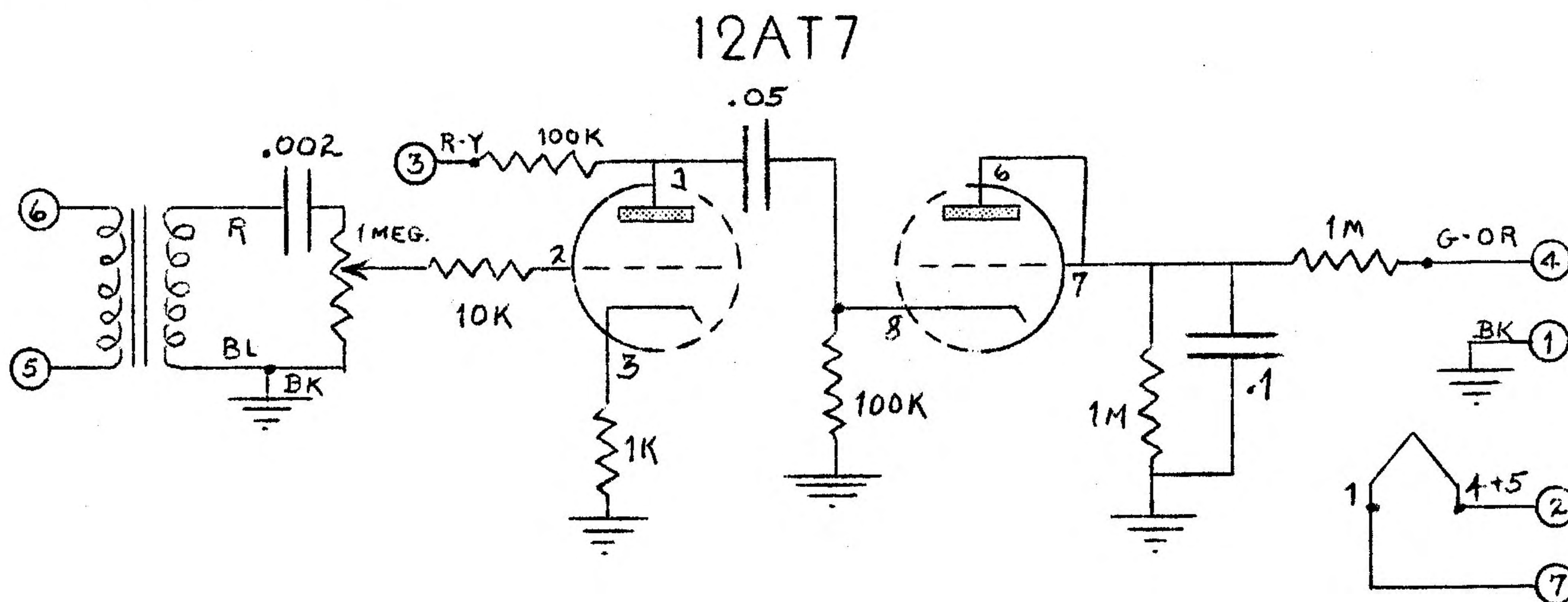
With the QT-1, voltage across the loudspeaker voice coil is amplified, rectified, and applied in opposite polarity to the grid of the relay control tube.

The loudspeaker will develop two opposing voltages at the grid of the relay tube, one thru the microphone channel and the other thru the QT-1. When these two voltages are correctly proportioned, the loudspeaker will not trip the relay.

QT-1 OPERATION INSTRUCTIONS

1. Plug the 12AT7 into the QT-1. Plug the QT-1 into the octal socket in the Multiphase Exciter chassis.
2. Turn the QT-1 gain control knob OFF. (Counterclockwise)
3. For optimum voice to room noise ratio, it is recommended that the operator speak within a few inches of the microphone.
4. Adjust the VOX sensitivity control on the rear of the 10A for reliable voice control action.
5. Find a weak signal with the receiver. Adjust the gain to a comfortable listening level. Now tune the receiver to a loud signal, preferably a heterodyne, that will trigger the voice control relay. Advance the QT-1 gain control knob until the trigger action just ceases. If the QT-1 gain control is advanced too far, the negative voltage derived from the received signal will be greater than the positive voltage derived from the operators voice. This condition will prevent the operator from voice controlling the exciter.
6. For satisfactory operation, the level at the microphone induced by the operators voice must exceed that of the loudspeaker. It may be necessary to reduce the volume of a loud signal to operate the voice control.

SCHEMATIC OF THE QT-1



K4XL's **BAMA**

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