SCHEMATIC OF THE HEATHKIT®
2KW LINEAR AMPLIFIER
MODEL SB-220

NOTES:

1. ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE INDICATED. VALUES ARE IN OHMS (K=1000, M=1,000,000).
2. CAPACITOR VALUES LESS THAN 1 ARE IN µF. VALUES OF 1 AND ABOVE ARE IN pF UNLESS MARKED OTHERWISE.
3. THE BANDSWITCH IS IN THE 80 METER POSITION. ARROWS INDICATE THE DIRECTION OF ROTATION FOR THE VIEW SHOWN.
4. ▽ THIS SYMBOL INDICATES A CONNECTION TO CIRCUIT BOARD GROUND FOIL.
   Ⓐ THIS SYMBOL INDICATES A CONNECTION TO THE CIRCUIT BOARD

240 VAC CONNECTIONS

120 VAC CONNECTIONS

TERMINAL STRIP

120/240 VAC 60 HZ

C1 .01 1.6 KV

C2 .01 1.6 KV

GRN

CB1 10A

CB2 10A

FAN MOTOR

BLK

BLK/YEL

YEL

BLK/GRN

BLK/RED

BLU

RED/YEL

POWER SWITCH (OFF)

MODE SWITCH (SSB POSITION)

HV TRANSFORMER T1

CIRCUIT BOARD

D1 D2 D3 D4 D5 D6 D7 57-27

D8 D9 D10 57-27 D11 D12 D13 D14

R1 1Ω 5W

R2 3600 5W

R3 .82Ω 2W

R6 4.7M 1W

R7 4.7M 1W

R8 4.7M 1W

R9 5600

PLATE METER

C3 .02

ZD1 5.1V

RED

BLU

ORG

YEL

GRN

REL. PWR

GRID MA

HV

METER SWITCH

C8 .02

MULTI-METER

RFC-1 45-61 50µH

RFC-2 45-8 8.5µH

C6 .001 6KV

C7 .001 6KV

INTERLOCK

FILAMENT & BIAS TRANSFORMER T2

BLK

GRN

GRN-YEL

GRN

BLK-YEL

BLK-GRN

RED

BLK-RED

D16 57-27

C4 20µF

R4 22K

R5 33K

C5 .02

R11 27K

ALC THRESHOLD

PC-1

PC-2

CAP

V1 3-500Z

V2 3-500Z

RFC-4 1MH 45-4

C16 200

C19 200

C26 200

C27 200

C28 200

C31 200

RFC-5 1MH 45-4

C29 .001 6KV

C55 250

TUNE

C21 .02

C32 .01 1.6KV

BIFILAR CHOKE RFC-3 9µH

C22 .02

C23 .02

#47

METER LAMPS

#47

C24 .02

C25 .02

BANDSWITCH WAFER 1F (FROM REAR)

L1 .58µH

L2 .6µH

L3 .93µH

L4 1.65µH

L5 2.95µH

C33 82

C34 22

C35 115

C36 115

C37 150

C38 180

C39 220

C41 400

C42 470

C43 680

C44 400

C45 470

C46 680

C47 .001

L6

BANDSWITCH WAFER 2 (FROM REAR)

C56 500

L7

BANDSWITCH (FRONT)

LOAD

C57A 437

C57B 437

BANDSWITCH WAFER 1R (FROM REAR)

RFC-6 4.3-4 1MH

C10 200µF 450V

R12 30K 7W

C11 200µF 450V

R13 30K 7W

C12 200µF 450V

R14 30K 7W

C13 200µF 450V

R15 30K 7W

C14 200µF 450V

R16 30K 7W

C15 200µF 450V

R17 30K 7W

C16 200µF 450V

R18 30K 7W

C17 200µF 450V

R19 30K 7W

R21 2200

C48 10

R22 2200

C49 .001

D18 56-24

R23 47K

C51 .02

RL 1 RELAY COIL

R27 100K

C52 .02

C53 .02

ANT RELAY

ALC

BARE

RF-INPUT

RF-OUTPUT

TO METER SWITCH (REL. PWR.)

R24 66K 1W

D17 56-26

R25 1000

C54 .02

R26 100K

SENSITIVITY

GRID

REL. PWR.

HV

METER SWITCH