# PRESIDENT ADAMS (858)

The Adams frequency conversion is slightly different due to the SCAN feature incorporated into the chip program select lines. Unlike the others, this one switches the address lines to ground and the normal pin status is +5V supplied through 100K resistors. It does not have the 4700 ohm resistors from each pin to ground. D708 (14), D710 (15), D712 (16), D714 (17), D716 (18), D718 (20) make up the "Channel 9" monitor. When pin 2 of IC702 goes low, address lines 20, 18, 17, 16, 15, and 14 (19 is low also because it is grounded—more on this in a minute) go low leaving 13 and 21 high which is the code for channel 9. Pin 14 controls another diode matrix which has jumper wires for field programming. It is factory encoded for channel 19, but is easily field programmable to whatever frequency you want (Home Channel-more on this later).

FOLLOW THESE STEPS:

1.  Locate pin 19 of the 858 chip and isolate by cutting PC foil away from ground. An XACTO knife with #11 blade works perfect.

2.  Obtain two IN914 diodes and twist the anodes together. Wrap this around one end of a 100K/¼W resistor and .01/50V disc capacitor. It should look like this:
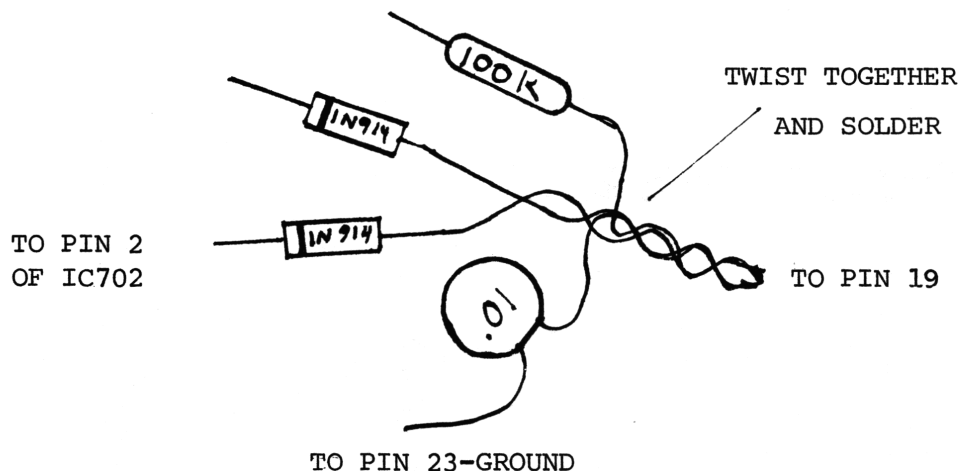


FIG. 1

Solder the four leads together and then solder it to pin 19.

3. Solder the other end of the capacitor to ground (pin 23).

4. Solder the free end of one diode to the cathodes of channel 9 encoder diodes or pin 2 of IC 702.

5. Solder the free end of the 100K resistor to pin 1 of RR701 resistor network (5.99V source) or cathode of zener D722.

6. Obtain a SPST switch and ground the center terminal.  Run a wire from the end terminal to the free end of the remaining diode.  It should look like this:
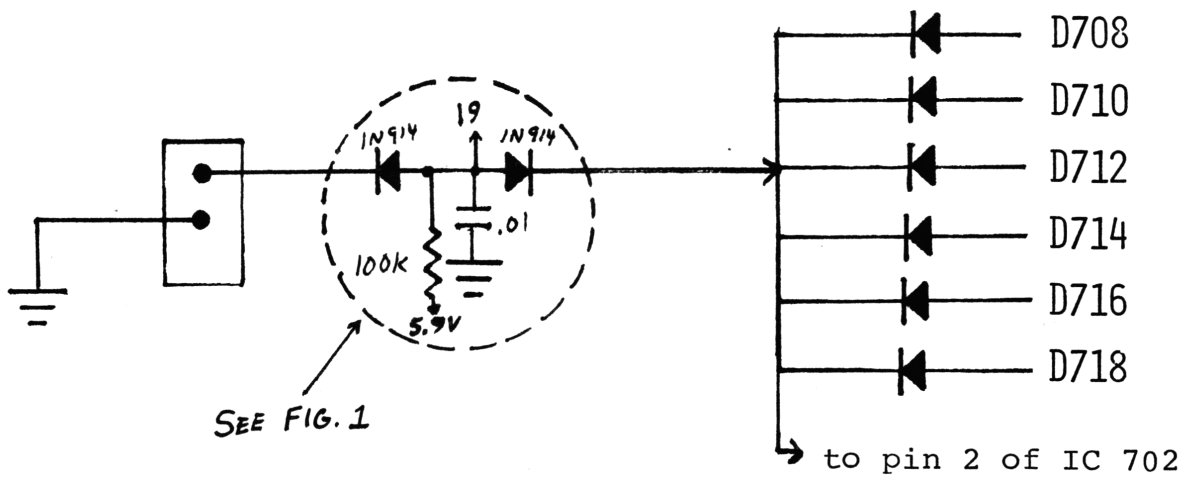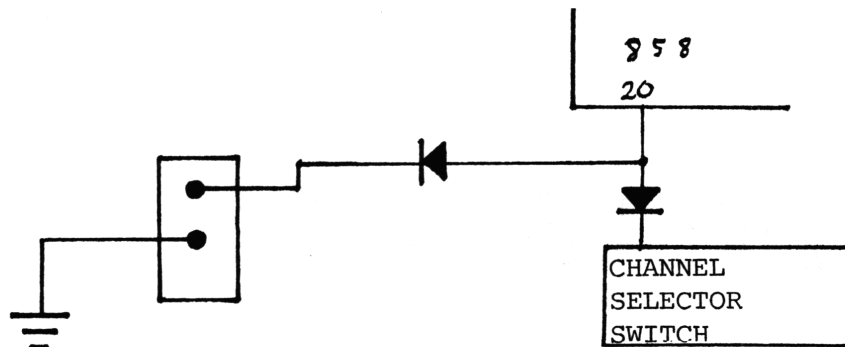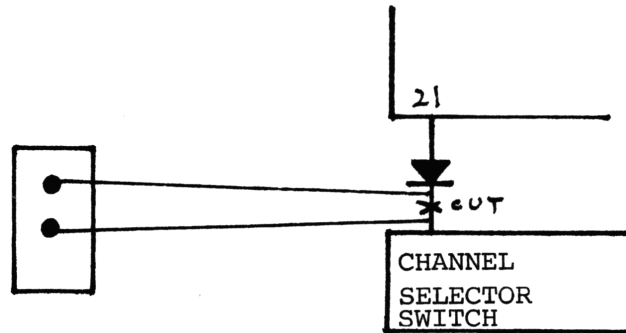


SEE FIG. 1

to pin 2 of IC 702

FIG. 2

7. Solder the anode of a 1N914 diode to Pin 20 and the cathode to another SPST switch like this:



CHANNEL
SELECTOR
SWITCH

8.  Cut the trace on pin 21 between the cathode of D410 and the
    channel selector switch.  Add a SPST switch and wire like
    this:



The three SPST Switches must be in the "OFF" position for the
SCAN Function to operate normally.  This modification gives hi
and low channels.

Now lets discuss the programmable "home channel" function.
To program a "home channel" of 27.605, we need a jumper at JP702,
JP704, JP706 and JP707, since pins 14, 16, 18 and 20 are low and
pins 13, 15, 17, 19 and 21 are high.  All you need to know to
program your particular "home channel" is the truth table for
that channel and then install jumpers wherever you need a low or
0.  Consult Volume 11 for truth table.  This is a great radio.
Have fun with it.

**PRESIDENT ™**

Engineered to be the very best.