RECEIVER CIRCUIT BOARD

ANTENNA

D3 56-27

T1

T2

RF AMP
Q1
A473

AUTODYNE CONVERTER
Q2
16G2349

Q3
2N3393
1ST IF AMP

R1 33K
R2
R3 18K
R4 6800
R5 820
R6 5600
R7 2700
R8 100
R9 1000
R13 22K

C1
C2 .001
C3 .047
C4
C5 .01
C6 75PF
C7 47PF
C8 33
C9 2.2

CF1
CF2
CF3

L1 2.2µH 45-73

XTAL

AGC

*	C1	C4	R2
27 MHZ	47PF	47PF	470
53-72 MHZ	27PF	27PF	2700

GEAR-TRAIN COUPLED

C8A C8B C8C C8D C9 27 PF

MOTOR C11 .05

GRN BLK RED WHT

SERVO CIRCUIT BOARD

4V P TO P

5V P TO P

*OR

5V P TO P

Q1 X29A826
Q2 X29A826
Q3 X29A826
Q4 2N5232/2N3391
Q5 X29A826
Q6 X29A826
Q7 2N5232/2N3391
Q8 2N2430
Q9 2N2431

R1 11M
R2 47
R3 3300
R4 22K
R5 4700
R6 4700
R7 1200
R8 2200
R9 8200
R11 4700
R12 47K
R13 47K
R14 2200
R15 47
R16 33
R17 820
R18 220
R19 2200
R21 10K
R22 22K

C1 1
C2 .001
C3 .05
C4 .05
C5 1
C6 .0033
C7 1

4.8V P TO P

1V P TO P

*OR

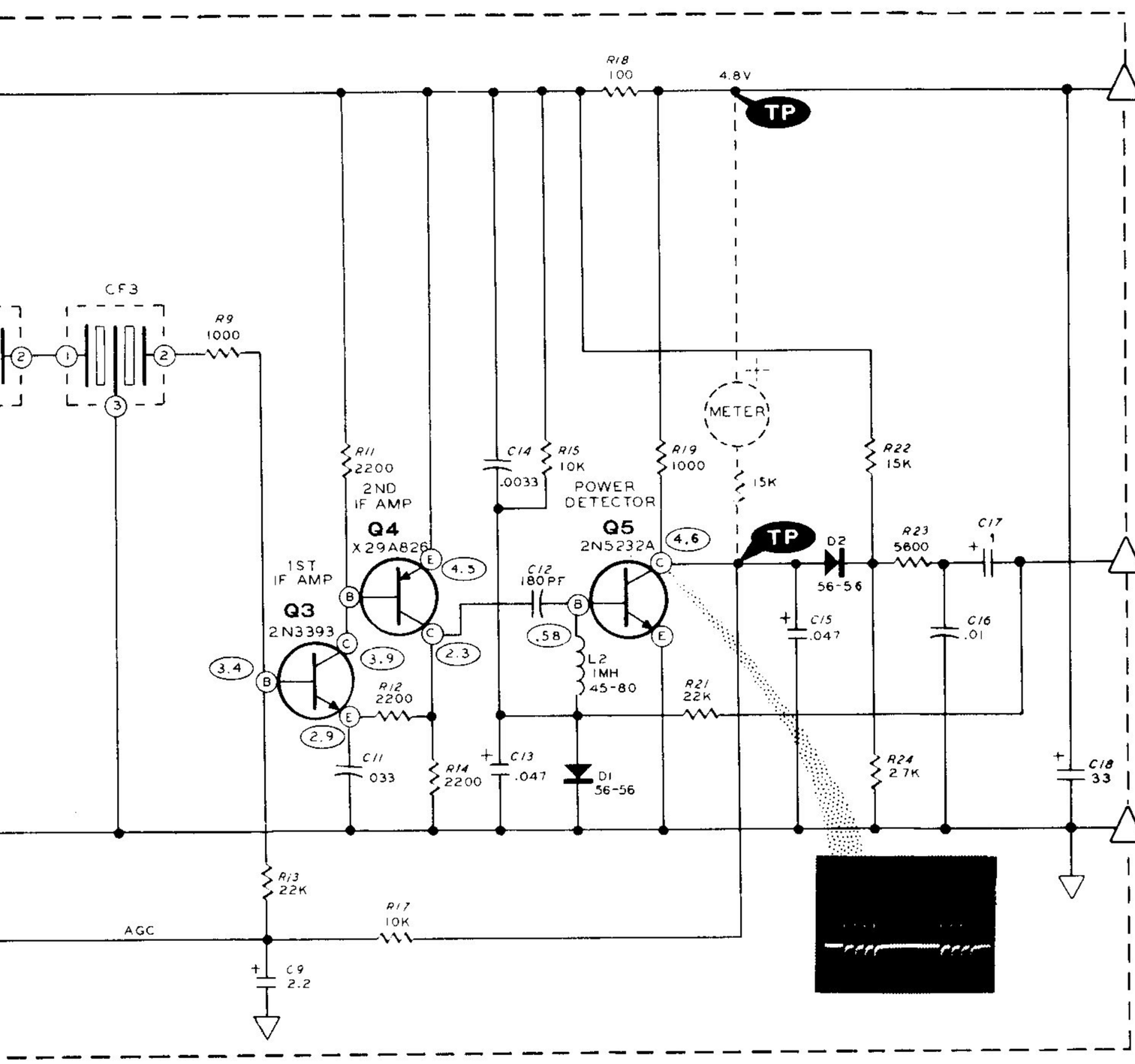
1V P TO P

MONOSTABLE MULTIVIBRATOR

PULSE STRETCHER

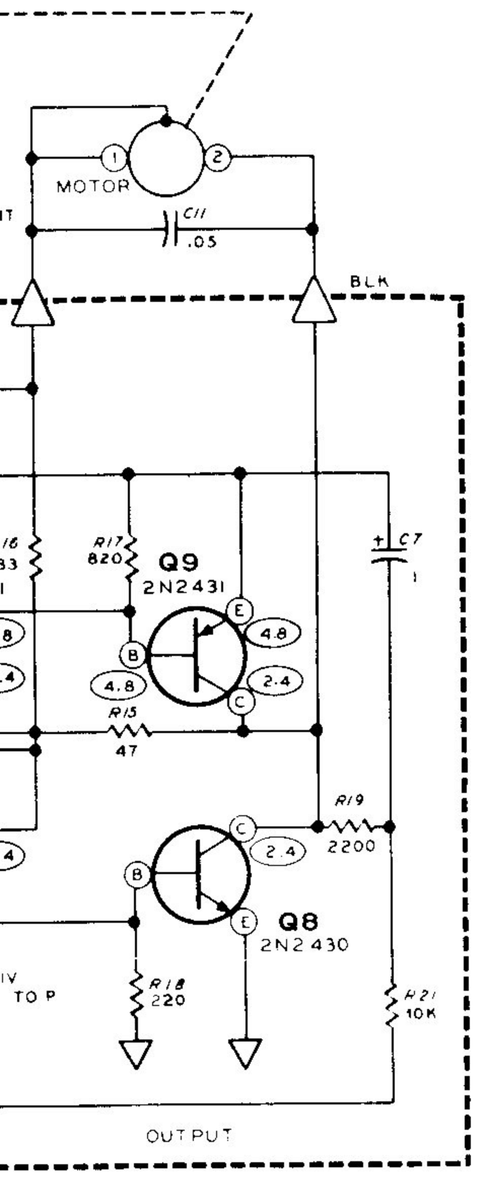
DRIVER

OUTPUT



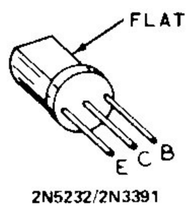
CRYSTAL FREQUENCY MHZ

	TRANSMITTER	RECEIVER
27 MHZ BAND	26.995	26.542
	27.045	26.592
	27.095	26.642
	27.145	26.692
	27.195	26.742
53 MHZ BAND	53.100	26.3235
	53.200	26.3735
	53.300	26.4235
	53.400	26.4735
	53.500	26.5235
72 MHZ BAND	36.040	36.2665
	36.120	36.3465
	36.200	36.4265
	36.480	36.7065
	37.820	37.5935

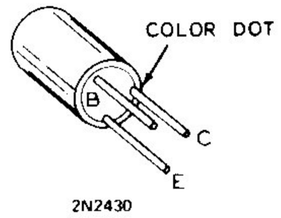


SCHEMATIC OF THE HEATHKIT DIGITAL PROPORTIONAL SERVO MODEL GDA-19-4

1. ALL RESISTORS ARE 1/4 WATT.
   RESISTOR VALUES ARE IN OHMS (K = 1,000, M = 1,000,000).
2. ALL CAPACITOR VALUES ARE IN μF UNLESS MARKED OTHERWISE.
3. ⬭ THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASUREMENT WITH NO SIGNAL BEING RECEIVED.
4. ALL VOLTAGES ARE MEASURED WITH A HIGH IMPEDANCE VOLTMETER, FROM THE POINT INDICATED TO COMMON GROUND. VOLTAGES MAY VARY ±20%.
5. REFER TO THE SERVO PHOTOGRAPHS AND CIRCUIT BOARD X-RAY VIEW FOR THE PHYSICAL LOCATION OF PARTS.
6. ✻ THESE WAVEFORMS SHOW THE DRIVE SIGNALS FOR BOTH DIRECTIONS.



2N5232/2N3391
X29A826



2N2430
2N2431

SCHEMATIC O
HEATHKIT
3-CHANNEL DIGITAL F
RECEIVER
MODEL GDA

IC OF THE
THKIT®
TAL PROPORTIONAL
EIVER
GDA-57-2

4.8V

4.2V P TO P

DRIVER

6V P TO P

R108 15K

R113 5600

R118 5600

R123 5600

Q104 X29A826

5.0 4.4 0.6 3.5

C105 .005

R107 4700

5.0 2.4

NC 103 3393

DIO1 56-56

0 0.5

ON 4.6 OFF 4.8

Q106 X29A826

Q105 2N3393

0 .36

ELECTRONIC SWITCH 1

R115 100K

DIO2 56-56

ON 4.6 OFF 4.8

Q108 X29A826

0 0.5

C106 .005

Q107 2N3393

0 .36

ELECTRONIC SWITCH 2

R119 100K

DIO3 56-56

ON 4.6 OFF 4.8

Q111 X29A826

0 .5

C107 .005

Q109 2N3393

0 .36

ELECTRONIC SWITCH 3

C104 .22

R109 4700

R111 47K

R112 3300

R114 1000

R116 3300

R117 1000

R121 3300

R122 1000

C108 .001

C109 .001

BRN ORG YEL BLK WHT RED

4.5V P TO P

3.2V P TO P

CHANNEL 1 CHANNEL 2 CHANNEL 3

4V P TO P

2.4V BATTERY 2.4V

RED WHT BLK

RED WHT BLK

ON OFF

RED BLK WHT WHT

1. RESISTOR AND CAPACITOR NUMBERS ARE IN THE FOLLOWING GROUPS:

   0-99 PARTS MOUNTED ON THE RECEIVER CIRCUIT BOARD.
   100-199 PARTS MOUNTED ON THE DECODER CIRCUIT BOARD.

2. ALL RESISTORS ARE 1/4 WATT UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (K = 1,000).

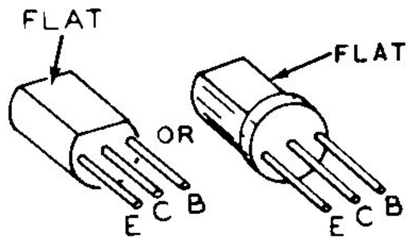
3. ALL CAPACITOR VALUES ARE IN µF UNLESS MARKED OTHERWISE.

4. ⬭ THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASUREMENT WITH NO SIGNAL BEING RECEIVED.

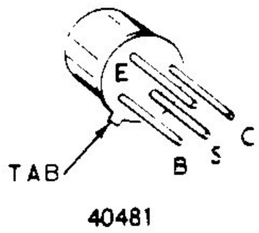
5. ▭ THIS SYMBOL INDICATES A POSITIVE DC VOLTAGE MEASUREMENT WITH SIGNAL BEING RECEIVED.

6. ALL VOLTAGES ARE MEASURED WITH A HIGH IMPEDANCE VOLTMETER, FROM THE POINT INDICATED TO COMMON GROUND. VOLTAGES MAY VARY ±20%.

7. REFER TO THE CIRCUIT BOARD X-RAY VIEWS FOR THE PHYSICAL LOCATION OF PARTS.



16G2349
2N3393
X29A826
2N5232A



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