

RBS-1000 Remote Base Switch

Use the RBS-1000 to connect up to three transceivers to the remote base or repeater input ports of the CAT-1000 repeater controller. Transceiver selection is accomplished by grounding three control lines. Since the receiver audio and COR inputs are mixed, all three transceivers can be selected at the same time. To select a transceiver, connect the CAT-1000 user function switch outputs to the control line inputs on the RBS-1000.

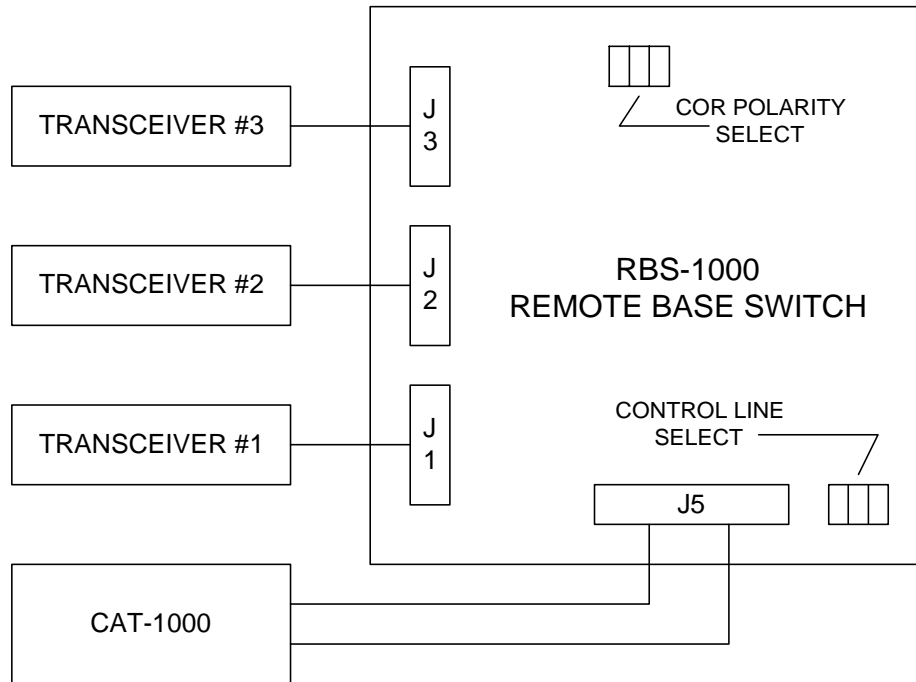


Figure 1

Control Jumpers

Jumpers JP6-1, JP6-2 and JP6-3 select the switch function. With the jumper installed, grounding one control input will select both the receiver and transmitter. By removing the jumper the receiver and transmitter can be selected independently, however six control lines will be required.

COR Input Polarity Jumper

Jumpers JP4-1, JP4-2 and JP4-3 select COR polarity. With these jumpers installed, the RBS-1000 will operate when the COR input is active LOW. In this configuration the COR inputs at J1, J2 and J3 must be pulled-up to a positive voltage with an external 2200 ohm resistor. If the COR is active HIGH remove the jumpers. A pull-up resistor is not required.

COR Output Polarity

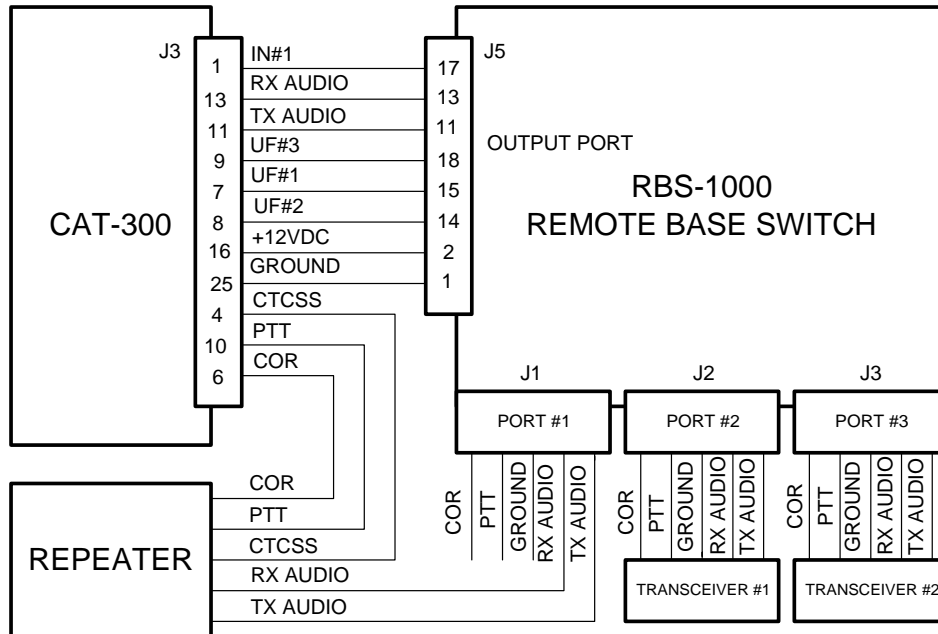
The COR output will always be active HIGH, irregardless of the input and the setting of jumpers JP4-1 JP4-2 and JP4-3. The COR polarity dipswitch on the CAT-1000 must be set to the OFF position.

Audio Input Output

The audio input and output circuits are identical to the CAT-1000 Controller. Level adjustments on both the input and output amplifiers make it easy to compensate for varying input and output requirements. The audio input impedance is 10K ohms while the output is 600 ohms.

CAT-300 One Repeater And Two Transceiver Configuration

The RBS-1000 provides a method to connect a repeater and two transceivers to the CAT-300 repeater controller. Transceiver selection is accomplished by grounding two of the control lines. The repeater audio connected to J1 must be gated or switched. To select a transceiver, enable the CAT-300 user function switch outputs connected to the control line inputs of the RBS-1000.



ENABLE ZONE 6 CH-1 TO CONVERT OUTPUT #3 TO A
TRANSCEIVER PTT AND INPUT #1 TO A TRANSCEIVER COR.
SET JUMPER J7 TO THE B-C POSITION

Figure 3

Audio Switch One Enable

Jumper J7 provides a method of forcing audio switch one on irregardless of COR input. When the RBS-1000 is connected to a CAT-300 and configured to operate one repeater and two remote bases the repeater COR is connected directly to the CAT-300 controller. However it is necessary to pass the repeater receive audio to the RBS-1000 so that it can be mixed with the remote base transceiver audio.

Without a COR input there is no way to turn on the audio switch. When J7 is connected between B and C this switch will be permanently turned on.

Input #1 Priority

Jumper J8 provides a method of assigning port one with priority over ports two and three. If the jumper is installed between B and C the RBS-1000 will be configured for normal operation. Any COR input will enable the corresponding audio switch and pass the receive audio to the mixer. If the jumper is installed between A and B a COR input at port one will have priority. Audio switches for ports two and three will be disabled when port one COR is active.

Three Repeater Configuration

The RBS-1000 provides a method to connect three repeaters to the CAT-300 repeater controller. The master repeater is on continuously while the two slave repeaters can be turned on by controlling User Function Output switches 1 and 2. Since the receiver audios are mixed, all three receivers can be selected at the same time.

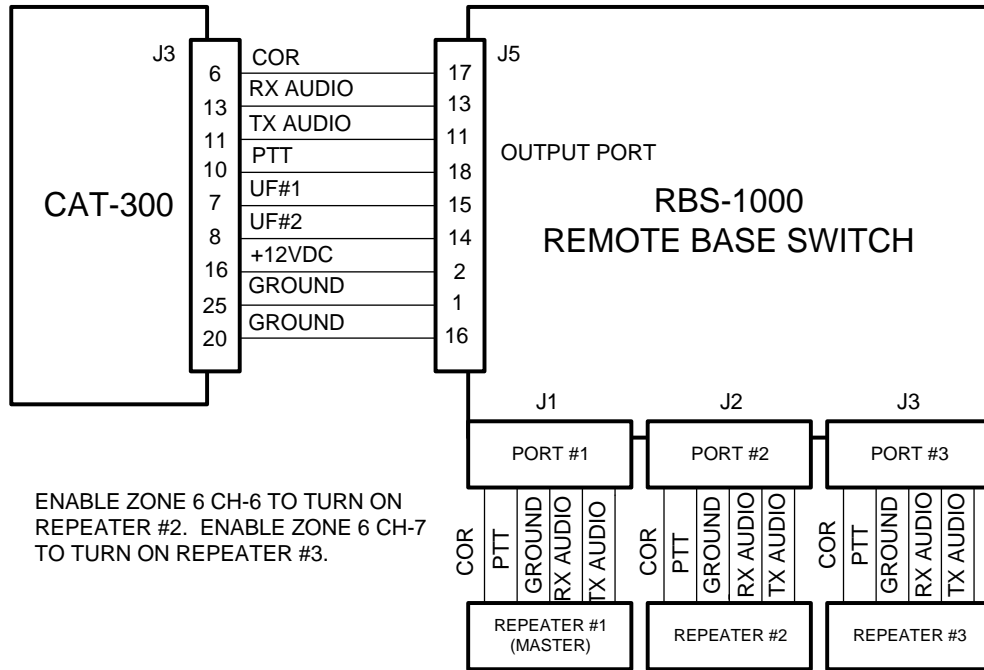
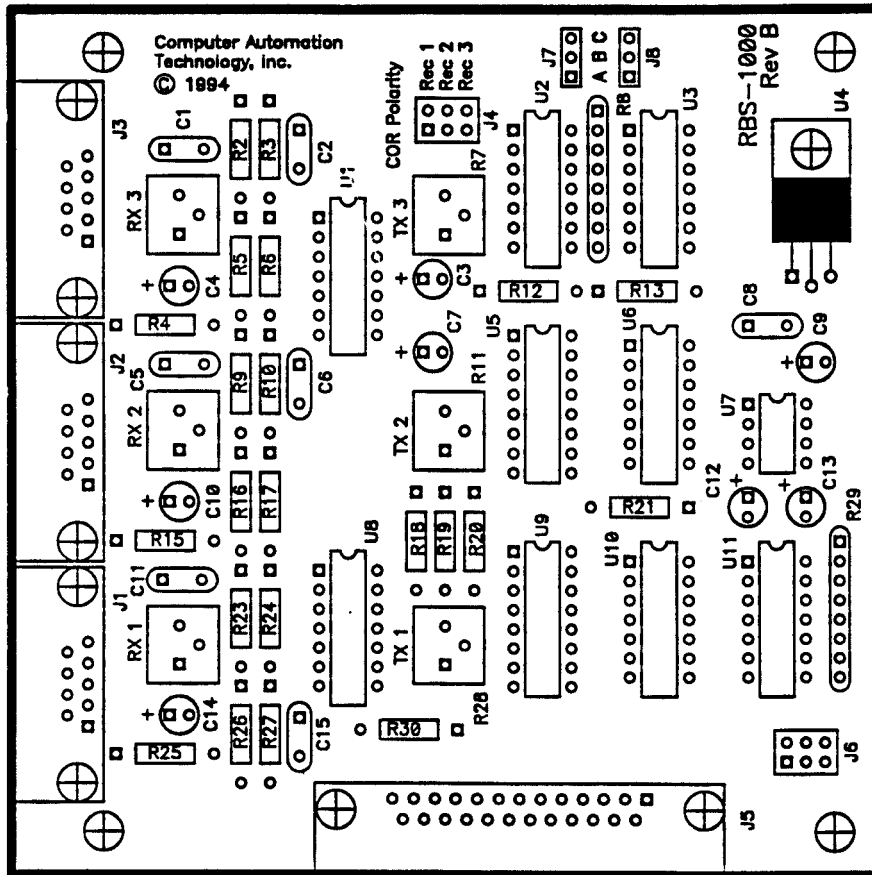


Figure 4



RBS-1000 Remote Base Switch

8	Capacitor	10uF 16V	C3, C4, C7, C9, C10, C12, C13, C14
4	Capacitor	0.1uF 50V	C1, C5, C8, C11
3	Connector	DB-9F	J1, J2, J3
1	Connector	DB-25F	J5
2	Header	2X3	J4, J6
2	Header	1X3	J7, J8
1	I.C.	LM340T-5	U4
1	I.C.	ICL7660	U7
1	I.C.	74HC04	U11
2	I.C.	74HC08	U3, U10
1	I.C.	74HC32	U6
1	I.C.	74HC86	U2
2	I.C.	LM348	U1, U8
1	I.C.	MC4053	U5
1	I.C.	ULN2003	U9
8	Jumpers		JP4, JP6, JP7, JP8
6	Resistor	10K Variable	R1, R7, R11, R14, R22, R28
2	Resistor	10K Network 8Pin	R8, R29
7	Resistor	33K .25W	R3, R5, R10, R16, R23, R27, R30
2	Resistor	100 .25W	R12, R13
3	Resistor	620 .25W	R4, R15, R25
10	Resistor	10K .25W	R2, R6, R9, R17, R18, R19, R20, R21, R24, R26

