

C.R. LEUTZ INC. - TRANSOCEANIC PHANTOM

NINE TUBE MODEL

SERIAL 4875



Installation of Receiver.

With B Battery or common B Eliminator supplying only 135 to 180 volts B current.

Connect #1 & 2 posts to loud speaker. #3 (Detector B Supply) to separate detector B Battery usually 18 x 22 1/2 volts positive. Negative of Detector Battery to post #15.

#4 - (R. F. B. Supply) 67 1/2 volts B plus (must not be over 70 or 75 volts or indicates tubes are below normal)

#5 - (1st 3 stages of Audio) 90 to 155 volts B plus depending on tubes.

#6 - (B supply last or power tube) 90 to 180 volts B plus, depending on tube, we advise Ce Co Type F or UX 112.

#7 - lead coming out of cabinet alongside this post to be connected to #7.

#8 - lead coming out is connected to #8.

#9 - (C - for 1st 3 Audio) either 1-1/2 volts Bias or none, if none is used connect post #9 to #14.

#10 - (C for last or Power Tube) connect to minus side of C Battery of voltage specified by tube mfg.

#11 - (R. F. C.) with 201 A tubes connect this to #14.

#12 - Connect to 6 volt A plus.

#13 - not used unless power tube #9 uses A C then connect A C center tap to this post.

#14 - C plus connect Plus side of C battery to this post

#15 - Connect all B minus leads to this post

#16 - Connect to "A" minus.

#17)

#18) - Connect to loop, otherwise not used. When using loop, loop adapter must replace first R. F. Transformer in compartment one.

#19 - Connect to ground.

#20 - " Antenna.

Tubes to be used with above hook up: - R. F. 4 - 201 A'S.
Det. 1 - UX 200
(do not use 200 A)
1st Audio - 1-201A
2nd & 3rd Audio - 2-Hi Mus
Last Audio - 1-Ce Co Type F or UX112

Installation with C. R. Leutz, Inc. B. Supply

Connect #1 and #2 to loud speaker.

#3 - (Separate B Battery 16 to 22 volts) connect to 18 volt plus of this battery usually. Connect minus side to #15, connect #4, 5, 6, 7, 8, 10, 13, 15 and 16 to corresponding leads from Eliminator.

#9 - (1st 3 Audio C-) connect to 1 1/2 volt bias battery or none, if none is used connect #9 to #14, on receiver.

#11 - (R. F. C. -) with 201 A tubes connect to #14 also.

#12 - Connect to 6 volt plus.

#14 - Connect to plus side of C battery if none is used (not necessary to use one).

#17)

#18) - Connect to loop if used, otherwise left open.

#19 - Connect to Ground.

#20 " " Antenna.

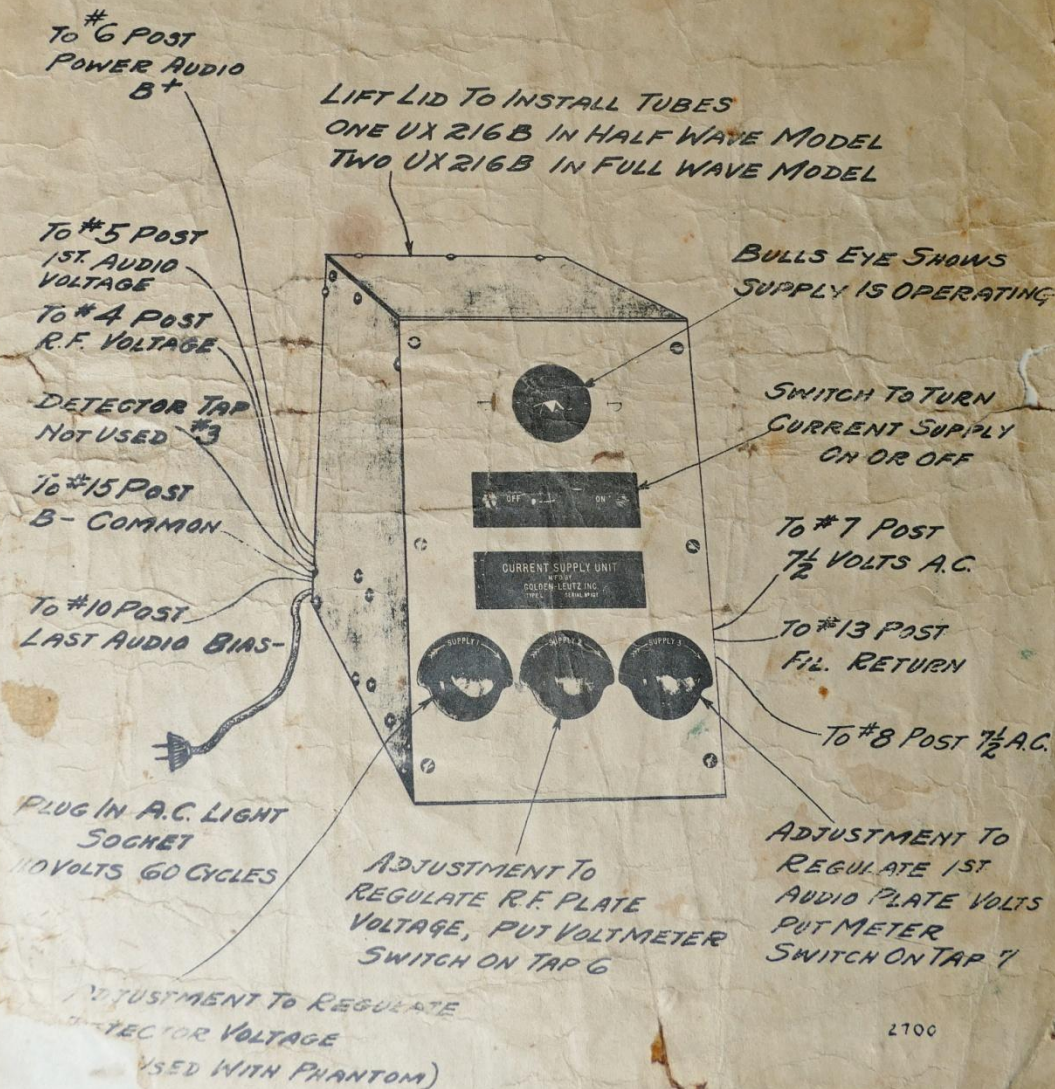
Connect lead from B. supply marked A - to minus side of A Battery.

If new style charger namely (two circuit type) is used plug into receptacle in back of B supply and connect charger to "A" battery then switch on. This B supply controls everything and the filament switch on receiver is left on at all times. When Eliminator is shipped with receiver the filament switch on receiver is bridged so it cannot cut off "A" supply. If some other type of B supply is used cut this bridge.

C.R. LEUTZ INC. - CURRENT SUPPLY

FOR 100/125 VOLTS A.C. 50/60 CYCLES

TYPE-L INSTRUCTIONS



The Meter Switch should not be left on any of the 9 active positions. When not in use return the Switch to "OFF" position or directly between any two of the active positions.

Antenna Series Condenser and Switch.

Is located in first compartment of receiver alongside tube, when opened this increases selectivity of receiver, at slight decrease in volume; closed, it gives greater volume but decreased selectivity.

When opening or closing this switch to note the difference in results, the 1st R. F. Drum Control Dial should always be retuned carefully.

Detector Rheostat.

This is a very important adjustment. The UX 200 Detector Tube requires a definite B voltage from 16 1/2 to 22 1/2 volts combined with a certain "A" filament voltage from 4 to 6 volts. The Phantom is particularly designed for the UX 200 and best results by far will be obtained with this tube. The procedure of making the initial adjustments to the UX 200 is as follows:-

1. Obtain a weak signal on loud speaker.
2. Set Det. "B" plus lead on 16 1/2 volt tap and increase Detector Rheostat and note a maximum signal strength obtainable.
3. Repeat same operation only in each case change Detector "B" plus tap to 18, 19 1/2, 21 and 22 1/2 volts. Leave Detector B plus tap at voltage, which gives maximum signal.
4. If the "B" plus tap is too high or the filament rheostat too far advanced, it will cause a loud hiss. The most sensitive adjustment is just below this "Hiss". These tubes vary considerable in performance and more than one tube should be tried.

Antenna Specification.

For local reception a small single wire indoor antenna 20 feet to 50 feet long is sufficient. Such an antenna can be concealed behind the picture moulding. For medium range reception up to 1000 miles the outdoor antenna should consist of a single wire combined length of leadin and antenna approximating 150 feet minimum. For long range work 3000 miles or more the outdoor antenna should consist of a single wire antenna the leadin and antenna length combined having a minimum length of 250 feet and preferably 350 feet. The above mentioned specifications for antenna are suitable for Type "AA" and "BB" Transformers for medium range work.

Radio Frequency Filament Rheostat.

This rheostat regulates all four radio frequency tubes in parallel. The output or sensitivity of the combined amplifier can be controlled with this regulator.

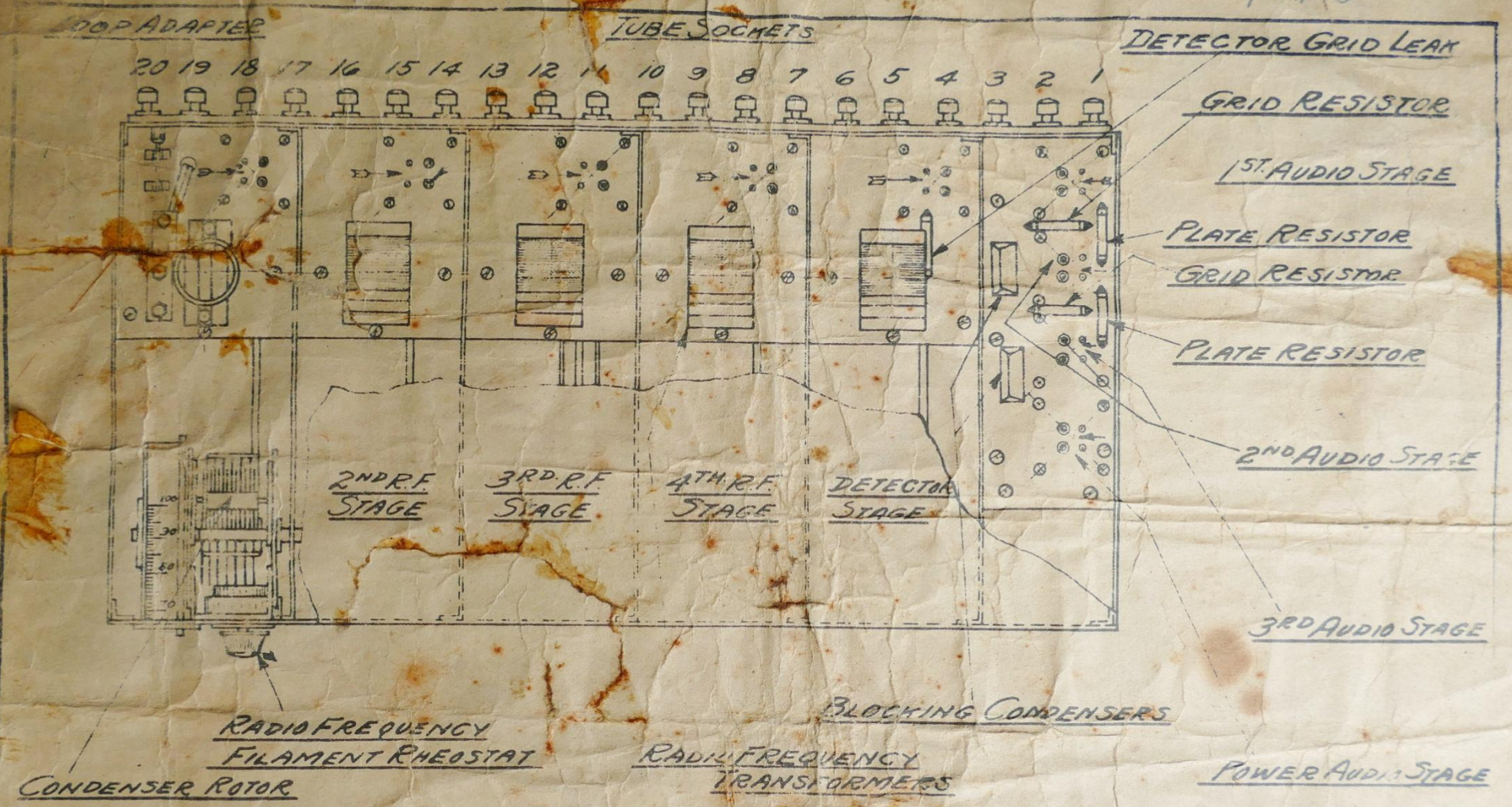
For loud local or near by signal, the Rheostat only needs to be partly advanced (Clockwise). For weak distant signals, full sensitivity is obtained by advancing the current as far as possible. When first tuning for stations, it is well to have this control full on and later reducing it to the required amount, after the station is tuned in.

Volume Control.

Advanced to increase signal and opposite to decrease signal.

Full control from inaudibility to maximum is obtained without detracting from quality of reproductions. This device is primarily to decrease volume.

12/19/15



TUBE SPECIFICATIONS

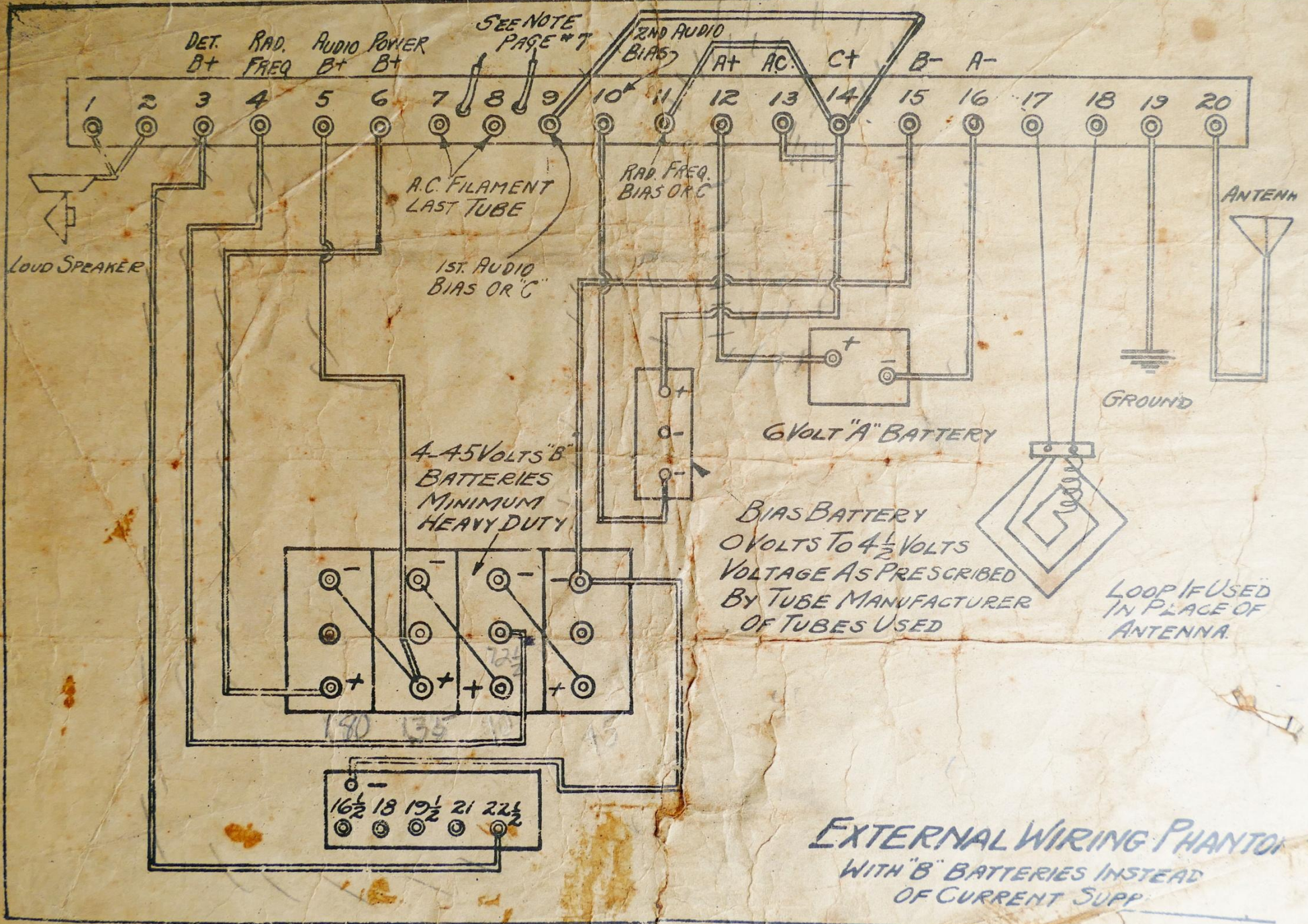
1ST. R.F.	2ND. R.F.	3RD. R.F.	4TH. R.F.	DETECTOR	1ST. AUDIO	2ND. AUDIO	3RD. AUDIO	POWER AUDIO	ELIMINATOR
201A	201A	201A	201A	UX200	201A	HI-MU	HI-MU	210	UX216B

HIGH MU TUBES CAN BE USED FOR 2ND & 3RD. AUDIO TUBE TO ADVANTAGE.

VIEW FROM TOP OF RECEIVER SHOWING TUBE LOCATION

BESURE TO USE UX-200 DETECTOR TUBE!

G. P. LEUTZ
 104 W. 11th St. N.Y.
 N.Y.C.



VOLTAGE METER

- 1 -
- 2 - DET FIL VOLTS +4 TO 5V
- 3 - RF FIL " +3 TO 5 $\frac{1}{2}$ V
- 4 -
- 5 -
- 6 -
- 7 -