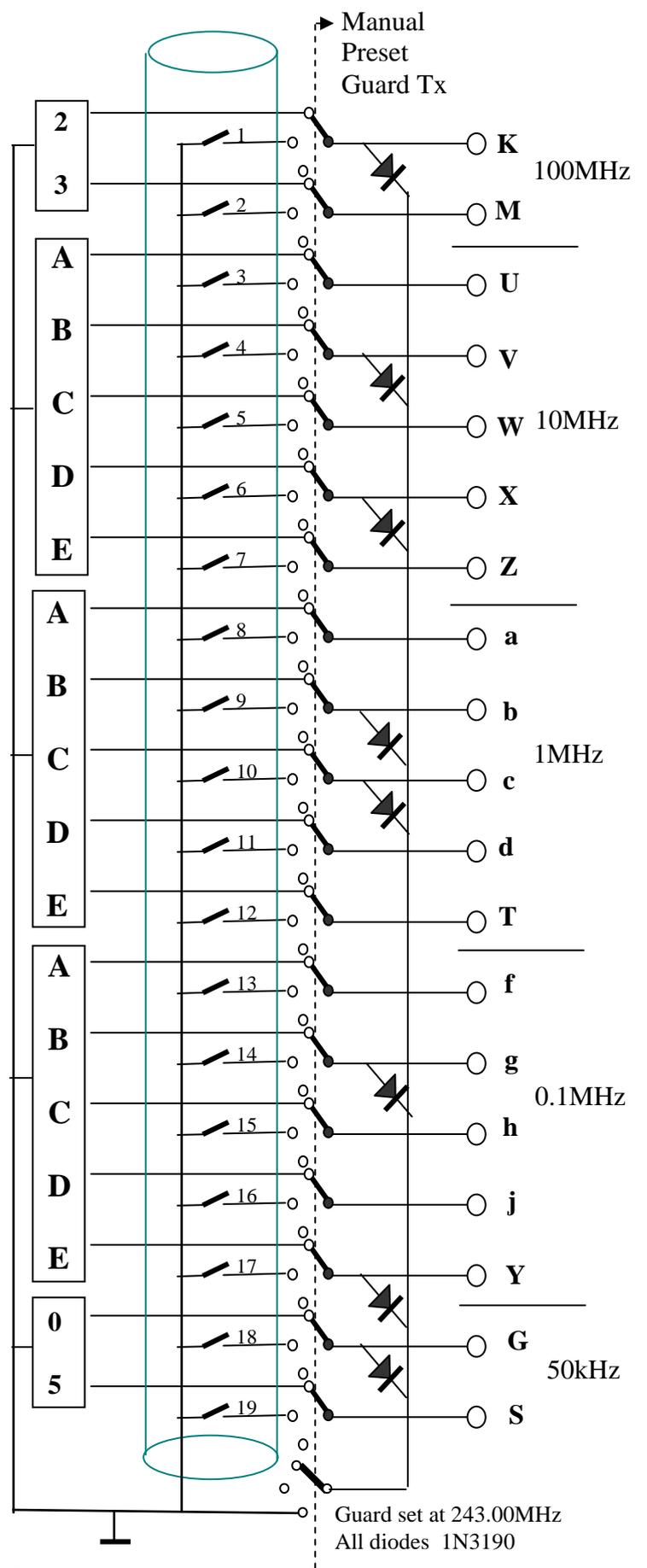
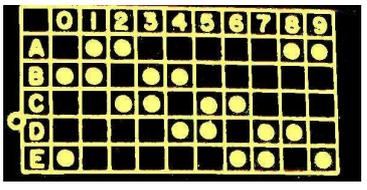
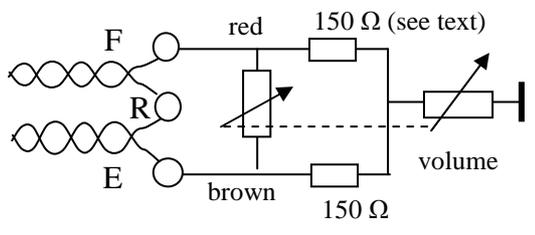
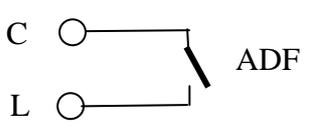
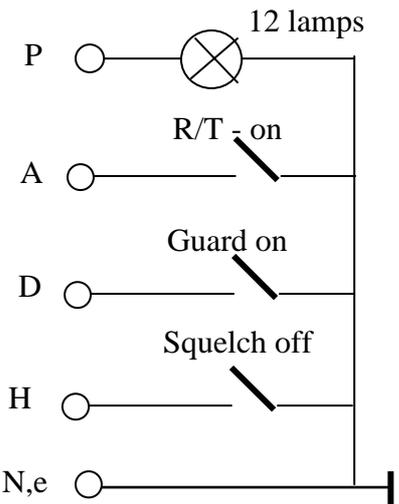


- Not connected
- Tuning
- Ground
- Other



**C-6287 /ARC51Control Panel**  
10-1-2010 \ kb

## C-6287/ARC51 radio set control

The control unit provides the frequency setting of the ARC51BX transmitter receiver, as well as a few other settings like power on, squelch off, and guard-receiver-on.

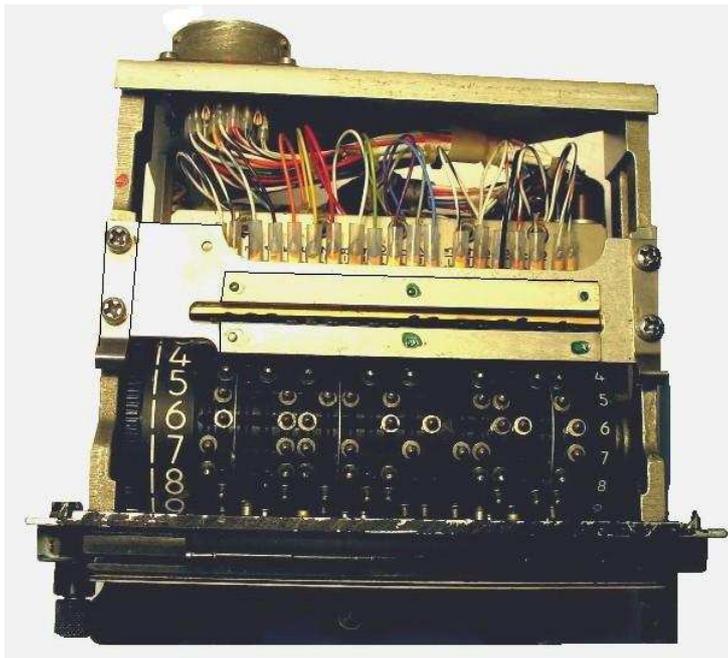
The set frequency source is either:

- the manual MHz set on this control panel;
- one of 20 preset channels, or
- the Guard frequency 243 MHz.

### Frequency coding

Any frequency can be set from 220.00 MHz to 399.95 MHz in 50kHz steps as a 5-digit nr. The first digit is 2 or 3, then 3 digits 0...9, and the last digit is 0 or 5. All digits are coded with contacts to ground. The first and last digit with a 1-out-of-2 code, the middle digits with a 2-out-of-5 code.

Together, this results in an 8-out-of-19 code.



The manual set frequency has code switches, coupled to a mechanical display.

The preset channels are preset on a drum, which can be rotated with the preset knob. 8 pegs can be shifted in slots with 19 snap positions to presser each channel.

These pegs push copper fingers to a ground Strip, thus forming the 8-out-of-19 code.

In the GD XMIT position, 8 diodes program the guard frequency. Normally 243.00 MHz.

### Lamps.

The panel is illuminated by 12 small (red) lamps, each 5V/60mA. The 28V types have two strings of 6 series connected lamps.

### Volume control

A constant impedance circuit is used for the volume control, while the audio output of the ARC51 is distorted when not loaded with the proper impedance, and also the aircraft audio mixer assumes a constant impedance sources



### ADF

A switch position ("ADF") is available to replace the normal UHF blade antenna by the direction finder antenna unit AN/ARA-25 or AN/ARA-50, the solid state version.

### Control, Radio Set – Versions

Depending on the volume control resistors, lamp voltage and extra options, 8 panels were used :

C-6476/ARC-51A	600	28 V lamps
C-6555/ARC-51A	600	5
C-6556/ARC-51B	150	5
C-6287/ARC-51BX	150	28

C-6300/ARC-51A	600	5/28 rel/P + Rel/C
C-6528/ARC-51B	150	5/28 rel/P + Rel/C
C-7307/ARC-51A	600	5/28 digital display
C-8616/ARC	150	5/28 digital display

The Rel/P ( relay plain) and Rel/C (relay cypher) are two extra positions on the OFF-T/R etc switch. These panels have a step-down transformer to convert the telephone signal to 1Vpp-100 ohm for the microphone input of the other set.

The last two have a digital (LED) display instead of a mechanical one.