UNIDEN 858 PLL UPDATE

ROTARY SWITCH KIT FOR FREQUENCIES 26.255 - 28.045 FOR UNIDEN 858 CHASSIS.

PARTS NEEDED:

11 each 1N914 diodes or equivalent
1 each 2-Pole, 6 position rotary switch
1 each DPDT toggle switch (may also use CB/PA switch instead)
2 each 4700 ohm resistors

IF FREQUENCY RANGE INDICATOR LIGHTS ARE DESIRED:

6 each LED diodes, your choice
1 each 1K resistor

Locate the D858 PLL chip - see Figure 1.

Step 1: Isolate Pin 19 from P.C. ground. Connect one end of a 4700 ohm resistor to pin 19, and the other end to P.C. ground.

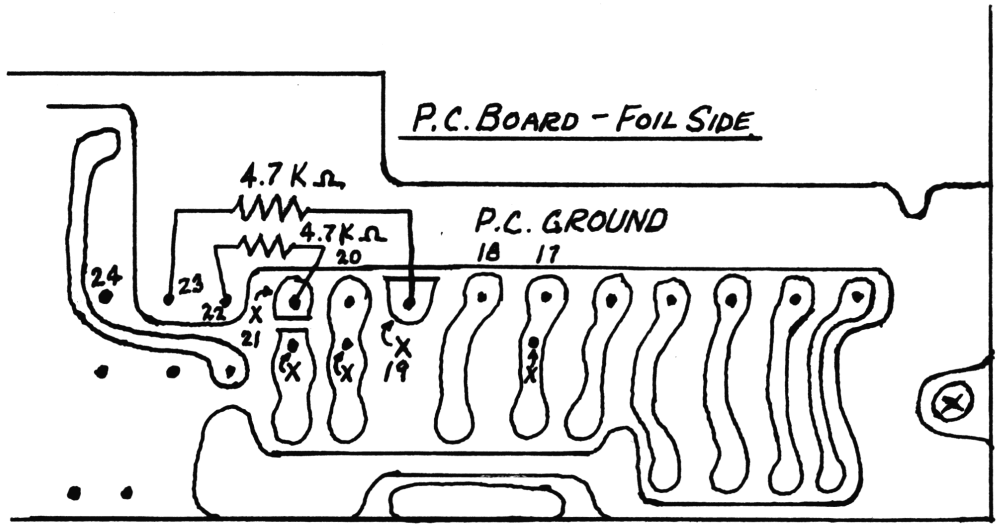
Step 2: Isolate Pin 21 as close as possible to the chip. Connect one end of a 4700 ohm resistor to Pin 21, and the other end to P.C. ground.

Step 3: Connect wires long enough to reach from PLL chip to desired locations of rotary and DPDT switches. Connect wires to pins 21, 20, 19, 17, and to the cut-away portion of the land going to pin 21. Also connect one wire to P.C. ground and one to the switched side of the on-off switch. (The last two connections can be omitted if indicator lights are not desired). See figure 1 for illustrated connection points.

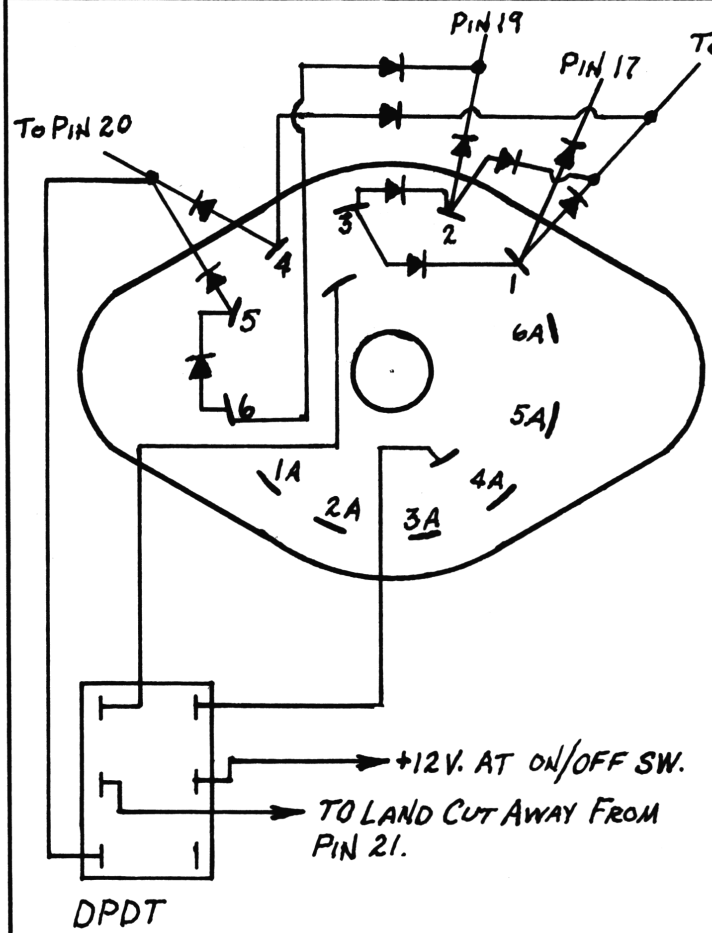
Step 4: Connect diodes and LED's if desired to rotary switch as illustrated in figure 2. Connect wires to DPDT switch as in figure 2.

Step 5: Connect wires from PLL to rotary and DPDT switches as in figure 1 & 2. Mount switches and LED's where desired. See chart for channel/frequency range.

CUT PINS 19, 21 AS SHOWN. INSTALL 4.7 KΩ RESISTORS ACROSS CUTS TO P.C. GROUND AS SHOWN. INSTALL SWITCH WIRES TO POINTS MARKED "X".

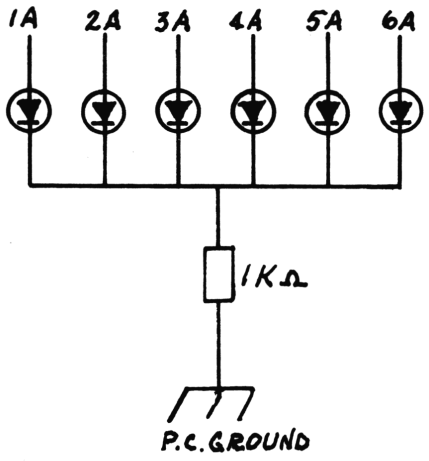


See Vol 10 Pg 74



WIRE ROTARY & DPDT SWITCHES AS SHOWN.

LED'S MAY BE WIRED TO UNUSED TERMINALS ON ROTARY SWITCH FOR OPTIONAL FREQUENCY INDICATION.



Double Check Every thing You Do "Confusing"

FREQUENCY CHART

NOTE: When DPDT switch is off, all channels are normal, regardless of rotary switch position (also no indicator lights will show). When DPDT switch is on, radio will be operating in out-of-band mode and frequency ranges will be indicated by the appropriate LED's. Also, channels 1-7 will always be normal (unaffected) by either DPDT or rotary switch positions.

DPDT OFF: Normal Channels
DPDT ON : Frequencies controlled by rotary switch as follows:

POSITION 1:	27.415-.445,	channels 31-34
POSITION 2:	27.455-.805,	channels 8-40
POSITION 3:	27.815-.845,	channels 31-34
POSITION 4:	27.855-28.045,	channels 8-25
POSITION 5:	26.855-27.045,	channels 8-25
also :	26.255-26.405,	channels 23-40
POSITION 6:	26.455-26.805,	channels 8-40

NOTE: Placing the rotary switch in between positions 5 and 6 will give frequencies 26.085-26.405.

This is one of the nicest working conversions we have seen, and is an easy to follow switch conversion for the 858 PLL rigs. Note that there are no HF gaps that cannot be reached by clarifier sliding down 10 KHz.

Want to custom tailor your 858 chassis to a specific frequency range? Use the following information to determine how to hook up the switches.

Pin 21 - Adds 1 MHz. Normally on from channels 8-40. Cut this pin loose and you go down 1 MHz on channels 8-40.

Pin 20 - Adds 800 KHz. Normally on from channels 1-7. Cut it loose on channels 1-7 and you go down 800 KHz. Switch +5V to this pin on channels 8-40 and you go up 800 KHz.

Pin 19 - Adds 400 KHz. Not normally used. Remove from PC ground and switch +5V to this pin and you go up 400 KHz. If pins 19 and 20 are used together, you will go down 400 KHz from where pin 20 would normally put you.

Pin 18 - Adds 200 KHz. Normally used from channels 23-40.

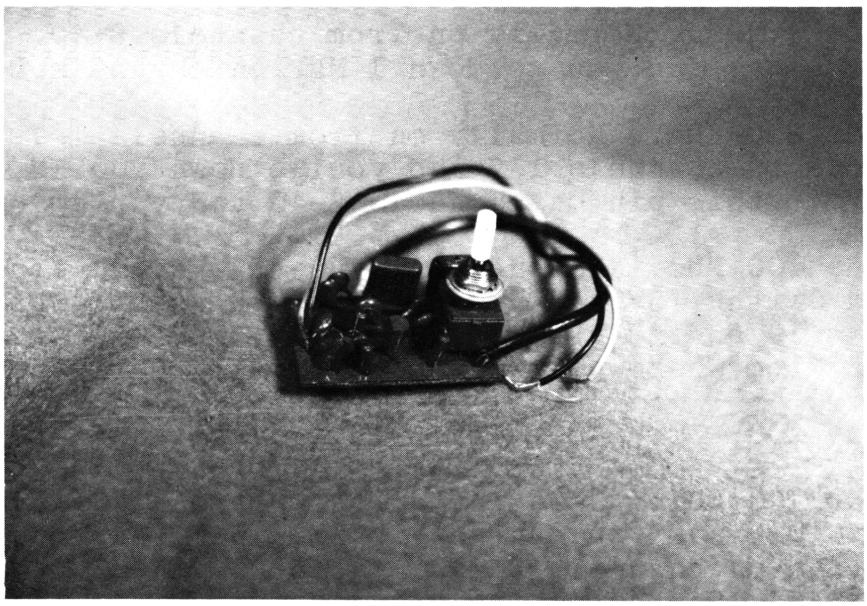
Pin 17 - Adds 100 KHz. Used in various places. Switch +5V to this pin and you can get to 27.415-27.445 and 27.815-27.845 on channels 31-40. Also 26.415-26.445 and 26.815-26.845. See below for other combinations necessary to pick these up.

UNIDEN 858 PLL UPDATE (Cont'd):

APPLICATIONS:

27.415-27.445 - +5V to pin 17 (channels 31-34)
27.455-27.805 - +5V to pin 19 (channels 8-40)
27.815-27.845 - +5V to pins 19 and 17 (channels 31-34)
27.855-28.045 - +5V to pin 20 (channels 8-25)
26.855-27.045 - 0V to pin 21 (cut loose) and +5V to pin 20 (channels 8-25)
26.455-26.805 - 0V to pin 21, +5V to pins 20 and 19 (channels 8-40)
26.085-26.405 - 0V to pin 21 (channels 11-40)
26.415-26.445 - 0V to pin 21, +5V to pin 17 (channels 31-34)
26.815-26.845 - 0V to pin 21, +5V to pins 20, 19, 17 (channels 31-34)

NOTE: The most convenient place to take your +5V is off of the land going to pin 21. This way channels 1-7 will always be normal. Otherwise, on some switch positions, channels 1-7 will be normal, and on some other positions 1-7 will be out-of-band and it gets rather confusing. Using the above information will get you to any frequency from 26.085 to 28.045, so there is no advantage to using channels 1-7 for extra frequencies. Use a 1N914 or equivalent to take +5V from pin 21 land; anode connected to the land, and cathode going to the switch.



ZAPPER 9000

OSCILLATOR MODULE - FOR THOSE HARD TO CONVERT AM RADIOS, SUCH AS COBRA AND PRESIDENT AM AND MANY OTHERS.