



READ THE NOTES !!

THE LATER LOW POWER
CIRCUIT DIFFERS SLIGHTLY
FROM THAT SHOWN.
DIFFERENCES ON THE RX SECTION
ON THE LATER CUT GIVES MORE POWER.

COMMUNICATOR NI-440DX, SERPENT UK4000, PLANET 2000, MANOR KESTREL

- RESISTORS:
Q1 = 20C 1875
Q2 = 20C 1875
Q3 = 20C 1875
Q4 = 20C 1875
Q5 = 20C 1875
Q6 = 20C 1875
Q7 = 20C 1875
Q8 = 20C 1875
Q9 = 20C 1875
Q10 = 20C 1875
Q11 = 20C 1875
Q12 = 20C 1875
Q13 = 20C 1875
Q14 = 20C 1875
Q15 = 20C 1875
Q16 = 20C 1875
Q17 = 20C 1875
Q18 = 20C 1875
Q19 = 20C 1875
Q20 = 20C 1875
Q21 = 20C 1875
Q22 = 20C 1875
Q23 = 20C 1875
Q24 = 20C 1875
Q25 = 20C 1875
Q26 = 20C 1875
Q27 = 20C 1875
Q28 = 20C 1875
Q29 = 20C 1875
Q30 = 20C 1875
Q31 = 20C 1875
Q32 = 20C 1875
Q33 = 20C 1875
Q34 = 20C 1875
Q35 = 20C 1875
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Q37 = 20C 1875
Q38 = 20C 1875
Q39 = 20C 1875
Q40 = 20C 1875
Q41 = 20C 1875
Q42 = 20C 1875
Q43 = 20C 1875
Q44 = 20C 1875
Q45 = 20C 1875
Q46 = 20C 1875
Q47 = 20C 1875
Q48 = 20C 1875
Q49 = 20C 1875
Q50 = 20C 1875
Q51 = 20C 1875
Q52 = 20C 1875
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Q60 = 20C 1875
Q61 = 20C 1875
Q62 = 20C 1875
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Q67 = 20C 1875
Q68 = 20C 1875
Q69 = 20C 1875
Q70 = 20C 1875
Q71 = 20C 1875
Q72 = 20C 1875
Q73 = 20C 1875
Q74 = 20C 1875
Q75 = 20C 1875
Q76 = 20C 1875
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Q78 = 20C 1875
Q79 = 20C 1875
Q80 = 20C 1875
Q81 = 20C 1875
Q82 = 20C 1875
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Q84 = 20C 1875
Q85 = 20C 1875
Q86 = 20C 1875
Q87 = 20C 1875
Q88 = 20C 1875
Q89 = 20C 1875
Q90 = 20C 1875
Q91 = 20C 1875
Q92 = 20C 1875
Q93 = 20C 1875
Q94 = 20C 1875
Q95 = 20C 1875
Q96 = 20C 1875
Q97 = 20C 1875
Q98 = 20C 1875
Q99 = 20C 1875
Q100 = 20C 1875

- DIODES:
D1 AND D2A ARE VARIAC DIODES
D1A IS THE REVERSE POLARITY PROTECTION
DIODES MARKED 'SER' ARE SEMICONDUCTOR
DIODES AND FOLLOW SMD14 TYPE
- GENERAL NOTES:
WIDE WRAP PINS/LEAD BENDERS W/RY BETWEEN CHANNELS.
VCO SETTING UP:
SELECT CHANNEL 40, CB MODE, OR RECEIVE.
WATCHER FOR 17 ON THE COT111. ADJUST L1 FOR 100KHZ.
SET TO TRANSMIT MODE, ADJUST C1 FOR 4 VOLTS.
- MODIFICATION:
THE RADIO AS SHOWN DOES NOT RESPOND TO THE 'OFF' OF LOCK SIGNAL FROM THE PLL CHIP USE
TO THE SERIAL RECEIVE BEING FROM CHANNEL 10001. THE RECEIVER IS MARKED 'R' ON THE
SCHEMATIC AND SHOULD BE CHANGED TO 100 OHMS. ADDITIONALLY, CHANGE R12 TO 560K AND
ADD A TRAP LCR - BETWEEN PINS 18 AND 17 OF Q4 (COT111)
- SOURCES:
THE CONNECTION BETWEEN Q11 AND Q18 WOULD BE MADE BY A ROW OF SOLDER.
THE DIODE D11 DOES NOT GO IN THE SPARK MARKER FOR TX, BUT HAS ITS
CATHODE GROUND TO THE WIRE MARKED 'FOR TX' ABOVE, AND THE OTHER END TO AN
ADJUNCT WIRE.
- NOTE POWER-
KEEP DELAY-
TO REMOVE DELAY WHEN POWER BEING IS OFF, USE OTHER
CONTACTS ON SW 4 REFER TO OTHER CHANNELS Q11.

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THIS DIAGRAM WAS DRAWN FROM A RADIO'S PRINTED CIRCUIT BOARD AND REPRESENTS MANY HOURS OF TIDIOUS WORK, BUT ALSO MEANS THAT MISTAKES HAVE PROBABLY CREEPT IN. IT IS HOWEVER DRAWN IN THE ENGLISH CONVENTION OF POWER AT THE TOP AND GROUND AT THE BOTTOM. THE FRONT AND REAR PANEL COMPONENTS ARE NOT DRAWN TOGETHER AS SEEMS TO BE THE CONVENTION ON MANY CB CIRCUITS, BUT ARE DRAWN WHERE REQUIRED - I'M SURE YOU CAN FIGURE OUT WHERE THEY ARE PHYSICALLY -) ANY SUGGESTIONS FOR IMPROVEMENTS OR CORRECTIONS OF ERRORS SHOULD BE ADDRESSED TO ME AT THE EMAIL ADDRESS GIVEN IN THE TITLE BLOCK AT THE BOTTOM RIGHT HAND CORNER.

NOTES:
R1*1 - THIS RESISTOR HAS ONE END IN THE PCB AND THE OTHER ATTACHED TO THE OTHER
R1*2 - THIS RESISTOR IS IMMEDIATELY BEHIND THE TX PA RELAY.
R1*3 - THIS RESISTOR IS CONNECTED DIRECTLY BETWEEN THE MIC SOCKET AND THE VOLUME CONTROL.
R1*4 - THIS RESISTOR HAS ONE END IN THE PCB AND THE WIRE ATTACHED TO THE OTHER. THE RESISTOR AS SHOWN IS 100K AND SHOULD BE 10K OHMS. CONSIDER THE SIZE OF EACH SIGNAL HAS NO CONTROL OVER TRANSMIT
C1*1 - THIS CAPACITOR IS MOUNTED ON THE BACK OF THE PCB.
C1*2 - THIS CAPACITOR IS UNCHANGED, AND IS ADJUSTED TO 10.
C1*3 - THIS CAPACITOR IS UNCHANGED, BUT IS BELIEVED TO BE C1.
C1*4 - THIS CAPACITOR IS MOUNTED ON THE BACK OF THE PCB.
D1*1 & D1*2 - THESE DIODES ARE LOCATED IN THE INDUCTION MARKED 'R11'

