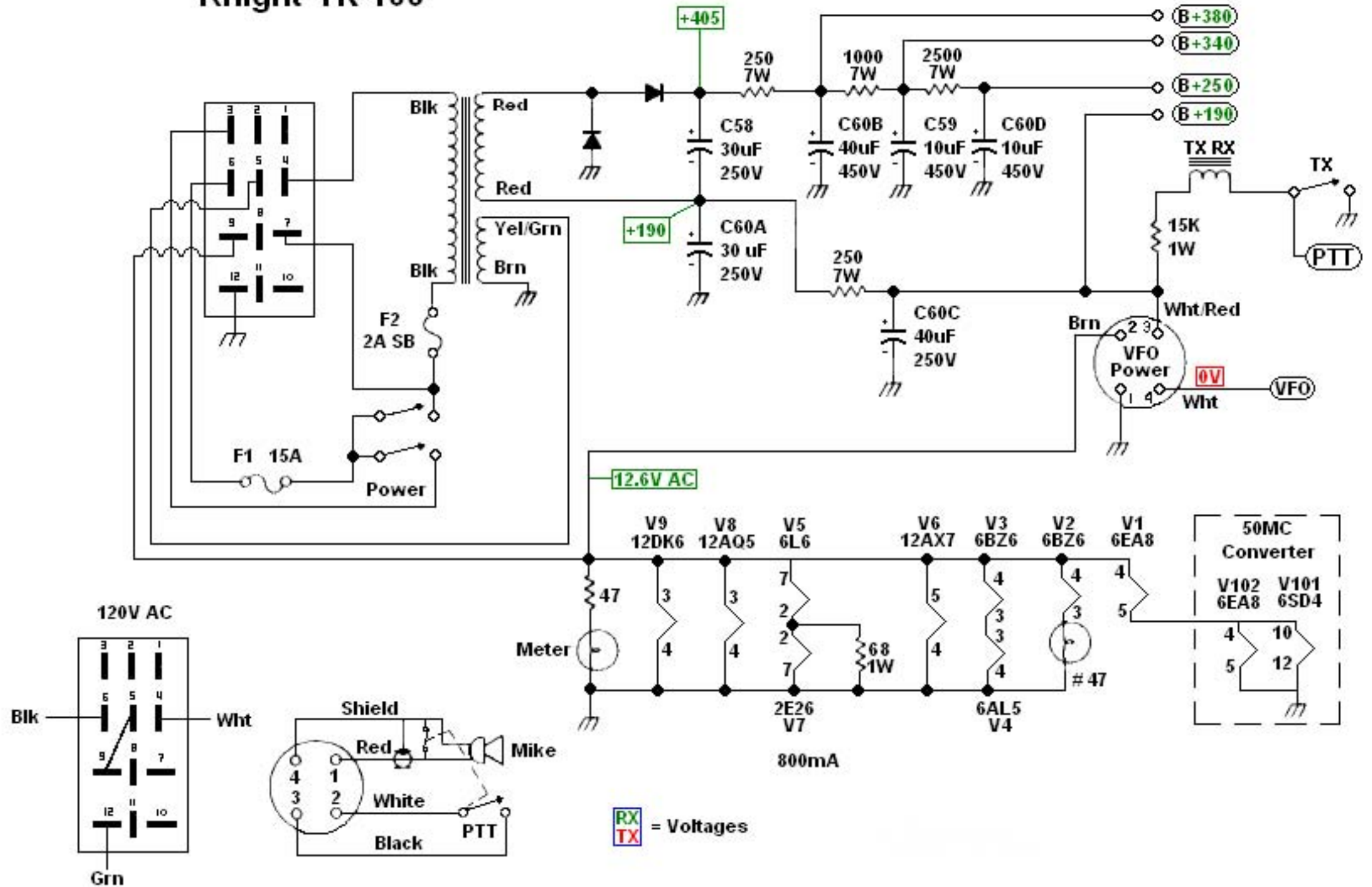
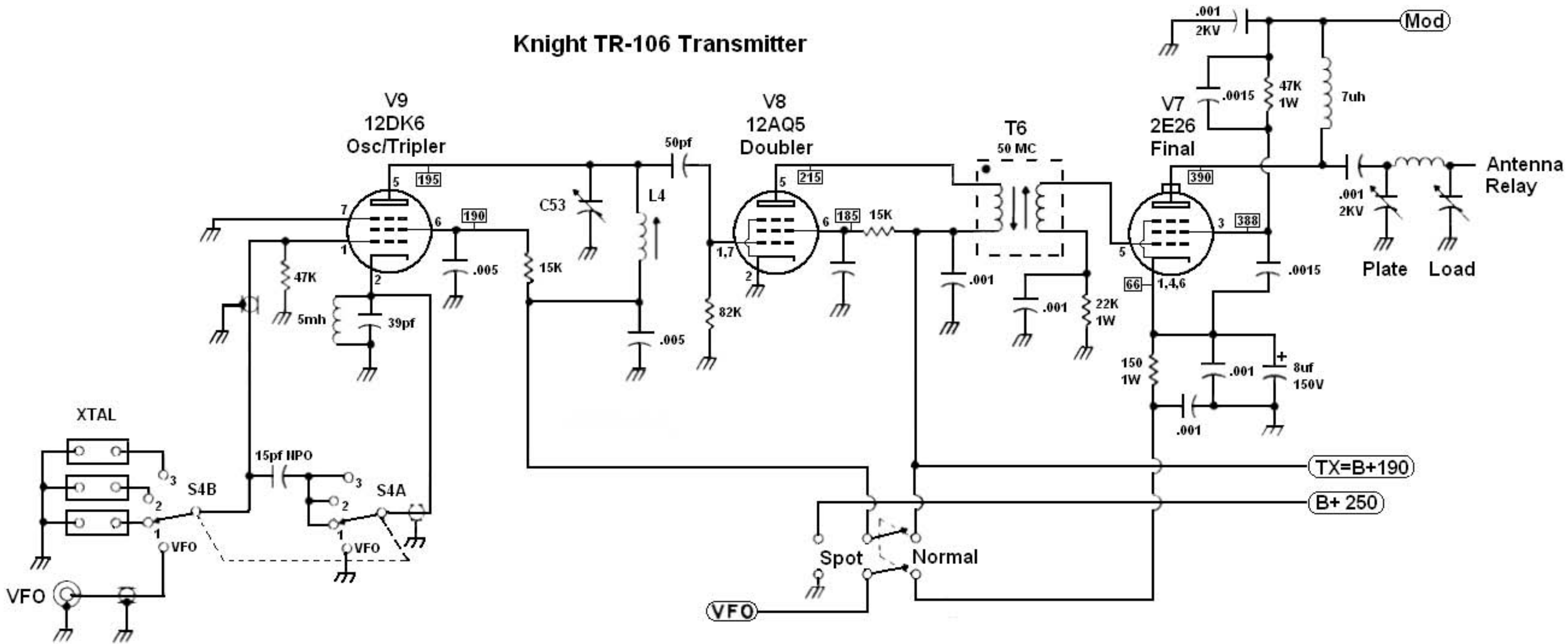


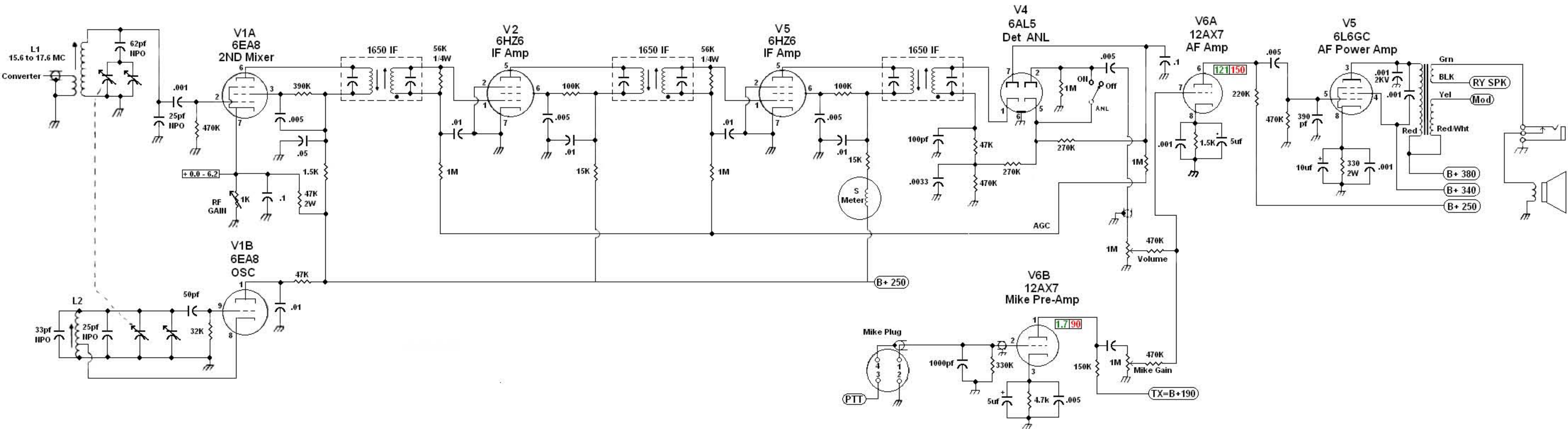
# Knight TR-106



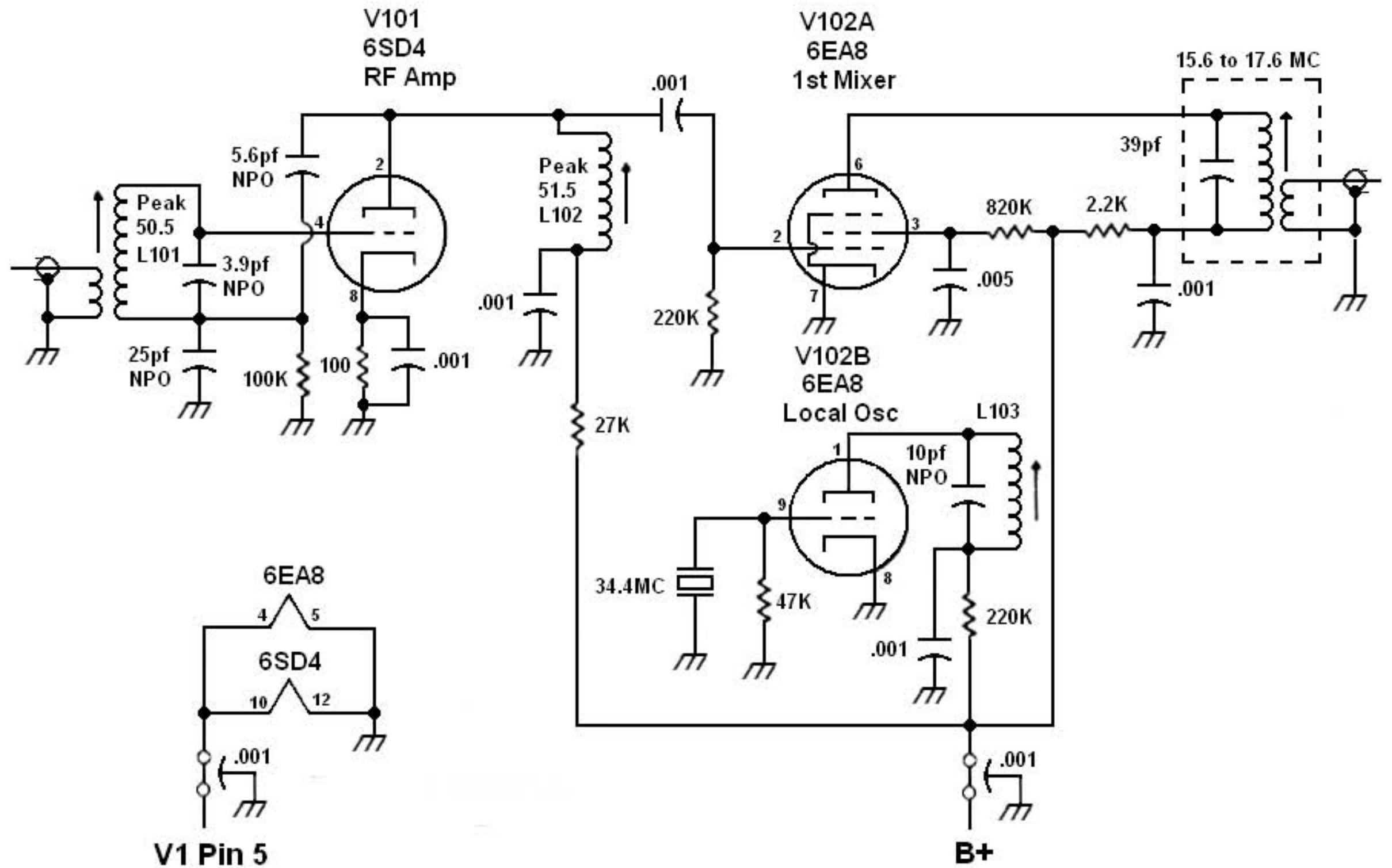
# Knight TR-106 Transmitter



# Knight TR-106 Receiver



# Knight TR-106 50MC Converter





## TROUBLE-SHOOTING INFORMATION

### VOLTAGE CHART

|     |          | PIN   |            |            |            |            |      |           |      |              |
|-----|----------|-------|------------|------------|------------|------------|------|-----------|------|--------------|
|     |          | 1     | 2          | 3          | 4          | 5          | 6    | 7         | 8    | 9            |
| V-1 | Receive  | 84    | 1.2        | 130        | 12.3<br>AC | 6.3<br>AC  | 245  | .02       | 0    | ---7.5       |
| V-2 | Receive  | 1.4   | 0          | 6.3<br>AC  | 12.3<br>AC | 230        | 75   | 0         | ---  | ---          |
| V-3 | Receive  | 1.2   | 0          | 6<br>AC    | 12.3<br>AC | 215        | 70   | 0         | ---  | ---          |
| V-4 | Receive  | .5    | .05        | 6<br>AC    | 0          |            | 0    | -1.3      | ---  | ---          |
| V-5 | Receive  | ---   | 12.3<br>AC | 360        | 340        | ---        | ---  | 6.1<br>AC | 22   | ---          |
|     | Transmit | ---   | 12.3<br>AC | 328        | 303        | ---        | ---  | 6.1<br>AC | 19.5 | ---          |
| V-6 | Receive  | 1.7   | .65        | 0          | 0          | 12.3<br>AC | 150  | 0         | 1.5  | ---          |
|     | Transmit | 90    | 0          | 1.05       | 0          | 12.3<br>AC | 121  | 0         | 1.35 | ---          |
| V-7 | Receive  | 66    | 6.1<br>AC  | 388        | 66         | 0          | 66   | 0         | 0    | Plate<br>390 |
|     | Transmit | 7.7   | 6.1<br>AC  | 153        | 7.7        | †>-45      | 7.7  | 0         | 0    | *318         |
| V-8 | Receive  | -.9   | 0          | 12.3<br>AC | 0          | -1.8       | -1.8 | ---       | ---  | ---          |
|     | Transmit | †>-75 | 0          | 12.3<br>AC | 0          | 215        | 185  | ---       | ---  | ---          |
| V-9 | Receive  | .56   | 0          | 12.3<br>AC | 0          | -1.8       | -1.8 | 0         | ---  | ---          |
|     | Transmit | †>-15 | .08        | 12.3<br>AC | 0          | 195        | 190  | 0         | ---  | ---          |

Converter Sub Assembly—B+ terminal, 225 volts Receive,  
3 volts Transmit.

All voltages taken with a VTVM with respect to chassis ground.

†Measured with a 47K isolating resistor (keep its leads to a minimum length) in series with the VTVM probe.

\*DO NOT MEASURE. You may measure B+ on the B+ side of RFC-1.

### RESISTANCE CHART

|     |         | PIN   |       |        |       |       |        |      |               |     |
|-----|---------|-------|-------|--------|-------|-------|--------|------|---------------|-----|
|     |         | 1     | 2     | 3      | 4     | 5     | 6      | 7    | 8             | 9   |
| V-1 | 54K*    | 470K  | 400K* | .8     | .8    | 5.4K* | 5.4K*  | 900  | 0             | 82K |
| V-2 | 2.8 meg | 0     | .8    | .8     | 5.4K* | 105K* | 0      | ---  | ---           | --- |
| V-3 | 2.6 meg | 0     | 2     | .8     | 9K*   | 120K* | 0      | ---  | ---           | --- |
| V-4 | 500K    | 1 meg | 2     | 0      | 490K  | 0     | 500K   | ---  | ---           | --- |
| V-5 | NC      | .8    | 450*  | 1.25K* | 470K  | NC    | .8     | 330  | ---           | --- |
| V-6 | ∞       | 330K  | 4.7K  | 0      | .8    | 230K* | 320K** | 3.3K | 4.8           | --- |
| V-7 | NS      | .8    | 50K*  | NS     | 24K   | NS    | 0      | 0    | Plate<br>650* | --- |
| V-8 | 82K     | 0     | .8    | 0      | ∞*    | ∞*    | 82K    | ---  | ---           | --- |
| V-9 | 47K     | 12    | .8    | 0      | ∞*    | ∞*    | 0      | ---  | ---           | --- |

NC—no connection

NS—not significant

\*—with respect to junction of CR-2 and C-58.

\*\*—will vary with setting of MIC GAIN control.

Resistance readings taken with a VTVM with respect to chassis ground.

Controls set as follows:

ANL—ON

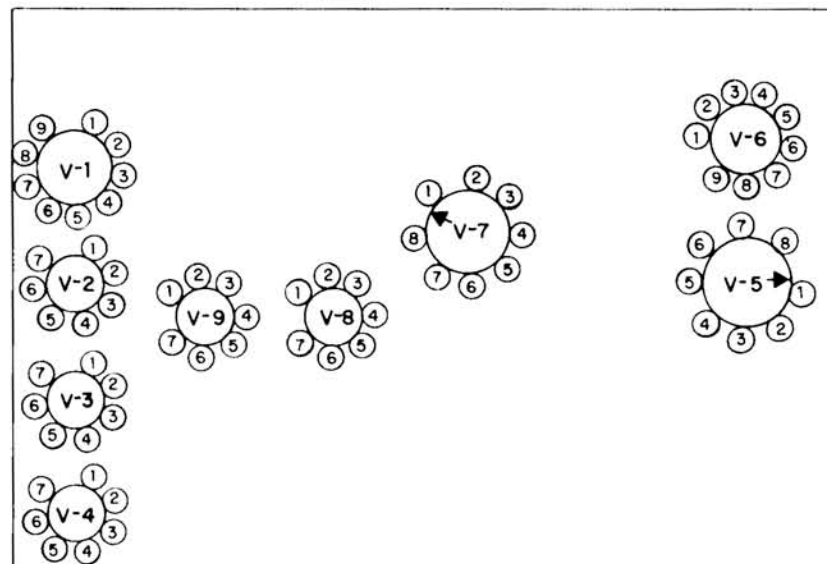
TRANSMIT-RECEIVE in RECEIVE

POWER OFF

SPOT OFF

RF and AF GAIN in maximum counterclockwise position

FRONT



TUBE LOCATION (bottom view)