

OPERATING INSTRUCTIONS FOR THE MC MODEL 100T MODEL CONTROL RECEIVER:

The M C model 100T receiver is a composite design from a number of circuits in use in the model control field. The receiver uses a tube (Amperex 6007) as the first or super regenerative stage and two transistors for audio amplification. The first transistor, a RCA 2N591 is a voltage gain stage. The second, a Motorola 2N1192 is the power stage and operates the relay.

The M C 100T receiver weighs approximately 1 3/4 ounces for the standard model and two ounces for the deluxe model. Either model has a cube dimension of approximately 2 1/2" x 1 5/8" x 1". A Gem 5,000 ohm relay is used. The battery requirements are 1 1/4 to 1 1/2 volts (works fine on nickel cadmium (ni-cad) cells at 13 mc. It will be found that one fresh pen cell will operate this filament for 24 hours continuously. Therefore, in ordinary service a pen cell will last several weeks. The B supply is anywhere from 22 1/2 to 30 volts at up to 6 ma.

INSTALLATION: The M C model 100T receiver chassis is provided with four corner holes to mount with the rubber band suspension method. It also may be secured to a sponge rubber pad either through these holes or cemented direct to the rubber. (DO NOT USE RUBBER CEMENT) For the deluxe model (in a can) we like sponge rubber all around. In wiring, we suggest - especially for the beginner - a bench hook-up. This method helps him to become more familiar with the receiver and the wiring requirements. A metering jack is needed in the B+ lead and a S.P.S.T. switch in the battery negative or common lead to turn the receiver off and on with. Note: the deluxe model receiver is provided with a tone monitoring jack for audio tuning. However, we find the meter (10 ma tuning method the most reliable. The antenna is not critical - 18" to 24" works well. A shorter one limits the range a little and a longer one seems to have no advantage.

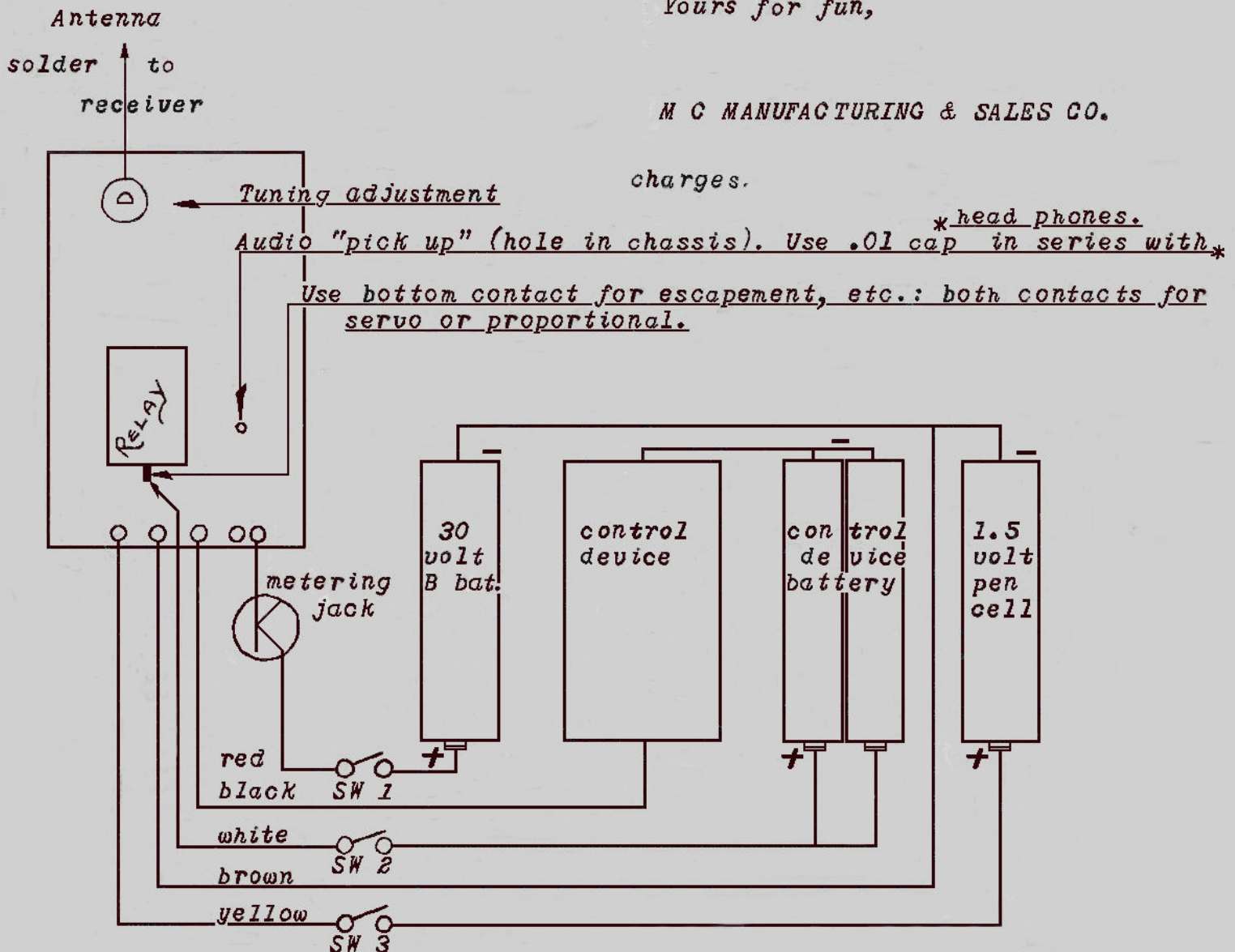
TUNING: The tone receiver is the easiest to tune. First be sure the wiring, antenna, etc. are okay. Then with whatever indicating device you use in the circuit (head phone, meter, or both) turn on the receiver. The meter will read from 1.5 to 3 ma. In the phones then will be a substantial noise. Turn on the transmitter (carrier only). For these initial tests the transmitter need only be 15 to 25 feet away from the receiver. Now adjust the powdered iron slug in the coil (it will not need more than a turn or so in either direction) until there is a reduction of B current. It will drop to less than one ma. in most cases. If the phones are used, the noise and hiss will be reduced materially. Tune for the minimum reading either with meter or phones. Last, we add the tone part to our transmitter signal by keying the transmitter. this time the meter will rise to 4.5 to 6 ma, depending on the "B" voltage. Also there will be a loud 1,000 cycle note in the phone. We strongly suggest that the last test be carried out with about one-quarter mile separating the transmitter and receiver - at least as you can see the signal of your helper, and this time you will tune for maximum on the meter and/or the phones.

WARRANTY: The M C model 100T receiver is guaranteed for 90 days from date of purchase and if for any reason the receiver fails to operate satisfactory within this period and is returned with the dated sales ticket to M C Manufacturing & Sales Company, 6720 Monroe, Kansas City, Missouri, it will be repaired free of charge - providing the unit has not been abused or tampered with. Enclose 25¢ for packing and shipping charges. Pack well, for we are not responsible for equipment damaged in shipment.

REPAIR SERVICE: The M C Mfg. & Sales Co. has an established repair service for all MC equipment. We bill repair or replace whatever parts necessary for proper operation of your MC equipment at a minimum rate of \$1.00 with the unit to be repaired. If for some reason such as large damage from crash or dunking, you will be advised of estimate repair cost before repairs are made.

Yours for fun,

M C MANUFACTURING & SALES CO.



(Note: SW 1 and SW 3 may be a DPST switch).

