have ruled out components." Scott's 382-C AM/FM stereo receiver also received "Best Buy" plaudits, as CONSUMER GUIDE stated it "possesses advanced engineering techniques that result in level of fail-safe performance."

DELUXE QUADRANT SPEAKER NOW READY

Just in time to tie in with increasing four-channel installations, our deluxe Quadrant Q-101 speaker system is now available for quantity shipment. The Q-101 features two 10" woofers, four 4¼" midranges, and four 3" tweeters, in a contemporary walnut air-suspension enclosure. Set to retail at $249.95 each, the Q-101 speaker systems are specifically designed for the "performance-above-all-else" audiophile. Continuous power handling capacity is 100 Watts, minimum amplifier power requirement is 10-12 Watts, and the frequency range is 35-20,000 Hz.

WANT A STATION? PICK A CARD!

Maynard, Mass. — Tuning in stations by the conventional knob-and-dial method may well become as outdated as crank-starting a car. . . that is, if Scott's new 433 tuner prototype is any indication of future trends.

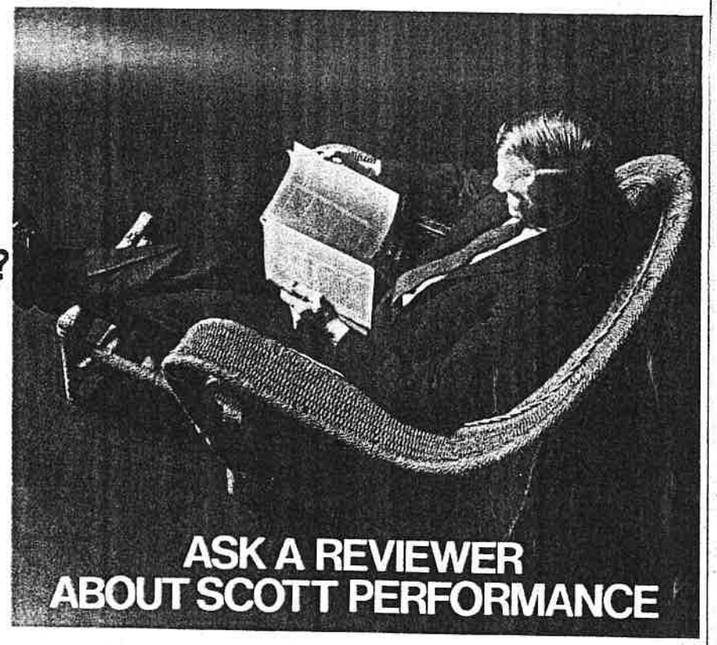
The new Scott 433 Digital Synthesizer FM stereo tuner offers the audiophile four methods by which he can select his favorite stations. Not one utilizes a knob. The first involves the use of programmed cards. The listener inserts a card for the desired station into a special card-programming slot in the unit's front panel. The other three selection modes, activated by pushbuttons, are: 1. Automatic Station Scanning; 2. Automatic Stereo Station Scanning; and 3. Manual Channel Selection. Visual frequency indication is provided, not by a conventional dial-and-pointer, but by a 100% accurate digital, readout incorporating cold cathode indicators, identical to those used in today's computer applications.

How can a tuner select stations without the conventional knob-operated tuning condenser? The "secret" lies in crystal control, a system used in military and aerospace communications equipment. The 433 tuner uses a quartz crystal as a reference standard to provide a discrete series of scanning steps from center channel to center channel on any one of the 100 channels available on the 88.1 to 107.9 MHz FM band. Essential to the operation of this frequency synthesizer system are a Phase-Locked Loop, a Digital Programmable Divider, an electronically tuned RF section, and an Error Correction system using the quartz crystal to provide drift-free 100% accurate tuning on every frequency.

The control panel of the 433 is unique in that it incorporates no knobs. Features include: Multipath and Signal Strength Meters; FM Digital Readout; FM Stereo and Perfectune Indicators; Channel Scan Speed Control; Scan Mode Selectors (Channel, Stereo, Station); Scan Switch; Power On/Off Switch; FM Interstation Muting Switch; Mono/Stereo Mode Switch; Filter Switch; Tape Output; Card Programming Input Slot; Card Storage Compartment.

In addition to the conventional rear panel features, the 433 includes a 4-channel multiplex output jack. . . anticipating future 4-channel broadcast developments.

Don't look for the 433 on your local audio dealer's shelves. According to Scott's marketing department, the 433 is at present a developmental prototype. This means that it may be produced sometime in the future, or, more likely, it will serve as the inspiration for a whole new line of advanced Scott products.



ASK A REVIEWER ABOUT SCOTT PERFORMANCE

Hirsch-Houck Laboratories put the Scott 382-C 110-Watt AM/FM stereo receiver through its paces for a review in a recent issue of ELECTRONICS WORLD. In Hirsch-Houck's own words, here's how the Scott measured up:

" . . . the Perfectune FM tuning indicator . . . is far easier to use and more accurate than a zero-center tuning meter."

"AM . . . has a clean, undistorted sound . . . easy to listen to."

"The unit proved to be very sensitive, to no one's surprise."

"The FM tuner has an IHF usable sensitivity of 1.8 microvolts, with full limiting at 3 microvolts — one of the steepest limiting curves we have measured to date."

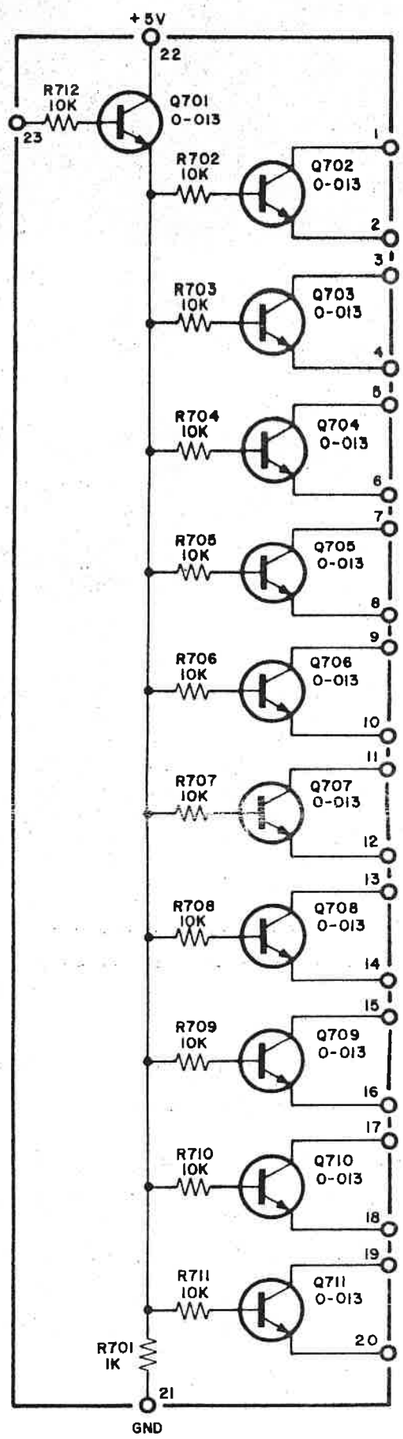
Make your own review . . . listen to the modestly priced Scott 382-C at your dealer's. For complete information on Scott stereo components, write:

H.H. SCOTT®

H. H. Scott, Inc., Dept. 1012 Maynard, Mass. 01754
Export: Scott International, Maynard, Mass. 01754

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IN OHMS ± 10% 1/4 WATT
2. ALL TRANSISTORS ARE SHOWN BY THE LAST FOUR DIGITS OF A TEN DIGIT PART NO.
   PREFIX IS 020-111-____
3. HIGHEST SERIES NUMBERS ARE; R712 & Q711



ELECTRONIC SWITCHING
100-1357-001

P.C. BOARD
019-1107-121

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS ± 1/64
DECIMALS ± .005
ANGLES ± 1/2°

DRAFT. [illegible] 9-24-71
CH.
ENG.
PROD.
MATERIAL:
FINISH:

APPROVED FOR PRODUCTION
APPROVED ONLY FOR
PILOT
SAMPLE
QUOTE

H.H.SCOTT, INC.
MAYNARD, MASS.

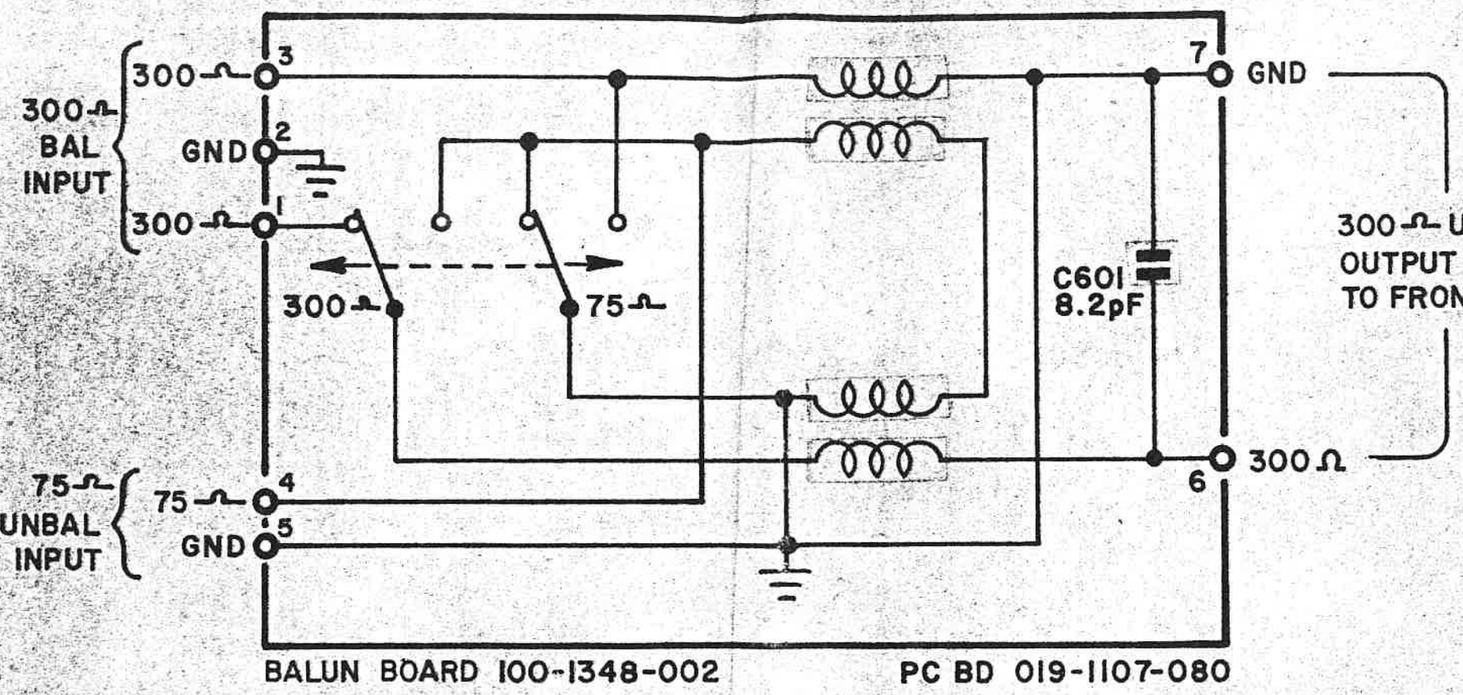
ELECTRONIC SWITCHING

SCALE: -+-
DWG. NO. 100-1357-001
REV. C
SHEET 1 OF 1
DATE 9-22-71
REV. 0

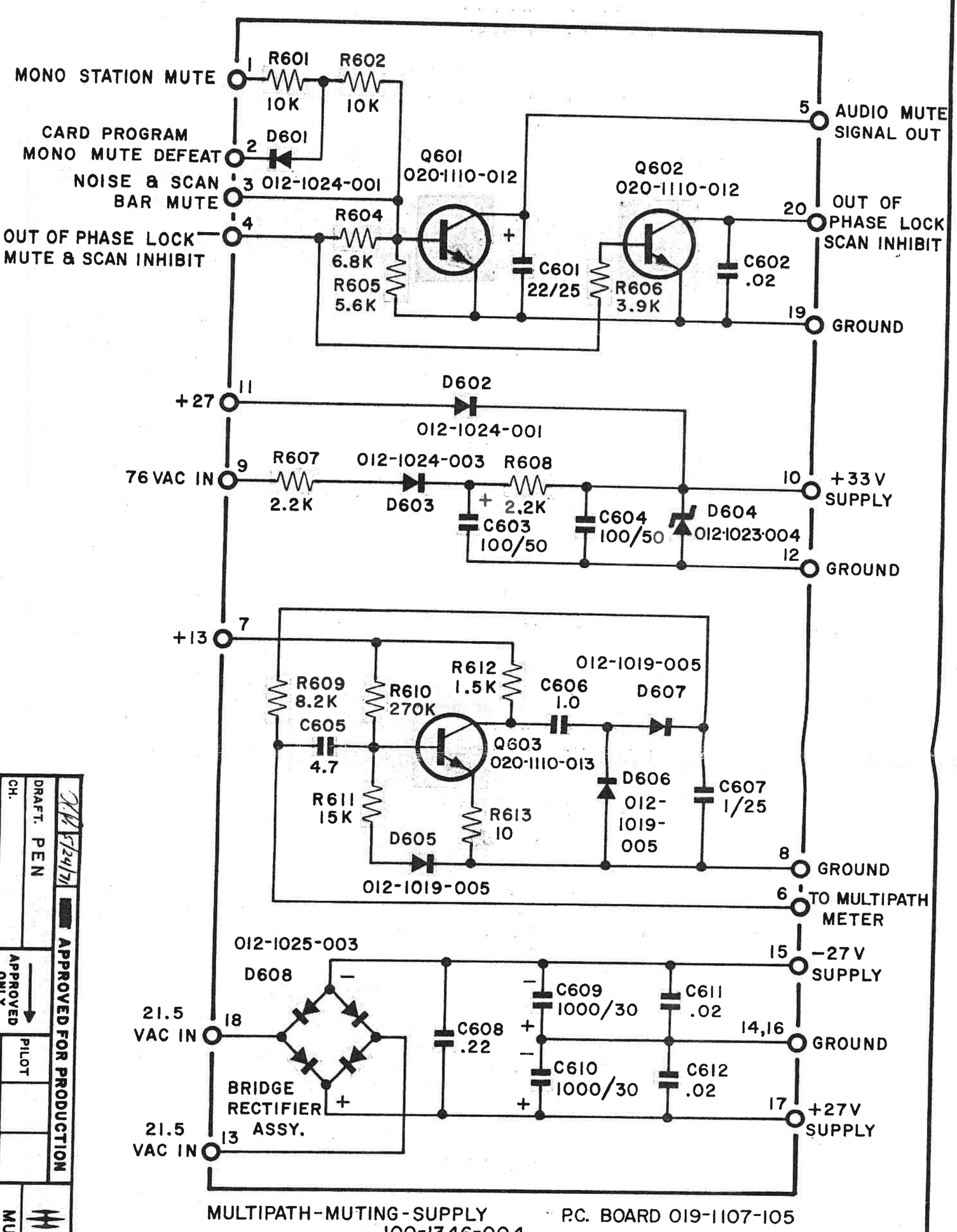
REVISIONS

ITR	DESCRIPTION	DATE	APPR.

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.
1	ECO 3530	11-25-70	



H.H.SCOTT, INC. MAYNARD, MASS.		
BALUN BOARD		
SIZE A	DWG. NO. 100-1348-002	REV. 1
ENG. DR	SHEET 1 OF 1	DATE 5/8/69



MULTIPATH-MUTING-SUPPLY
100-1346-004

P.C. BOARD 019-1107-105

DRAFT. PEN	APPROVED FOR PRODUCTION		
SHEET 1 OF 1	CH.	APPROVED ONLY FOR	PILOT
			DATE 5-4-71

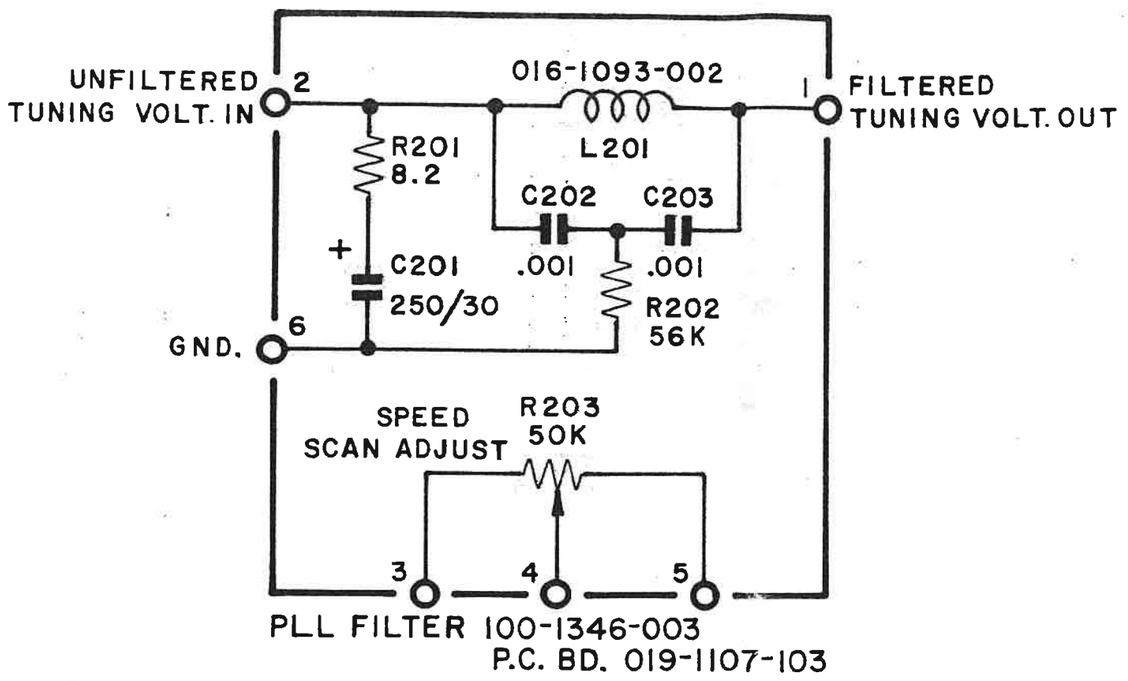
H.H. SCOTT, INC.
MAYNARD, MASS.

MULTIPATH-MUTING-SUPPLY

SIZE B | DWG. NO. 100-1346-004 | REV. 1

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.
1	ECO 3659 R4	6-1-71	

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.



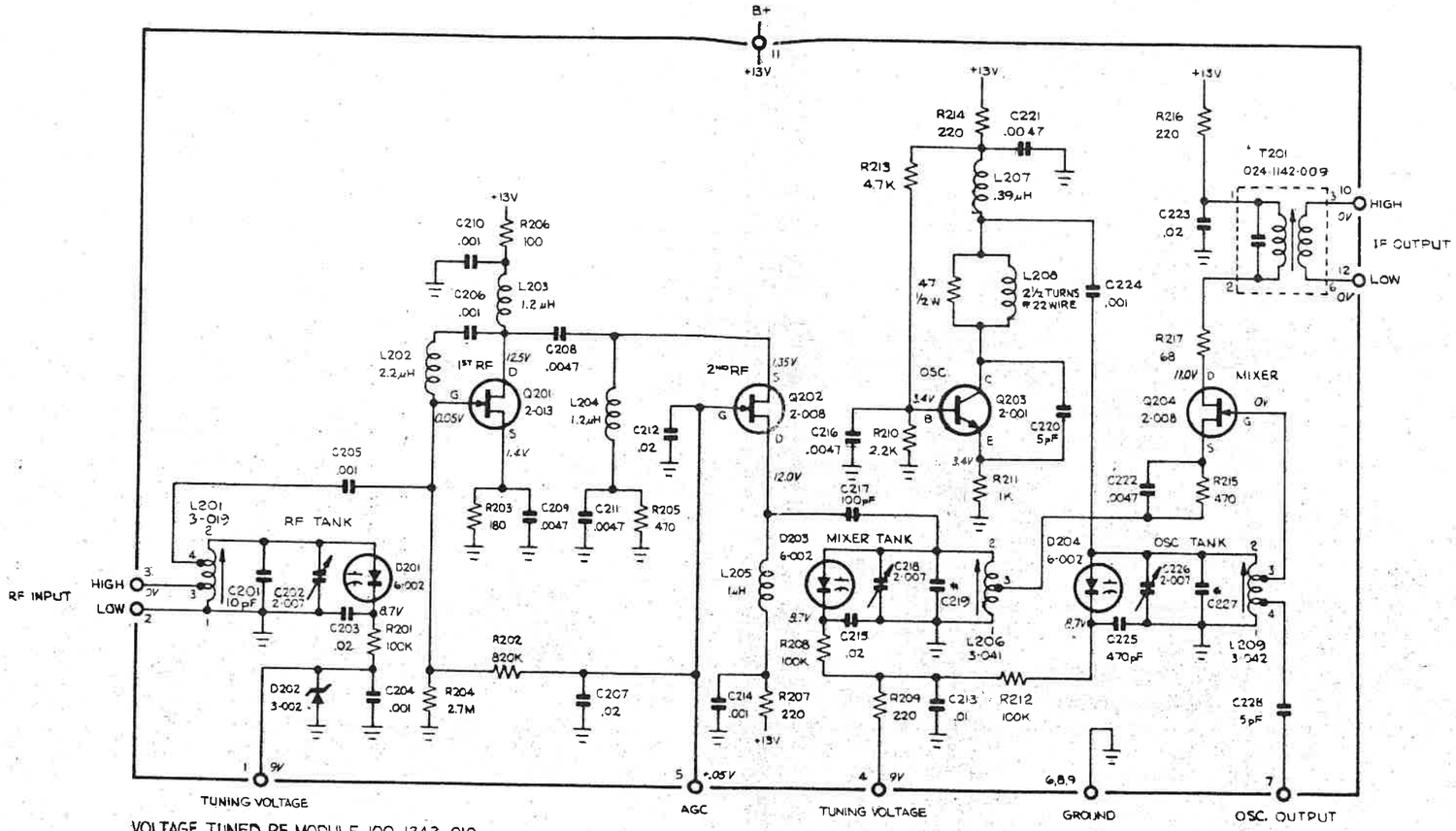
PLL FILTER 100-1346-003
P.C. BD. 019-1107-103

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S.
2. HIGHEST SERIES NUMBERS ARE; L201, C203, R203,

5/21/71 APPROVED FOR PRODUCTION			H.H.SCOTT, INC. MAYNARD, MASS.	
DRAFT. PEN	APPROVED ONLY FOR	PILOT	PLL FILTER	
CH.				
SHEET 1 OF 1		DATE 5-19-71	SIZE B	DWG. NO. 100-1346-003 REV. 0

1	ECO [illegible]	7-1-71	
2	ECO 3752	7-19-71	



VOLTAGE TUNED RF MODULE 100-1343-010

PC BOARD 019-1107-095

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% ¼ WATT, CAPACITANCE IN MFD'S.
2. ALL DC VOLTAGES ±15%, MEASURED WITH RESPECT TO CHASSIS GROUND, USING V.T.V.M. AT 117V AC LINE, AND UNIT TUNED TO 107.9, NO SIGNAL.
3. PIN 1 ON L201, L206 & L209 IS START OF WINDING.
4. HIGHEST SERIES NUMBERS ARE: R217, C228, D204, Q204, L209, T201.

* USED SELECTIVELY.

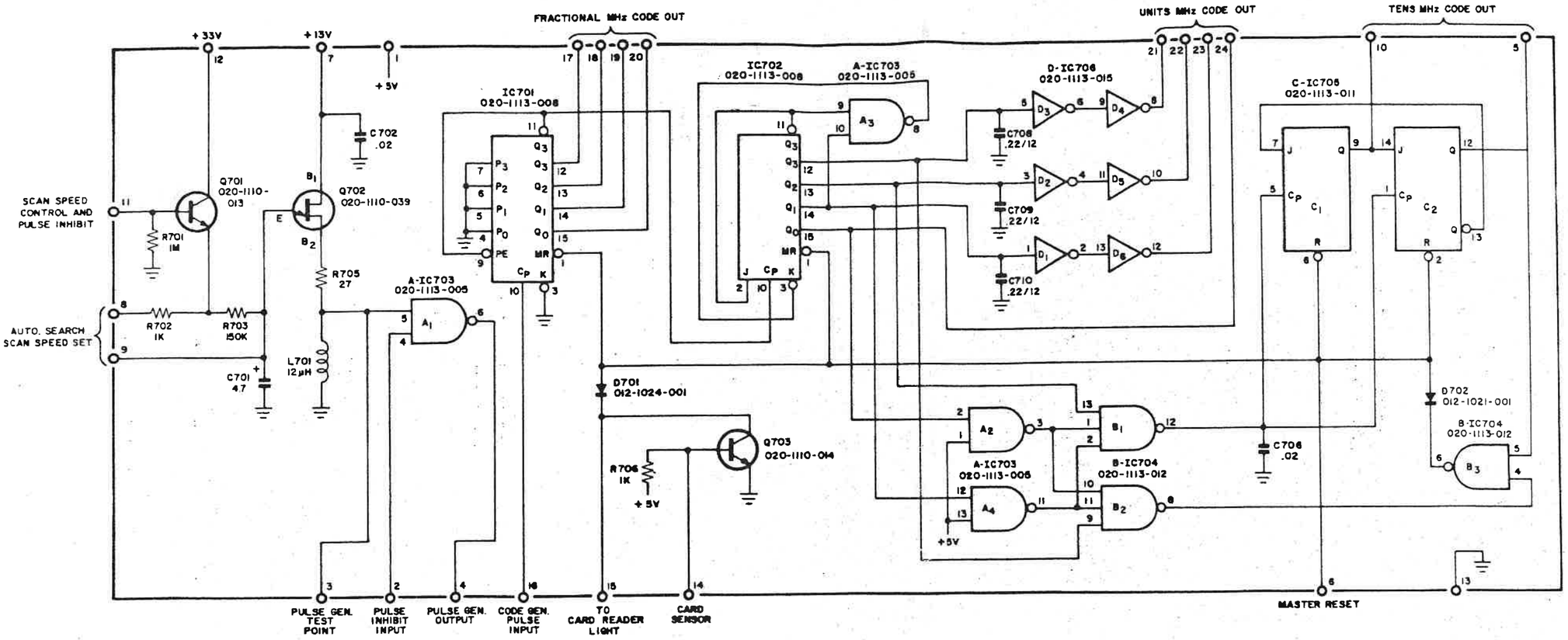
7-19-71	APPROVED FOR PRODUCTION		
DRAFT			
CH	APPROVED ONLY FOR		
SHEET 1 OF 1		DATE 8 AUG 71	

RUSSELL INC.

VOLTAGE TUNED RF MODULE CIRCUIT

100-1343-010

REV. K

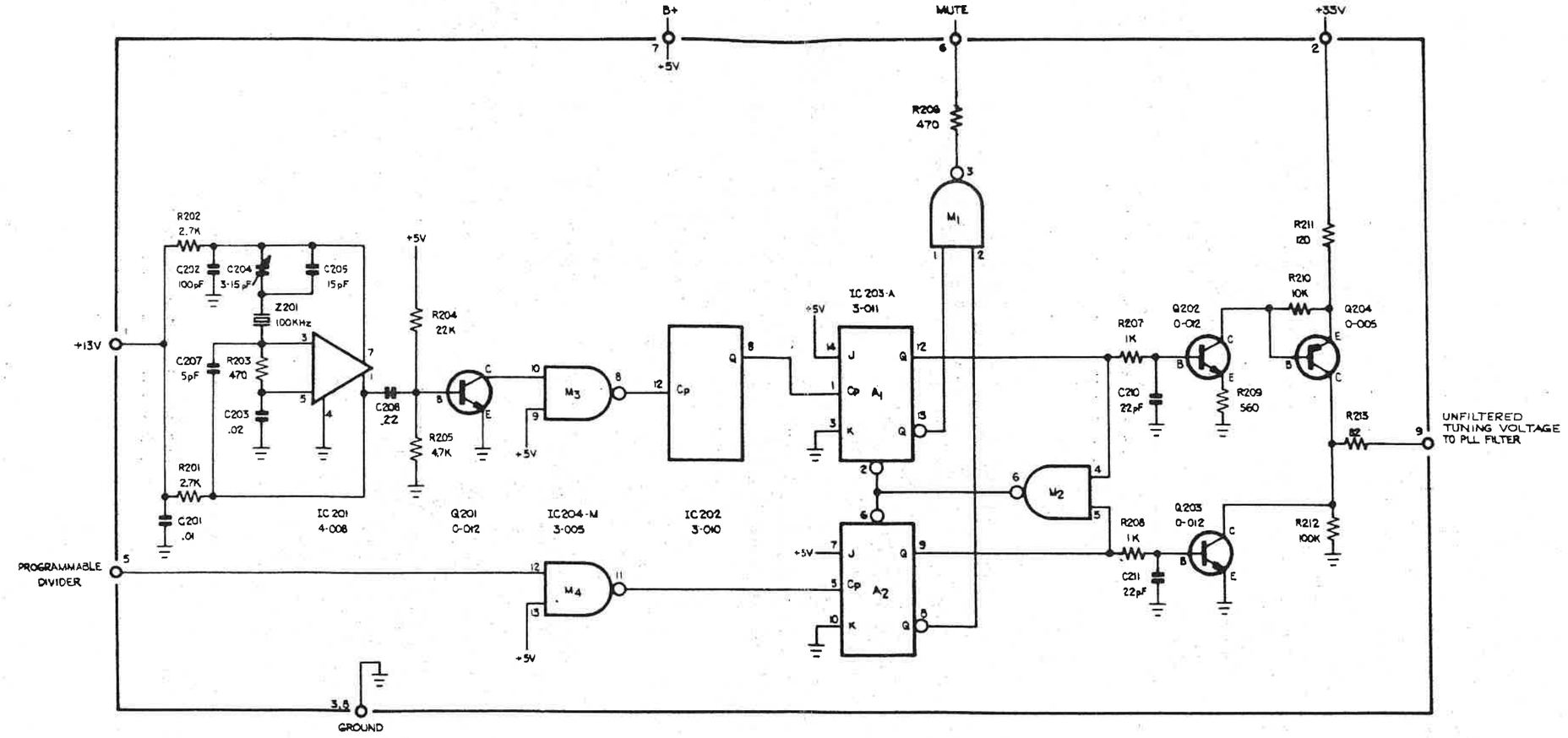


SEQUENTIAL CODE GENERATOR 100-1356-004

P.C. BOARD 019-1107-092

NOTES

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S
2. BYPASS CAPACITORS NOT SHOWN IN DIAGRAM +5V ⊣⊢ GND, .22μF C703, C704, C708 & C707
3. IC703, IC704 & IC706 VCC PIN 14, GND PIN 7
   IC705 VCC PIN 4, GND PIN 11
   IC701 & IC702 VCC PIN 16, GND PIN 8
4. HIGHEST SERIES NUMBERS ARE; IC706, R706, C710, L701, D702 & Q703
5. COMPONENTS DELETED ARE; R704
6. IC706 H.H.S P/N 020-1113-015 MAY PHYSICALLY APPEAR ON A SEPARATE BOARD IN UNITS WITH SERIAL NUMBER 654276 OR LOWER



PHASE-FREQUENCY COMPARATOR 100-1356-002

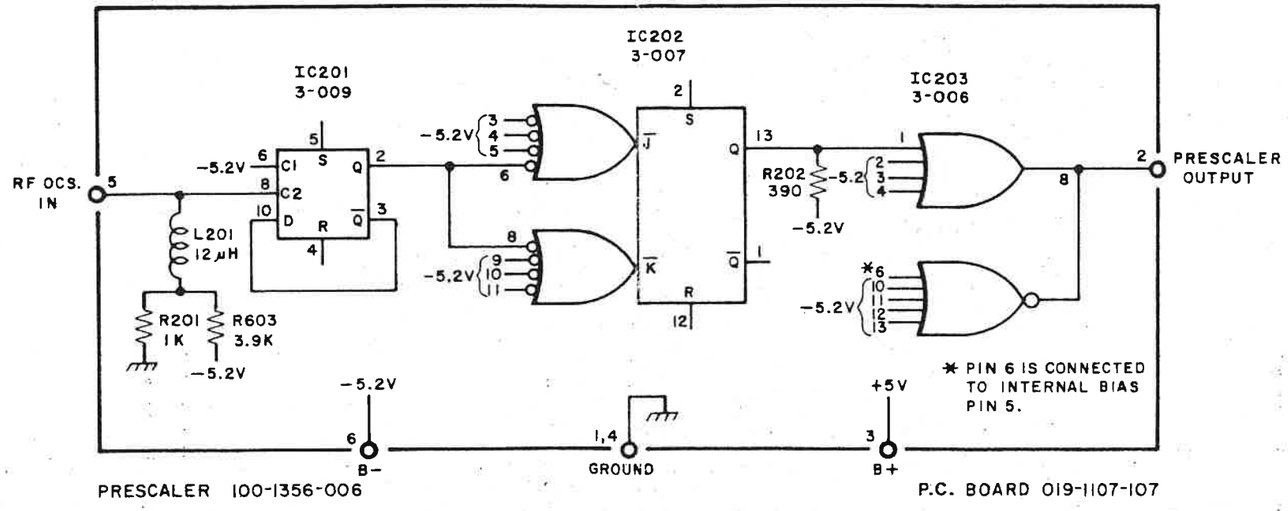
PC BOARD 019-1107-101

NOTES:

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ±10% ½ WATT; CAPACITANCE IN MFD'S.
2. ALL IC & Q PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBERS. THE PREFIX FOR BOTH IS 020-111-____.
3. HIGHEST SERIES NUMBERS ARE: IC204, Q204, Z201, R213, C211.
4. IC202, IC204: VCC PIN 14, GND. PIN 7.
   IC203: VCC PIN 11, GND. PIN 4.
5. COMPONENTS DELETED: C206, C209.

APPROVED FOR PRODUCTION		H.H.SCOTT, INC. MAYNARD, MASS.	
DRAFT D.R.	APPROVED EXCEPT FOR	PILOT	PHASE-FREQUENCY COMPARATOR CIRCUIT
CHK. AC			SIZE D DWG. NO. 100-1356-002
SHEET 1 OF 1		DATE 4.12.71.	

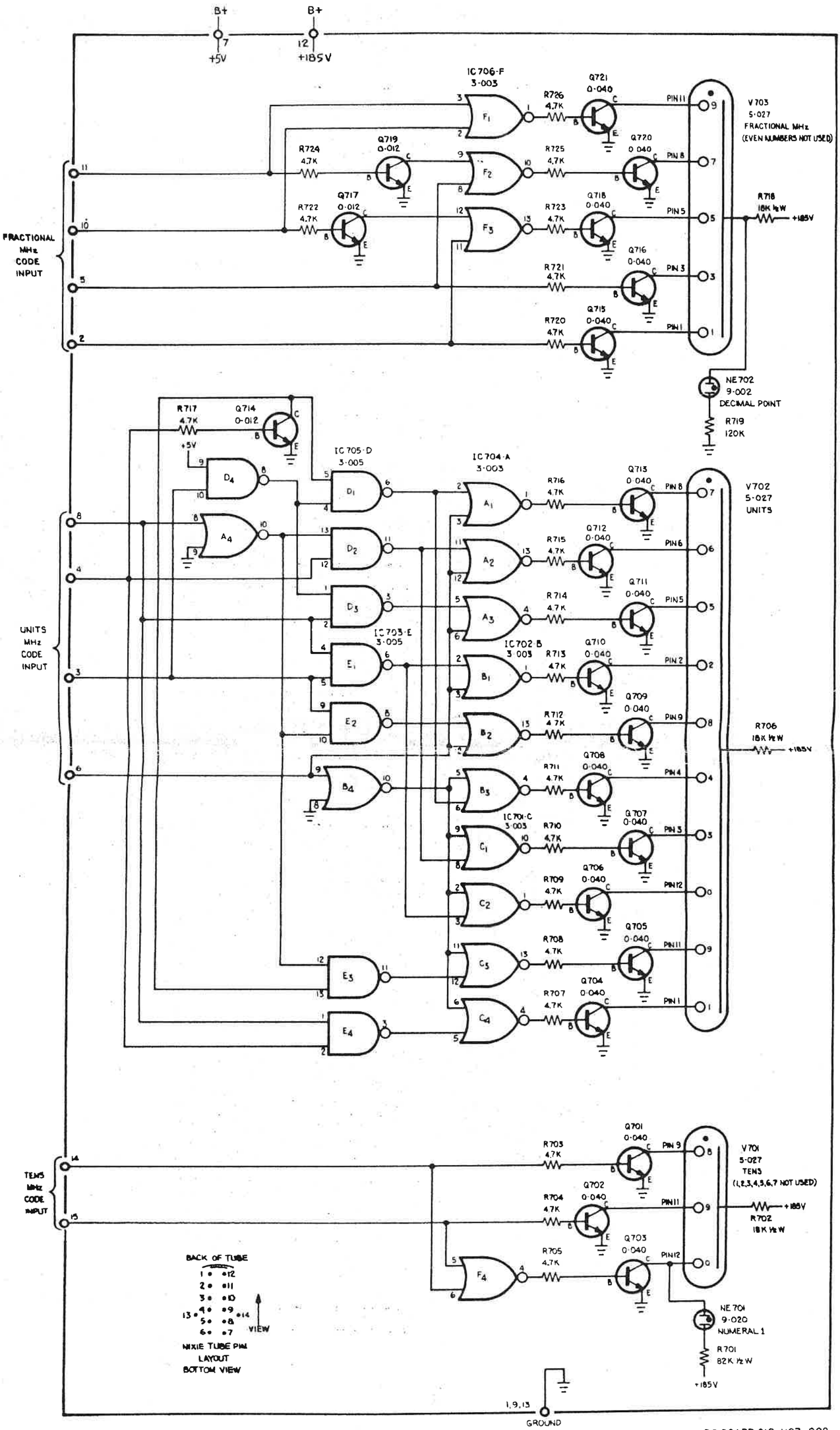
REVISIONS			
SYM	DESCRIPTION	DATE	APPR.



NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10%, 1/4 WATT, CAPACITANCE IN MFD'S.
2. BYPASS CAPACITORS NOT SHOWN IN CIRCUIT DIAGRAM = +5V —— ——GND., .02 MFD., C202; −5.2V —— ——GND., .001 MFD., C201.
3. IC201; VEE PIN 7, GND. PIN 1 & 14.
   IC202; VEE PIN 7, GND. PIN 14.
   IC203; VEE PIN 7, VCC PIN 9, GND PIN 14.
4. ALL IC PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBER. THE PREFIX IS 020-111
5. HIGHEST SERIES NUMBERS ARE; IC203, L201, C202, R203,

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± ½°	QF 6/2/71 APPROVED FOR PRODUCTION DRAFT. PEN CH. ENG. PROD. MATERIAL: FINISH:	APPROVED ONLY FOR → PILOT / SAMPLE / QUOTE	H.H.SCOTT, INC. MAYNARD, MASS. PRESCALER CIRCUIT C DWG. NO. 100-1356-006 REV. 0 SCALE: —— SHEET 1 OF 1 DATE 5-20-71



DECODER AND DISPLAY 100-1356-005

PC BOARD 019-1107-098

NOTES:

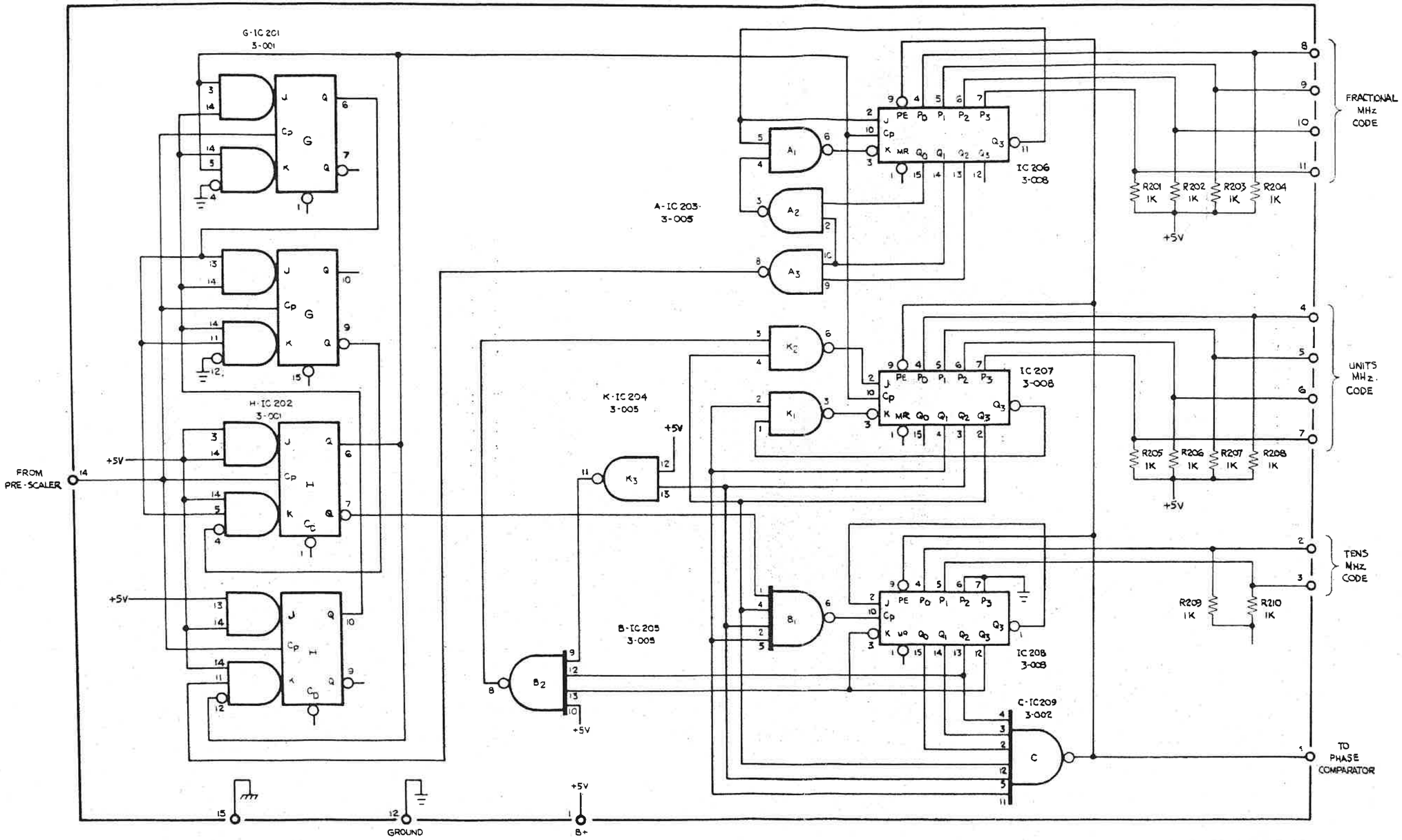
1. UNLESS OTHERWISE SPECIFIED RESISTANCE IN OHMS ±10%, ¼ WATT, CAPACITANCE IN MFD'S
2. ALL IC, Q, NE & V PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBERS. PREFIXES ARE, IC # Q - 020-111 - - - ; NE - 030-118 - - ; V - 025-114 - - - .
3. HIGHEST SERIES NUMBERS ARE : IC 706, Q 721, V 703, NE 702, R 726.

APPROVED FOR PRODUCTION

H H SCOTT, INC.
MAYNARD MASS.

DECODER AND DISPLAY CIRCUIT

100-1356-005



PROGRAMMABLE DIVIDER 100-1356-001

PC BOARD 019-1107-100

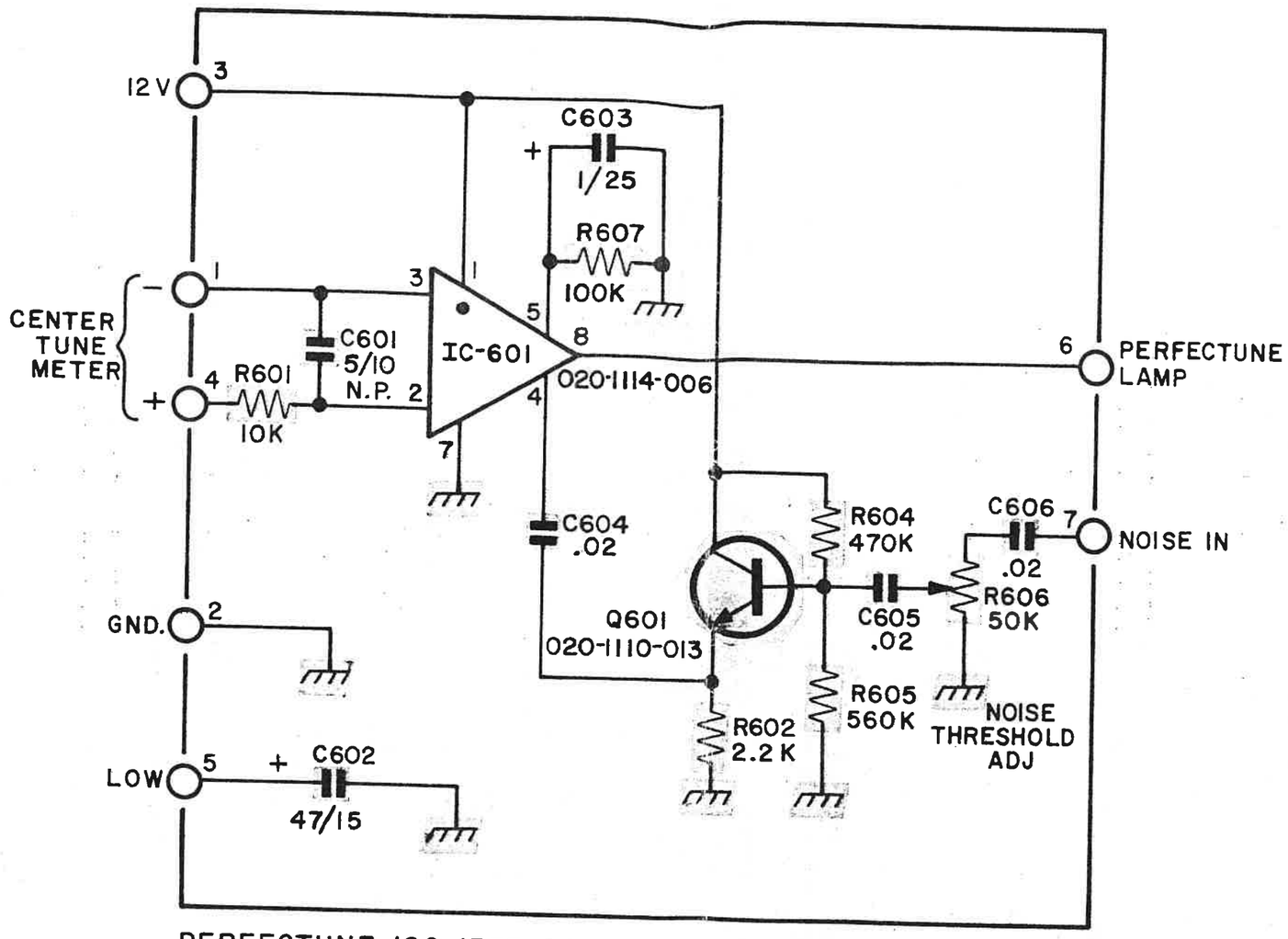
NOTES

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ±10%, ¼ WATT; CAPACITANCE IN MFD'S
2. BYPASS CAPACITORS NOT SHOWN IN CIRCUIT DIAGRAM = +5V —||— GND., .02 MFD., C201 THRU C205.
3. IC 201, IC 202, IC 206, IC 207, IC 208: VCC PIN 16, GND. PIN 8.
   IC 203, IC 204, IC 205, IC 209: VCC PIN 14, GND. PIN 7.
4. ALL IC PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBER. THE PREFIX IS 020-111_-_-_-.
5. HIGHEST SERIES NUMBERS ARE: IC 209; R210; C205.

APPROVED FOR PRODUCTION

100-1356-001

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.

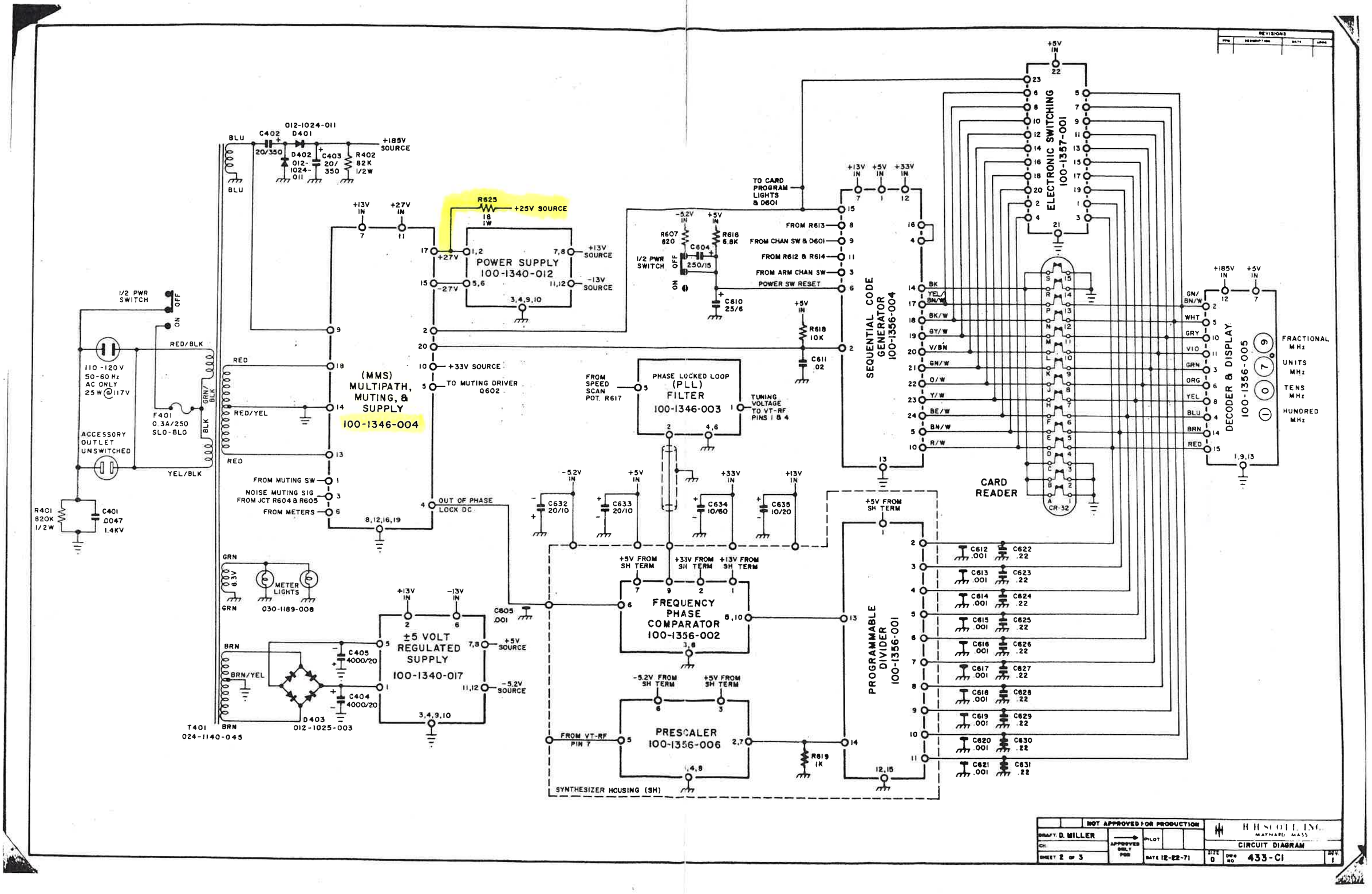


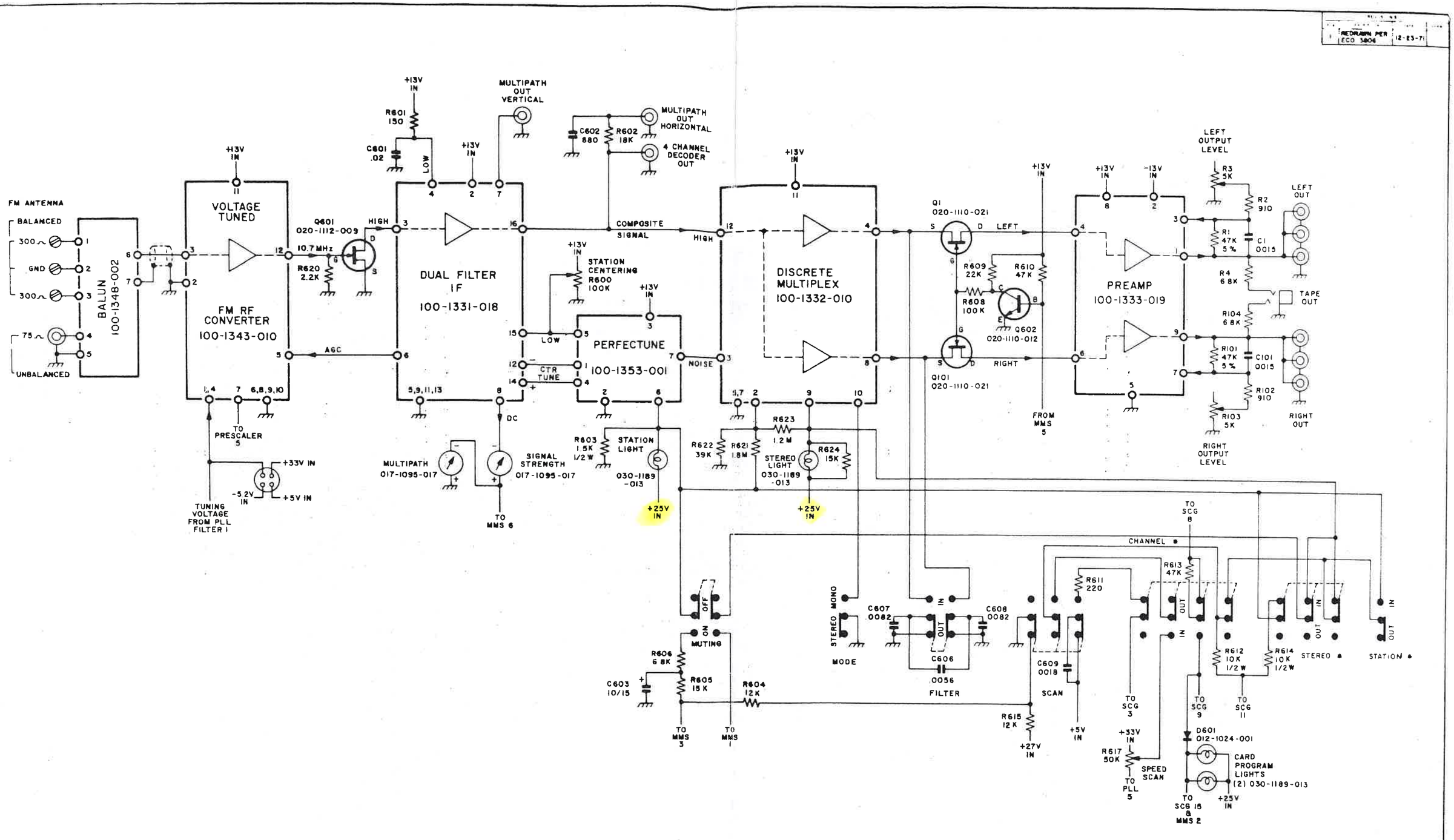
PERFECTUNE 100-1353-001 PC BD 019-1107-093

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S.
2. HIGHEST SERIES NUMBERS ARE; IC601, Q601, R607, C606.
3. COMPONENTS DELETED ARE: R603,

A.P. 5/24/71 APPROVED FOR PRODUCTION			H.H.SCOTT, INC. MAYNARD, MASS.
DRAFT. PEN	APPROVED ONLY FOR	PILOT	PERFECTUNE CIRCUIT
CH. uc			
SHEET 1 OF 1		DATE 4-8-70	SIZE B / DWG. NO. 100-1353-001 / REV. 0


012-1024-011
C402 20/350
D401
D402 012-1024-011
C403 20/350
R402 82K 1/2W
+185V SOURCE
BLU
R625 18 1W
+25V SOURCE
+13V IN
+27V IN
POWER SUPPLY 100-1340-012
+13V SOURCE
-13V SOURCE
3,4,9,10
R607 820
C604 250/15
R616 6.8K
-5.2V IN
+5V IN
1/2 PWR SWITCH
OFF
ON
C610 25/6
TO CARD PROGRAM LIGHTS & D601
FROM R613
FROM CHAN SW & D601
FROM R612 & R614
FROM ARM CHAN SW
POWER SW RESET
+13V IN
+5V IN
+33V IN
SEQUENTIAL CODE GENERATOR 100-1356-004
ELECTRONIC SWITCHING 100-1357-001
+5V IN
R618 10K
C611 .02
1/2 PWR SWITCH
ON OFF
110-120 V 50-60 Hz AC ONLY 25 W @ 117 V
ACCESSORY OUTLET UNSWITCHED
RED/BLK
GRN/BLK
BLK
YEL/BLK
F401 0.3A/250 SLO-BLO
R401 820K 1/2W
C401 .0047 1.4KV
(MMS) MULTIPATH, MUTING, & SUPPLY 100-1346-004
RED
RED/YEL
RED
FROM MUTING SW
NOISE MUTING SIG FROM JCT R604 & R605
FROM METERS
8,12,16,19
+33V SOURCE
TO MUTING DRIVER Q602
OUT OF PHASE LOCK DC
FROM SPEED SCAN POT. R617
PHASE LOCKED LOOP (PLL) FILTER 100-1346-003
TUNING VOLTAGE TO VT-RF PINS 1 & 4
CARD READER
CR-32
DECODER & DISPLAY 100-1356-005
GN/BN/W
WHT
GRY
VIO
GRN
ORG
YEL
BLU
BRN
RED
1,9,13
FRACTIONAL MHz
UNITS MHz
TENS MHz
HUNDRED MHz
C632 20/10
C633 20/10
C634 10/60
C635 10/20
-5.2V IN
+5V IN
+33V IN
+13V IN
GRN
6.3V
METER LIGHTS
030-1189-008
+5V FROM SH TERM
+33V FROM SH TERM
+13V FROM SH TERM
FREQUENCY PHASE COMPARATOR 100-1356-002
C605 .001
±5 VOLT REGULATED SUPPLY 100-1340-017
+5V SOURCE
-5.2V SOURCE
C405 4000/20
C404 4000/20
BRN
BRN/YEL
T401 024-1140-045
D403 012-1025-003
-5.2V FROM SH TERM
+5V FROM SH TERM
PRESCALER 100-1356-006
FROM VT-RF PIN 7
R619 1K
PROGRAMMABLE DIVIDER 100-1356-001
C612 .001
C622 .22
C613 .001
C623 .22
C614 .001
C624 .22
C615 .001
C625 .22
C616 .001
C626 .22
C617 .001
C627 .22
C618 .001
C628 .22
C619 .001
C629 .22
C620 .001
C630 .22
C621 .001
C631 .22
SYNTHESIZER HOUSING (SH)
REVISIONS
NOT APPROVED FOR PRODUCTION
DRAFT D. MILLER
CH
SHEET 2 OF 3
APPROVED ONLY FOR
PILOT
DATE 12-22-71
B H SCOTT, INC.
MAYNARD, MASS
CIRCUIT DIAGRAM
SIZE D
DWG NO 433-CI
REV 1

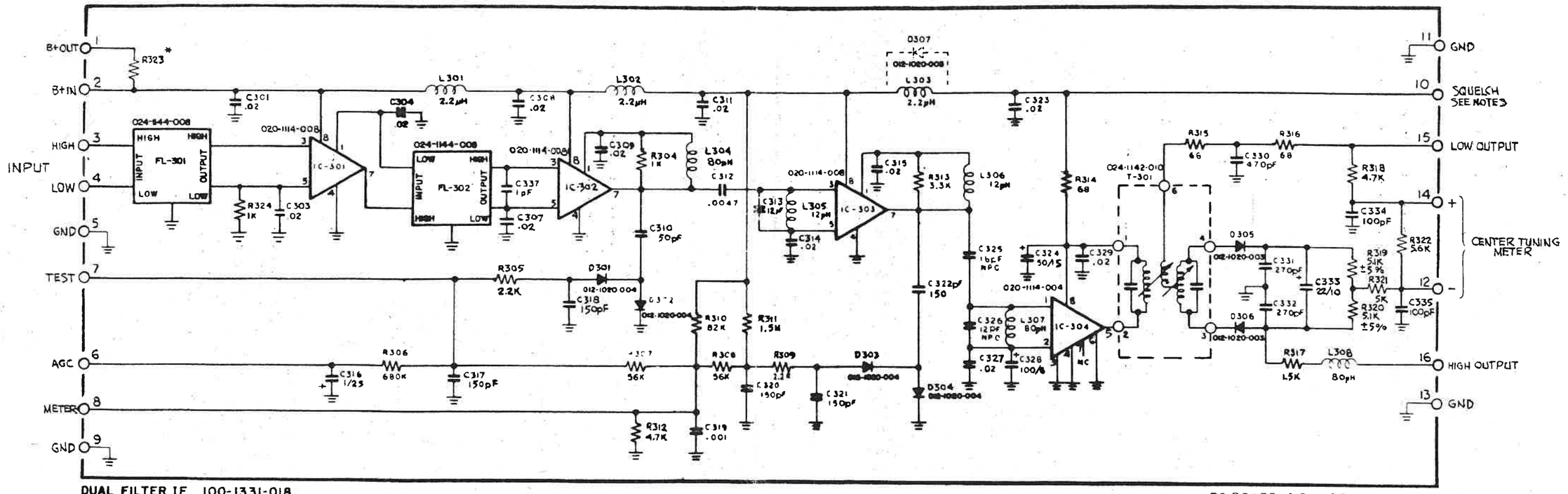

REDRAWN PER ECO 3806 12-23-71
FM ANTENNA
BALANCED
300Ω
GND
300Ω
75Ω
UNBALANCED
BALUN 100-1348-002
+13V IN
VOLTAGE TUNED
FM RF CONVERTER 100-1343-010
Q601 020-1112-009
10.7 MHz
R620 2.2K
AGC
TO PRESCALER 5
TUNING VOLTAGE FROM PLL FILTER 1
+33V IN
-5.2V IN
+5V IN
R601 150
C601 .02
LOW
HIGH
MULTIPATH OUT VERTICAL
DUAL FILTER IF 100-1331-018
DC
MULTIPATH 017-1095-017
SIGNAL STRENGTH 017-1095-017
TO MMS 6
C602 680
R602 18K
MULTIPATH OUT HORIZONTAL
4 CHANNEL DECODER OUT
COMPOSITE SIGNAL
STATION CENTERING R600 100K
CTR TUNE
PERFECTUNE 100-1353-001
NOISE
R603 1.5K 1/2W
STATION LIGHT
030-1189-013
+25V IN
DISCRETE MULTIPLEX 100-1332-010
R622 39K
R621 1.8M
R623 1.2M
STEREO LIGHT 030-1189-013
R624 15K
Q1 020-1110-021
LEFT
R609 22K
R610 47K
R608 100K
Q602 020-1110-012
Q101 020-1110-021
RIGHT
FROM MMS 5
PREAMP 100-1333-019
LEFT OUTPUT LEVEL
R3 5K
R2 910
R1 47K 5%
C1 0015
R4 6.8K
TAPE OUT
LEFT OUT
R104 6.8K
R101 47K 5%
C101 0015
R102 910
R103 5K
RIGHT OUTPUT LEVEL
RIGHT OUT
MUTING
OFF
ON
R606 6.8K
C603 10/15
R605 15K
R604 12K
TO MMS 3
TO MMS 1
STEREO MONO
MODE
C607 0082
C606 .0056
FILTER
C608 0082
R611 220
C609 0018
SCAN
R615 12K
+27V IN
+5V IN
CHANNEL B
TO SCG 8
R613 47K
R612 10K 1/2W
R614 10K 1/2W
STEREO B
STATION B
TO SCG 3
TO SCG 9
TO SCG 11
+33V IN
R617 50K
SPEED SCAN
TO PLL 5
D601 012-1024-001
CARD PROGRAM LIGHTS (2) 030-1189-013
TO SCG 15 & MMS 2
NOT APPROVED FOR PRODUCTION
DRAFT D. MILLER
CH
SHEET 1 OF 3
APPROVED ONLY FOR
PILOT
DATE 11-18-71
H H SCOTT, INC. MAYNARD MASS
CIRCUIT DIAGRAM
SIZE D
DWG NO 433-C1
REV 1

REVISIONS			
SYM	DESCRIPTION	DATE	APPR
1	ECO 3659	4-27-71	

CIRCUIT OF 020-1114-008 TO BE PRINTED IN THIS AREA WHEN IF CIRCUIT APPEARS IN THE SERVICE MANUAL SEE 020-1114-008

CIRCUIT OF 020-1114-004 TO BE PRINTED IN THIS AREA WHEN IF CIRCUIT APPEARS IN THE SERVICE MANUAL SEE 020-1114-004

CIRCUIT OF 024-1144-001 TO BE PRINTED IN THIS AREA WHEN FILTER CRYSTAL CIRCUIT APPEARS IN THE SERVICE MANUAL SEE 024-1144-001



DUAL FILTER IF 100-1331-018

PC BOARD 019-1107-081

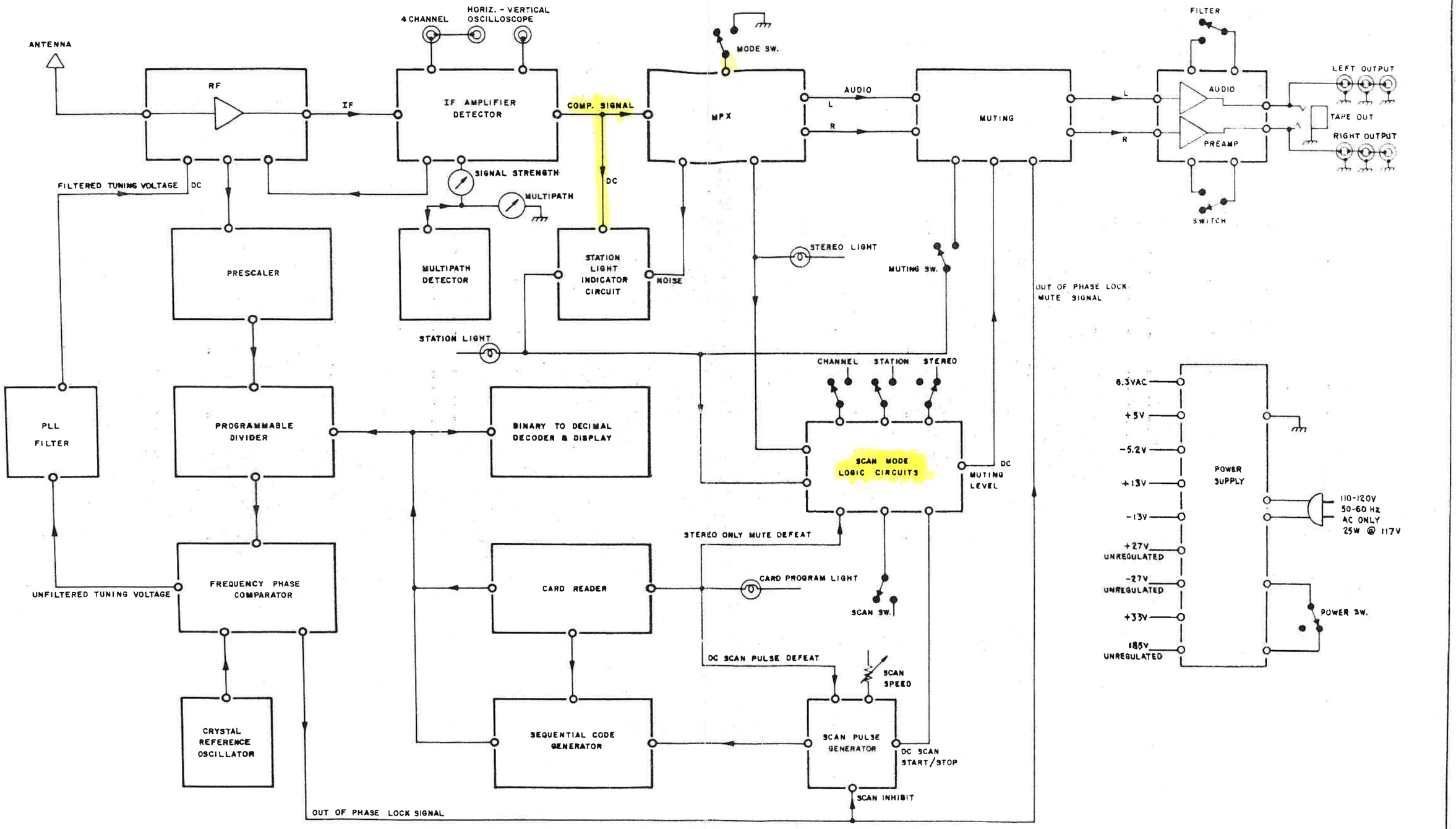
NOTES

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MICROFARADS
2. HIGHEST SERIES R324, C337, D307, L308, IC-304, T-301, FL-302.
3. USE D307 IN PLACE OF L303 FOR SQUELCH, PIN 10
4. * USE RESISTOR R323 WHEN SUPPLYING FRONT END FROM B+.
5. COMPONENTS DELETED, R301, R302, R303, C302, C305, C306, C336.

CIRCUIT OF 6-POLE FILTER TO BE PRINTED IN THIS AREA WHEN IF CIRCUIT APPEARS IN THE SERVICE MANUAL SEE 024-1144-008.

REFER TO COMPONENT LABEL 019-1107-081/A

H.H. SCOTT INC	
DUAL FILTER IF	
100-1331-018	REV 1



PEN

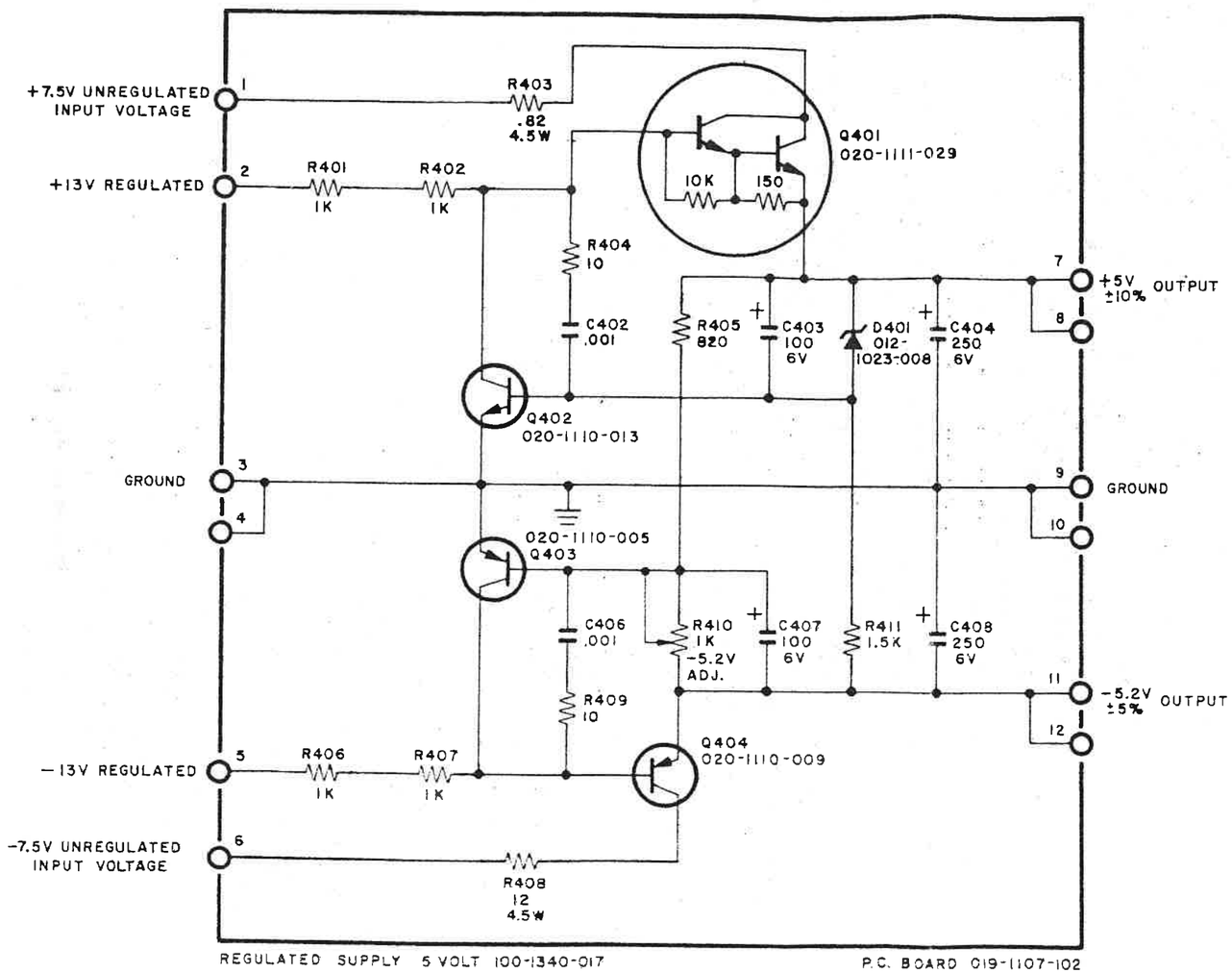
NOT APPROVED FOR PRODUCTION

6 8 71

455 BLOCK DIAGRAM

D 455 C1

LTR	DESCRIPTION	DATE	APP'D
1	ECO 3659 Rev	6-1-71	
2	ECO 3726 Rev	7-3-71	



REGULATED SUPPLY 5 VOLT 100-1340-017 P.C. BOARD 019-1107-102

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTANCE IN OHMS ±10%, CAPACITANCE IN MFD'S, RESISTORS 1/4 WATT, AND VOLTS ARE D.C. ±5% MEASURED WITH 20KΩ/VOLT V.O.M
2. HIGHEST SERIES NUMBERS R411, C408, D401, Q404
3. COMPONENTS DELETED ARE, C401, C405

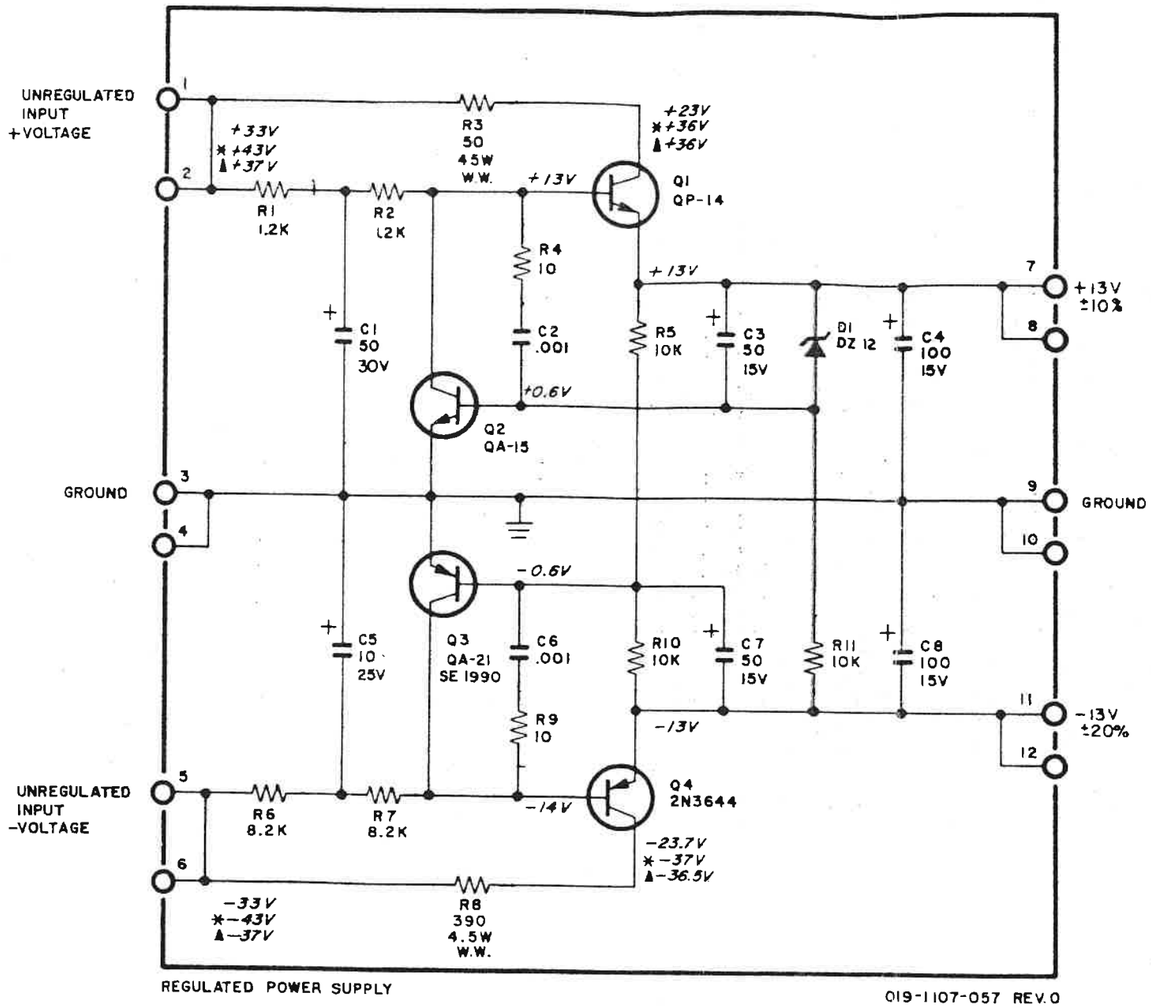
H.H.SCOTT, INC.
MAYNARD, MASS.

REGULATED SUPPLY 5VOLT

SIZE	DWG. NO.	REV
C	100-1340-017	2

DATE 5-13-71

REVISIONS			
NO.	DESCRIPTION		APP'D
	ECO 3040		
2	ECO 3366		
3	ECO 3639		



REGULATED POWER SUPPLY

019-1107-057 REV.0

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTANCE IN OHMS ±10%, CAPACITANCE IN MFD'S, RESISTORS 1/4 WATT, AND VOLTS ARE D.C. ±15% MEASURED WITH 20KΩ/VOLT V.O.M.
2. HIGHEST SERIES NUMBERS: R11, C8, D1, Q4
3. UNREGULATED INPUT VOLTAGE RANGE ±(25V TO 44V)
4. * INDICATES THE ONLY VOLTAGES WHICH CHANGE WITH 43V INPUT, (387).
5. ▲ INDICATES THE ONLY VOLTAGES WHICH CHANGE WITH 37V INPUT, (499).

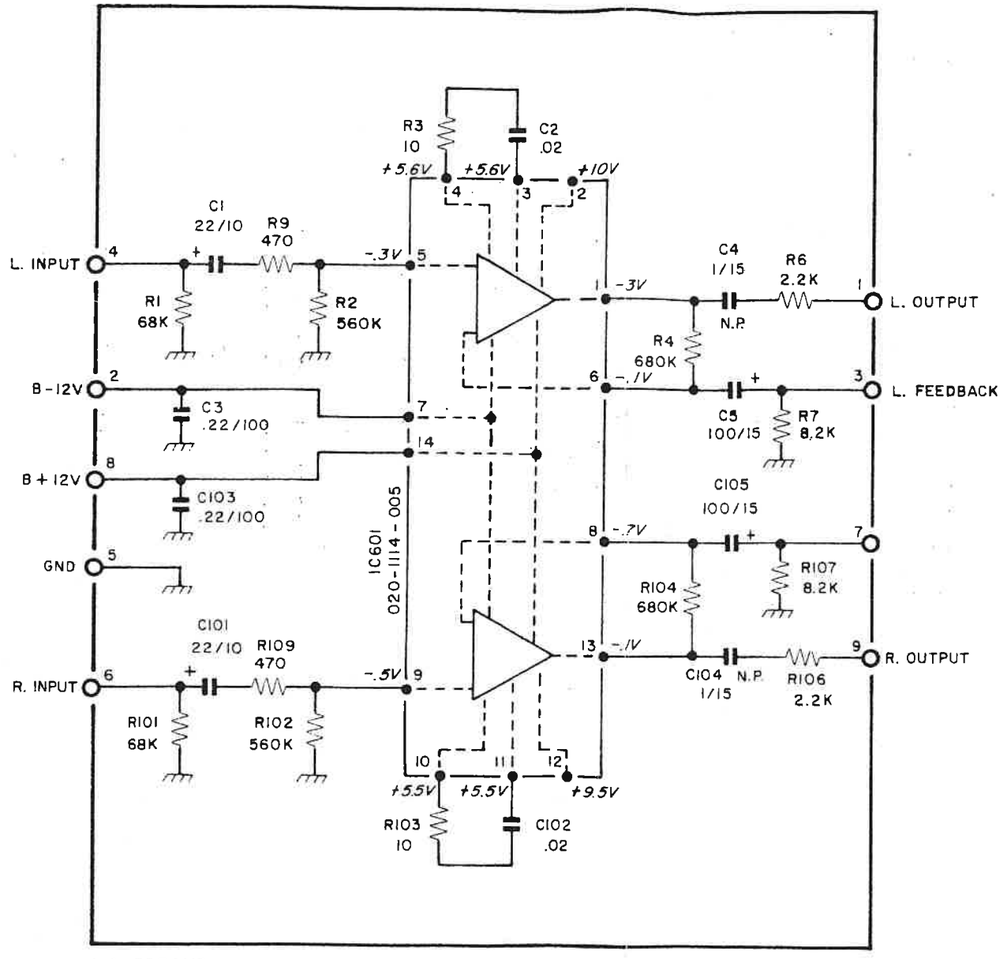
H.H.SCOTT, INC.
MAYNARD, MASS.

REGULATED POWER SUPPLY

SIZE	DWG. NO.	REV.
C	100-1340-012	3

ENG. | SHEET 1 OF 1 | DATE 10-29-68

REVISIONS			
SYM	DESCRIPTION	DATE	APPR
1			
2			
3			
4			



I. C. PREAMP

P.C. BOARD 019-1107-066 REV. 8

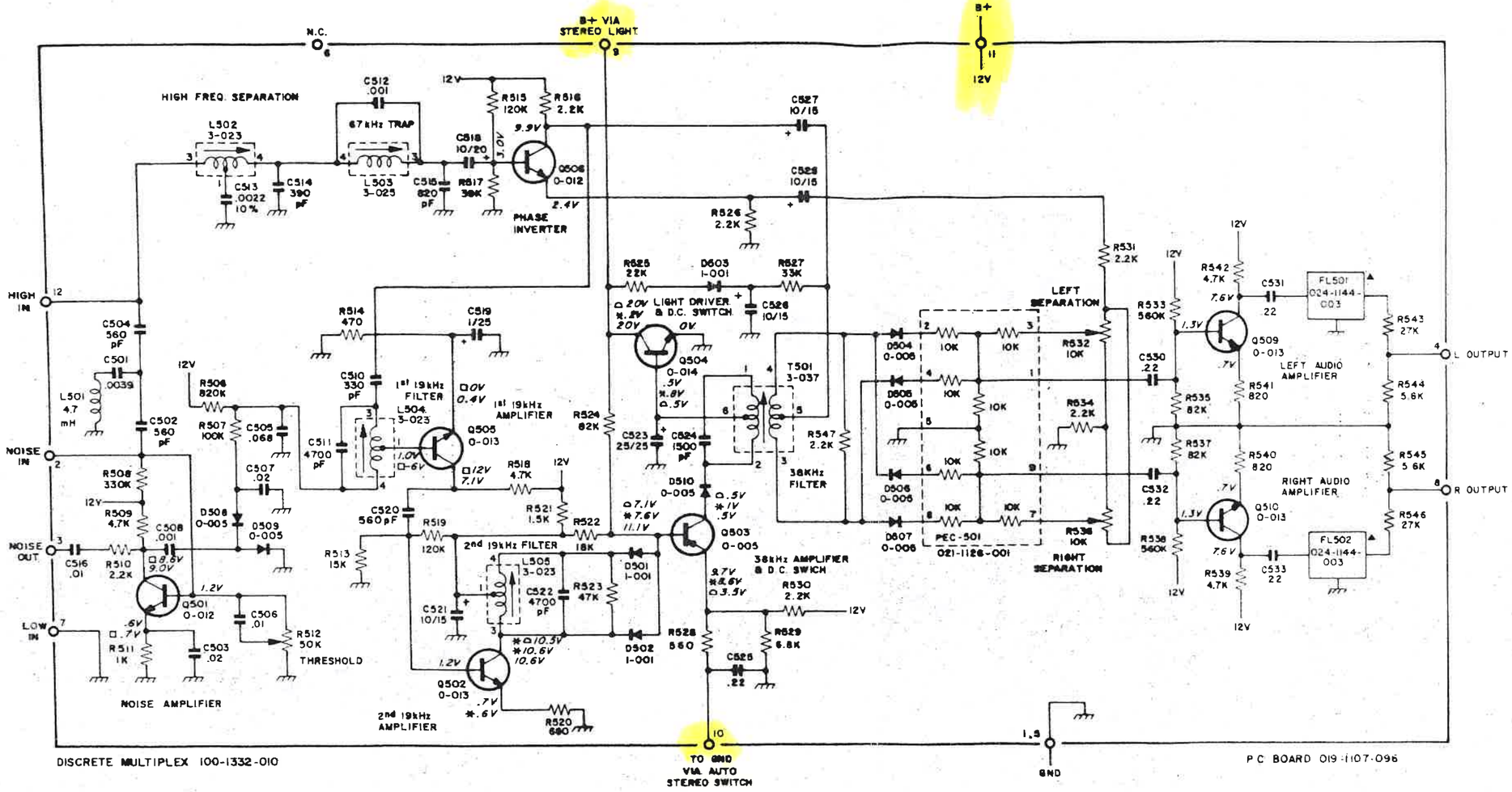
CIRCUIT OF 020-1114-005 TO BE PRINTED IN THIS AREA WHEN INTEGRATED CIRCUIT APPEARS IN THE SERVICE MANUAL. SEE 020-1114-005

NOTE:
REFER TO COMPONENT LABEL 019-1107-066/A

NOTES:

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS, ±10%, 1/4W CAPACITANCE IN MICROFARADS.
2. HIGHEST SERIES NUMBERS ARE: R9, R109, C5, C105, IC601.
3. VOLTAGES SHOWN DO NOT APPLY TO 2506-07.
4. COMPONENTS DELETED: R5, R105, R8, R108
5. REFER TO COMPONENT LABEL 019-1107-066/A
6. UNLESS OTHERWISE SPECIFIED, ALL VOLTAGES DC ±15% MEASURED WITH 20KΩ/V V.O.M.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES. TOLERANCES ON FRACTIONS = 1/64, DECIMALS = .005, ANGLES = ½°	NOT APPROVED FOR PRODUCTION		H.H.SCOTT, INC. MAYNARD, MASS.
	DRAFT CPD	APPROVED ONLY FOR → PILOT	I C PREAMP
	CH	SAMPLE	C DWG NO. 100-1333-019 REV. 4
	ENG	QUOTE	SCALE: — SHEET 1 OF 1 DATE 9-27-72
	PROD		
	MATERIAL		
	FINISH		



NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S.
2. ALL D.C. VOLTAGES (±15%) MEASURED WITH RESPECT TO CHASSIS GROUND, USING V.T.V.M. AT 117VAC LINE, AND FM MONO SIGNAL FED INTO THE DEMODULATOR. AUTO-STEREO SWITCH OPEN.

   * FM STEREO SIGNAL FED TO DEMODULATOR.
   □ OFF-STATION NOISE FED TO DEMODULATOR.
   ○ AUTO-STEREO SWITCH OPEN.

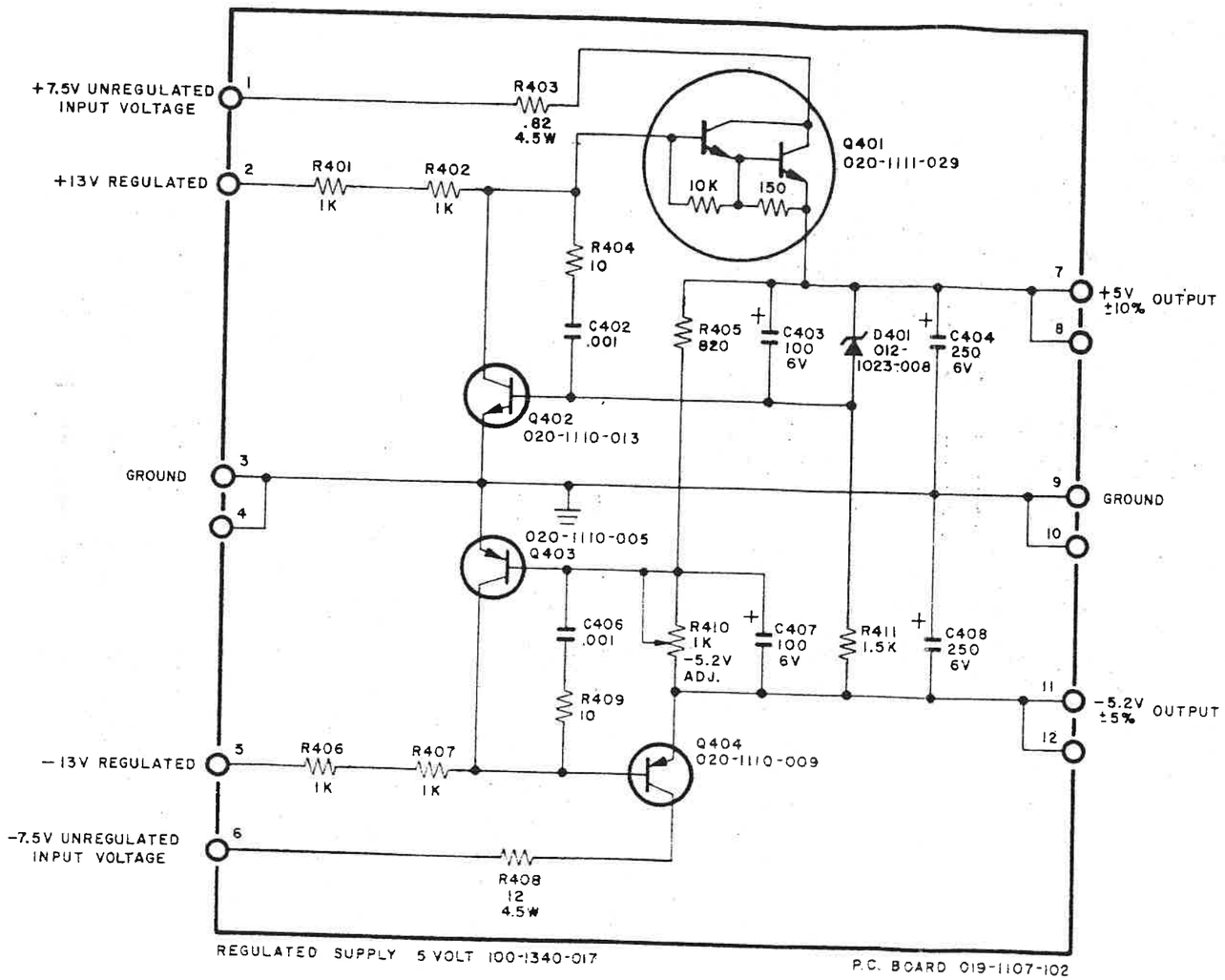
3. ▲ 024-1144-007 FILTER (FL503) MAY BE SUBSTITUTED FOR THE TWO 024-1144-003 FILTERS (FL-501, FL-502).
4. ALL L,T,D, AND Q NUMBERS ARE SHOWN BY THE LAST FOUR NUMBERS OF THEIR TEN DIGIT PART NUMBER PREFIX FOR EACH AS FOLLOWS: L&T ARE 016-1093-····, D IS 012-1021-···, Q IS 020-1110-····.
5. HIGHEST SERIES NUMBERS ARE; R547, C534, D510, Q510, L505, T501, FL502, PEC-501
6. COMPONENT NUMBERS DELETED/009: C509, C517, R501, R502, R503, R504, R505, Q507, Q508 — /010: C529, C534
7. R547 TO BE SOLDERED TO BOTTOM SIDE OF BOARD BETWEEN PIN 3 AND PIN 4 OF T501 AS INDICATED. C534 TO BE SOLDERED TO BOTTOM SIDE OF BOARD ACROSS R520 AS INDICATED.

CIRCUIT OF 024-1144-003 TO BE PRINTED IN THIS AREA WHEN MULTIPLEX CIRCUIT APPEARS IN THE SERVICE MANUAL. SEE 024-1144-002

REFER TO COMPONENT LABEL 019-1107-096 A

	USE APPROVED FOR PRODUCTION	HUSCOTT, INC.	
DRAFT T F M			
DATE 9-21-70		DISCRETE MULTIPLEX CIRCUIT	
		D 100-1332-010	

SYM	DESCRIPTION	DATE	
1	ECO 3659 R1	6-1-71	
2	ECO 3726 R1	7-3-71	



NOTES:

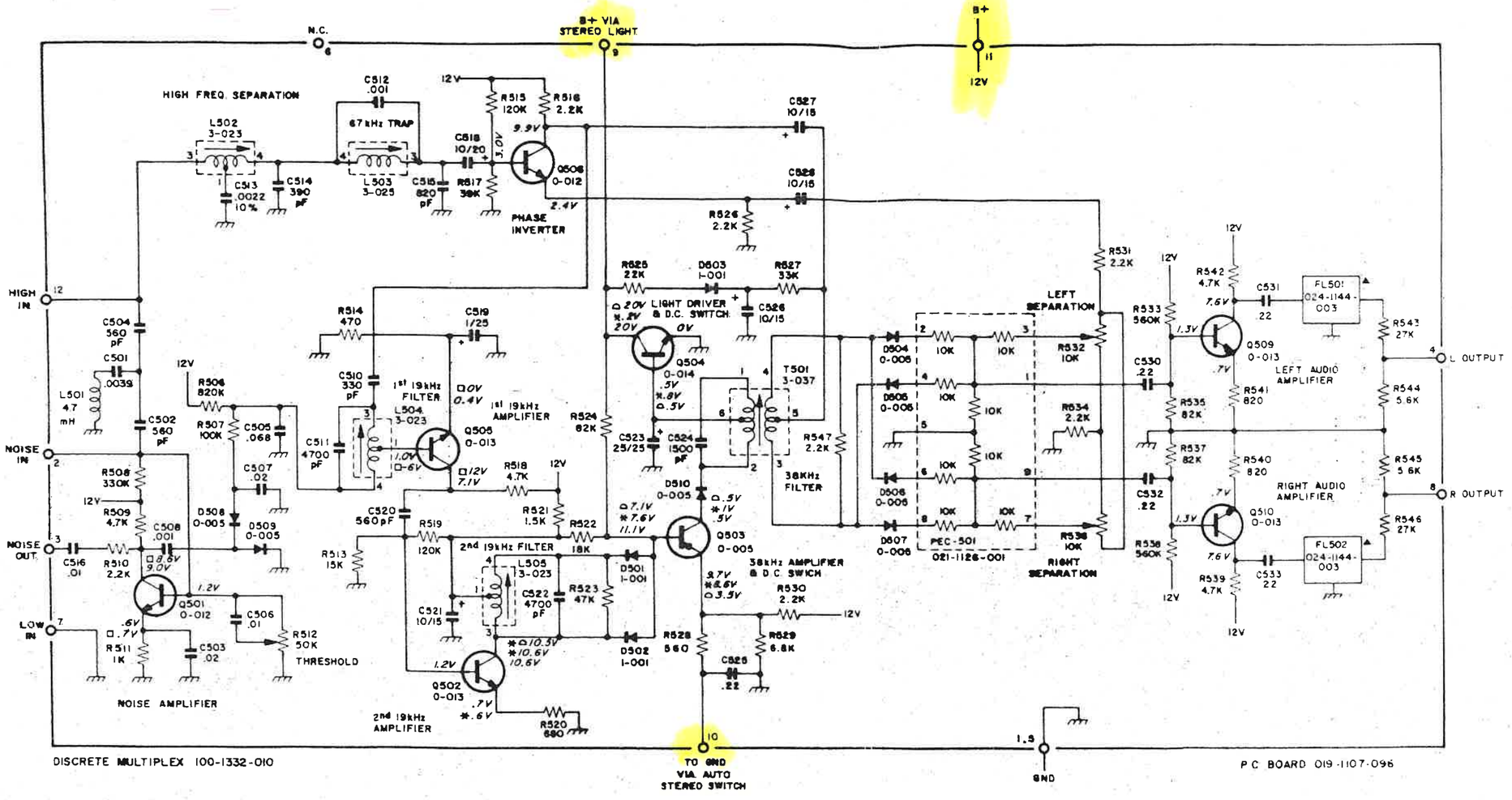
1. UNLESS OTHERWISE SPECIFIED: ALL RESISTANCE IN OHMS ±10%, CAPACITANCE IN MFD'S, RESISTORS 1/4 WATT, AND VOLTS ARE D.C. ±5% MEASURED WITH 20KΩ/VOLT V.O.M
2. HIGHEST SERIES NUMBERS R411, C408, D401, Q404
3. COMPONENTS DELETED ARE, C401, C405

H.H.SCOTT, INC.
MAYNARD, MASS.

REGULATED SUPPLY 5 VOLT

SIZE	DWG. NO.	REV.
C	100-1340-017	2

SHT 1 OF 1 | DATE 5-13-71



DISCRETE MULTIPLEX 100-1332-010

P.C. BOARD 019-1107-096

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S.
2. ALL D.C. VOLTAGES (±15%) MEASURED WITH RESPECT TO CHASSIS GROUND, USING V T V M AT 117 VAC LINE, AND FM MONO SIGNAL FED INTO THE DEMODULATOR. AUTO-STEREO SWITCH OPEN.

   * FM STEREO SIGNAL FED TO DEMODULATOR.
   □ OFF-STATION NOISE FED TO DEMODULATOR.
   Δ AUTO-STEREO SWITCH OPEN.

3. ▲ 024-1144-007 FILTER (FL503) MAY BE SUBSTITUTED FOR THE TWO 024-1144-003 FILTERS (FL-501, FL-502).
4. ALL L, T, D, AND Q NUMBERS ARE SHOWN BY THE LAST FOUR NUMBERS OF THEIR TEN DIGIT PART NUMBER PREFIX FOR EACH AS FOLLOWS: L&T ARE 016-1093-····, D IS 012-1021-···, Q IS 020-1110-····.
5. HIGHEST SERIES NUMBERS ARE; R547, C534, D510, Q510, L505, T501, FL502, PEC-501
6. COMPONENT NUMBERS DELETED/D09: C509, C517, R501, R502, R503, R504, R505, Q507, Q508 — /010: C529, C534
7. R547 TO BE SOLDERED TO BOTTOM SIDE OF BOARD BETWEEN PIN 3 AND PIN 4 OF T501 AS INDICATED.
   C534 TO BE SOLDERED TO BOTTOM SIDE OF BOARD ACROSS R520 AS INDICATED.

CIRCUIT OF 024-1144-003 TO BE PRINTED IN THIS AREA WHEN MULTIPLEX CIRCUIT APPEARS IN THE SERVICE MANUAL.
SEE 024-1144-002

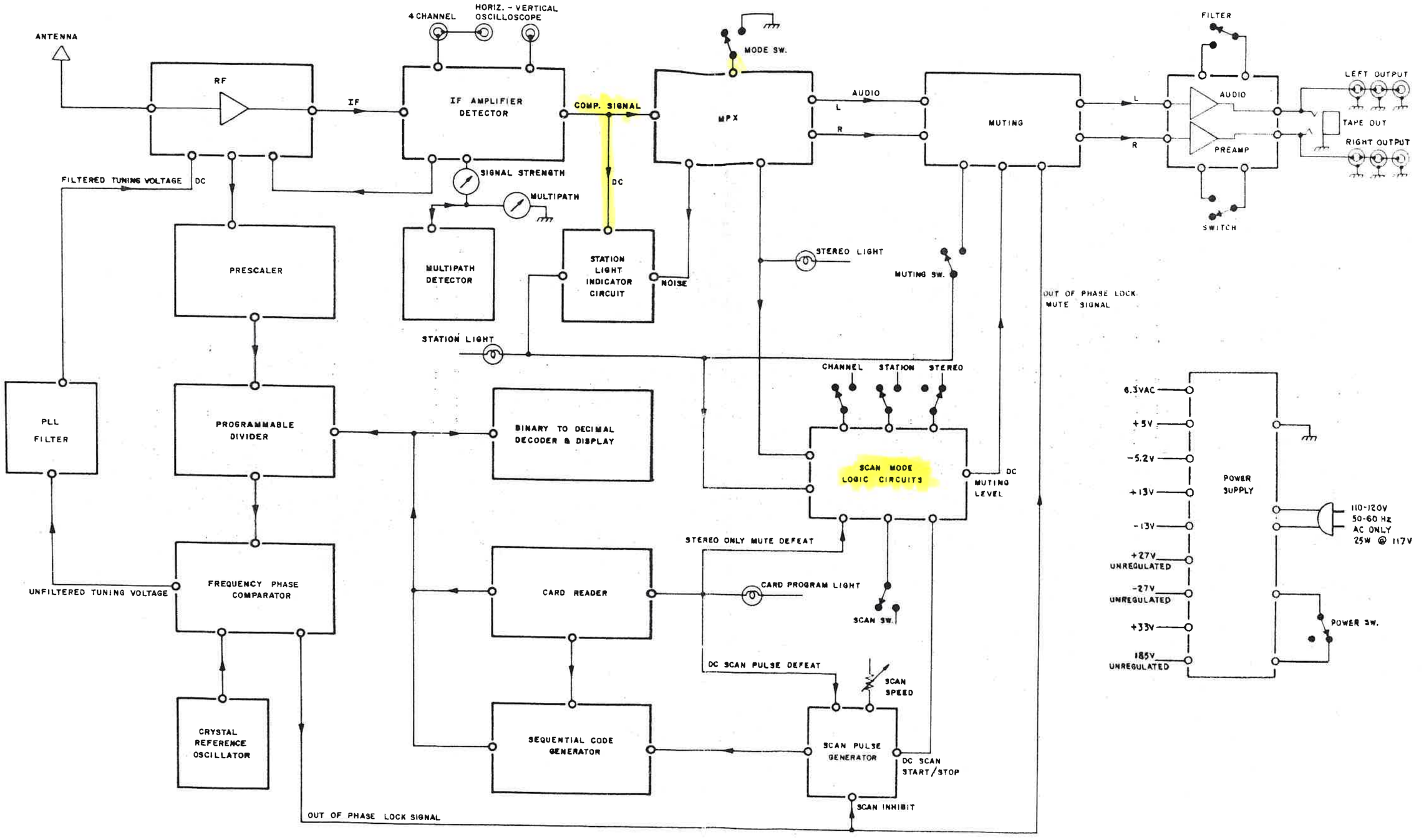
REFER TO COMPONENT LAYOUT 019-1107-096-A

REVISIONS			
NTR	DESCRIPTION	DATE	APPROVED
1	ECO 1565		
2	ECO 1638		
3	ECO 3775		
4	ECO 5846		

DRAFT	ENGR APPROVED FOR PRODUCTION		
DR.			
SHEET 1 OF 1	APPROVED ONLY FOR	DATE 9-21-70	

HARMAN-KARDON, INC. — MULTIPLEX CIRCUIT

WO 0 — MODEL NO. 100-1332-010 — REV 5



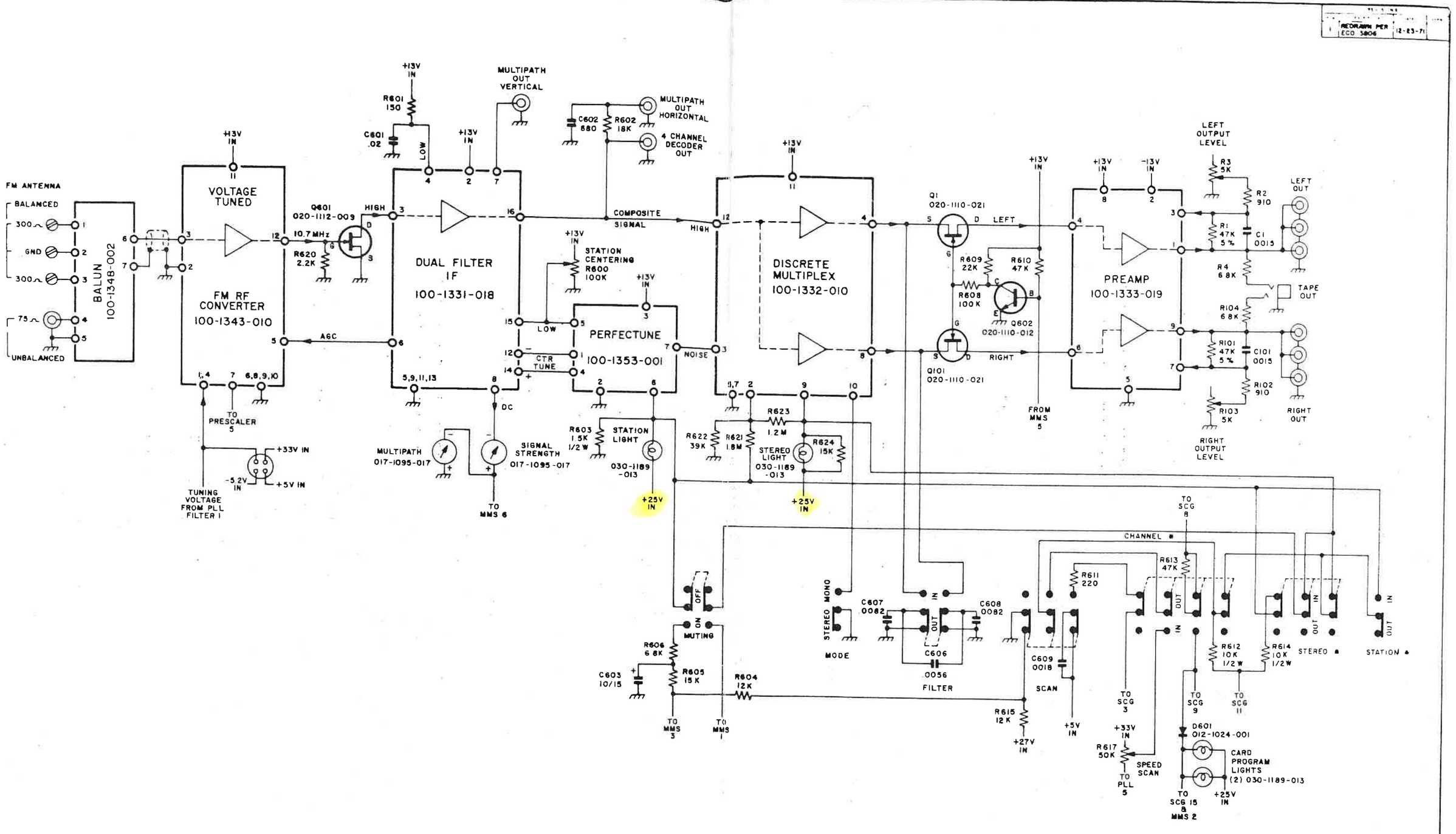
NOT APPROVED FOR PRODUCTION

PEN

6 8 71

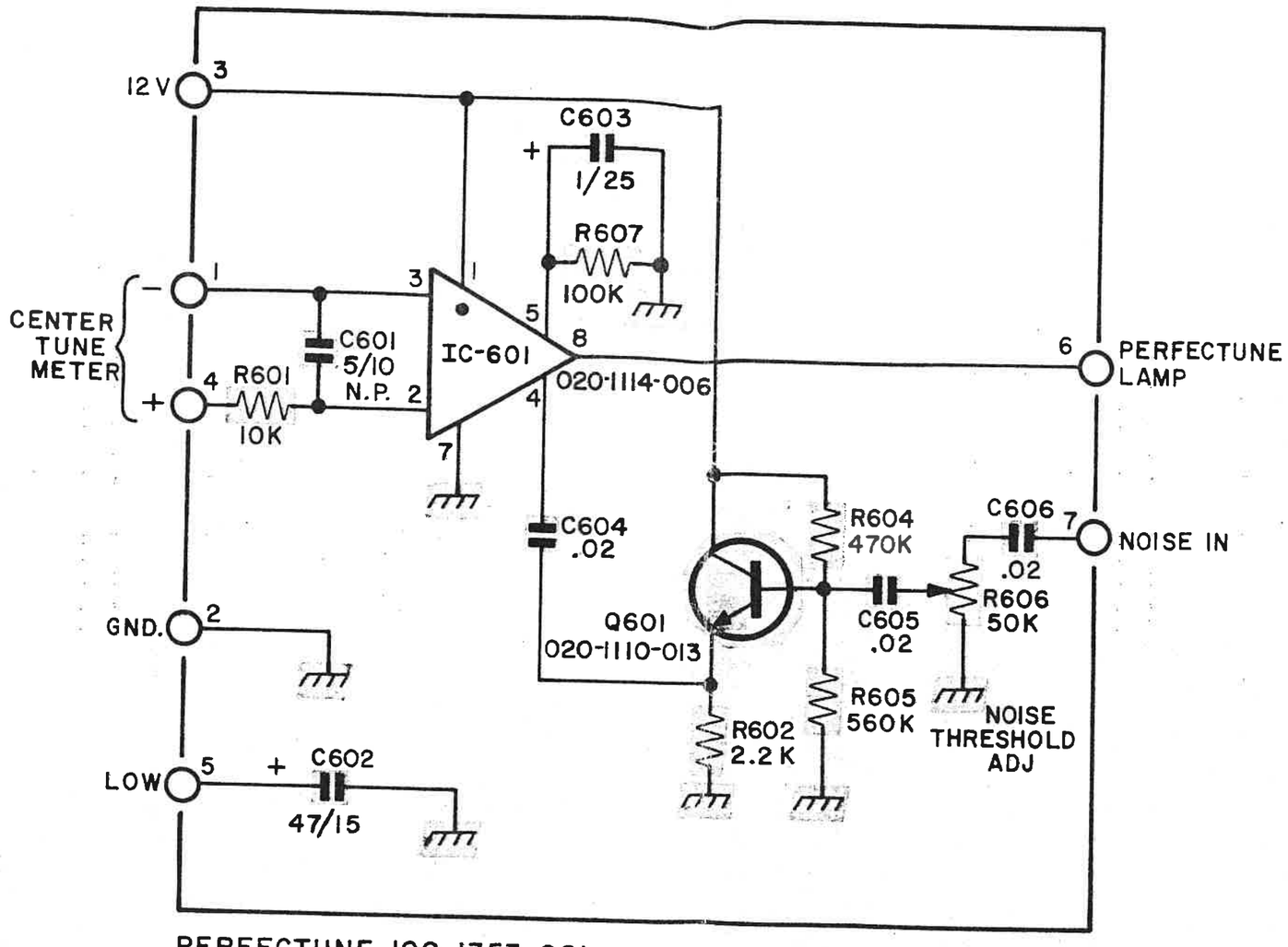
455 BLOCK DIAGRAM

D 455 C1



NOT APPROVED FOR PRODUCTION		H H SCOTT, INC. MAYNARD MASS	
DRAFT D. MILLER	APPROVED ONLY FOR	CIRCUIT DIAGRAM	
CH	PILOT	SIZE D	DWG NO 433-C1
SHEET 1 OF 3	DATE 11-18-71		REV 1

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.

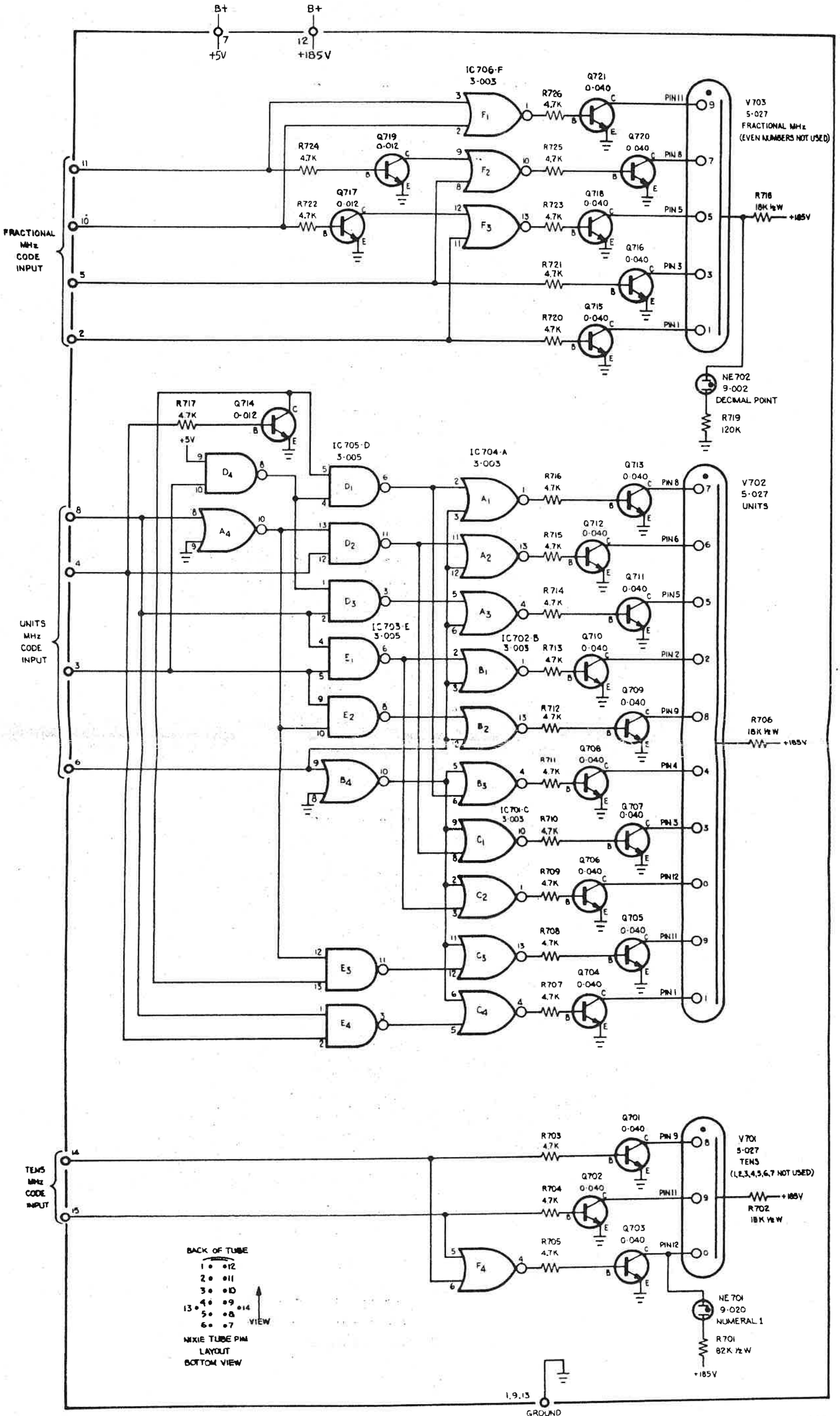


PERFECTUNE 100-1353-001 PC BD 019-1107-093

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% 1/4 WATT, CAPACITANCE IN MFD'S.
2. HIGHEST SERIES NUMBERS ARE; IC601, Q601, R607, C606.
3. COMPONENTS DELETED ARE: R603,

a.f. 5/24/71 APPROVED FOR PRODUCTION			H.H.SCOTT, INC. MAYNARD, MASS.
DRAFT. PEN	APPROVED ONLY FOR	PILOT	PERFECTUNE CIRCUIT
CH. uc			
SHEET 1 OF 1		DATE 4-8-70	SIZE B / DWG. NO. 100-1353-001 / REV. 0



DECODER AND DISPLAY 100-1356-005

PC BOARD 019-1107-098

NOTES:

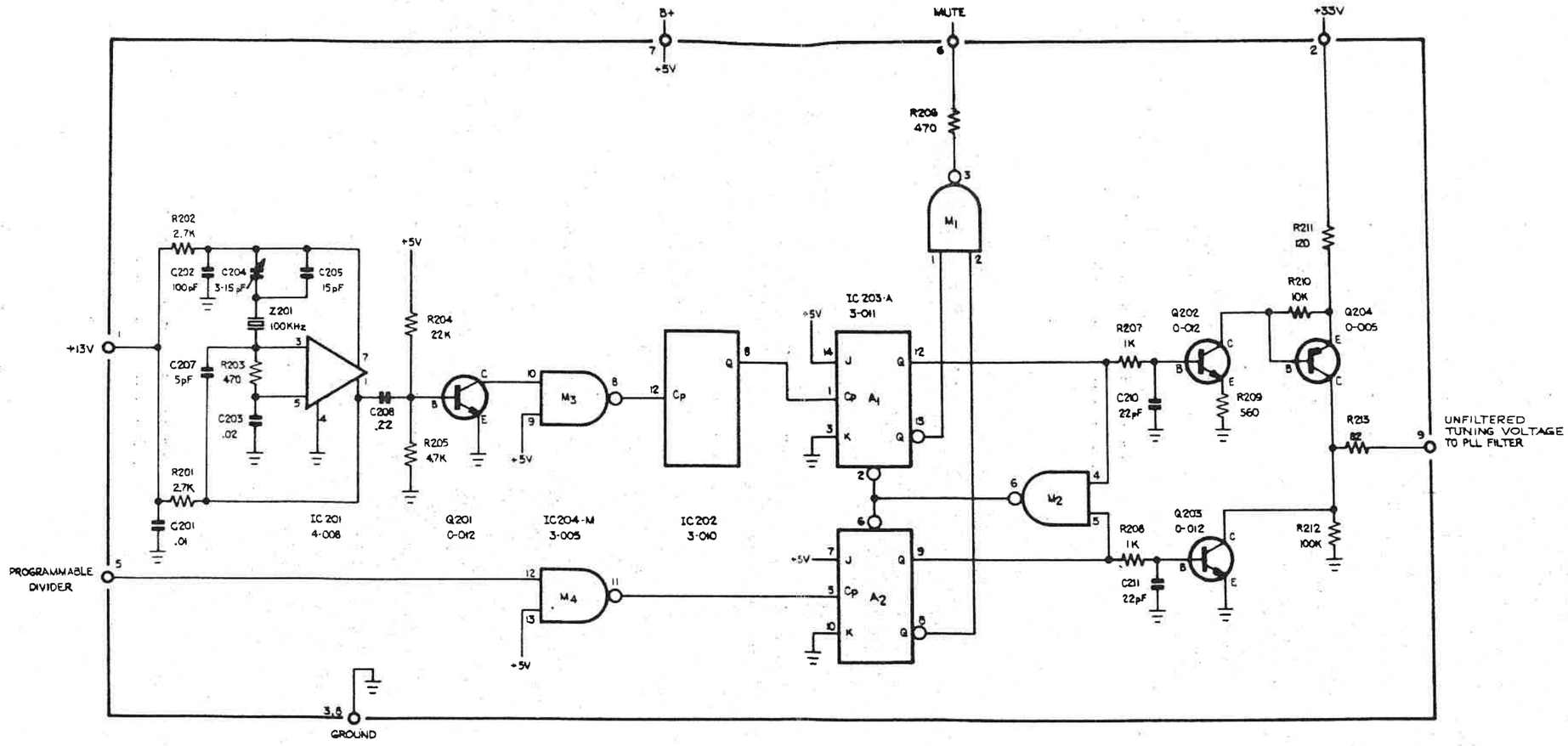
1. UNLESS OTHERWISE SPECIFIED RESISTANCE IN OHMS ±10%, ¼WATT, CAPACITANCE IN MFD'S
2. ALL IC, Q, NE & V PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBERS.
   PREFIXES ARE, IC# Q-020-111-···· ; NE-030-118-··· ; V-025-114-····.
3. HIGHEST SERIES NUMBERS ARE : IC706, Q721, V703, NE702, R726.

APPROVED FOR PRODUCTION

H H SCOTT, INC.
MAYNARD MASS

DECODER AND DISPLAY CIRCUIT

D 100-1356-005



PHASE-FREQUENCY COMPARATOR 100-1356-002

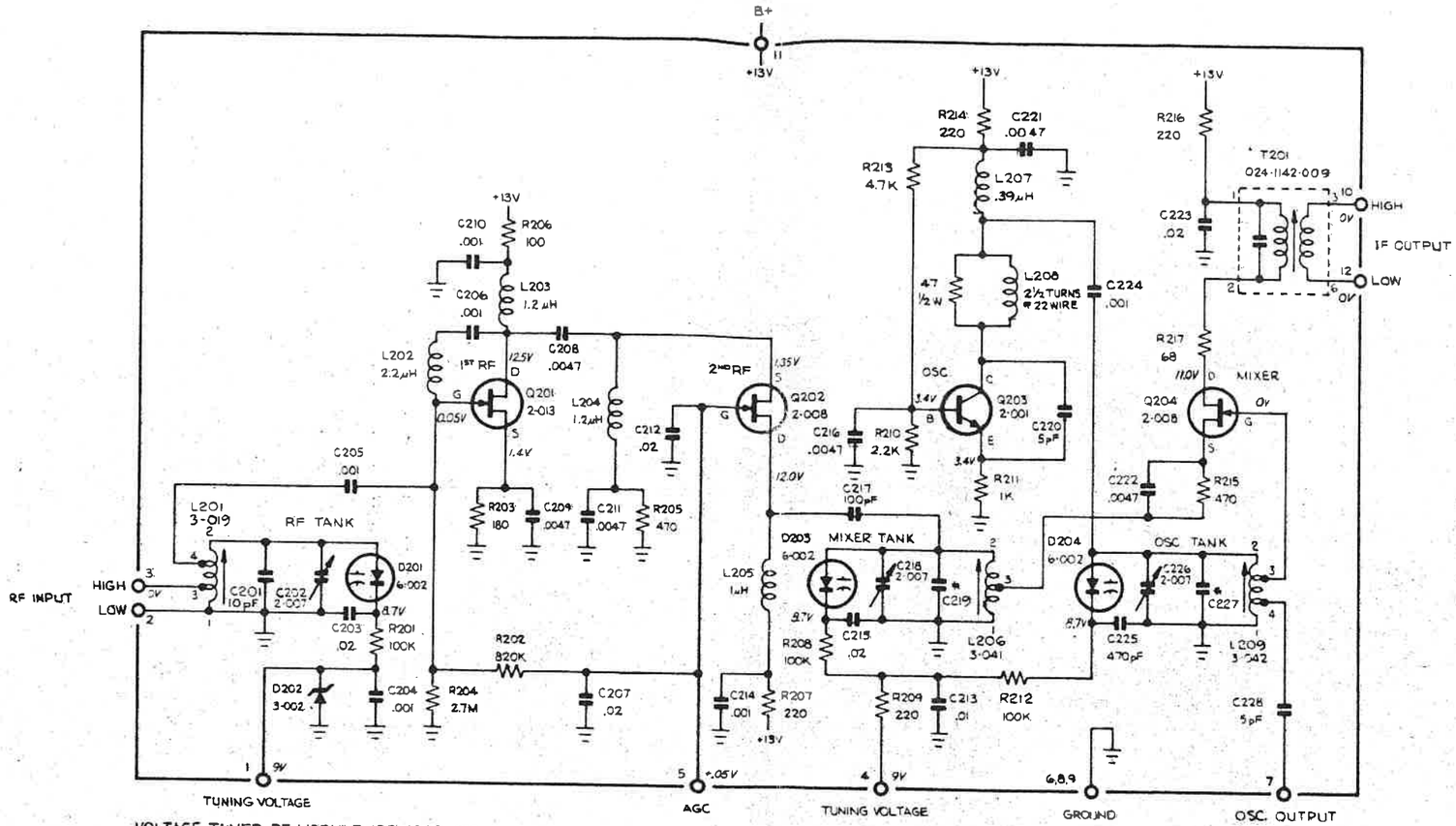
PC BOARD 019-1107-101

NOTES:

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ±10% ¼ WATT; CAPACITANCE IN MFD'S.
2. ALL IC & Q PART NUMBERS ARE SHOWN BY THE LAST FOUR DIGITS OF THEIR TEN DIGIT PART NUMBERS. THE PREFIX FOR BOTH IS 020-111-____.
3. HIGHEST SERIES NUMBERS ARE: IC204, Q204, Z201, R213, C211.
4. IC202, IC204: VCC PIN 14, GND. PIN 7.
   IC203: VCC PIN 11, GND. PIN 4.
5. COMPONENTS DELETED: C206, C209.

APPROVED FOR PRODUCTION			H.H.SCOTT, INC. MAYNARD, MASS.
DRAFT. D.R.	APPROVED ONLY FOR	PILOT	PHASE-FREQUENCY COMPARATOR ASSY
CH. ac			SIZE D DWG NO. 100-1356-002
SHEET 1 OF 1		DATE 4.12.71.	

1	ECO 3732 7-19-71
2	ECO 3732 7-19-71



VOLTAGE TUNED RF MODULE 100-1343-010

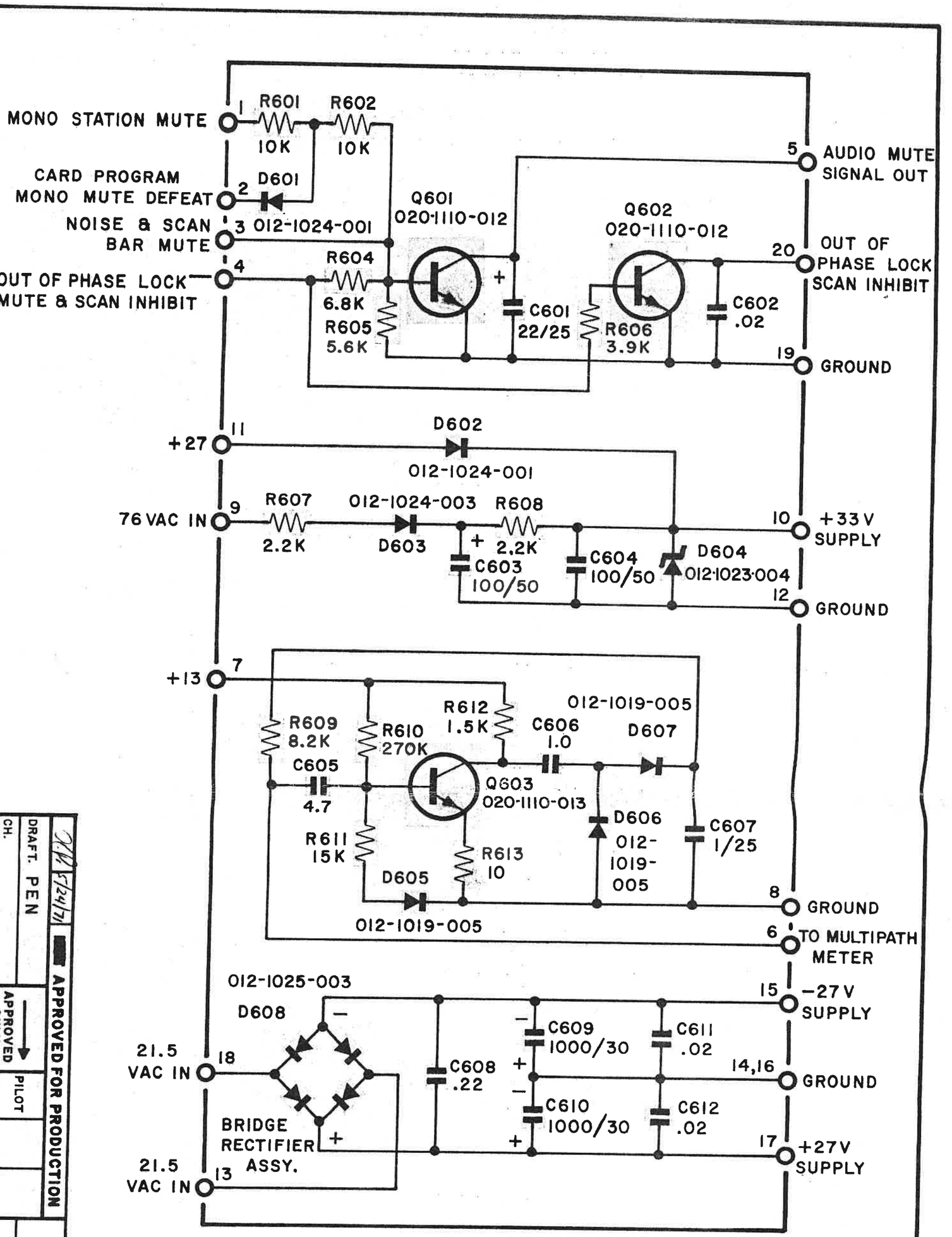
PC BOARD 019-1107-095

NOTES:

1. UNLESS OTHERWISE SPECIFIED; RESISTANCE IN OHMS ±10% ¼ WATT, CAPACITANCE IN MFD'S.
2. ALL DC VOLTAGES (±15%) MEASURED WITH RESPECT TO CHASSIS GROUND, USING V.T.V.M. AT 117V AC LINE, AND UNIT TUNED TO 107.9, NO SIGNAL.
3. PIN 1 ON L201, L206 & L209 IS START OF WINDING.
4. HIGHEST SERIES NUMBERS ARE: R217, C228, D204, Q204, L209, T201

* USED SELECTIVELY.

7-19-71	APPROVED FOR PRODUCTION		
DRAFT'D BY	APPROVED ONLY FOR		VOLTAGE TUNED RF MODULE CIRCUIT
CH			100-1343-010



MULTIPATH-MUTING-SUPPLY
100-1346-004

P.C. BOARD 019-1107-105

REVISIONS			
SYM	DESCRIPTION	DATE	APPR.
1	ECO 3659 R1	6-1-71	

APPROVED FOR PRODUCTION
APPROVED ONLY FOR
PILOT
DATE 5-4-71
DRAFT. PEN
CH.
SHEET 1 OF 1

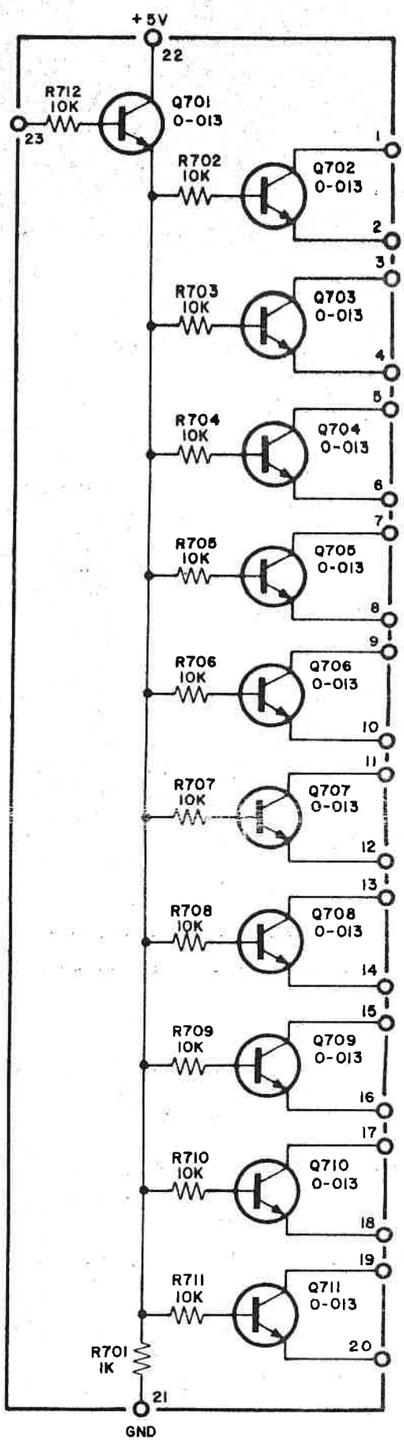
H.H.SCOTT, INC.
MAYNARD, MASS.

MULTIPATH-MUTING-SUPPLY

SIZE B
DWG. NO. 100-1346-004
REV. 1

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   RESISTANCE IN OHMS ± 10% 1/4 WATT
2. ALL TRANSISTORS ARE SHOWN BY THE LAST FOUR DIGITS OF A TEN DIGIT PART NO. PREFIX IS 020-111-____
3. HIGHEST SERIES NUMBERS ARE; R712 & Q711



ELECTRONIC SWITCHING 100-1357-001

P.C. BOARD 019-1107-121

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS ± 1/64
DECIMALS ± .005
ANGLES ± 1/2°

DRAFT
CH.
ENG.
PROD.
MATERIAL
FINISH

USE APPROVED FOR PRODUCTION
APPROVED ONLY FOR
PILOT
SAMPLE
QUOTE

H.H. SCOTT, INC.
MAYNARD, MASS.

ELECTRONIC SWITCHING

SCALE
DWG. NO. 100-1357-001
REV. 0
SHEET 1 OF 1
DATE 9-22-71

REVISIONS

STA.	DESCRIPTION	DATE	APPR.