

RF ATTENUATOR

PARTS NEEDED:

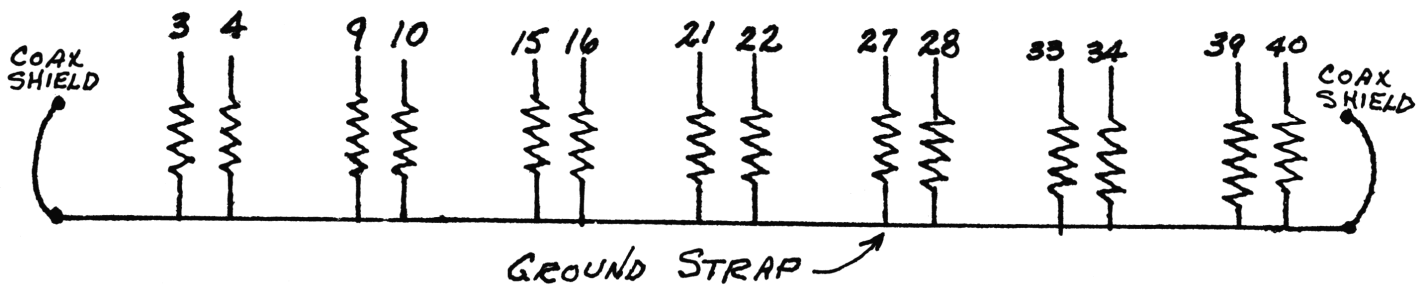
- 2 ea. SO239
- 7 ea DPDT Center Off Switches
- 1 ea Wood grain cabinet (looks nice)
- 4 ea 240 ohm, 2W resistors
- 8 ea 62 ohm, 2W resistors
- 2 ea 100 ohm, 2W resistors
- 2 ea. 150 ohm, 2W resistors
- 2 ea. 300 ohm, 2W resistors
- 1 ea. 68 ohm, 2W resistor
- 1 ea 39 ohm, 2W resistor
- 1 ea. 18 ohm, 2W resistor
- 2 ea. small pieces of coax
- 8 ea. Screws

1. If unit is to be used above 30MHz, each switch must be shielded. (See drawing)
2. Drill 7 holes in front and mount switches
3. Drill 2 holes for SO239 in back
4. Mount resistors according to drawing
5. Connect small coax to SO239 center to center, shield to frame. (Mark this SO239 as out). Take other end and put center to pin 2 of switch A, shield to strap ground.

Second piece of coax to other SO239 (mark IN); wire as above

Other center put on Pin 41 of switch G

6. A ground strap shorts all of the single resistors on pins 3, 4, 9, 10, 15, 16, 21, 22, 27, 28, 33, 34, 39, 40 to each other.

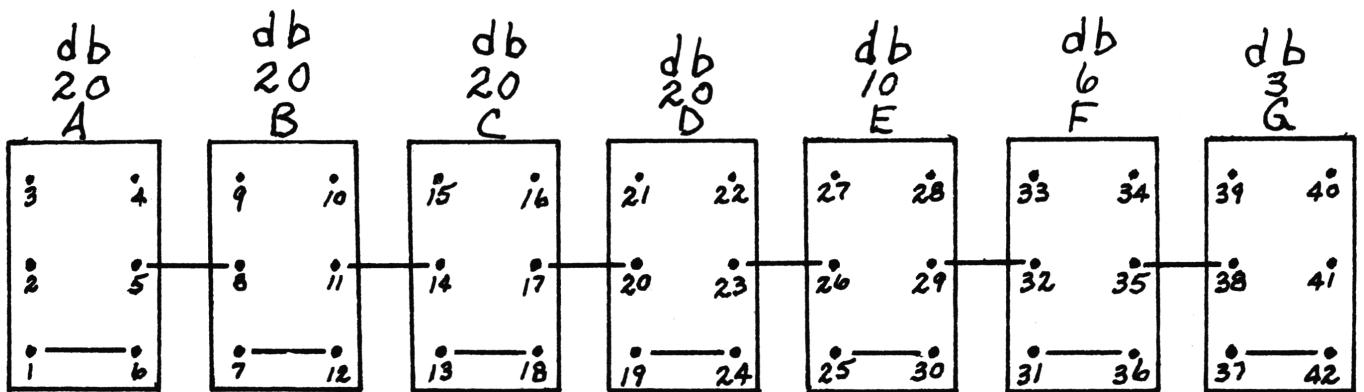


RF ATTENUATOR (Cont'd)

7. To use above 30MHz you must enclose each switch in its own shield box. We recommend copper-coated circuit board. Good to approximately 500MHz. Be careful, for jumpers between switches must be isolated from the box; so must all other parts of each switch. (To isolate jumper wires, use transistor insulators).
8. (A). This completes unit - with switches up, unit acts as a piece of straight wire.
 (B) With switches down all the way, the unit acts as 3, 6, 10, 20, 20, 20, 20 db attenuator.
 (C) With switches in the middle, it cuts the above by half: $1\frac{1}{2}$, 3, 5, 10, 10, 10, 10 db.
9. This gives you a versatile attenuator that allows you to check the gain of any receiver, preamp, antenna, or signal source.

Start out with all switches off. Start switching until no sound is heard, or signal meter shows \emptyset .

10. One suggestion: we put in 2 watt resistors because we use this in checking CB radio receivers, and by chance one or more switches were down during TX. It would not hurt unit if TX was for a short time (do not exceed 5watts through loaded switch). Damage may result. TX is fine with all switches off. There is no known SWR increase.
11. Can help cut bleed-over.



RF ATTENUATOR (Cont'd)

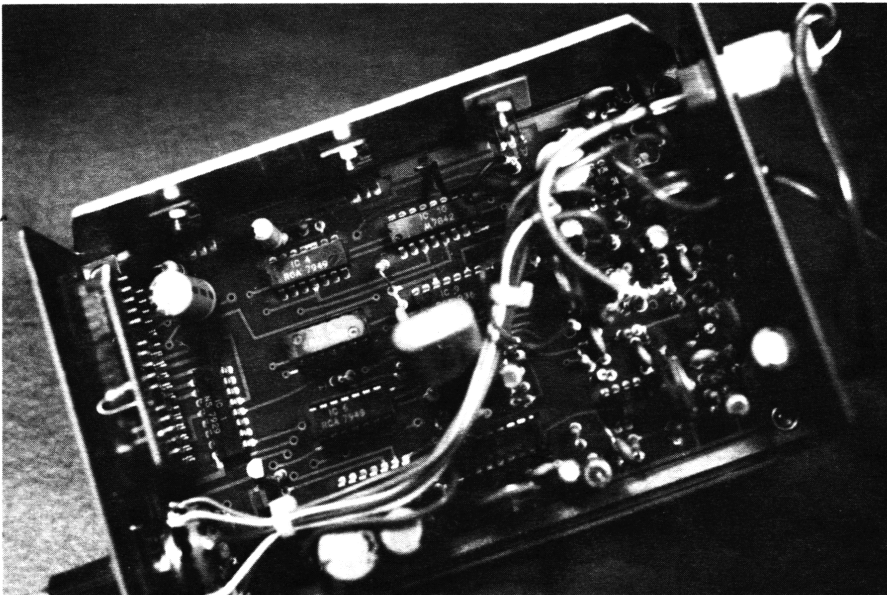
Short with strap wire, switch pins 1 & 6, 7 & 12, 13 & 18, 19 & 24, 25 & 30, 31 & 36, 37 & 42.

Short with wire, switch pins 5 & 8, 11 & 14, 17 & 20, 23 & 26, 29 & 32, 35 & 38.

Switch A - 240 ohm, 2W resistor across pins 2 & 5
Switch B - 240 ohm, 2W resistor across pins 8 & 11
Switch C - 240 ohm, 2W resistor across pins 14 & 17
Switch D - 240 ohm, 2W resistor across pins 20 & 23
Switch E - 68 ohm, 2W resistor across pins 26 & 29
Switch F - 39 ohm, 2W resistor across pins 32 & 35
Switch G - 18 ohm, 2W resistor across pins 38 & 41

Install a resistor on each of the following switch pins:

Switch A - 62 ohm at pins 3 & 4
Switch B - 62 ohm at pins 9 & 10
Switch C - 62 ohm at pins 15 & 16
Switch D - 62 ohm at pins 21 & 22
Switch E - 100 ohm at pins 27 & 28
Switch F - 150 ohm at pins 33 & 34
Switch G - 300 ohm at pins 39 & 40



INSIDE THE SPEEDO-1