

THE DURWARD TUCKER TRANSMITTER



SPECIFICATIONS:

BAND COVERAGE: AMATEUR 10/11, 15, 20, 40, 80 METERS. 2726 KHZ

FINAL AMPLIFIER DC INPUT: >1KW CCS

AC INPUT 120/240VAC 3000 WATTS

PLATE VOLTAGE: 2000-3500 VDC CONTINUOUSLY ADJUSTABLE

FINAL SCREEN VOLTAGE: 0-750VDC CONTINUOUSLY ADJUSTABLE

FINAL BIAS VOLTAGE: 0-200VDC CONTINUOUSLY ADJUSTABLE

MODULATOR BIAS VOLTAGE: 0-200VDC CONTINUOUSLY ADJUSTABLE

FINAL SCREEN OVERLOAD PROTECTION

FINAL PLATE OVERLOAD PROTECTION

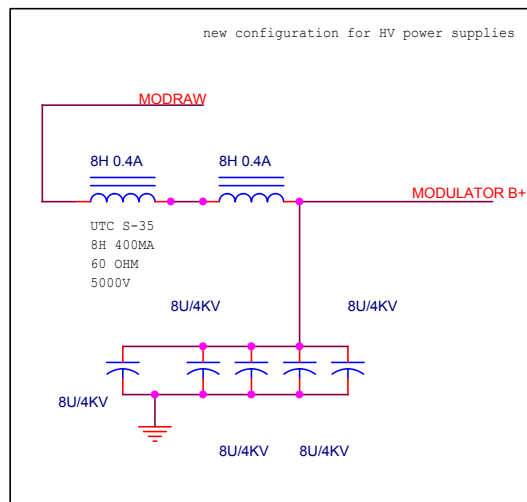
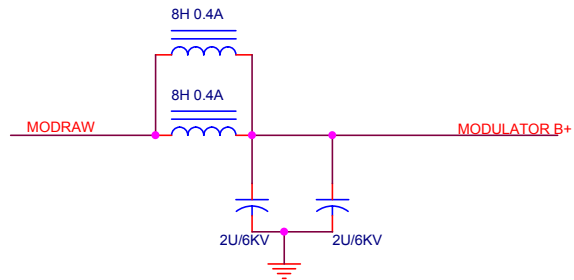
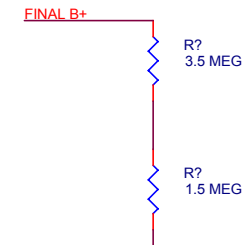
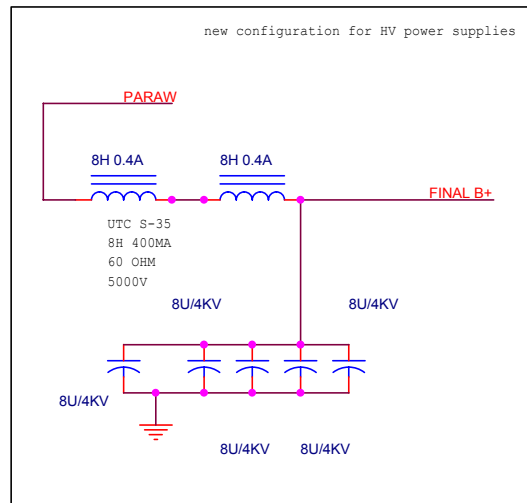
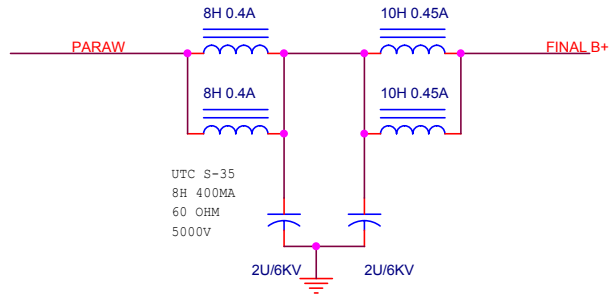
FINAL BLOWER AIRSWITCH INTERLOCK

MAJOR TUBES: FINAL=4-1000A, MODULATORS=304TH (PAIR), RECTIFIERS=673 (FOUR)

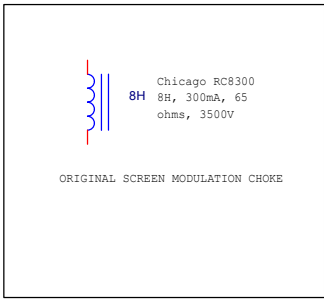
WEIGHT: 1100 LBS (APPROXIMATE)

COOLING: FORCED AIR AND CONVECTION

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TUCKER TRANSMITTER		
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Off of the Varimatch Terminal Arrangement for CG-512

Secondary G-F-F-G

500 Ohm Input Connect to 1 & 5 Join 3 & 4 = 1:2.5 Ratio

200 Ohm Input Connect to 2 & 5 Join 3 & 4 = 1:3.8

50 Ohm Input Connect to 4 & 5 Join 1 & 4, 2 & 5 =1:7.5

It's aarently a carryover from the older pre 50's PA line of Varimatch audio which lists a Varimatch Driver PA-512 With the recommended driven tubes being;

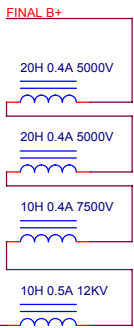
- 2-250TH
- 2-450TH
- 2-HF200
- 2-HF300
- 2-204A
- 2-849

DIODES CR-1008 SHOULD BE RATED FOR 4 TIMES THE B+ VOLTAGE OF 2600V. FOR THIS PURPOSE THE 10KV SOLID STATE REPLACEMENT FOR THE 8008 RECTIFIER TUBE WILL DO.

MODULATOR B+
MODULATION TRANSFORMER

CR-8008
10K/100W (5% MOD PWR)

NEG MOD KEEP-ALIVE
130-260VDC (DOWNWARD
LIMIT OF MODULATED
VOLTAGE DURING
OVERMODULATED NEGATIVE
PEAK



2600V AT CARRIER LEVEL
0-5200V AT 100% MODULATION.
1838 V RMS

MODULATED FINAL PLATE B+

58729 OHMS LOAD FOR SCREEN MODULATOR CIRCUIT.
31.4 MA AC RMS
57.52 WATTS RMS CONSUMED

845VAC P-P AC SIGNAL AT 100% MOD.
298 V RMS AC, 31.4 MA RMS AC

500VDC AT CARRIER CONDITION.
250-750V AT 100% MODULATION.
500VAC PEAK TO PEAK AUDIO TO SCREEN.
176.7 VAC RMS AND 0.053A RMS, 9.37
WATTS RMS

MODULATED SCREEN VOLTS

XFMR 8000 OHMS

XFMR 2800 OHMS

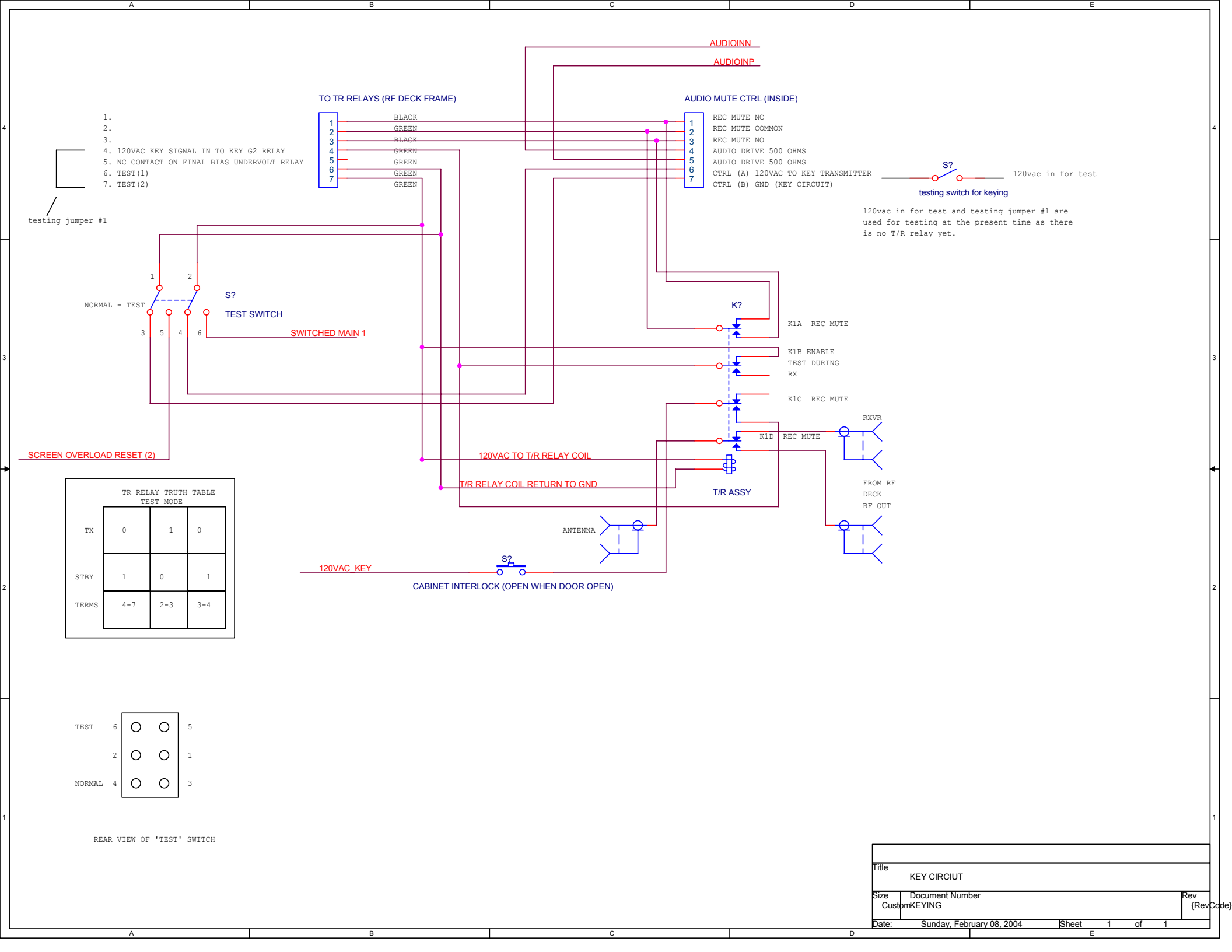
9522 OHMS REFLECTED SCREEN IMPEDANCE

SCREEN IMPEDANCE AT 500VDC AND 150MA IS 3333.OHMS.

500VDC

SCREEN MODULATION TRANSFORMER

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- 1.
- 2.
- 3.
- 4. 120VAC KEY SIGNAL IN TO KEY G2 RELAY
- 5. NC CONTACT ON FINAL BIAS UNDERVOLT RELAY
- 6. TEST(1)
- 7. TEST(2)

TO TR RELAYS (RF DECK FRAME)

- 1 BLACK
- 2 GREEN
- 3 BLACK
- 4 GREEN
- 5 GREEN
- 6 GREEN
- 7 GREEN

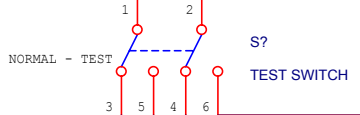
AUDIO MUTE CTRL (INSIDE)

- 1 REC MUTE NC
- 2 REC MUTE COMMON
- 3 REC MUTE NO
- 4 AUDIO DRIVE 500 OHMS
- 5 AUDIO DRIVE 500 OHMS
- 6 CTRL (A) 120VAC TO KEY TRANSMITTER
- 7 CTRL (B) GND (KEY CIRCUIT)

120vac in for test
testing switch for keying

120vac in for test and testing jumper #1 are used for testing at the present time as there is no T/R relay yet.

testing jumper #1



SCREEN OVERLOAD RESET (2)

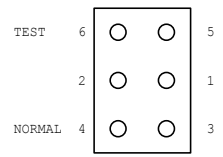
120VAC TO T/R RELAY COIL

T/R RELAY COIL RETURN TO GND

120VAC KEY

CABINET INTERLOCK (OPEN WHEN DOOR OPEN)

TR RELAY TRUTH TABLE			
TEST MODE			
TX	0	1	0
STBY	1	0	1
TERMS	4-7	2-3	3-4



REAR VIEW OF 'TEST' SWITCH

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KEY CIRCUIT		
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