

Hallicrafters, Inc.

Model: CN-1

Chassis:

Year: Pre 1948

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

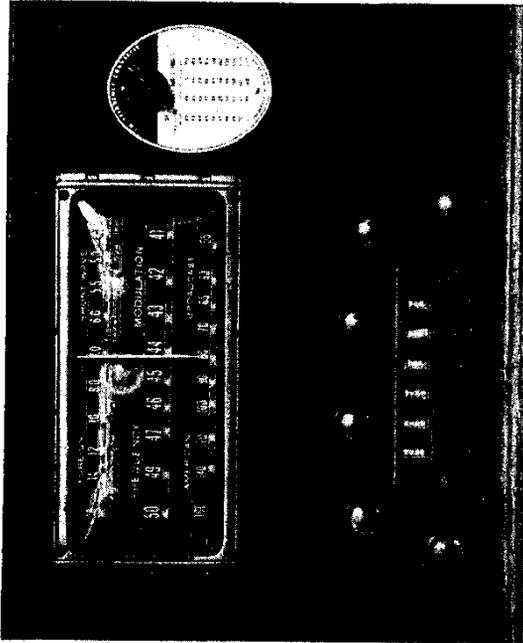
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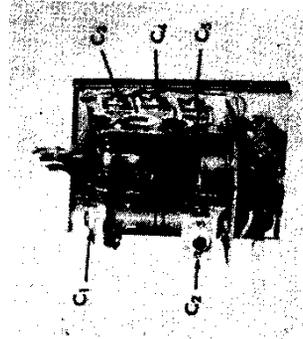
THE HALLICRAFTERS CO.

MODEL CN-1
Converter

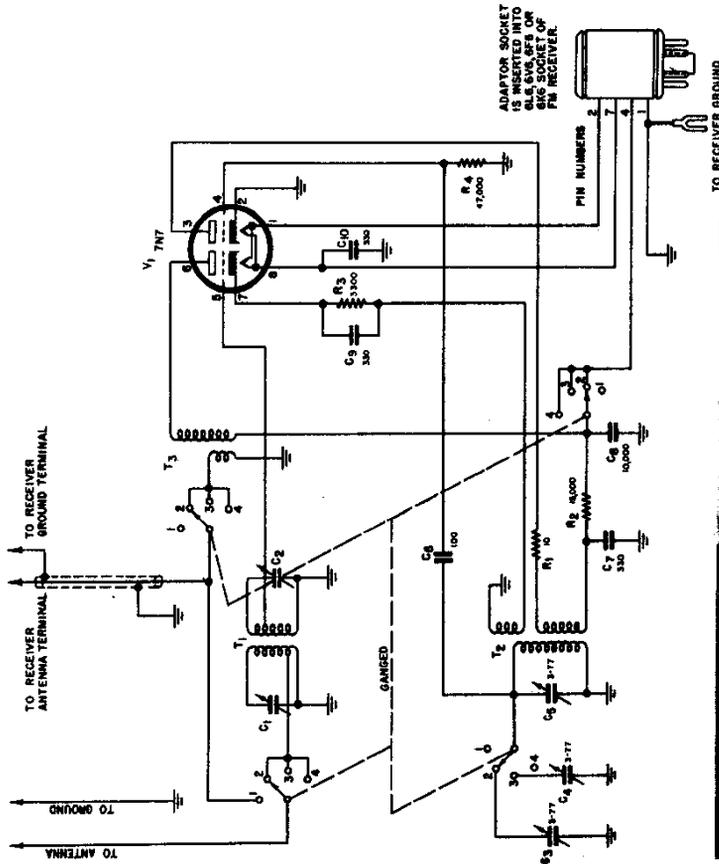


Front view of typical installation.

Can be used with f-m tuner
Can be used with f-m ac/dc tuner, in
which case converter is isolated from
tuner through condenser



89C200



ALL RESISTOR VALUES IN OHMS.
ALL CAPACITOR VALUES IN MICROMICROFARADS

SWITCH POSITIONS
1- OFF — NORMAL OPERATION OF FM RECEIVER.
2- RANGE — 80 TO 85 MC
3- RANGE — 85 TO 90 MC
4- RANGE — 90 TO 110 MC



Rear view of typical installation.

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CONVERTER R-F ADJUSTMENTS

NOTE - Signal generator remains connected the same as for oscillator adjustments. Use audio output meter for proper r-f alignment. The r-f alignment of the converter is performed only with the frequency range selector in positions 1 and 3.

- With the frequency range selector in position 1-
1. Set the receiver at 48 MC on the FM dial scale.
 2. Set the signal generator at 90 MC (Signal should be heard).
 3. Peak secondary trimmer C-2 for maximum output on output meter.

- With the converter frequency range selector at position 3-
1. Set the receiver at 42 MC on FM dial scale.
 2. Set signal generator at 102 MC. (Signal should be heard.)
 3. Peak aerial trimmer C-1 for maximum output on output meter.

NOTE - It may be necessary to readjust the converter on position 1 to insure maximum output.

A switch is provided on the converter for selecting three frequency ranges (84mc to 93mc, 93mc to 102mc, and 102mc to 111mc) and also for turning off the power to the converter and restoring the receiver for normal operation.

CONVERTER OSCILLATOR ADJUSTMENT

NOTE - A signal generator with a range of 84 MC to 111 MC will be necessary for oscillator and r-f adjustments.

HOW TO CONNECT SIGNAL GENERATOR TO CONVERTER

1. Connect signal generator "hot" lead to converter aerial. (green wire)
2. Connect signal generator ground lead to converter ground lead. (black wire)

WHERE TO SET RECEIVER TUNING DIAL

Set receiver tuning dial at 45 MC on FM dial scale for all of the three oscillator adjustments and use the following:

ADJUSTMENT PROCEDURE

NOTE - Always begin adjustments with converter range selector set at position 3.

Set converter frequency selector at position	Set sig. gen. at	Adjust following trimmer until signal is heard
3	105 MC	C - 5
2	96 MC	C - 4
1	87 MC	C - 3

Refer to photograph on schematic diagram for location of trimmers.

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HOW TO INSTALL THE CONVERTER

The converter should be mounted inside of the receiver in such a way that the range selector switch will be easily accessible.

1. Determine suitable location for the converter inside of receiver cabinet on either side of receiver chassis.
2. Remove knob from converter shaft.
3. Place converter in a position such that the switch shaft will rest against inside front of cabinet in such a way as will permit the short side of mounting bracket to rest against inside surface of cabinet.
4. Mark spot on inside front of cabinet where hole is to be drilled and then remove the converter.
5. Drill small pilot hole and enlarge it from the front of the cabinet using a 3/8 inch carpenter's drill.
6. Put extension shaft on converter switch shaft and tighten coupling.
7. Replace converter so that shaft extends out through front of cabinet and converter is located where desired.
8. Mark shaft, so when cut, it will extend at least 3/8 inches from front of cabinet and then remove converter from cabinet.
9. Saw off shaft where marked and file off any rough edges on end of shaft.
10. Replace converter in cabinet at desired position and fasten short end of bracket to mounting surface by means of the two wood screws supplied with kit.
11. Fasten frequency conversion chart label to front of receiver cabinet, put knob on shaft and fasten securely by tightening set screw.
12. Remove audio output tube from the receiver. (This will be either a 6V6, 6F6, 6K6 or 6L6 type tube.) In cases where there are two of the type, remove only one.

13. Insert the adapter plug into the audio output tube socket and insert the audio output tube, previously removed, into the adapter socket.
14. Disconnect the aerial from the receiver and connect it to the converter aerial lead. (green wire)
15. Connect inner conductor of shielded lead from the converter output to the aerial terminal on the receiver.
16. Connect shield of converter output lead from the converter to the ground terminal on the receiver.
17. Connect black lead of converter to a ground. (Water or radiator pipe or an external ground)

HOW TO USE THE CONVERTER

Consult frequency label chart for frequency conversions.

- Turn converter frequency range switch to position 2. The range of reception on the receiver will now be 84 to 93 MC (megacycles).
Turn converter frequency range switch to position 3. The range of reception will now be 93 to 102 MC. (megacycles). Or
Turn converter frequency range switch to position 4. The range of reception on the receiver will now be 102 to 111 MC. (megacycles).
Turn converter frequency range switch to position 1 to restore receiver for normal operation.

A universal bracket is included for mounting the converter. Power is supplied to the converter tube through an adapter cable from the receiver with which the converter is to be used.

The converter will in no way interfere with the normal operation of the receiver. All tuning is accomplished by the main tuning dial on the receiver.