BENDIX/KING

GENERAL AVIATION AVIONICS DIVISION

MAINTENANCE MANUAL

KTS 150

FLIGHT LINE TESTER

Allied-Signal Aerospace Company

Allied Signal

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SECTION I
GENERAL INFORMATION

1.1 INTRODUCTION

This manual covers the physical, mechanical and electrical characteristics of the KTS 150 Autopilot Test Set. Installation, operation and maintenance of the test set is also included.

1.2 DESCRIPTION OF EQUIPMENT

The KTS 150 Autopilot Test Set has been designed to troubleshoot problems in the KFC 200 Flight Control System. Isolation of the problem to a system component is easily accomplished using the troubleshooting chart and test procedure found in the KFC 200 System Manual. The test set is housed in an aluminum case. The electronics are installed in the removable lid of the case. The cables and gyro test kit are stored in the bottom portion of the case.

Both the KC 295 Autopilot Computer and the KC 296 Yaw Damp Computer can be tested with the KTS 150 either individually or simultaneously.

The test set is placed in series with the autopilot and yaw damp computers and the aircraft harness.

The KI 255/KI 256/KG 258 Attitude Gyro is placed on the gyro test stand for gyro/computer calibration.

1.3 TECHNICAL CHARACTERISTICS

The Technical Characteristics of the KTS 150 Autopilot Test Set are herein presented:

SPECIFICATION	CHARACTERISTIC
SIZE:	9" x 16" x 15 1/2" nominal 22.8 x 40.6 x 39.3 centimeters
WEIGHT:	33.5 lbs. (15.2Kg) Servo Slip Clutch tools not included.
POWER REQUIREMENT:	14VDC @ 1A 28VDC @ 1.5A

1.4 ACCESSORIES SUPPLIED WITH TESTER

The following accessories are supplied with the KTS 150 Autopilot Test Set:

a) Cables
b) Card Puller (KPN 047-1277-00)
c) Extra Light Bulbs
d) Gyro Test Kit (KPN 071-5024-00)
e) Turn Slip Gyro Extender Cable
f) Test Set printed circuit board extenders (stored in lid of case behind test set panel)
g) KM 275 Bench Test Kit (KPN 050-1453-00)
h) KM 276 Bench Test Kit (KPN 050-1451-00)
~~i)~~ Board Provision Kit (050-1543-00)

NO LONGER PROVIDED

SECTION II
INSTALLATION

2.1 GENERAL

The KTS 150 Autopilot Test Set is hand carried to the aircraft and connected into the harnesses of the KC 295 and KC 296 computers. Figure 2-1 describes this interface. Figure 2-2 illustrates the KI 255/ KI 256/KG 258 Flight Command Indicator installed on the Gyro Test Stand.

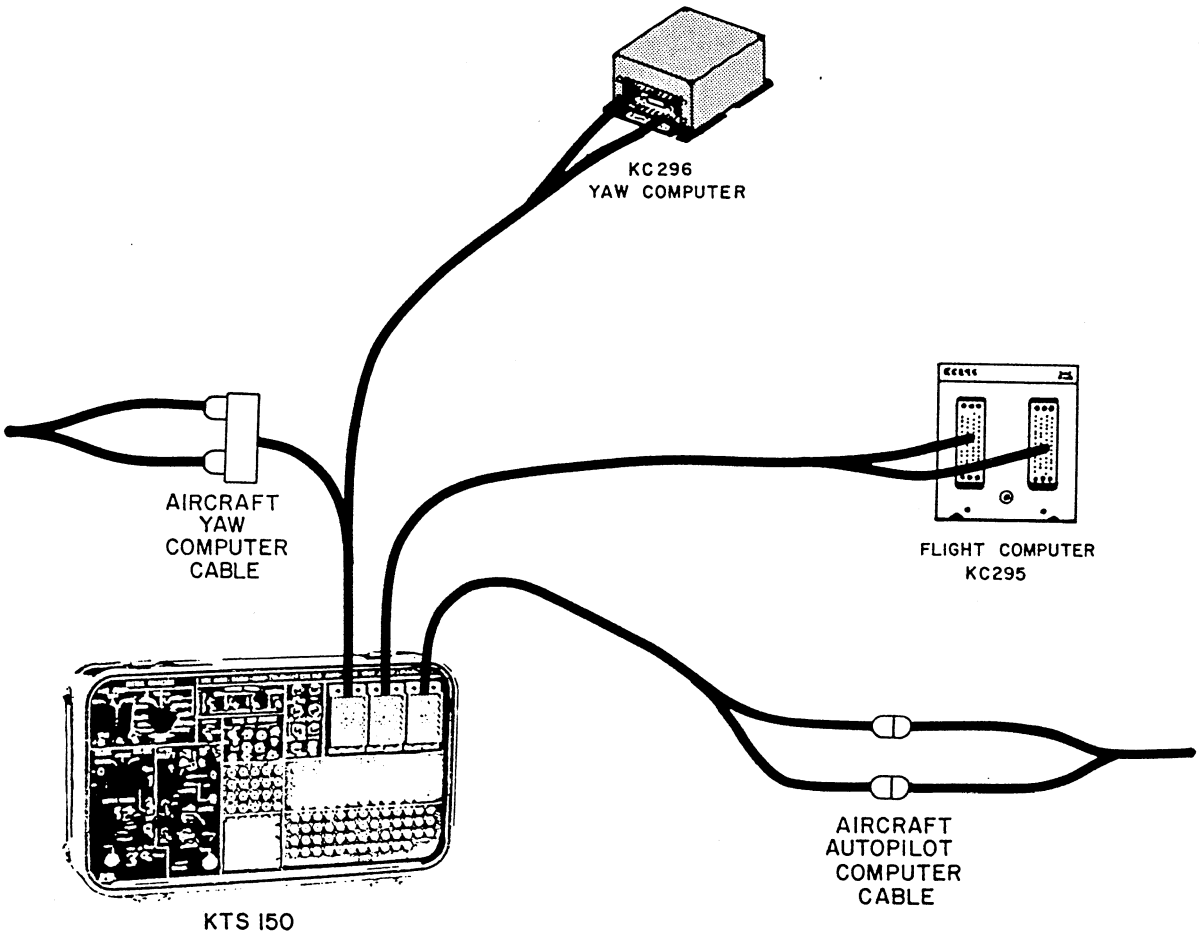


FIGURE 2-1 KTS 150 INTERFACE WITH KC 295 AND KC 296

2.2 UNPACKING AND INSPECTING EQUIPMENT

Exercise extreme care when unpacking each unit. Make a visual inspection of each unit for evidence of damage incurred during shipment. If a claim for damage is to be made, save the shipping container to substantiate the claim. When all equipment is removed, place in the shipping container all packing materials for use in unit storage or reshipment. The KTS 150 will conform to standards designated by the customer, installing agency and existing conditions as to unit location and type of installation.

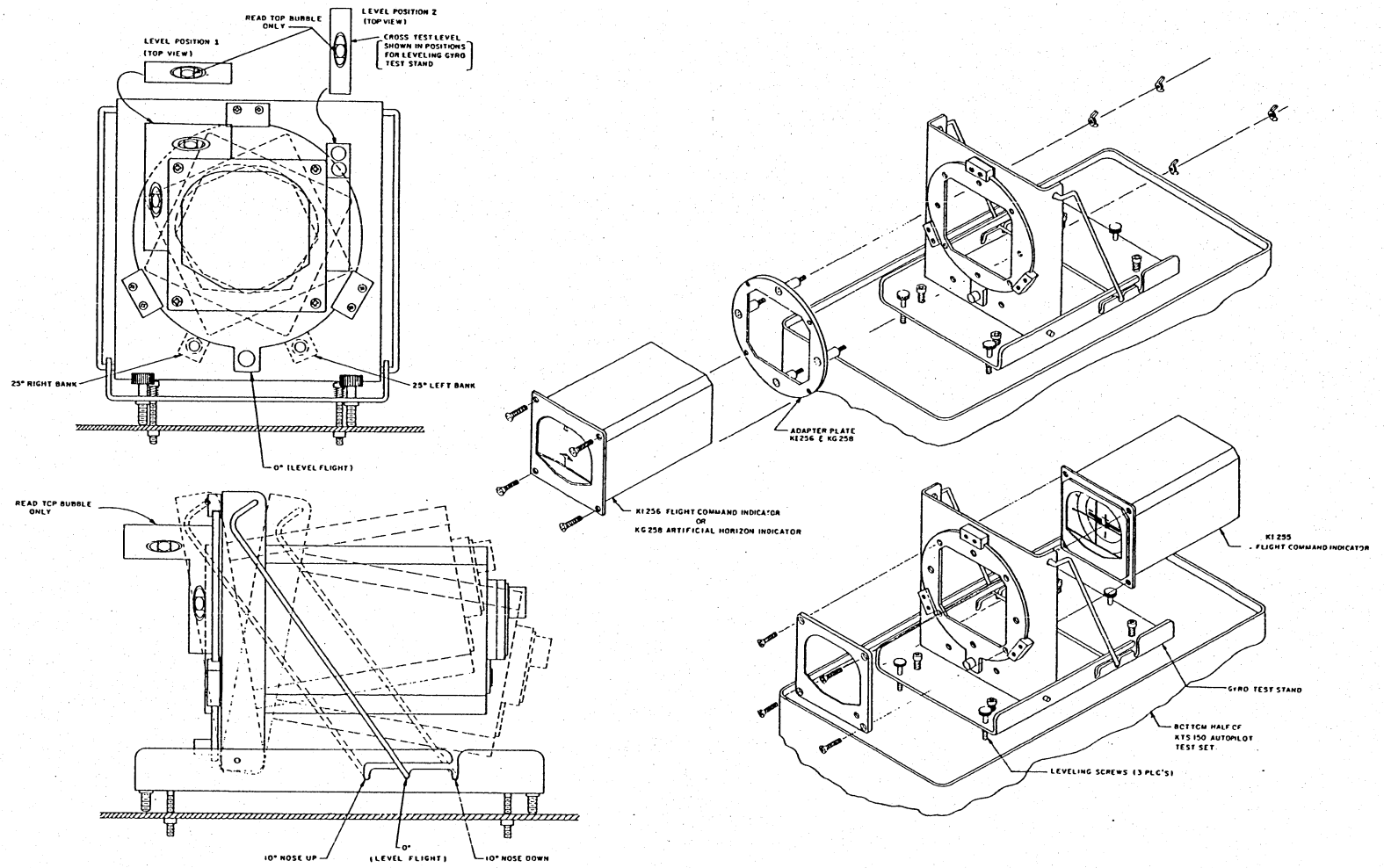


FIGURE 2-2 GYRO TEST STAND
(Dwg. No. 696-5302-00, R-1)

SECTION III
OPERATION

3.1 GENERAL

The controls of the KTS 150 are described in this section. Procedures for use with the KFC 200 System are found in the Maintenance Section of the KFC 200 Flight Line Maintenance Manual.

3.2 CONTROLS

The controls of the KTS 150 Autopilot Test Set are described as follows (Figure 3-1):

METER

1.	Meter Selector		Determines DC voltages to be measured with external meter at meter test jacks. +10V AP or YD ±10V supplies -15V AP or YD -15V supplies +15V AP or YD +15V supplies A+ AP or YD ACFT A+ supply Autotrim Drive selects KC 295 autotrim drive output to trim servo. Yaw Rate - Selects DC yaw rate to KC 296. Alt Hold - Selects Alt Hold error test point KC 295. ACCEL - Selects roll or pitch acceleration test point KC 295 and roll and yaw rate summation test point KC 296. Servo - Selects roll, pitch or yaw servo drive test point. Fader - Selects roll or pitch fader test point KC 295. Gyro - Selects roll, pitch or yaw gyro buffered test point. Tach FB - Selects roll, pitch or yaw servo tach motor feedback voltage.
2.	Meter LO/HI		Connect external voltmeter Hi to Lo to measure voltages selected by Meter Selector Switch.
3.	YD/AP		Selects YD or AP +10, ±15, A+ supplies to meter selector switch.
4.	Roll, Pitch, Yaw		Selects roll, pitch, yaw gyro, fader, servo, tach FB and acceleration test points to meter selector.

TEST SET POWER

5.	A+ Status	+14	Displays test set +14V A+ supply automatically selected. Should agree with ACFT A+.
		+28	Displays test set +28V A+ supply automatically selected.
6.	PWR		Turns test set power On/Off.
7.	Test Jacks	+12V	12V preregulation test set power.
		+15V	+15V test set DC supply.
		-15V	-15V test set DC supply.
		GND	Power ground reference for measuring test set power supply voltages.

GYRO SELECTOR

8. Gyro Selector

Selects simulated gyro inputs to KC 295 and KC 296.
CAL - Grounds GA bias
Normal - Baisc position, no simulation, on ACFT
Pitch - Selects pitch vertical gyro input for simulation
Roll - Selects roll vertical gyro input for simulation
Yaw - Selects yaw rate gyro input to KC 296 for simulation
Roll Crossfeed - Selects roll crossfeed input to KC 296 for simulation.

9. Test Jacks

Duplicates breakout test jacks for convenience.

Pitch/Ref - Measure pitch gyro input port of KC 295.
Roll/Ref - Measure roll gyro input port of KC 295.
Yaw Hi-Lo - Measure yaw rate gyro input port of KC 296.
Roll Crossfeed Hi-Lo - Measure roll crossfeed input port of KC 296.

10. Step

Apply simulation to selector switch.
Short - Input port shorted
In - Input simulation applied

11. Hi/Lo

Selects Hi/Lo level simulation input.

Pitch Hi Preset 5^{o} .25VAC
Pitch Lo Preset 1^{o} .05VAC
Pitch Hi Ramp $4^{o}/s$ .2V/sec
Pitch Lo Ramp $.8^{o}/s$ .04V/sec
Roll Hi Preset 5^{o} .25VAC
Roll Lo Preset 1^{o} .05VAC
Roll Hi Ramp $4^{o}/s$ .2V/s
Roll Lo Ramp $.8^{o}/s$ .04V/s
Yaw Rate Hi Preset $3.125^{o}/s$ 1.25VDC
Yaw Rate Lo Preset $.625^{o}/s$ .25VDC
Yaw Hi Ramp $2.5^{o}/s/s$ 1.0V/s
Yaw Lo Ramp $.5^{o}/s/s$ .2V/s
Roll Crossfeed Hi Preset $6.25^{o}/s$ 1.25V
Roll Crossfeed Lo Preset $1.25^{o}/s$ .25V
Roll Crossfeed Hi Ramp $5^{o}/s/s$ .2V/s
Roll Crossfeed Lo Ramp $.2^{o}/s/s$ .04V/s

12. Input Select

Selects Simulation Mode

Preset + - Selects Hi/Lo +/- preset AC or DC input per above
Ramp + - Selects Hi/Lo +/- AC or DC ramp rate per above
Adjust - Selects adjustable AC or DC input.

13. Gyro Adjust

Provides continuously adjustable AC or DC simulation inputs.

RADIO SELECTOR

14. Radio Selector

Selects simulated radio inputs to KC 295.

Normal - Basic position, No simulation, on ACFT.
Nav/Loc - Selects Nav/Loc (lateral) input for simulation
GS - Selects glideslope (vertical) input for simulation

15. Test Jacks

Duplicates breakout test jacks for convenience.

Nav Hi/Lo - Measure Nav/Loc input signals.
GS Hi/Lo - Measure Glideslope input signals.

16. Step

Apply simulation to selector switch.

Short - Input port shorted
In - Input simulation applied.

17. Hi/Lo

Selects Hi/Lo level input simulation.

Nav/Loc Hi Preset $1^{o}/.25^{o}$ 15mVDC
Nav/Loc Lo Preset $.5^{o}/.125^{o}$ 7.5mVDC
Nav/Loc Hi Ramp $.1465^{o}$/s (Loc) 8.75mV/s
Nav/Loc Lo Ramp $.1125^{o}$/s (Vor) 1.7mV/s
GS Hi Preset $.07^{o}$ 15mV
GS Lo Preset $.037^{o}$ 7.5mV
GS Hi Ramp $.040^{o}$/s 8.75mV/s
GS Lo Ramp $.0079^{o}$/s 1.7mV/s

18. Input Select

Selects simulation mode.

Preset + - Selects Hi/Lo +/- preset DC input per above
Ramp + - Selects Hi/Lo +/- DC ramp rate per above
Adjust - Selects adjustable DC input.

19. Radio Adjust

Provides continuously adjustable DC simulation inputs.

20. GS Valid

ACFT - GS valid input connected to ACFT radio.
Invalid - GS Valid input open (invalid).
Valid - GS Valid input 400mVDC (valid) +7 volt common mode level

21. MM (Middle Marker)

ACFT - Middle Marker input connected to ACFT radio
MM - 2Hz, 2V, 7 volt common mode square wave (Middle Marker)

RAMP

22. Set/Hold/Run

Controls ramp generators

Set - Sets ramp generator to predetermined initial condition.
Hold - Holds ramp at any desired position such as a capture point
Run - Starts ramp generators.

23. Lamp Test

Depress to illuminate all indicators for test.

24. Alt Hold

Indicates that Alt Hold is engaged. Internal output. Not the same singal as goes to annunciator panel.

25. LBT

Indicates that lateral beam track has been sensed.

26. MM Gain Cmd

Indicates that middle marker has been sensed and is commanding a gain change.

27. Vert Trim

Indicates that a vertical trim command has been received.

28. AP Clutch Eng

Indicates that the autopilot clutches are being commanded to engage.

29. YD Clutch Eng

Indicates that the yaw damp clutch is being commanded to engage.

30. YD Eng

Indicates that the yaw damp mode switch is being engaged.

31. KC 296 Connector — Connection of the test set with the KC 296 and aircraft is made via this connector and the cable provided.

32. KC 295 Unit — Connection of the test set to the KC 295 unit is made via this connector and the 4 foot cable provided.

33. KC 295 ACFT — Connection of the test set to the aircraft KC 296 connector is made via this connector and the 12 foot cable provided, and to to the KC 296 via the 4 foot cable.

TEST JACKS

34. Test Jacks — All connections of the KC 295 and KC 296 are brought out for testing and troubleshooting purposes.

35. Gyro Test Stand — Level provides for test stand leveling. Pitch attitude angles of 0^{o}, $+10^{o}$ and -10^{o} are available. Roll attitude angles of 0^{o}, $+25^{o}$, and -25^{o} are available.

SERVO DRIVE

36. Pitch — Normal - Servo drive connected from KC 295 to KS 270 Pitch servo
Open - Servo drive disconnected from Pitch servo.

37. Roll — Normal - Servo drive connected from KC 295 to KS 271 Roll Servo

Open - Servo drive disconnected from Roll servo.

38. Yaw — Normal - Servo drive connected from KC 296 to KS 271 Yaw Servo.

Open - Servo drive disconnected from Yaw servo

39. Trim — Normal - Servo drive connected from KC 295 to KS 272 Trim Servo

Simulate - Servo drive disconnected from trim servo and connected to trim servo load resistor simulation.

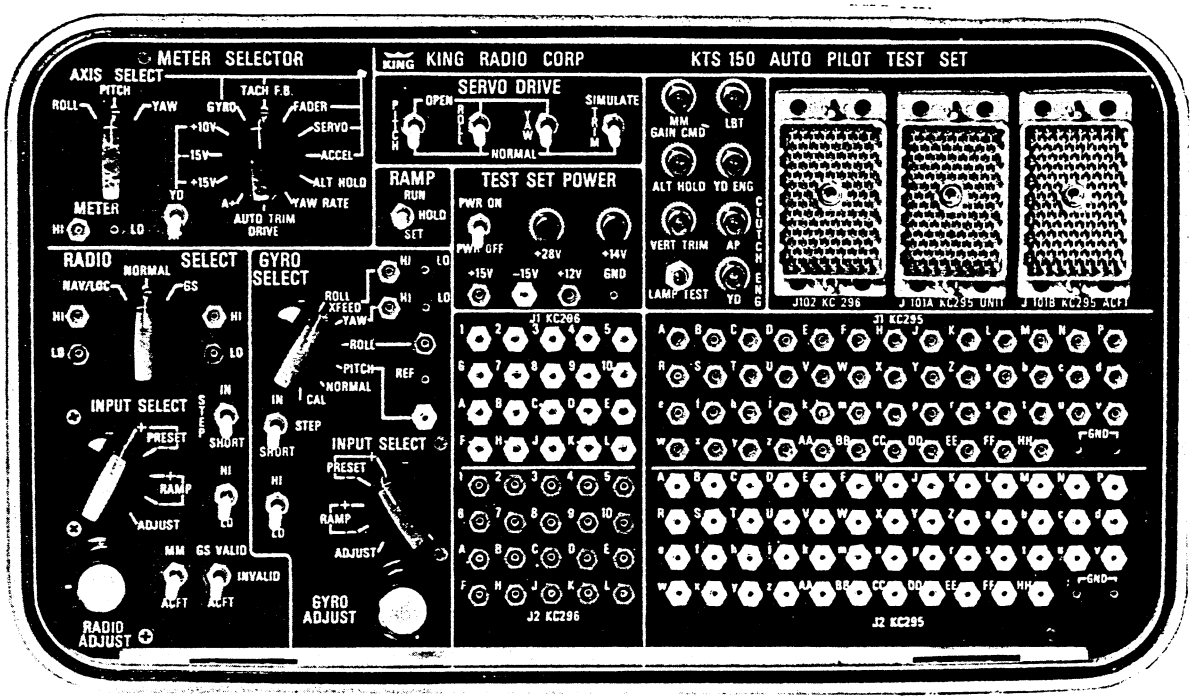


FIGURE 3-1 KTS 150 TEST SET

SECTION IV
THEORY OF OPERATION

4.1 GENERAL

The KTS 150 Autopilot Test Set has been designed to facilitate troubleshooting of the KFC 200 Flight Control SYstem. The KTS 150 is placed in series with the harnesses of the KC 295 and KC 296. Provisions have been made to isolate the KTS 150 from each harness when required but yet maintain a breakout test jack for each wire entering or leaving the KC 295 or KC 296. When a signal from units other than the KC 295 or KC 296 are suspect of being incorrect, the particular signal is interrupted and a simulated signal led into the computers. Thus, the problem can be isolated to an incoming signal to the computers or the internal processing of the signal in the KC 295 or KC 296. In this way, KFC 200 System problems can be troubleshot to component levels.

4.2 CIRCUIT DESCRIPTION

A description of the circuitry included in the KTS 150 can be found in shcematics located in Section VI. Basic OP Amp circuitry makes up most of the electronics in the KTS 150.

ILLUSTRATED PARTS LIST INTRODUCTION

INTRODUCTION

The purpose of this parts list is for identification and requisition of parts. Part numbers listed in this Illustrated Parts List meet critical equipment design specification requirements. Use only those part numbers specified in this section for replacement of parts. Whenever a "caution" is posted concerning the use of a particular part, adherence to the appropriate replacement must be followed.

EXPLANATION OF ILLUSTRATED PARTS LIST

Terminology used on the parts list(s) is listed below.

1. Symbol-Denotes the component reference for both schematic diagrams and mechanical drawings. Example: CR401, whereas CR means Diode device and 401 is its assigned numerical code. The following designators are used by King Radio.

Circuit Designation	Component
C	Capacitor
F	Fuse
I	Integrated Circuit/IC
J	Fixed Connector
L	Inductor
Q	Transistor
P	Plug
R	Resistor
S	Switch
T	Transformer
U	Resistor/Capacitor Network
V	Photocell/tube
Y	Crystal
CJ	Circuit Jumper
CR	Diode
DS	Lamp
FL	Filter
TP	Test Point
WG	Waveguide

2. Part Number-The part number is assigned by King Radio Corporation. The first three digits denote the type of device. Example: 007-1200-00; the 007 denotes a discrete device. The following list are some of the prefixes commonly used by KRC.

Prefix	Component
007	Transistor/Diode
017	Filter
019	Transformer
019	Inductor
030	Connector
111/096/102/106	Capacitor
120	Integrated Circuit
13X	Resistor

3. Description-Defines minimum specification of the component/part. Example: XSTR S NPN SRF2325 is Transistor, Silicon, NPN and the vendor part number is SRF2325. Example: CAP EL 150UF 50V is Capacitor, Electrolytic, value is 150 microfarad and voltage rating is 50 volts. Following are some of the abbreviations used under Description.

Abbreviation	Word
AL	Aluminum
BIFLR	Bifilar
CC	Carbon Composite
CF	Carbon Film
CH	Choke
CAP	Capacitor
CAP CR	Ceramic
DC	Disk Ceramic
DIO	Diode
EL	Electrolytic
FC	Fixed Composition
FERR	Ferrite
FLTR	Filter
FT	Feed Thru
HV	High Voltage
HW	Half Watt
IC	Integrated Circuit
MC	Monolithic Ceramic
MY	Mylar
PC	Polycarbonate
PF	Precision Film
PP	Paper
PS	Polystrene
QW	Quarter Watt
RES	Resistor
S	Silicon
SCR	Screw
SM	Silver Mica
STDF	Standoff
SW	Switch
TERM	Terminal
TN	Tantalum
TST PT	Test Point
TW	Tenth Watt
VA	Variable
WW	Wire Wound
XFMR	Transformer
XSTR	Transistor
XTAL	Crystal

4. Code UM- Unit of measure, Example: EA for each. The following units are used through the Illustrated Parts List.

Abbreviation	Word
EA	Each
FT	Foot
AR	As Required

5. BOM- Bill of Material is a breakdown of units or parts used to assemble one item.

6. Assy No.- Assembly Number is the assigned number used to identify a mechanical drawing.

ILLUSTRATED PARTS LIST

The Illustrated Parts List (IPL) is organized basically in the following three divisions, Bill of Material (200-XXXX-XX), Parts Layout (300-XXXX-XX), and the Electrical Schematic Diagram (002-XXXX-XX). The IPL may also contain the Final assembly or sub-assembly drawings.

The Assembly drawings reference their mechanical parts with a King Part Number (KPN). Electrical parts are referenced by their circuit designators (i.e. CR402, R908, etc.). Each Assembly parts list is assembled so that mechanical parts are first, in numerical part number order and electrical parts are second in circuit designation order.

The following unusual numbers may appear at times on the BOM and are for commentary purposes only.

Example 1:

CR401 999-9999-99 DO NOT USE

The component designator CR401 had been previously used on the assembly and then deleted; therefore, it cannot be reassigned.

Example 2:

CR401 999-9999-98 NOT USED

The component designator CR401 is available for future assignment and is not presently a part of the PC board/Final assembly.

Example 3:

CR401 999-9999-97 SEE NEXT ASSEMBLY

The component designator CR401 is used as part of the electrical circuit assembly but because of assembly or testing requirements may be part of another assembly.

CR401 999-9999-96 RESERVED

The component designator CR401 is reserved for future usage.

UNIT/BOARD VERSIONS

The BOM is arranged to show the Unit or Board version from left to right across the top of the BOM starting with the version -00.

The -00 through -XX are variants of a particular board assembly. Those parts that are peculiar to that particular board or assembly are shown in a vertical column directly below the -00 through -XX version.

(Optional -99)

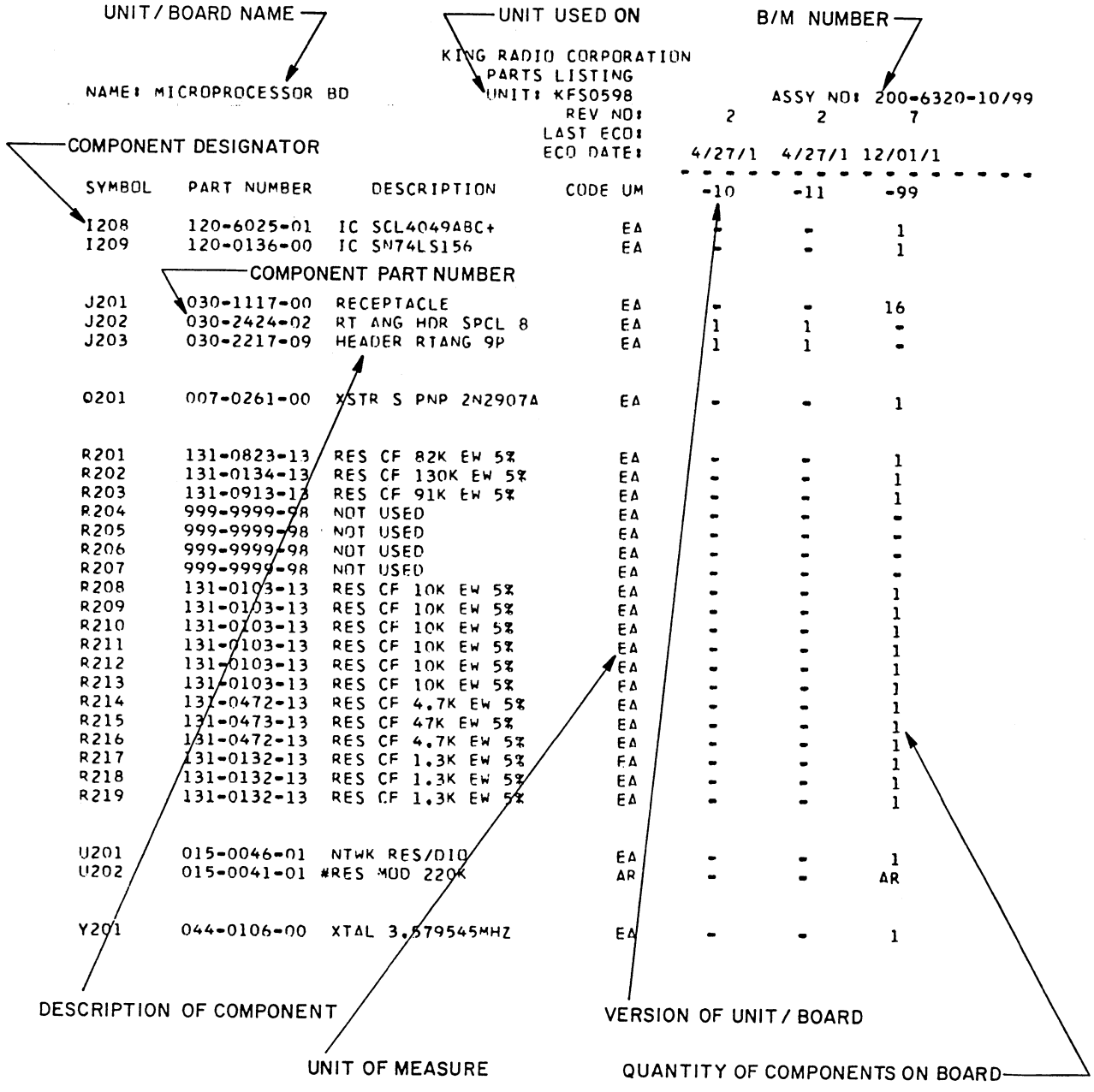
The -99 version is a listing of all the parts that are common to a board or unit assembly(-00 through -99 versions). See the examples below.

Example 1: Board Versions

Transmitter Board	-00	-01	-99	
007-2050-01	1	-	-	Part only on -00 board
007-2051-01	-	1	-	Part only on -01 board
007-2052-01	-	-	1	Part on both -00 and -01 boards

Example 2: Unit Versions

Nav/Comm	-00	-01	-99	
200-1234-01 VOR BD	1	-	-	Bd only on -00 Version
200-1234-02 VOR BD	-	1	-	Bd only on -01 Version
200-4321-01 GS BD	1	-	-	Bd only on -00 Version
200-4321-02 GS BD	-	1	-	Bd only on -01 Version
200-2222-00 PWR SUP	-	-	1	Bd in both -00/-01 Versions
200-1111-00 CHS ASSY	-	-	1	Assy in both -00/01 Versions



KING RADIO CORPORATION
PARTS LISTING

NAME: MICROPROCESSOR BD
UNIT: KFS0598
ASSY NO: 200-6320-10/99

				REV NO:	2	2	7
				LAST ECO:			
				ECO DATE:	4/27/1	4/27/1	12/01/1
SYMBOL	PART NUMBER	DESCRIPTION	CODE	UM	-10	-11	-99
I208	120-6025-01	IC SCL4049ABC+		EA	-	-	1
I209	120-0136-00	IC SN74LS156		EA	-	-	1
J201	030-1117-00	RECEPTACLE		EA	-	-	16
J202	030-2424-02	RT ANG HDR SPCL 8		EA	1	1	-
J203	030-2217-09	HEADER RTANG 9P		EA	1	1	-
Q201	007-0261-00	XSTR S PNP 2N2907A		EA	-	-	1
R201	131-0823-13	RES CF 82K EW 5%		EA	-	-	1
R202	131-0134-13	RES CF 130K EW 5%		EA	-	-	1
R203	131-0913-13	RES CF 91K EW 5%		EA	-	-	1
R204	999-9999-98	NOT USED		EA	-	-	-
R205	999-9999-98	NOT USED		EA	-	-	-
R206	999-9999-98	NOT USED		EA	-	-	-
R207	999-9999-98	NOT USED		EA	-	-	-
R208	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R209	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R210	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R211	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R212	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R213	131-0103-13	RES CF 10K EW 5%		EA	-	-	1
R214	131-0472-13	RES CF 4.7K EW 5%		EA	-	-	1
R215	131-0473-13	RES CF 47K EW 5%		EA	-	-	1
R216	131-0472-13	RES CF 4.7K EW 5%		EA	-	-	1
R217	131-0132-13	RES CF 1.3K EW 5%		EA	-	-	1
R218	131-0132-13	RES CF 1.3K EW 5%		EA	-	-	1
R219	131-0132-13	RES CF 1.3K EW 5%		EA	-	-	1
U201	015-0046-01	NTWK RES/DIO		EA	-	-	1
U202	015-0041-01	#RES MOD 220K		AR	-	-	AR
Y201	044-0106-00	XTAL 3.579545MHZ		EA	-	-	1

NAME	ASS'Y. NO.
BENCH TEST KIT	050-1451-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	071-6017-01	Holding Fixture		1				
	071-6018-06	Adapter, Gear		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL Dennis M. Harrington
NAME BENCH TEST KIT				ASS'Y. NO. 050-1451-00
ASS'Y. DWG.			UNIT KM 276	USED ON 065-0029-00/29
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

NAME	ASS'Y. NO.
BENCH TEST KIT	050-1453-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	071-6021-03	Adapter		1				
	071-6028-00	Test Stand		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME BENCH TEST KIT				ASS'Y. NO. 050-1453-00
ASS'Y. DWG.			UNIT KM 275	USED ON 065-0030-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

NAME	KTS 150 ACCESSORY KIT	ASS'Y. NO.	050-1498-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	037-0007-01	Bulb		10				
	047-1277-00	Card Puller		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME KTS 150 ACCESSORY KIT				ASS'Y. NO. 050-1498-00
ASS'Y. DWG.		UNIT KTS 150		USED ON 071-5025-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

NAME	ASS'Y. NO.
GYRO TEST KIT	071-5024-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	071-5024-00	Gyro Test Kit		X				
	047-4243-01	Block, Adjustment, 8° Tilt Panel	F	1				
	200-1841-00	Gyro Test Stand		1				
	200-1900-00	Gyro Extender Cable, KI255		1				
	037-0063-00	Cross Test Level		1				

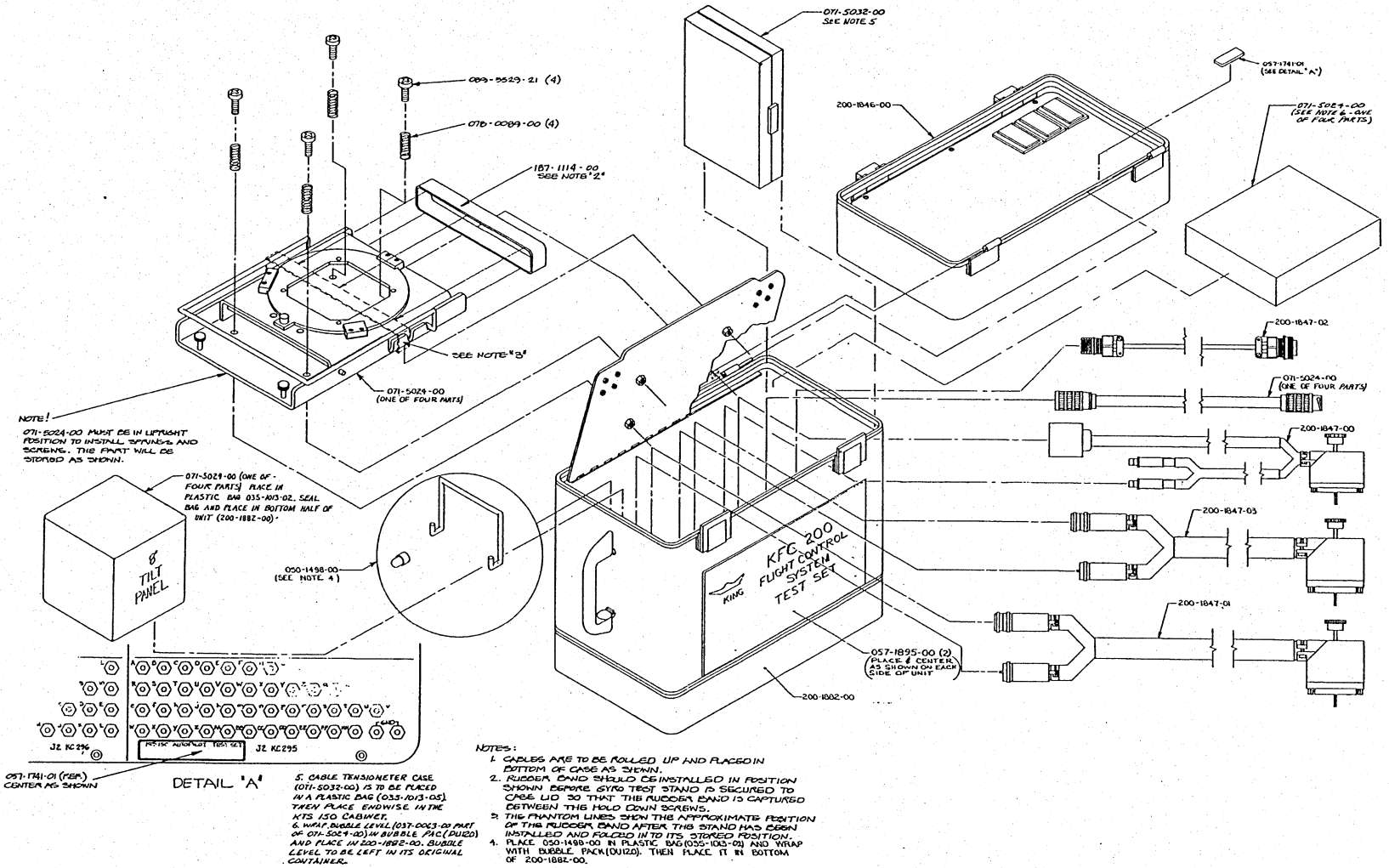
PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME GYRO TEST KIT				ASS'Y. NO. 071-5024-00
ASS'Y. DWG.			UNIT KTS 150	USED ON 071-5025-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1 2				
				KFC 200 Maintenance/Overhaul Manual Rev. 1, September, 1977

NAME	ASS'Y. NO.
FINAL ASS'Y KTS 150	071-5025-00

KING RADIO CORP. PARTS LISTING

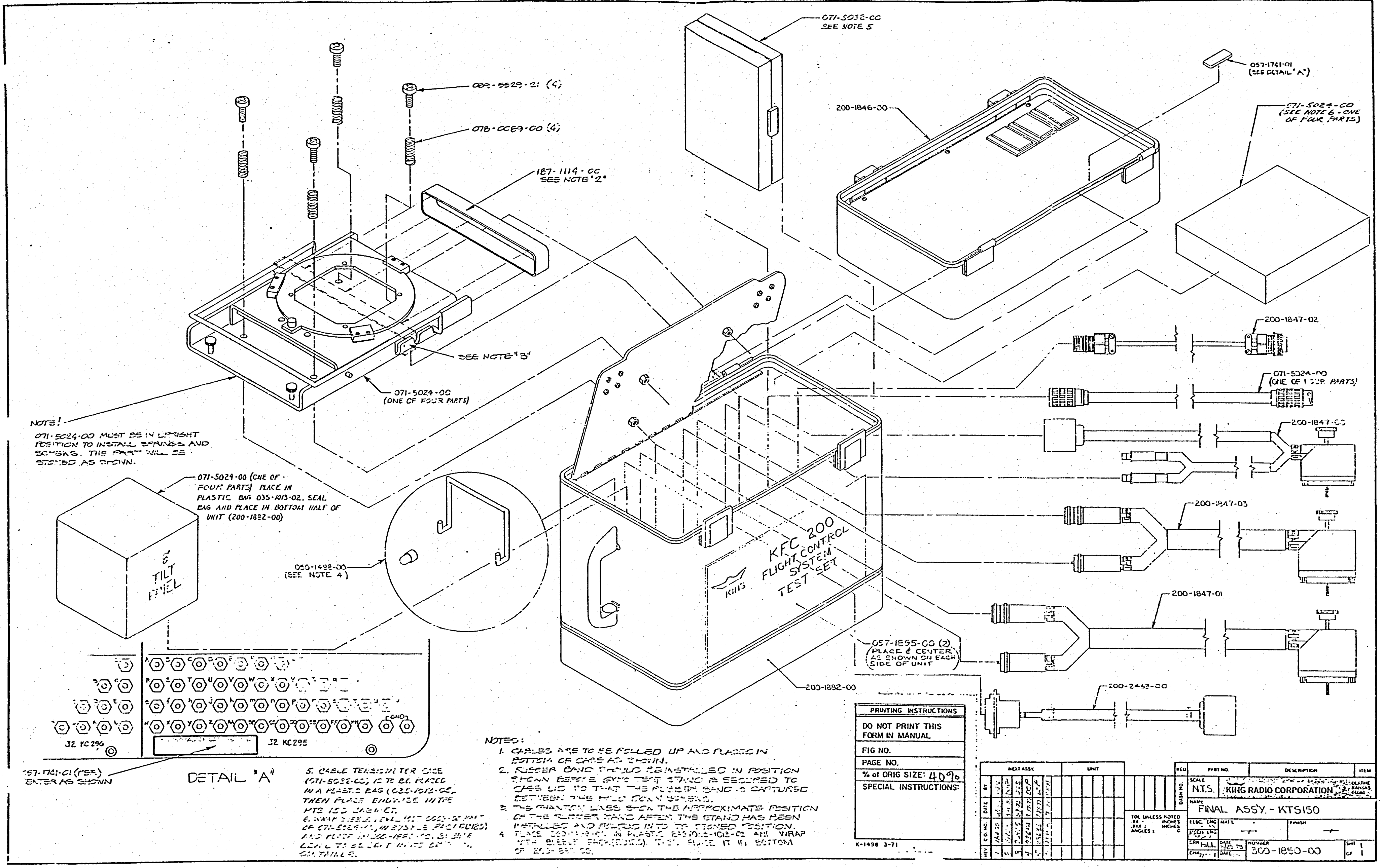
SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	071-5025-00	KTS 150 Flight Line Test Set		X				
	071-5024-00	Gyro Test Kit		1				
	035-1013-02	Plastic Bag		2				
	035-1013-05	Plastic Bag		1				
	057-1895-00	Decal		2				
	050-1498-00	Accessory Kit		1				
	050-1451-00	Bench Test Kit (KM276)		1				
	050-1453-00	Bench Test Kit (KM275)		1				
	057-1741-01	S/N Tag		1				
	078-0089-00	Spring, Comp.		4				
	089-5529-21	Screw, PHP, 8-32xl 5/16		4				
	187-1114-00	Band, Rubber		1				
	200-1846-00	Suitcase Ass'y Upper		1				
	200-1847-00	KC 296 Adapter Cable		1				
	200-1847-01	KC 295 Adapter Cable ACFT		1				
	200-1847-02	T&B Extender Cable		1				
	200-1847-03	KC 295 Adapter Cable Unit		1				
	200-1882-00	Suitcase Assy Lower		1				
	071-5032-00	Cable Tensionmeter		1				
	050-1708-00	KI256 Adapter Kit		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL Ron Wilson
NAME FINAL ASS'Y KTS 150				ASS'Y. NO. 071-5025-00
ASS'Y. DWG. 300-1850-00			UNIT KTS 150	USED ON Top Bill
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1 2 3				
4 5 6 7 8				
				KFC 200 Maintenance/Overhaul Manual Rev. 1, September, 1977



NOTES:
1. CABLES ARE TO BE ROLLED UP AND PLACED IN BOTTOM OF CASE AS SHOWN.
2. RUBBER BAND SHOULD BE INSTALLED IN POSITION SHOWN BEFORE GYRO TEST STAND IS SECURED TO CASE LID SO THAT THE RUBBER BAND IS CAPTURED BETWEEN THE HOLD DOWN SCREWS.
3. THE PHANTOM LINES SHOW THE APPROXIMATE POSITION OF THE RUBBER BAND AFTER THE STAND HAS BEEN INSTALLED AND FOLDED IN TO ITS STORED POSITION.
4. PLACE 050-1498-00 IN PLASTIC BAG (035-1013-01) AND WRAP WITH BUBBLE PACK (DU120). THEN PLACE IT IN BOTTOM OF 200-1882-00.
5. CABLE TENSIONETER CASE (071-5032-00) IS TO BE PLACED IN A PLASTIC BAG (035-1013-05) THEN PLACE ENDWISE IN THE KTS 150 CABINET.
6. WRAP BUBBLE LEVEL (057-0043-00 PART OF 071-5029-00) IN BUBBLE PAC (DU120) AND PLACE IN 200-1882-00. BUBBLE LEVEL TO BE LEFT IN ITS ORIGINAL CONTAINER.

FIGURE 5-1 FINAL ASSEMBLY
(Dwg. No. 300-1850-00, R-5)



071-5032-00 SEE NOTE 5
057-1741-01 (SEE DETAIL "A")
200-1846-00
071-5024-00 (SEE NOTE 6 - ONE OF FOUR PARTS)
088-5529-21 (4)
078-0069-00 (4)
187-1114-00 SEE NOTE "2"
SEE NOTE "3"
071-5024-00 (ONE OF FOUR PARTS)
NOTE 1 - 071-5024-00 MUST BE IN UPRIGHT POSITION TO INSTALL SPRINGS AND SCREWS. THE PART WILL BE STORED AS SHOWN.
071-5024-00 (ONE OF FOUR PARTS) PLACE IN PLASTIC BAG 035-1013-02. SEAL BAG AND PLACE IN BOTTOM HALF OF UNIT (200-1832-00)
TILT PANEL
050-1498-00 (SEE NOTE 4)
KFC 200 FLIGHT CONTROL SYSTEM TEST SET
KING
200-1847-02
071-5024-00 (ONE OF FOUR PARTS)
200-1847-00
200-1847-03
200-1847-01
057-1895-00 (2) PLACE & CENTER AS SHOWN ON EACH SIDE OF UNIT
200-1892-00
200-2463-00
GND
J2 KC296
J2 KC295
057-1741-01 (REF) ENTER AS SHOWN
DETAIL "A"
5. CABLE TENSIOMETER 071-5032-00 IS TO BE PLACED IN A PLASTIC BAG
NOTES:
1. CABLES ARE TO BE ROLLED UP AND PLACED IN BOTTOM OF CASE AS SHOWN.
2. RUBBER BAND SHOULD BE INSTALLED IN POSITION SHOWN BEFORE GYRO TEST STAND IS SECURED TO CASE LID SO THAT THE RUBBER BAND IS CAPTURED
PRINTING INSTRUCTIONS
DO NOT PRINT THIS FORM IN MANUAL
FIG NO.
PAGE NO.
% of ORIG SIZE: 40%
SPECIAL INSTRUCTIONS:
K-1498 3-71
NEXT ASSY
UNIT
TOL UNLESS NOTED
ANGLES
PART NO.
DESCRIPTION
ITEM
SCALE N.T.S.
KING RADIO CORPORATION
FINAL ASSY. - KTS150
300-1850-00
SHT 1 OF 1

NAME	ASS'Y. NO.
GYRO TEST STAND	200-1841-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1841-00	Gyro Test Stand Assy		X				
	047-3640-00	Pin		1				
	047-3716-02	Plate, Horizontal Gauge	FA	1				
	047-3717-00	Support, Pitch Angle		1				
	047-3718-01	Plate, Vertical Gauge	F	1				
	047-4589-02	Plate, Mounting	FA	1				
	076-0897-00	Screw, Knurled, 10-32		3				
	088-0580-00	Block, Support		3				
	088-0609-00	Spacer, Block Support		3				
	089-2136-00	Nut, Self Locking, 2-56		6				
	089-5899-08	Screw, PHP, 2-56		6				
	089-8023-30	Washer, #2 Flat		6				
	089-8223-00	Washer, Nylon		2				
	090-0188-00	Grip Ring		6				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME GYRO TEST STAND				ASS'Y. NO. 200-1841-00
ASS'Y. DWG. 300-1841-00		UNIT KTS 150		USED ON 071-5014-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1 2				
				KFC 200 Maintenance/Overhaul Manual Rev. 1, September, 1977

NOTES:
1. INSTALL PIN(047-3640-00) THRU 047-3716-02 AND 047-3718-01 CENTERING IT SUCH THAT EQUAL AMOUNTS OF PIN EXTEND OUT ON EACH SIDE OF 047-3716-02. INSTALL GRIP RING(090-0188-00) ON EACH END OF PIN(047-3640-00) IN POSITION BELOW. CAUTION: BE SURE GRIP RING (090-0188-00) IS INSTALLED AS CLOSE TO FLANGE OF 047-3716-02 AS POSSIBLE TO ELIMINATE HORIZONTAL PLAY.
2. INSTALL PITCH GAUGE(047-3717-00) INTO 047-3718-01 AS SHOWN BELOW. NOW INSTALL GRIP RING(090-0188-00) AS SHOWN. CAUTION: WHEN INSTALLING GRIP RINGS (090-0188-00) ON TO 047-3717-00 BE SURE THAT AS MUCH HORIZONTAL PLAY AS POSSIBLE IS TAKEN OUT YET STILL ALLOWING 047-3717-00 TO MOVE FREELY.
3. WHEN INSTALLING 088-0580-00 WITH SCREWS(089-5899-08) AND NUTS(089-2136-00), LEAVE NUTS(089-2136-00) SLIGHTLY LOOSE AND PUSH 088-0580-00 IN TOWARD 047-4589-02(MOUNTING PLATE IN DIRECTION SHOWN IN DETAIL "A". THEN TIGHTEN NUTS(089-2136-00). THIS SHOULD BE DONE ON ALL THREE SUPPORT BLOCKS(088-0580-00).

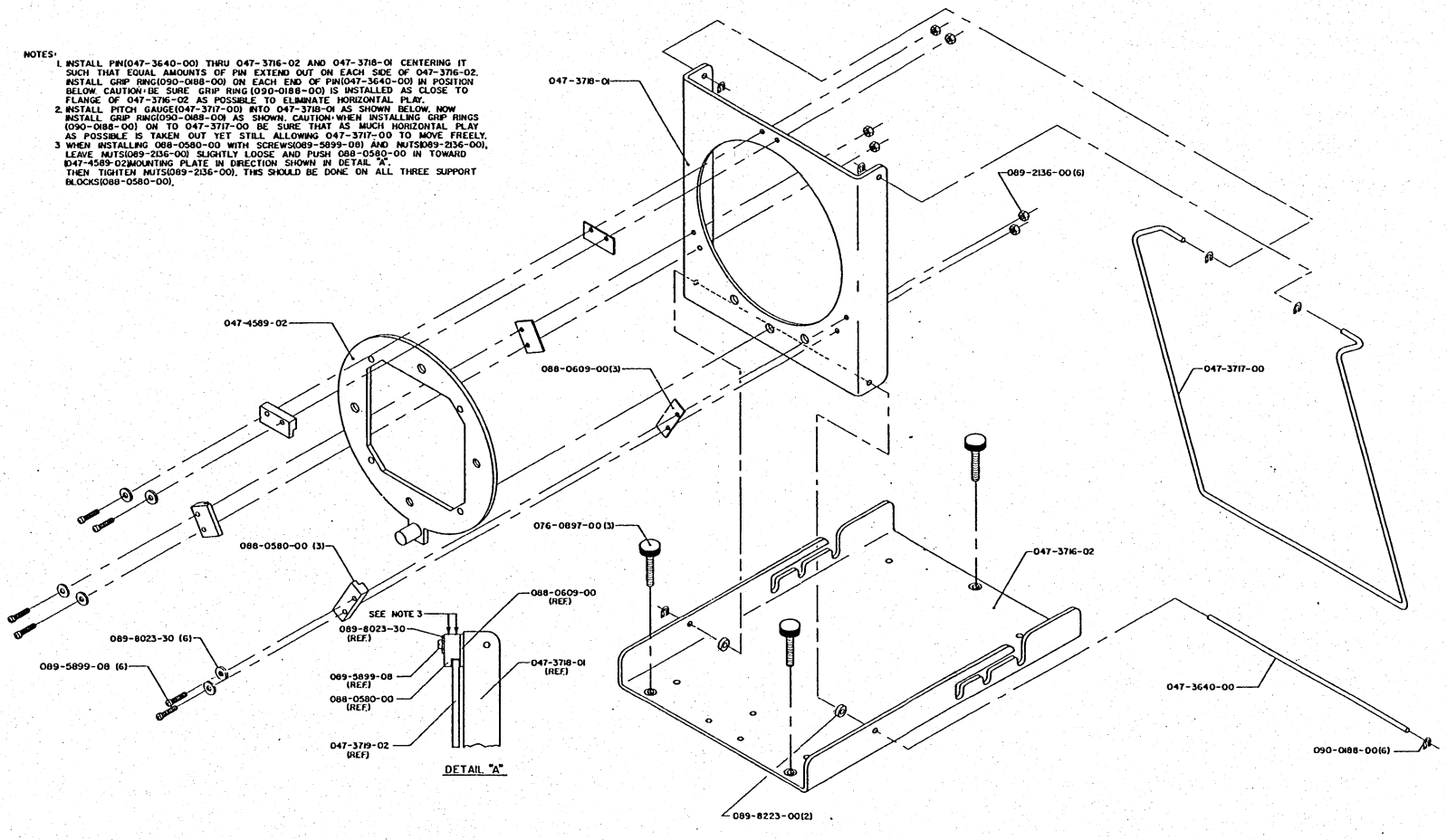


FIGURE 5-2 GYRO TEST STAND ASSEMBLY
(Dwg. No. 300-1841-00, R-2)

NAME	ASS'Y. NO.
CASE ASSY. UPPER W/PANEL	200-1846-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1846-00	Case Assy. Upper w/Panel		X				
	200-1853-00	Panel Harness Assy.		1				
	200-1852-00	Case Assy. Upper		1				
	089-6368-04	Scw, FHP, 4-40, Blk Chrome		6				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME: CASE ASSY. UPPER W/PANEL				ASS'Y. NO.: 200-1846-00
ASS'Y. DWG.: 300-1846-00			UNIT: KTS 150	USED ON: 071-5025-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

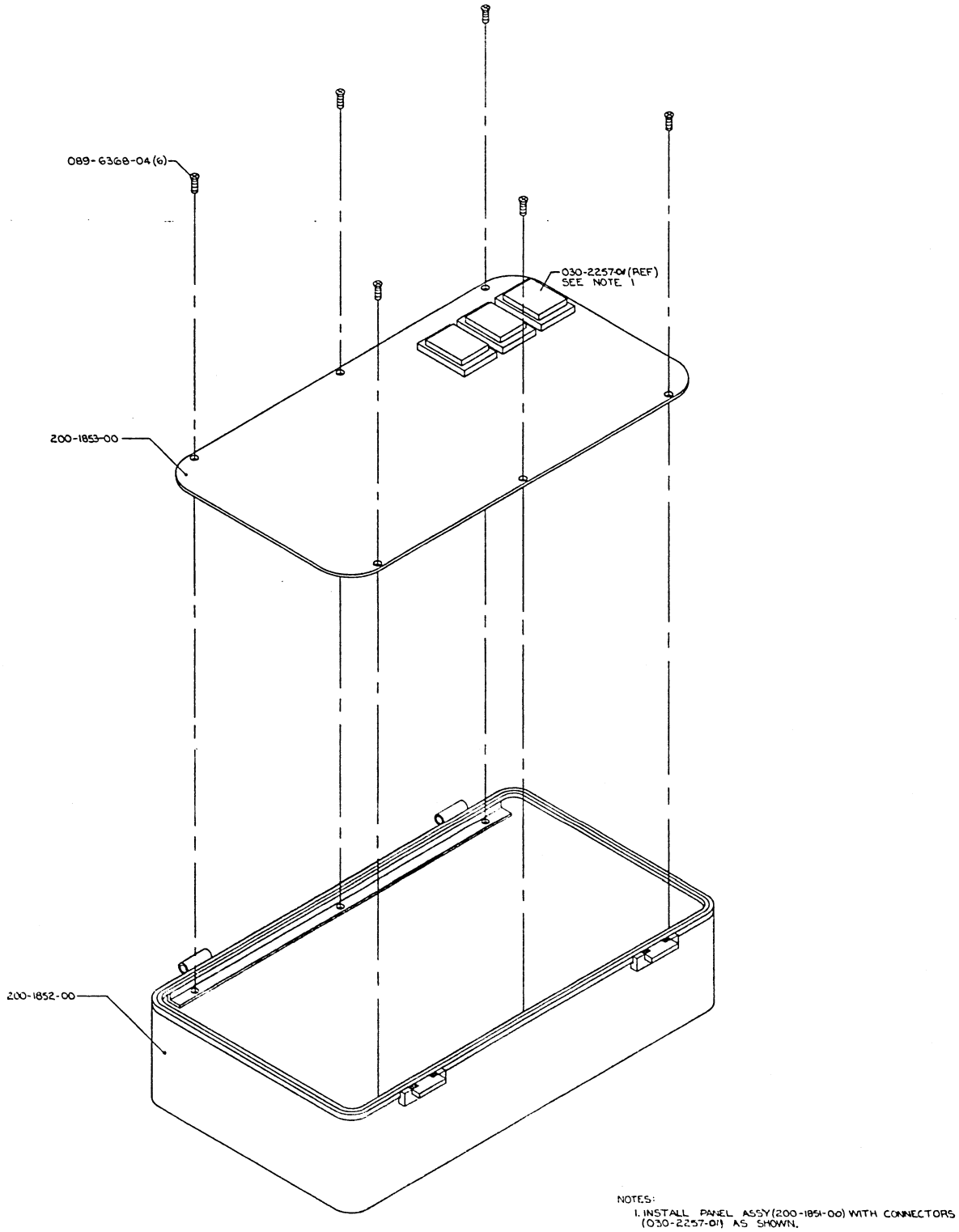
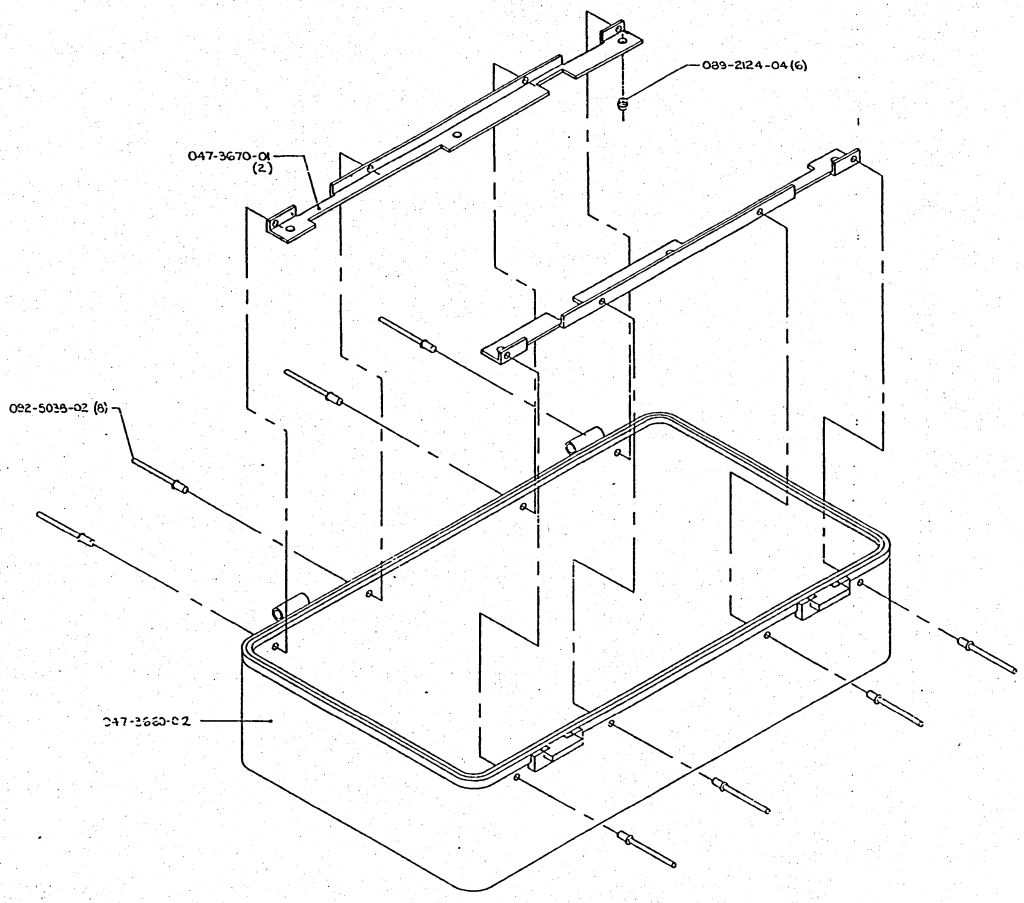
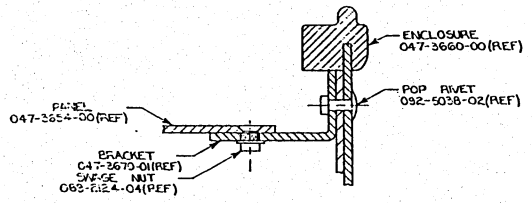
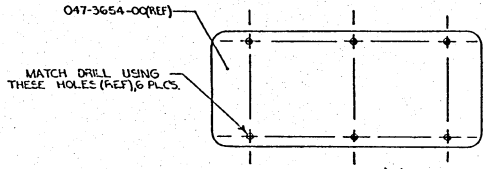


FIGURE 5-3 UPPER CASE ASSEMBLY WITH PANEL
(Dwg. No. 300-1846-00, R-0)





-DETAIL 'A'-
(N.T.S.)



-DETAIL 'B'-
(N.T.S.)

NOTES:
1. CENTER BRACKETS (047-3670-01) HORIZONTALLY WITH RESPECT TO ENCLOSURE OPENING, THEN POSITION AS SHOWN IN DETAIL 'A' & MATCH DRILL TO .129 DIA ± .005, 8 PLCS AFTER MATCH DRILLING ENCLOSURE INSTALL POP RIVETS (092-5038-02) 8 PLCS AS SHOWN.
2. CENTER PANEL (047-3654-00) IN ENCLOSURE (047-3660-00) OPENING AND MATCH DRILL BRACKETS (047-3670-01) 6 PLCS. TO .156 ± .002 DIA (SEE DETAIL A & B). INSTALL SWAGE NUTS (089-2124-04) 6 PLCS FROM BOTTOM SIDE OF BRACKET (047-3670-00) AS SHOWN.
3. DEBURR ALL HOLES AFTER MATCH DRILLING.

300-1842-00	KT515C		
NEXT ASSY	UNIT		

REQ	PART NO.	DESCRIPTION	ITEM

SCALE 1/2 — KING RADIO CORPORATION

NAME ASS'Y, UPPER SUITCASE

ELEC ENG — MATL — FINISH —

MECH ENG —

DRN — DATE —

CHK — DATE —

NUMBER 300-1852-00

SHT 1 OF 1

NAME	ASS'Y. NO.
ADAPTER CABLE ASSY'S (KTS 150)	200-1847-00/03

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1847-00	KC 296 Adapter Cable		X				
	200-1847-01	KC 295 Adapter Cable (ACFT)			X			
	200-1847-02	T&B Extender Cable				X		
	200-1847-03	KC 295 Adapter Cable (Unit)					X	
	009-5768-00	P.C. Bd. #1, Connector		1				
	009-5769-00	P.C. Bd. #2, Connector		1				
	016-1129-00	RTV. Potting Compound		AR				
	025-0004-01	Wire, Brn, 20 Awg					4	
	025-0004-10	Wire, Blk/Wht, 20 Awg		4	12		4	
	025-0004-11	Wire, Brn/Wht, 20 Awg		4	12		4	
	025-0004-12	Wire, Red/Wht, 20 Awg		12	12			
	025-0004-13	Wire, Orn/Wht, 20 Awg		12	12			
	025-0004-14	Wire, Yel-Wht. , 20 Awg			12		4	
	025-0004-15	Wire, Grn- Wht, 20 Awg			12		4	
	025-0005-00	Wire, Blk, 18 Awg		4			4	
	025-0005-01	Wire, Brn, 18 Awg		4	12			
	025-0005-02	Wire, Red, 18 Awg		4				
	025-0005-03	Wire, Org, 18 Awg		4	12		4	
	025-0005-04	Wire, Yel, 18 Awg		4	12		4	
	025-0005-05	Wire, Grn, 18 Awg		12	12		4	
	025-0005-06	Wire, Blu, 18 Awg		12	12		4	
	025-0005-07	Wire, Pur, 18 Awg		12	12		4	
	025-0005-08	Wire, Gry, 18 Awg		12	12			
	025-0005-09	Wire, Wht, 18 Awg		12				
	~~025-0005-10~~	~~Wire, Blk/Wht, 18 Awg~~			~~12~~		~~4~~	
	~~025-0005-11~~	~~Wire, Brn/Wht, 18 Awg~~			~~12~~		~~4~~	
	025-0005-12	Wire, Red/Wht, 18 Awg					4	
	025-0005-13	Wire, Orn/Wht, 18 Awg					4	
	025-0005-14	Wire, Yel/Wht, 18 Awg					4	
	~~025-0005-15~~	~~Wire, Grn/Wht, 18 Awg~~			~~12~~		~~4~~	
	025-0024-00	Wire, Blk, 22 Awg				8		
	025-0024-01	Wire, Brn, 22 Awg				8		
	025-0024-04	Wire, Yel, 22 Awg				8	4	
	025-0024-08	Wire, Gry, 22 Awg					4	
	025-0024-10	Wire, Blk/Wht, 22 Awg			12			
	025-0024-14	Wire, Yel/Wht, 22 Awg			12			
	025-0024-16	Wire, Blu/Wht, 22 Awg					4	

NAME	ASS'Y. NO.
ADAPTER CABLE ASSY'S (KTS 150)	200-1847-00/03

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	025-0024-37	Wire, Wht/Vio, 22 Awg			12			
	025-0024-38	Wire, Wht/Gry, 22 Awg					4	
	025-0024-39	Wire, Yel/Red, 22 Awg			12			
	025-0024-41	Wire, Yel/Orn, 22 Awg					4	
	025-0024-74	Wire, Red/Pur, 22 Awg			12		4	
	025-0024-75	Wire, Red/Blu, 22 Awg			12			
	025-0029-00	Wire, Blk, 24 Awg		12				
	025-0029-01	Wire, Brn, 24 Awg					4	
	025-0029-02	Wire, Red, 24 Awg				8		
	025-0029-03	Wire, Orn, 24 Awg				8	4	
	025-0029-04	Wire, Yel, 24 Awg			12			
	025-0029-05	Wire, Grn, 24 Awg					4	
	025-0029-06	Wire, Blu, 24 Awg					4	
	025-0029-07	Wire, Pur, 24 Awg			12		4	
	025-0029-08	Wire, Gry, 24 Awg			12			
	025-0029-10	Wire, Blk/Wht, 24 Awg		4			4	
	025-0029-11	Wire, Brn/Wht, 24 Awg		4	12		4	
	025-0029-12	Wire, Red/Wht, 24 Awg		4	12			
	025-0029-13	Wire, Orn/Wht, 24 Awg		4	12		4	
	025-0029-14	Wire, Yel/Wht, 24 Awg		12			4	
	025-0029-15	Wire, Grn/Wht, 24 Awg		12	12		4	
	025-0029-16	Wire, Blu/Wht, 24 Awg		12	12			
	025-0029-17	Wire, Pur/Wht, 24 Awg		12	12		4	
	025-0029-18	Wire, Gry/Wht, 24 Awg		12	12		4	
	025-0029-19	Wire, Pink, 24 Awg		12	12		4	
	025-0029-20	Wire, Brn/Wht, 24 Awg		12	12		4	
	025-0029-21	Wire, Red/Yel, 24 Awg		12	12		4	
	025-0029-22	Wire, Grn/Yel, 24 Awg		12	12		4	
	025-0029-23	Wire, Blu/Yel, 24 Awg		12	12		4	
	025-0029-24	Wire, Pur/Yel, 24 Awg		12	12		4	
	025-0029-25	Wire, Gry/Yel, 24 Awg		12	12		4	
	025-0029-26	Wire, Orn/Blk, 24 Awg		12	12		4	
	025-0029-27	Wire, Yel/Blk, 24 Awg		12	12		4	
	025-0029-28	Wire, Red/Blk, 24 Awg		12	12		4	
	025-0029-29	Wire, Pur/Orn, 24 Awg		12	12		4	
	025-0029-30	Wire, Wht/Blk, 24 Awg		12	12		4	
	025-0029-31	Wire, Wht/Brn, 24 Awg		12	12		4	
	025-0029-32	Wire, Wht/Red, 24 Awg		12	12		4	
	025-0029-33	Wire, Wht/Orn, 24 Awg		12	12		4	
	025-0029-34	Wire, Wht/Yel, 24 Awg		12	12			
	025-0029-35	Wire, Wht/Grn, 24 Awg		12	12			
	025-0029-36	Wire, Wht/Blu, 24 Awg		12	12			
	025-0029-37	Wire, Wht/Vio, 24 Awg					4	
	025-0029-38	Wire, Wht/Gry, 24 Awg		12	12			
	025-0029-39	Wire, Yel/Red, 24 Awg		12			4	
	025-0029-40	Wire, Yel/Grn, 24 Awg		12	12		4	
	025-0029-41	Wire, Yel/Orn, 24 Awg		12	12			
	025-0029-42	Wire, Yel/Blu, 24 Awg		12	12		4	
	025-0029-43	Wire, Yel/Brn, 24 Awg		12	12		4	

NAME	ASS'Y. NO.
ADAPTER CABLE ASSY'S (KTS 150)	200-1847-00/03

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	025-0029-44	Wire, Blk/Yel, 24 Awg		12	12		4	
	025-0029-45	Wire, Blk/Orn, 24 Awg		12	12		4	
	025-0029-46	Wire, Blk/Brn, 24 Awg		12	12		4	
	025-0029-47	Wire, Blk/Red, 24 Awg		4	12		4	
	025-0029-48	Wire, Blk/Grn, 24 Awg		4	12		4	
	025-0029-49	Wire, Blk/Blu, 24 Awg		4	12		4	
	025-0029-50	Wire, Blk/Gry, 24 Awg		4	12		4	
	025-0029-51	Wire, Brn/Orn, 24 Awg		4	12		4	
	025-0029-52	Wire, Brn/Grn, 24 Awg		4	12		4	
	025-0029-53	Wire, Brn/Blu, 24 Awg		4	12		4	
	025-0029-54	Wire, Brn/Red, 24 Awg		4	12		4	
	025-0029-55	Wire, Orn/Brn, 24 Awg		4	12		4	
	025-0029-56	Wire, Orn/Grn, 24 Awg		4	12		4	
	025-0029-57	Wire, Orn/Blu, 24 Awg		4	12		4	
	025-0029-58	Wire, Orn/Red, 24 Awg		4	12		4	
	025-0029-59	Wire, Orn/Pur, 24 Awg		4	12		4	
	025-0029-60	Wire, Orn/Gry, 24 Awg		4	12		4	
	025-0029-61	Wire, Orn/Yel, 24 Awg		4	12		4	
	025-0029-62	Wire, Grn/Blk, 24 Awg		4	12		4	
	025-0029-63	Wire, Grn/Orn, 24 Awg		4	12		4	
	025-0029-64	Wire, Grn/Brn, 24 Awg		4	12		4	
	025-0029-65	Wire, Grn/Red, 24 Awg		4	12		4	
	025-0029-66	Wire, Grn/Blu, 24 Awg		4	12		4	
	025-0029-67	Wire, Blu/Red, 24 Awg		4	12		4	
	025-0029-68	Wire, Blu/Orn, 24 Awg		4	12		4	
	025-0029-69	Wire, Blu/Blk, 24 Awg		4	12		4	
	025-0029-70	Wire, Blu/Brn, 24 Awg		4	12		4	
	025-0029-71	Wire, Blu/Grn, 24 Awg		4	12		4	
	025-0029-72	Wire, Red/Brn, 24 Awg		4	12			
	025-0029-73	Wire, Red/Orn, 24 Awg		4	12			
	025-0029-74	Wire, Red/Pur, 24 Awg		4				
	025-0029-75	Wire, Red/Blu, 24 Awg		4	AR		AR	
	025-5005-00	Wire, Single Cond Shld			12		4	
	025-5005-22	Wire, Single Cond Shld			12		4	
	025-5006-00	Wire, 3 Cond Shielded			24		8	
	025-5012-00	Wire, 2 Cond Shielded			60		20	
	030-1085-00	Contact, FC 116N					8	
	030-1084-00	Contact, MC116N			7			
P101A	030-2257-00	Plug, 120 Pin					1	
P101B	030-2257-00	Plug, 120 Pin			1			
P102	030-2257-00	Plug, 120 Pin		1				
P104	030-2262-00	Connector, MS3101A-14S-5P				1		
P105	030-2250-00	Connector, MS3106-14S-5S				1		
P1-296	030-0107-01	Connector, 10/20 Contact		2				
P2-296	030-0107-01	Connector, 10/20 Contact		-				
P1KC295A	030-1076-00	Connector, GMCT50F-000-Y	2				1	
P1KC295B	030-1078-00	Connector, GMCTSOM-000-Y	2		1			
P2KC295A	030-1078-00	Connector, GMCTSOM-000-Y	2				1	
P2KC295B	030-1076-00	Connector, GMCT50F-000-Y	2		1			
	030-1068-00	Clamp, MS3057A-6				2		
	030-1080-00	Contact, FC120N			50		42	
	030-1081-00	Contact, MC120N			43		50	
	047-3751-02	Enclosure, Connector	MF	1				
	057-1748-00	S/N Tag		5	3		3	

NAME	ASS'Y. NO.
ADAPTER CABLE ASSY'S (KTS 150)	200-1847-00/03

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	030-2257-02	Hood, Connector		1	1		1	
	088-0438-00	Hood, Connector		2				
	090-0263-00	Bushing, Strain Relief		1				
	091-0109-00	Tie Wrap		2				
	091-0274-03	Tie Wrap				1		
	091-0274-04	Tie Wrap				1		
	091-0015-11	Grommet				2		
	~~150-0017-10~~	~~Shrink Tubing, 24 Awg~~		~~AR~~	~~AR~~	~~AR~~	AR	
	150-0025-10	Shrink Tubing, 8 Awg		AR	AR	AR	AR	
	150-0098-29	Insulating Tubing 1.0 ID			11.5		3.5	
	150-0098-16	Insulation Tubing #6ID				8		
	150-0098-23	Insulating Tubing 3/8ID		.92				
	150-0098-26	Insulating Tubing 5/8ID		21	.92		.92	
	089-2140-00	Nut, Self Locking, 4-40		4				
	089-5903-07	Screw,PHP,4-40 x 7/16		4				
	150-0020-10	Shrink Tubing, 16 Awg		AR	AR	AR	AR	
	150-0022-10	Shrink Tubing, 14 Awg		AR	AR	AR	AR	
	150-0024-10	Shrink Tubing, 10 Awg		AR	AR	AR	AR	
	030-1074-00	Connector Body, 50 Pin female			1		1	

WIRE CHART

P103 ACFT PC BOARD — P102 TEST SET — P1-296 (UNIT) UNIT CONNECTOR

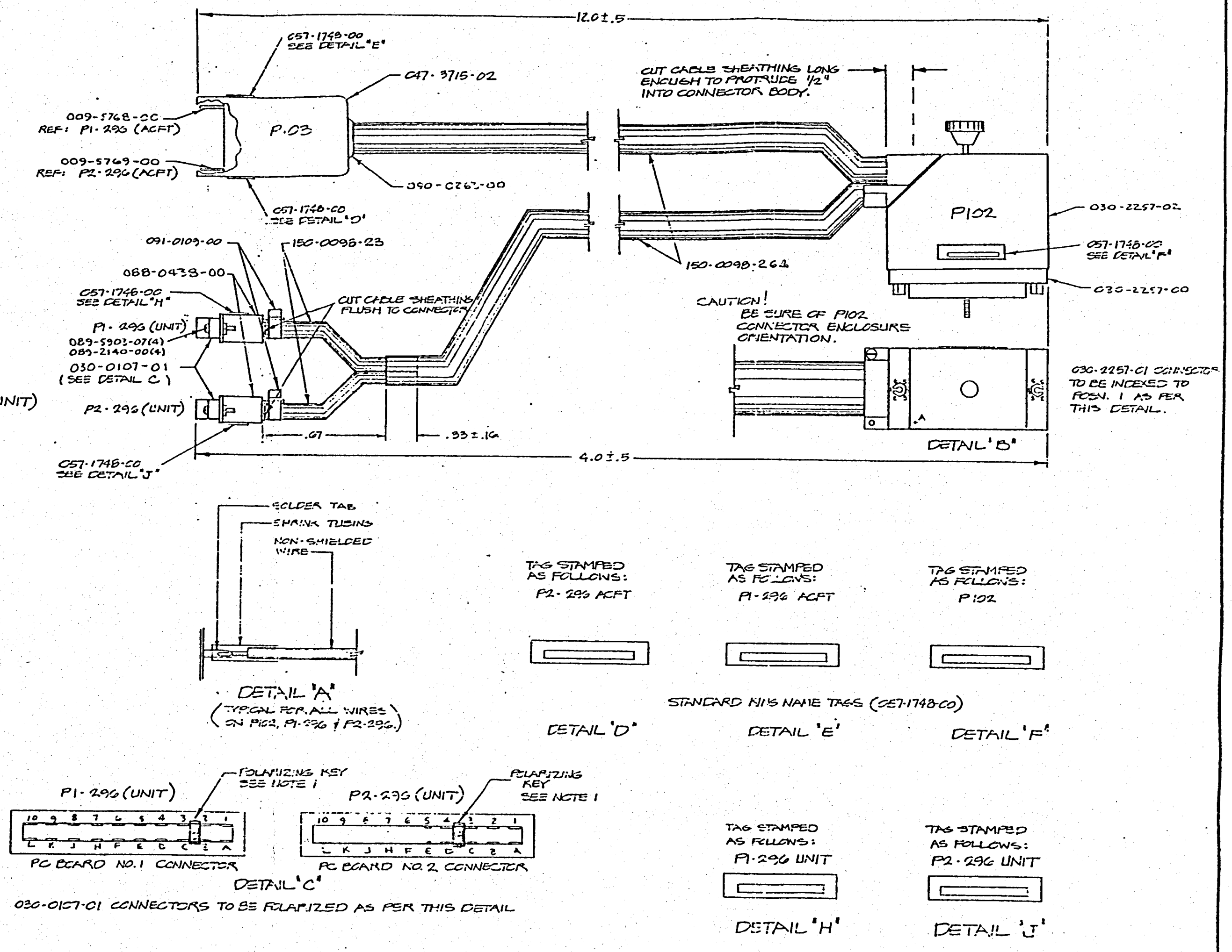
REF: P1-296 (ACFT)

296-1	WIRE P/N	COLOR	GA	P102	GA	COLOR	WIRE P/N	UNIT CONNECTOR
A	025-0005-09	WHITE	18	A	18	YELLOW	025-0005-04	A
B	025-0029-14	YEL-WHT	24	B	24	BLK-RED	025-0029-47	B
C	" " -15	GRN-WHT	"	C				
				Y	24	BLK-ORN	025-0029-48	C
D	025-0029-16	BL-WHT	24	D	"	BLK-BL	" " -49	D
E	" " -17	PUR-WHT	"	E	"	BLK-GRY	" " -50	E
F	" " -18	GRY-WHT	"	F				
				AY	24	BRN-ORN	025-0029-51	F
H	025-0029-19	PINK	24	H				
				AZ	24	BRN-GRN	025-0029-52	H
J	025-0029-20	BRN-YEL	24	J	"	BRN-BL	" " -53	J
K	" " -21	RED-YEL	"	K	"	BRN-RED	" " -54	K
L	" " -22	GRN-YEL	"	L	"	ORN-BRN	" " -55	L
1	" " -23	BL-YEL	"	M	"	ORN-GRN	" " -56	1
2	" " -24	PUR-YEL	"	N				
				Z	24	ORN-BL	025-0029-57	2
3	025-0029-25	GRY-YEL	24	P	"	ORN-RED	" " 58	3
4	" " -26	ORN-BLK	"	R	"	GRN-PUR	" " 59	4
5	" " -27	YEL-BLK	"	S	"	ORN-GRY	" " 60	5
6	" " -28	RED-BLK	"	T	"	ORN-YEL	" " 61	6
7	025-0004-13	ORN-WHT	20	U	20	BRN-WHT	025-0004-11	7
8	" " -12	RED-WHT	20	V	20	BLK-WHT	025-0004-10	8
9	025-0029-29	PUR-ORN	24	W	24	GRN-BLK	025-0029-62	9
10	" " -30	WHT-BLK	"	X	"	GRN-ORN	" " -63	10

P2-296 (UNIT)

REF: P2-296 (ACFT)

296-2	WIRE P/N	COLOR	GA	P102	GA	COLOR	WIRE P/N	UNIT CONNECTOR
A	025-0029-31	WHT-BRN	24	AA	24	GRN-BRN	025-0029-64	A
B	" " -32	WHT-RED	"	AB	"	GRN-RED	" " -65	B
C	025-0005-08	GREY	18	AC	18	ORANGE	025-0005-03	C
D	025-0029-33	WHT-GRN	24	AD	24	GRN-BL	025-0029-66	D
E	" " -34	WHT-YEL	"	AE	"	BL-RED	" " -67	E
F	" " -35	WHT-GRN	"	AF	"	BL-ORN	" " -68	F
H	" " -36	WHT-BL	"	AH	"	BL-BLK	" " -69	H
J	" " -00	BLACK	"	AJ	"	BL-BRN	" " -70	J
K	" " -38	WHT-GRY	"	AK	"	BL-GRN	" " -71	K
L	025-0005-07	PURPLE	18	AL	18	RED	025-0005-02	L
1	" " -06	BLUE	18	AM	18	BROWN	" " -01	1
2	" " -05	GREEN	18	AN				
				BA	18	BLACK	025-0005-00	2
3	025-0029-39	YEL-RED	24	AP	24	RED-BRN	025-0029-72	3
4	" " -40	YEL-GRN	"	AR	"	RED-ORN	" " -73	4
5	" " -41	YEL-ORN	"	AS	"	RED-PUR	" " -74	5
6	" " -42	YEL-BL	"	AT	"	RED-BL	" " -75	6
7	" " -43	YEL-BRN	"	AU	"	BRN-WHT	" " -11	7
8	" " -44	BLK-YEL	"	AV	"	RED-WHT	" " -12	8
9	" " -45	BLK-GRN	"	AW	"	ORN-WHT	" " -13	9
10	" " -46	BLK-BRN	"	AX	"	BLK-WHT	" " -10	10



NOTES:

1. CEMENT POLARIZING KEY ON P1-296 AND P2-296 WITH EASTMAN 910 (016-1015-00)
   CAUTION! DO NOT GET CEMENT ON CONNECTOR PINS.
2. SEE SHEET 2 FOR ASSEMBLY DETAIL OF P103.

NEXT ASSY	UNIT
071-5025-00	KTS-150

REV	C.O. NO.	DATE	BY
1	ENG	[illegible]	[illegible]
2	19361	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]
5	26284	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]

TOL UNLESS NOTED .XX ± — INCHES .XXX ± — INCHES ANGLES ± — °

KING RADIO CORPORATION — OLATHE, KANSAS

SCALE: NTS

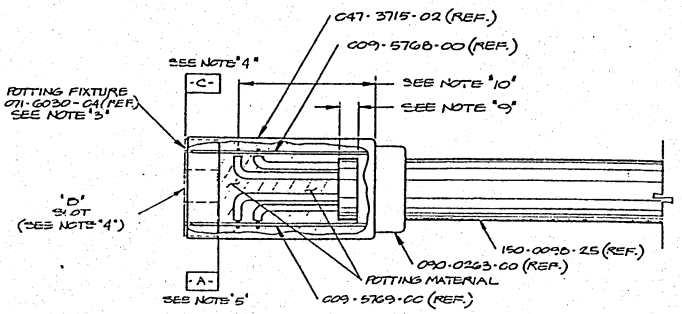
NAME: ASSEMBLY, ADAPTOR CABLE KC 296

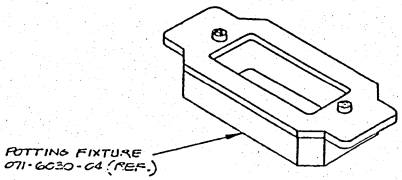
MAT'L: —

FINISH: 40 %

NUMBER: 300-1547-00

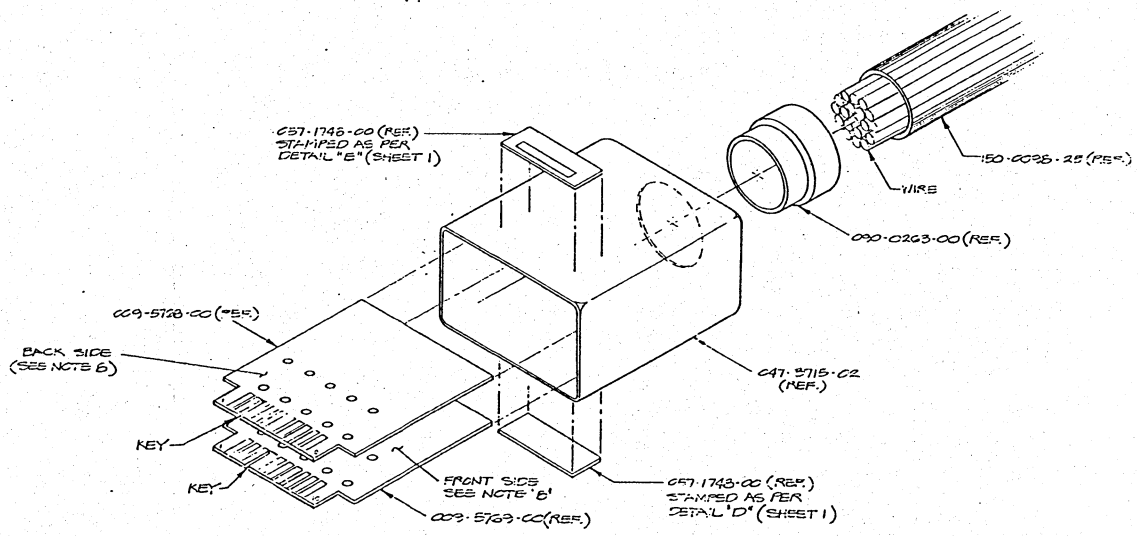
SHT 1 OF 2





NOTES: (CONT'D FROM PAGE 1)

3. POTTING FIXTURE (071-6030-04) IS RECOMMENDED FOR EASE OF ASSEMBLY OF P103.
4. POTTING FIXTURE (071-6030-04) SHOULD BE CLAMPED IN PLACE, USING A C-CLAMP, OR SOME OTHER CLAMPING DEVICE, BETWEEN SURFACE -C- AND THE BACK OF THE CONNECTOR SHELL (C47-3715-02). WHEN CLAMPED IN PLACE THE POTTING FIXTURE SHOULD BE AGAINST THE P.C. BOARDS, CAPTIVATING THEM BETWEEN ITSELF AND THE BACK OF THE CONNECTOR SHELL.
5. THE CONNECTOR SHELL SHOULD THEN BE FILLED WITH POTTING MATERIAL (CIG-II 29-00) THROUGH SLOT PROVIDED IN FIXTURE (071-6030-04) UP TO SURFACE -A- (MINIMUM) / .060 ABOVE SURFACE -A- (MAXIMUM).
6. POTTING COMPOUND (CIG-II 29-00) SHOULD BE MIXED PER SPECIFICATIONS SHOWN ON SPEC. CONTAINING USING CATALYST "F".
7. IT IS RECOMMENDED TO USE "BC34 GROW SILICON (CIG-IC27-00) FOR EASY REMOVAL OF 071-6030-04 AFTER POTTING MATERIAL HAS SET UP. USE AS REQUIRED ON POTTING FIXTURE.
8. PINOUT NUMBERS ARE ON P.C. BOARDS. SEE SHEET 1 OF THIS ASSEMBLY FOR WIRE CONNECTIONS.
9. CABLE SHEATHING (150-0098-25) SHOULD EXTEND .125/.000 INCHES PAST STRAIN RELIEF BUSHING AS SHOWN.
10. WIRES SHOULD EXTEND 2.7 ± 1/8 INCHES PAST BACK OF CONNECTOR SHELL (C47-3715-02) AS SHOWN.



DETAIL "G"
(ASSEMBLY DET. OF P103)

071-5025-00	KTS 150
NEXT ASSY	UNIT

REV	PART NO.	DESCRIPTION	ITEM

SCALE NTS. DRAWING NO. KING RADIO CORPORATION OLATHE, KANSAS 66061

NAME ASSEMBLY, ADAPTER CABLE, KC 150

ELEC ENG. MATL. FINISH 40%

MECH ENG.

DRN. DATE 9/11/75 NUMBER 300-1847-00 SHT 2 OF 2

CHK'D DATE

TOL UNLESS NOTED .XX ± .03 INCHES .XXX ± .010 INCHES ANGLES ± 1°

PARTS LIST REVISION HISTORY			ENGR. APPROVAL	
NAME: ADAPTER CABLE ASSY'S (KTS 150)			ASS'Y. NO.: 200-1847-00/03	
ASS'Y. DWG.: 300-1847-00/03		UNIT: KTS 150		USED ON: 071-5025-00

REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1	17794		016-1021-00	Added to B/M
			030-1085-00	Added to B/M
			030-1084-00	Added to B/M
			030-1080-00	P/N changed from 030-1077-00. Qty. in -03 changed from 50 to 43
			030-1081-00	P/N changed from 030-1079-00. Qty, in -01 changed from 50 to 43
			047-3715-02	Added to B/M
			057-1748-00	Added to B/M
			030-2257-02	Added to B/M
			090-0263-00	Added to B/M
			091-0109-00	Added to B/M
			091-0274-03	Added to B/M
			091-0274-04	Added to B/M
			150-0060-02	Deleted from B/M
			150-0098-29	Qty. in 00 & -02 deleted
			150-0098-16	Added to B/M
			150-0098-23	Added to B/M
			150-0098-25	Added to B/M
			150-0098-26	Added to B/M
2	17938		089-2140-00	Added to B/M
			089-5903-07	Added to B/M
3	18213		025-0004-01	Added to B/M
			025-0004-14	Added to B/M
			025-0004-15	Added to B/M
			150-0020-10	Added to B/M
			150-0022-10	Added to B/M
			150-0024-10	Added to B/M
			025-0005-10	Deleted from B/M
			025-0005-11	Deleted from B/M
			025-0005-15	Deleted from B/M
			150-0017-10	Deleted from B/M
		P101A	030-2257-00	P/N changed from 030-2257-01
		P101B	030-2257-00	P/N changed from 030-2257-01
			047-3751-02	P/N changed from 047-3715-02
			025-0004-10 thru 025-0004-13	Qty. added of 12 in -01
			025-0005-01	Qty. deleted from -03
			025-0005-12, 13. 025-0005-14	Qty. deleted from -01
			030-1085-00	Qty. changed from 7 to 8
			030-1080-00	Qty. changed from 43 in -03 to 42
			150-0025-10	AR added to -00 & -02
4	18711	P101A, B	030-2257-00	P/N's changed from 030-2257-01
			030-1074-00	Added to B/M
5	18804		057-1748-00	Qty. added on 00 of 5. on 01 to 3 from 5, from 3 on 02

PARTS LIST REVISION HISTORY				LNGR. APPROVAL
NAME: ADAPTER CABLE ASSY'S				ASS'Y. NO.: 200-1847-00/03
ASS'Y. DWG.: 300-1847-00/03			UNIT: KTS 150	USED ON: 071-5025-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
6	18873		150-0098-25	Deleted from B/M
			150-0098-26	Qty. added of 21 on -00
7	19106		091-0015-11	Added to B/M
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976
8	22824		016-1129-00	P/N changed from 016-1021-00
				KFC 200 Maintenance/Overhaul Manual Rev. 1, September, 1977
9	25284		091-0015-07	Added to B/M
10	25742		091-0015-01	P/N changed from 091-0015-11

ASSEMBLY REVISION HISTORY
ENGR: M. RINKER

ECO #	REV	ACTION	SYMBOL	PART NUMBER	QUANTITY
40513	11	DELETE		091-0015-07	1.00

updated
test
11/3/92

ASSEMBLY REVISION HISTORY

ECO #	REV	ACTION	SYMBOL	PART NUMBER	QUANTITY
41389	1				
		Add		025-00024-0000	8.00
		Add		025-00024-0001	8.00
		Add		025-00024-0004	8.00
		Add		025-00024-0008	8.00
		Add		025-00024-0010	8.00
		Add		025-00024-0014	8.00
		Add		025-00024-0016	8.00
		Add		025-00024-0037	8.00
		Add		025-00024-0038	8.00
		Add		030-02016-0000	1.00
		Add		030-02028-0000	1.00
		Add		150-00020-0010	0.00
		Add		150-00022-0010	0.00
		Add		150-00024-0010	0.00
		Add		150-00025-0010	0.00
		Add		150-00098-0016	8.00
41586	2				
		Add		091-00274-0028	1.00
96635	3				
		Delete		030-02016-0000	1.00
		Add		030-02421-0000	1.00

200-01847-0000 ADPT CABLE ASSY R: 11 ECO: 40513 KTS0150
200-01847-0001 ADPT CABLE ASSY R: 10 ECO: 25742 KTS0150
200-01847-0002 ADPT CABLE ASSY R: 10 ECO: 25742 KTS0150
200-01847-0003 ADPT CABLE ASSY R: 10 ECO: 25742 KTS0150
200-01847-0004 331 ADAPTOR CABLE R: 3 ECO: 96635 KTS0150

MBOL	PART NUMBER	DESCRIPTION	A	UM	QUANTITY 0000	0001	0002	0003	0004
	009-05768-0000	PC BD #2 CONN		EA	1.00	.	.	.	.
	009-05769-0000	PC BD #1 CONN		EA	1.00	.	.	.	.
	016-01129-0000	DC RTV 3110 ENCAP		AR	0.00	.	.	.	.
	025-00004-0001	WIRE 20 BRN		IN	.	.	.	48.00	.
	025-00004-0010	WIRE 20 BK/WH		IN	48.00	144.00	.	48.00	.
	025-00004-0011	WIRE 20 BN/WH		IN	48.00	144.00	.	48.00	.
	025-00004-0012	WIRE 20 RD/WH		IN	144.00	144.00	.	.	.
	025-00004-0013	WIRE 20 OR/WH		IN	144.00	144.00	.	.	.
	025-00004-0014	WIRE 20 YL/WH		IN	.	144.00	.	48.00	.
	025-00004-0015	WIRE 20 GN/WH		IN	.	144.00	.	48.00	.
	025-00005-0000	WIRE 18 BLK		IN	48.00	.	.	48.00	.
	025-00005-0001	WIRE 18 BRN		IN	48.00	144.00	.	.	.
	025-00005-0002	WIRE 18 RED		IN	48.00	.	.	.	.
	025-00005-0003	WIRE 18 ORN		IN	48.00	144.00	.	48.00	.
	025-00005-0004	WIRE 18 YEL		IN	48.00	144.00	.	48.00	.
	025-00005-0005	WIRE 18 GRN		IN	144.00	144.00	.	48.00	.
	025-00005-0006	WIRE 18 BLU		IN	144.00	144.00	.	48.00	.
	025-00005-0007	WIRE 18 VIO		IN	144.00	144.00	.	48.00	.
	025-00005-0008	WIRE 18 GRY		IN	144.00	144.00	.	.	.
	025-00005-0009	WIRE 18 WHT		IN	144.00	.	.	.	.
	025-00005-0012	WIRE 18 RD/WH		IN	.	.	.	48.00	.
	025-00005-0013	WIRE 18 OR/WH		IN	.	.	.	48.00	.
	025-00005-0014	WIRE 18 YL/WH		IN	.	.	.	48.00	.
	025-00024-0000	WIRE 22 BLK		IN	.	.	96.00	.	8.00
	025-00024-0001	WIRE 22 BRN		IN	.	.	96.00	.	8.00
	025-00024-0004	WIRE 22 YEL		IN	.	.	96.00	48.00	8.00
	025-00024-0008	WIRE 22 GRY		IN	.	.	.	48.00	8.00
	025-00024-0010	WIRE 22 BK/WH		IN	.	144.00	.	.	8.00
	025-00024-0014	WIRE 22 YL/WH		IN	.	144.00	.	.	8.00
	025-00024-0016	WIRE 22 BU/WH		IN	.	.	.	48.00	8.00
	025-00024-0037	WIRE 22 WH/VI		IN	.	144.00	.	.	8.00
	025-00024-0038	WIRE 22 WH/GY		IN	.	.	.	48.00	8.00
	025-00024-0039	WIRE 22 YL/RD		IN	.	144.00	.	.	.
	025-00024-0041	WIRE 22 YL/OR		IN	.	.	.	48.00	.
	025-00024-0074	WIRE 22 RD/VI		IN	.	144.00	.	48.00	.
	025-00024-0075	WIRE 22 RD/BU		IN	.	144.00	.	.	.
	025-00029-0000	WIRE 24 BLK		IN	144.00	.	.	.	.
	025-00029-0001	WIRE 24 BRN		IN	.	.	.	48.00	.
	025-00029-0002	WIRE 24 RED		IN	.	.	96.00	.	.
	025-00029-0003	WIRE 24 ORN		IN	.	.	96.00	48.00	.
	025-00029-0004	WIRE 24 YEL		IN	.	144.00	.	.	.
	025-00029-0005	WIRE 24 GRN		IN	.	.	.	48.00	.
	025-00029-0006	WIRE 24 BLU		IN	.	.	.	48.00	.
	025-00029-0007	WIRE 24 VIO		IN	.	144.00	.	48.00	.
	025-00029-0008	WIRE 24 GRY		IN	.	144.00	.	.	.
	025-00029-0010	WIRE 24 BK/WH		IN	48.00	.	.	48.00	.
	025-00029-0011	WIRE 24 BR/WH		IN	48.00	144.00	.	48.00	.
	025-00029-0012	WIRE 24 RD/WH		IN	48.00	144.00	.	.	.
	025-00029-0013	WIRE 24 OR/WH		IN	48.00	144.00	.	48.00	.
	025-00029-0014	WIRE 24 YL/WH		IN	144.00	.	.	48.00	.
	025-00029-0015	WIRE 24 GN/WH		IN	144.00	144.00	.	48.00	.
	025-00029-0016	WIRE 24 BU/WH		IN	144.00	144.00	.	.	.
	025-00029-0017	WIRE 24 VI/WH		IN	144.00	144.00	.	48.00	.
	025-00029-0018	WIRE 24 GY/WH		IN	144.00	144.00	.	48.00	.
	025-00029-0019	WIRE 24 PNK		IN	144.00	144.00	.	48.00	.
	025-00029-0020	WIRE 24 BN/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0021	WIRE 24 RD/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0022	WIRE 24 GN/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0023	WIRE 24 BU/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0024	WIRE 24 VI/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0025	WIRE 24 GY/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0026	WIRE 24 OR/BK		IN	144.00	144.00	.	48.00	.
	025-00029-0027	WIRE 24 YL/BK		IN	144.00	144.00	.	48.00	.
	025-00029-0028	WIRE 24 RD/BK		IN	144.00	144.00	.	48.00	.
	025-00029-0029	WIRE 24 VI/OR		IN	144.00	144.00	.	48.00	.
	025-00029-0030	WIRE 24 WH/BK		IN	144.00	144.00	.	48.00	.
	025-00029-0031	WIRE 24 WH/BN		IN	144.00	144.00	.	48.00	.

KING RADIO CORPORATION CAGE: 22373
PARTS LISTING

200-01847-XX

SYMBOL	PART NUMBER	DESCRIPTION	A	UM	QUANTITY 0000	0001	0002	0003	0004
	090-00263-0000	STRAIN RELIEF		EA	1.00	.	.	.	.
	091-00015-0001	RUBBER GRMT 17/64		EA	.	.	2.00	.	.
	091-00015-0007	RUBBER GRMT 5/8		EA	.	1.00	1.00	1.00	.
	091-00109-0000	CABLE TIE .234		EA	2.00	.	.	.	.
	091-00274-0003	CABLE TIE		EA	.	.	1.00	.	.
	091-00274-0004	CABLE TIE		EA	.	.	1.00	.	.
	091-00274-0028	CABLE TIE		EA	.	.	.	.	1.00
	150-00020-0010	TUBING SHRINK 18G		AR	0.00	0.00	0.00	0.00	0.00
	150-00022-0010	TUBING SHNK 14AWG		AR	0.00	0.00	0.00	0.00	0.00
	150-00024-0010	TUBING SHRINK 10G		AR	0.00	0.00	0.00	0.00	0.00
	150-00025-0010	TUBING SHRINK 8G		AR	0.00	0.00	0.00	0.00	0.00
	150-00098-0016	INSUL TUBING 6D		IN	.	.	96.00	.	96.00
	150-00098-0023	INSUL TUBING 3/8D		IN	11.10	.	.	.	.
	150-00098-0026	INSUL TUBING 5/8D		IN	252.00	11.10	.	11.10	.
	150-00098-0029	INSUL TUBING 1D		IN	.	138.00	.	42.00	.

200-01847-XX

SYMBOL	PART NUMBER	DESCRIPTION	A	UM	QUANTITY 0000	0001	0002	0003	0004
	025-00029-0032	WIRE 24 WH/RD		IN	144.00	144.00	.	48.00	.
	025-00029-0033	WIRE 24 WH/OR		IN	144.00	144.00	.	48.00	.
	025-00029-0034	WIRE 24 WH/YL		IN	144.00	144.00	.	.	.
	025-00029-0035	WIRE 24 WH/GN		IN	144.00	144.00	.	.	.
	025-00029-0036	WIRE 24 WH/BU		IN	144.00	144.00	.	.	.
	025-00029-0037	WIRE 24 WH/VI		IN	.	.	.	48.00	.
	025-00029-0038	WIRE 24 WH/GY		IN	144.00	144.00	.	.	.
	025-00029-0039	WIRE 24 YL/RD		IN	144.00	.	.	48.00	.
	025-00029-0040	WIRE 24 YL/GN		IN	144.00	144.00	.	48.00	.
	025-00029-0041	WIRE 24 YL/OR		IN	144.00	144.00	.	.	.
	025-00029-0042	WIRE 24 YL/BU		IN	144.00	144.00	.	48.00	.
	025-00029-0043	WIRE 24 YL/BN		IN	144.00	144.00	.	48.00	.
	025-00029-0044	WIRE 24 BK/YL		IN	144.00	144.00	.	48.00	.
	025-00029-0045	WIRE 24 BK/OR		IN	144.00	144.00	.	48.00	.
	025-00029-0046	WIRE 24 BK/BN		IN	144.00	144.00	.	48.00	.
	025-00029-0047	WIRE 24 BK/RD		IN	48.00	144.00	.	48.00	.
	025-00029-0048	WIRE 24 BK/GN		IN	48.00	144.00	.	48.00	.
	025-00029-0049	WIRE 24 BK/BU		IN	48.00	144.00	.	48.00	.
	025-00029-0050	WIRE 24 BK/GY		IN	48.00	144.00	.	48.00	.
	025-00029-0051	WIRE 24 BN/OR		IN	48.00	144.00	.	48.00	.
	025-00029-0052	WIRE 24 BN/GN		IN	48.00	144.00	.	48.00	.
	025-00029-0053	WIRE 24 BN/BU		IN	48.00	144.00	.	48.00	.
	025-00029-0054	WIRE 24 BN/RD		IN	48.00	144.00	.	48.00	.
	025-00029-0055	WIRE 24 OR/BN		IN	48.00	144.00	.	48.00	.
	025-00029-0056	WIRE 24 OR/GN		IN	48.00	144.00	.	48.00	.
	025-00029-0057	WIRE 24 OR/BU		IN	48.00	144.00	.	48.00	.
	025-00029-0058	WIRE 24 OR/RD		IN	48.00	144.00	.	48.00	.
	025-00029-0059	WIRE 24 OR/VI		IN	48.00	144.00	.	48.00	.
	025-00029-0060	WIRE 24 OR/GY		IN	48.00	144.00	.	48.00	.
	025-00029-0061	WIRE 24 OR/YL		IN	48.00	144.00	.	48.00	.
	025-00029-0062	WIRE 24 GN/BK		IN	48.00	144.00	.	48.00	.
	025-00029-0063	WIRE 24 GN/OR		IN	48.00	144.00	.	48.00	.
	025-00029-0064	WIRE 24 GN/BN		IN	48.00	144.00	.	48.00	.
	025-00029-0065	WIRE 24 GN/RD		IN	48.00	144.00	.	48.00	.
	025-00029-0066	WIRE 24 GN/BU		IN	48.00	144.00	.	48.00	.
	025-00029-0067	WIRE 24 BU/RD		IN	48.00	144.00	.	48.00	.
	025-00029-0068	WIRE 24 BU/OR		IN	48.00	144.00	.	48.00	.
	025-00029-0069	WIRE 24 BU/BK		IN	48.00	144.00	.	48.00	.
	025-00029-0070	WIRE 24 BU/BN		IN	48.00	144.00	.	48.00	.
	025-00029-0071	WIRE 24 BU/GN		IN	48.00	144.00	.	48.00	.
	025-00029-0072	WIRE 24 RD/BN		IN	48.00	144.00	.	.	.
	025-00029-0073	WIRE 24 RD/OR		IN	48.00	144.00	.	.	.
	025-00029-0074	WIRE 24 RD/VI		IN	48.00	.	.	.	.
	025-00029-0075	WIRE 24 RD/BU		IN	48.00	0.00	.	0.00	.
	025-05005-0000	WIRE 24G BLK		IN	.	144.00	.	48.00	.
	025-05005-0022	WIRE 24G RED		IN	.	144.00	.	48.00	.
	025-05006-0000	CA 3 CON WHTBLKRED		IN	.	288.00	.	96.00	.
	025-05012-0000	WIRE 2C SHD WHTBLK		IN	.	720.00	.	240.00	.
	030-00107-0001	CONN PC BD		EA	2.00	.	.	.	.
	030-01068-0000	CLAMP		EA	.	.	2.00	.	.
	030-01074-0000	CONN 50PIN FEMALE		EA	.	1.00	.	1.00	.
	030-01076-0000	CABLE CONN 50PIN F		EA	.	1.00	.	1.00	.
	030-01078-0000	CABLE CONN 50PIN M		EA	.	1.00	.	1.00	.
	030-01080-0000	CONN FM CRMP 20AWG		EA	.	50.00	.	42.00	.
	030-01081-0000	CONN ML CRMP 20AWG		EA	.	43.00	.	50.00	.
	030-01084-0000	CONTACT M CRIMP		EA	.	7.00	.	.	.
	030-01085-0000	CNTCT F CRMP 16AWG		EA	.	.	.	8.00	.
	030-02028-0000	CONN ASSY 9 PIN		EA	.	.	.	.	1.00
	030-02250-0000	CONNECTOR		EA	.	.	1.00	.	.
	030-02257-0000	CONN 120 PINS		EA	1.00	1.00	.	1.00	.
	030-02257-0002	CONN 120 PINS		EA	1.00	3.00	.	1.00	.
	030-02262-0000	5PIN CONNECTOR		EA	.	.	1.00	.	.
	030-02421-0000	CONNECTOR 9P		EA	.	.	.	.	1.00
	047-03751-0002	ENCL CONN W/F&HOLE		EA	1.00	.	.	.	.
	057-01748-0000	EQUIP CONT TAG		EA	5.00	5.00	.	3.00	.
	088-00438-0000	HOOD CONNECTOR		EA	2.00	.	.	.	.
	089-02140-0000	NUT LOCK 4-40		EA	4.00	.	.	.	.
	089-05903-0007	SCR PHP 4-40X7/16		EA	4.00	.	.	.	.

WIRE CHART

P103 ACFT PC BOARD — P102 TEST SET — P1-296 (UNIT) UNIT CONNECTOR

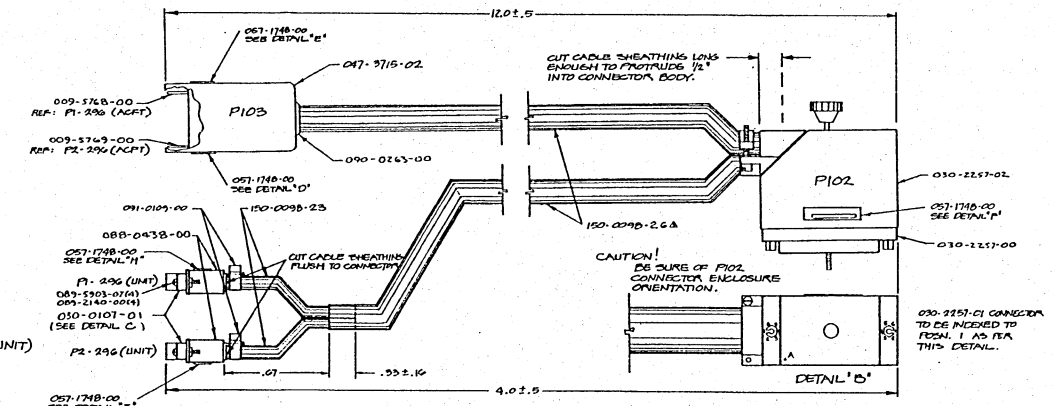
REF: P1-296 (ACFT) 296-1

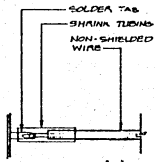
	WIRE P/N	COLOR	GA		GA	COLOR	WIRE P/N	
A	025-0005-09	WHITE	18	A	18	YELLOW	025-0005-04	A
B	025-0029-14	YEL-WHT	24	B	24	BLK-RED	025-0029-47	B
C	" " -15	GRN-WHT	"	C				
D	025-0029-16	BL-WHT	24	Y	24	BLK-GRN	025-0029-48	C
E	" " -17	PUR-WHT	"	D	"	BLK-BL	" " -49	D
F	" " -18	GRY-WHT	"	E	"	BLK-GRY	" " -50	E
				F				
H	025-0029-19	PINK	24	AY	24	BRN-GRN	025-0029-51	F
				H				
J	025-0029-20	BRN-YEL	24	AZ	24	BRN-GRN	025-0029-52	H
K	" " -21	RED-YEL	"	J	"	BRN-BL	" " -53	J
L	" " -22	ORN-YEL	"	K	"	BRN-RED	" " -54	K
1	" " -23	BL-YEL	"	L	"	ORN-BRN	" " -55	L
2	" " -24	PUR-YEL	"	M	"	ORN-BRN	" " -56	1
				N				
3	025-0029-25	GRY-YEL	24	Z	24	ORN-BL	025-0029-57	2
4	" " -26	ORN-BLK	"	P	"	ORN-RED	" " 58	3
5	" " -27	YEL-BLK	"	R	"	ORN-PUR	" " 59	4
6	" " -28	RED-BLK	"	S	"	ORN-GRY	" " 60	5
7	025-0004-13	ORN-WHT	22	T	"	ORN-YEL	" " 61	6
8	" " -12	RED-WHT	20	68 V	20	BRN-WHT	025-0004-11	7
9	025-0029-29	PUR-ORN	24	69 V	20	BLK-WHT	025-0004-10	8
10	" " -30	WHT-BLK	"	W	24	GRN-BLK	025-0029-62	9
				X	"	GRN-ORN	" " -63	10

P2-296 (UNIT)

REF: P2-296 (ACFT) 296-2

	WIRE P/N	COLOR	GA		GA	COLOR	WIRE P/N	
A	025-0029-31	WHT-BRN	24	AA	24	ORN-ORN	025-0029-64	A
B	" " -32	WHT-RED	"	AD	"	GRN-RED	" " -65	B
C	025-2005-08	GREY	18	AC	16	ORANGE	025-0005-03	C
D	025-0029-33	WHT-ORN	24	AD	24	GRN-BL	025-0029-66	D
E	" " -34	WHT-YEL	"	AE	"	EL-RED	" " -67	E
F	" " -35	WHT-GRN	"	AF	"	EL-ORN	" " -68	F
H	" " -36	WHT-BL	"	AH	"	BL-BLK	" " -69	H
J	" " -00	BLACK	"	AJ	"	BL-BRN	" " -70	J
K	" " -38	WHT-GRY	"	AK	"	BL-GRN	" " -71	K
L	025-0005-07	PURPLE	18	AL	18	RED	025-0005-02	L
1	" " -06	BLUE	18	AM	10	BROWN	" " -01	1
2	" " -09	GREEN	18	AN				
				BA	18	BLACK	025-0005-00	2
3	025-0029-39	YEL-RED	24	AP	24	RED-BRN	025-0029-72	3
4	" " -40	YEL-GRN	"	AR	"	RED-ORN	" " -73	4
5	" " -41	YEL-ORN	"	AS	"	RED-PUR	" " -74	5
6	" " -42	YEL-BL	"	AT	"	RED-BL	" " -75	6
7	" " -43	YEL-BRN	"	AU	"	BRN-WHT	" " -11	7
8	" " -44	BLK-YEL	"	AV	"	RED-WHT	" " -12	8
9	" " -45	BLK-ORN	"	AW	"	ORN-WHT	" " -13	9
10	" " -46	BLK-BRN	"	AX	"	BLK-WHT	" " -10	10

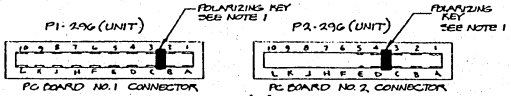




DETAIL 'A'
(TYPICAL FOR ALL WIRES ON P102, P1-296 & P2-296)

STANDARD KING NAME TAGS (057-1748-00)

DETAIL 'D' DETAIL 'E' DETAIL 'F'



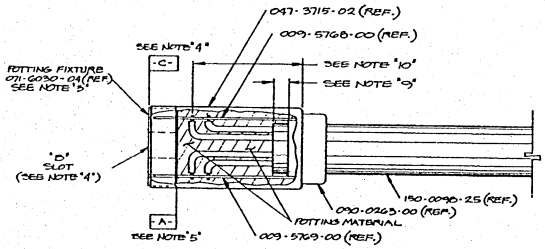
DETAIL 'C'

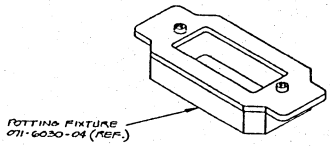
030-0107-01 CONNECTORS TO BE POLARIZED AS PER THIS DETAIL

DETAIL 'H' DETAIL 'J'

NOTES:
1. CEMENT POLARIZING KEY ON P1-296 AND P2-296 WITH EASTMAN 910 (016-1018-00) CAUTION! DO NOT GET CEMENT ON CONNECTOR PINS.
2. SEE SHEET '2' FOR ASSEMBLY DETAIL OF P103.

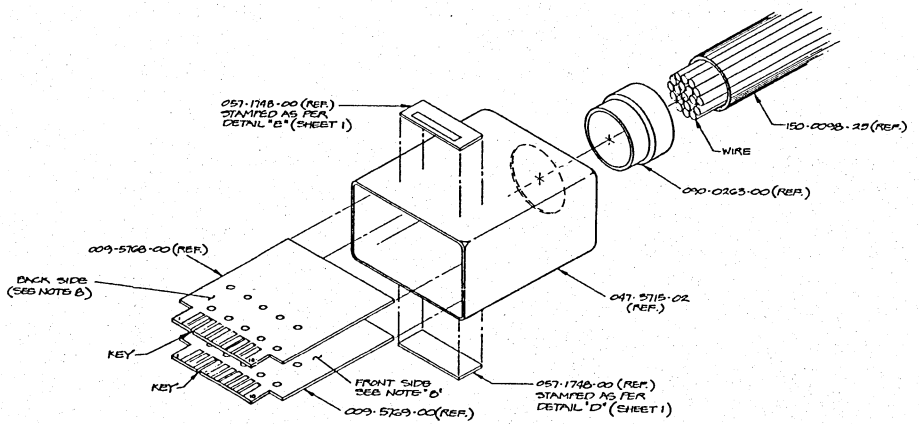
FIGURE 5-4 ADAPTER CABLE ASSEMBLY, KC 296
(Sheet 1 of 2)
(Dwg. No. 300-1847-00, R-4)





NOTES: (CONT'D FROM PAGE 1)

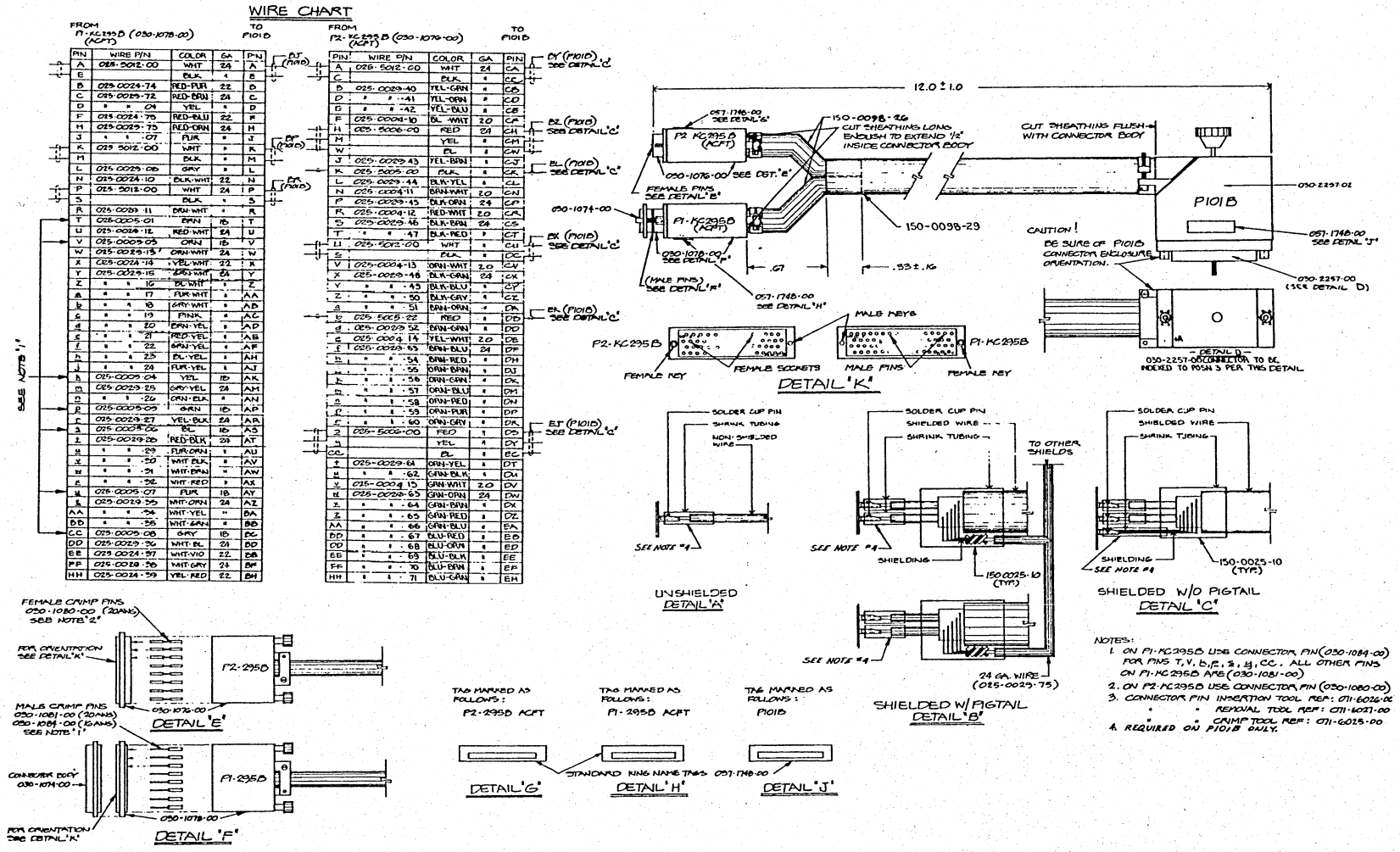
3. POTTING FIXTURE (071-6030-04) IS RECOMMENDED FOR BASE OF ASSEMBLY OF P103.
4. POTTING FIXTURE (071-6030-04) SHOULD BE CLAMPED IN PLACE, USING A C-CLAMP, OR SOME OTHER CLAMPING DEVICE, BETWEEN SURFACE -C- AND THE BACK OF THE CONNECTOR SHELL (047-3715-02). WHEN CLAMPED IN PLACE THE POTTING FIXTURE SHOULD BE AGAINST THE P.C. BOARDS, CAPTIVATING THEM BETWEEN ITSELF AND THE BACK OF THE CONNECTOR SHELL.
5. THE CONNECTOR SHELL SHOULD THEN BE FILLED WITH POTTING MATERIAL (016-11 29-00) THROUGH SLOT PROVIDED IN FIXTURE (071-6030-04) UP TO SURFACE -A- (MINIMUM) /.050 ABOVE SURFACE -A- (MAXIMUM).
6. POTTING COMPOUND (016-11 29-00) SHOULD BE MIXED PER SPECIFICATIONS SHOWN ON SPEC. DRAWING USING CATALYST "F".
7. IT IS RECOMMENDED TO USE "8034 CROWN SILICON (016-1027-00) FOR EASY REMOVAL OF 071-6030-04 AFTER POTTING MATERIAL HAS SET UP. USE AS REQUIRED ON POTTING FIXTURE.
8. PINOUT NUMBERS ARE ON P.C. BOARDS. SEE SHEET 1 OF THIS ASSEMBLY FOR WIRE CONNECTIONS.
9. CABLE SHEATHING (150-0098-25) SHOULD EXTEND .125/.000 INCHES PAST STRAIN RELIEF BUSHING AS SHOWN.
10. WIRES SHOULD EXTEND 2.7 ± 1/8 INCHES PAST BACK OF CONNECTOR SHELL (047-3715-02) AS SHOWN.



DETAIL "G"
(ASSEMBLY DET. OF P103)

FIGURE 5-4A ADAPTER CABLE ASSEMBLY, KC 296
(Sheet 2 of 2)
(Dwg. No. 300-1847-00, R-4)

KING
KTS 150
AUTOPILOT TEST SET



PIN	WIRE P/N	COLOR	GA	PIN
A	026-5012-00	WHT	24	A
E		BLK	"	E
B	025-0024-74	RED-PUR	22	B
C	025-0029-72	RED-BRN	24	C
D	" " -04	YEL	"	D
F	025-0024-75	RED-BLU	22	F
H	025-0029-75	RED-ORN	24	H
J	" " -07	PUR	"	J
K	025 5012-00	WHT	"	K
M		BLK	"	M
L	025-0029-06	GRY	"	L
N	025-0024-10	BLK-WHT	22	N
P	025-5012-00	WHT	24	P
S		BLK	"	S
R	026-0029-11	BRN-WHT	"	R
T	025-0025-01	BRN	16	T
U	025-0029-12	RED-WHT	24	U
V	025-0029-03	ORN	16	V
W	025-0029-13	ORN-WHT	24	W
X	025-0024-14	YEL-WHT	22	X
Y	025-0029-15	GRN-WHT	24	Y
Z	" " 16	BL-WHT	"	Z
AA	" " 17	PUR-WHT	"	AA
AB	" " 18	GRY-WHT	"	AD
AC	" " 19	PINK	"	AC
AD	" " 20	BRN-YEL	"	AD
AE	" " 21	RED-YEL	"	AB
AF	" " 22	GRN-YEL	"	AF
AH	" " 23	BL-YEL	"	AH
AJ	" " 24	PUR-YEL	"	AJ
AK	025-0029-04	YEL	16	AK
AM	025 0029-25	GRY-YEL	24	AM
AN	" " 26	ORN-BLK	"	AN
AP	025-0025-09	BRN	16	AP
AR	025-0029-27	YEL-BLK	24	AR
AS	025 0025-06	BL	16	AS
AT	025-0029-28	RED-BLK	24	AT
AU	" " 29	PUR-ORN	"	AU
AV	" " 30	WHT-BLK	"	AV
AW	" " 31	WHT-BRN	"	AW
AX	" " 32	WHT-RED	"	AX
AY	026-0025-07	PUR	16	AY
AZ	025-0029-33	WHT-ORN	24	AZ
BA	" " 34	WHT-YEL	"	BA
BD	" " 35	WHT-GRN	"	BD
BC	025-0025-08	GRY	16	BC
BD	025-0029-36	WHT-BL	24	BD
BB	025 0024-37	WHT-VIO	22	BB
BF	026-0029-38	WHT-GRY	24	BF
BH	025-0024-39	YEL-RED	22	BH

PIN	WIRE P/N	COLOR	GA	PIN
A	026-5012-00	WHT	24	CA
C		BLK	"	CC
D	025-0029-40	YEL-GRN	"	CB
D	" " -41	YEL-ORN	"	CD
G	" " -42	YEL-BLU	"	CB
F	026-0004-10	BL-WHT	20	CF
H	005-5006-00	RED	24	CH
M		YEL	"	CM
W		BL	"	CW
J	025-0029-43	YEL-BRN	"	CJ
K	025-5005-00	BLK	"	CK
L	025-0029-44	BLK-YEL	"	CL
N	025-0004-11	BRN-WHT	20	CN
P	025-0029-45	BLK-ORN	24	CP
R	025-0004-12	RED-WHT	20	CR
S	025-0029-46	BLK-BRN	24	CS
T	" " 47	BLK-RED	"	CT
U	025-5012-00	WHT	"	CU
S		BLK	"	CC
V	025-0004-13	ORN-WHT	20	CV
X	025-0029-48	BLK-GRN	24	CX
Y	" " 49	BLK-BLU	"	CY
Z	" " 50	BLK-GRY	"	CZ
a	" " 51	BRN-ORN	"	DA
b	025 5005-22	RED	"	DB
d	025-0029-52	BRN-GRN	"	DD
e	025-0004-14	YEL-WHT	20	DE
f	025-0029-53	BRN-BLU	24	DF
h	" " -54	BRN-RED	"	DH
j	" " -55	ORN-BRN	"	DJ
k	" " -56	ORN-GRN	"	DK
m	" " -57	ORN-BLU	"	DM
n	" " -58	ORN-RED	"	DN
p	" " -59	ORN-PUR	"	DP
r	" " -60	ORN-GRY	"	DR
2	005-5006-00	RED	1	DS
11		YEL	"	DY
CC		BL	"	EC
t	025-0029-61	GRN-YEL	"	DT
u	" " -62	GRN-BLK	"	DU
v	025-0004-15	GRN-WHT	20	DV
w	025-0029-63	GRN-ORN	24	DW
x	" " -64	GRN-BRN	"	DX
z	" " -65	GRN-RED	"	DZ
AA	" " -66	GRN-BLU	"	EA
BB	" " -67	BLU-RED	"	EB
CC	" " -68	BLU-ORN	"	ED
EE	" " -69	BLU-BLK	"	EE
FF	" " -70	BLU-BRN	"	EF
HH	" " -71	BLU-GRN	"	EH

NOTES:
1. ON P1-KC295B USE CONNECTOR PIN (030-1084-00) FOR PINS T, V, b, f, 2, y, CC. ALL OTHER PINS ON P1-KC295B ARE (030-1081-00)
2. ON P2-KC295B USE CONNECTOR PIN (030-1080-00)
3. CONNECTOR PIN INSERTION TOOL REF: 011-6026-00
   " " REMOVAL TOOL REF: 011-6027-00
   " " CRIMP TOOL REF: 011-6025-00
4. REQUIRED ON P101B ONLY.

FIGURE 5-4A CABLE ADAPTOR ASSEMBLY, KC 295, ACFT
(Dwg. No. 300-1847-01, R-2)

WIRE CHART

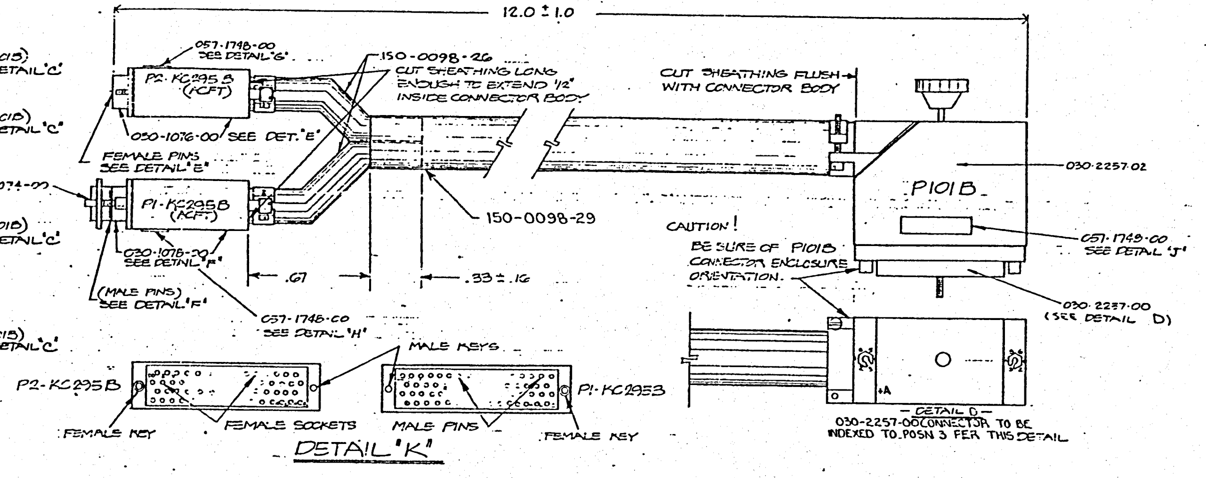
FROM
F1-KC295B (030-1078-00) (ACFT) — TO P101B

PIN	WIRE P/N	COLOR	GA	PIN	
A	025-5012-00	WHT	24	A	BJ (P101B)
E		BLK	"	E	
B	025-0024-74	RED-PUR	22	B	
C	025-0029-72	RED-BRN	24	C	
D	" " 04	YEL	"	D	
F	025-0024-75	RED-BLU	22	F	
H	025-0029-73	RED-ORN	24	H	
J	" " -07	PUR	"	J	
K	025-5012-00	WHT	"	K	BF (P101B)
M		BLK	"	M	
L	025-0029-08	GRY	"	L	
N	025-0024-10	BLK-WHT	22	N	
P	025-5012-00	WHT	24	P	BR (P101B)
S		BLK	"	S	
R	025-0029-11	[illegible]	"	R	
T	025-2005-01	BRN	18	T	
U	025-0029-12	RED-WHT	24	U	
V	025-0005-03	ORN	18	V	
W	025-0029-13	ORN-WHT	24	W	
X	025-0024-14	YEL-WHT	22	X	
Y	025-0029-15	GRN-WHT	24	Y	
Z	" " 16	BL-WHT	"	Z	
a	" " 17	PUR-WHT	"	AA	
b	" " 18	GRY-WHT	"	AB	
c	" " 19	PINK	"	AC	
d	" " 20	BRN-YEL	"	AD	
e	" " 21	RED-YEL	"	AE	
f	" " 22	GRN-YEL	"	AF	
h	" " 23	BL-YEL	"	AH	
j	" " 24	PUR-YEL	"	AJ	
k	025-0005-04	YEL	18	AK	
m	025-0029-25	GRY-YEL	24	AM	
n	" " -26	ORN-BLK	"	AN	
p	025-0005-05	GRN	18	AP	
r	025-0029-27	YEL-BLK	24	AR	
s	025-0005-06	BL	18	AS	
t	025-0029-28	RED-BLK	24	AT	
u	" " -29	PUR-GRN	"	AU	
v	" " -30	WHT-BLK	"	AV	
w	" " -31	WHT-BRN	"	AW	
x	" " -32	WHT-RED	"	AX	
y	025-0005-07	PUR	18	AY	
z	025-0029-33	WHT-ORN	24	AZ	
AA	" " -34	WHT-YEL	"	BA	
BB	" " -35	WHT-GRN	"	BB	
CC	025-0005-08	GRY	18	BC	
DD	025-0029-36	WHT-BL	24	BD	
EE	025-0024-37	WHT-VIO	22	BE	
FF	025-0029-38	WHT-GRY	24	BF	
HH	025-0024-39	YEL-RED	22	BH	

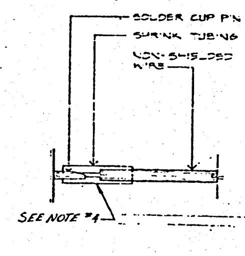
SEE NOTE "1"

FROM
P2-KC295B (030-1076-00) (ACFT) — TO P101B

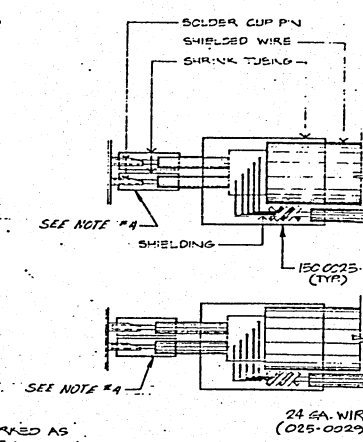
PIN	WIRE P/N	COLOR	GA	PIN	
A	025-5012-00	WHT	24	CA	BY (P101B) SEE DETAIL 'C'
C		BLK	"	CC	
B	025-0029-40	YEL-GRN	"	CB	
D	" " -41	YEL-ORN	"	CD	
E	" " -42	YEL-BLU	"	CE	
F	025-0024-10	BL-WHT	20	CF	
H	025-5008-00	RED	24	CH	BZ (P101B) SEE DETAIL 'C'
M		WHT	"	CM	
W		BL	"	CN	
J	025-0029-43	YEL-BRN	"	CJ	
K	025-5005-00	BLK	"	CK	EL (P101B) SEE DETAIL 'C'
L	025-0029-44	BLK-YEL	"	CL	
N	025-0004-11	BRN-WHT	20	CN	
P	025-0029-45	BLK-ORN	24	CP	
R	025-0004-12	RED-WHT	20	CR	
S	025-0029-46	BLK-BRN	24	CS	
T	" " -47	BLK-RED	"	CT	
U	025-5012-00	WHT	"	CU	BX (P101B) SEE DETAIL 'C'
c		BLK	"	DC	
V	025-0004-13	ORN-WHT	20	CV	
X	025-0029-48	BLK-GRN	24	CX	
Y	" " -49	BLK-BLU	"	CY	
Z	" " -50	BLK-GRY	"	CZ	
a	" " -51	BRN-ORN	"	DA	
b	025-5005-22	RED	"	DB	EK (P101B) SEE DETAIL 'C'
d	025-0029-52	BRN-GRN	"	DD	
e	025-0004-14	YEL-WHT	20	DE	
f	025-0029-53	BRN-BLU	24	DF	
h	" " -54	BRN-RED	"	DH	
j	" " -55	ORN-BRN	"	DJ	
k	" " -56	ORN-GRN	"	DK	
m	" " -57	ORN-BLU	"	DM	
n	" " -58	ORN-RED	"	DN	
p	" " -59	ORN-PUR	"	DP	
r	" " -60	ORN-GRY	"	DR	
s	025-5006-00	RED	"	DS	EJ (P101B) SEE DETAIL 'C'
t		WHT	"	DT	
CC		BL	"	EC	
+	025-0029-61	ORN-YEL	"	DT	
u	" " -62	GRN-BLK	"	DU	
v	025-0004-15	GRN-WHT	20	DV	
w	025-0029-63	GRN-ORN	24	DW	
x	" " -64	GRN-BRN	"	DX	
z	" " -65	GRN-RED	"	DZ	
AA	" " -66	GRN-BLU	"	EA	
BB	" " -67	BLU-RED	"	EB	
DD	" " -68	BLU-ORN	"	ED	
EE	" " -69	BLU-BLK	"	EE	
FF	" " -70	BLU-BRN	"	EF	
HH	" " -71	BLU-GRN	"	EH	



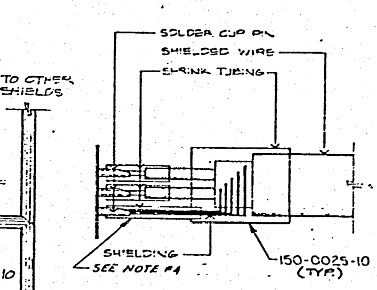
DETAIL 'K'



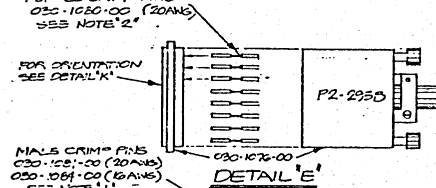
UNSHIELDED DETAIL 'A'



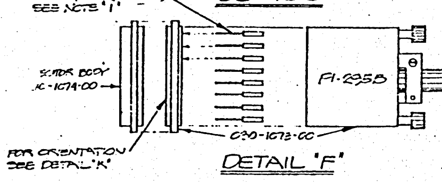
SHIELDED W/ PIGTAIL DETAIL 'B'



SHIELDED W/O PIGTAIL DETAIL 'C'



DETAIL 'E'

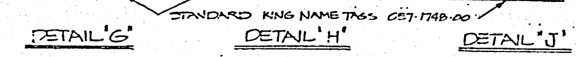


DETAIL 'F'

TAG MARKED AS FOLLOWS: P2-295B ACFT

TAG MARKED AS FOLLOWS: P1-295B ACFT

TAG MARKED AS FOLLOWS: P101B



DETAIL 'G' DETAIL 'H' DETAIL 'J'

NOTES:
1. ON P1-KC295B USE CONNECTOR PIN (030-1084-00) FOR PINS T, V, b, p, s, y, CC. ALL OTHER PINS ON P1-KC295B ARE (030-1081-00)
2. ON P2-KC295B USE CONNECTOR PIN (030-1080-00)
3. CONNECTOR PIN INSERTION TOOL REF: 071-6026-00
   " " REMOVAL TOOL REF: 071-6027-00
   " " CRIMP TOOL REF: 071-6025-00
4. REQUIRED ON P101B ONLY.

PRINTING INSTRUCTIONS	
DO NOT PRINT THIS FORM IN MANUAL	
FIG NO.	
PAGE NO.	
% of ORIG SIZE:	40%
SPECIAL INSTRUCTIONS:	

071-5025-00 — NEXT ASSY — KTS 150 — UNIT

SCALE NTS

NAME: ASSEMBLY, CABLE KC 295 ADAPTOR, ACFT

WIRE CHART

FROM P1 - KC 295A (030-1076-00) (UNIT) TO P101A

PIN	WIRE P/N	COLOR	GA.	PIN
A	025-5012-00	WHT	24	A
B	" " -20	BLK	"	B
C	025 C024-74	RED-PUR	22	C
D	025 0029-42	YEL-BLU	24	D
E	" " -05	ORN	"	E
F	025 0024-04	YEL	22	F
H	025-0029-05	GRN	24	H
J	" " -06	BLU	"	J
K	025-5012-00	WHT	"	K
M	" " -00	BLK	"	M
L	025-0029-07	PUR	"	L
N	025 0024-08	GRY	22	N
P	025-5012-00	WHT	24	P
S	" " -00	BLK	"	S
R	025-0029-11	BRN-WHT	"	R
T	025-0025-12	RED-WHT	18	T
U	025-0029-13	ORN-WHT	24	U
V	025-0025-14	YEL-WHT	18	V
W	025-0029-15	GRN-WHT	24	W
X	025-0028-16	BLU-WHT	22	X
Y	025 0029-17	PUR-WHT	24	Y
Z	" " -18	GRY-WHT	"	Z
a	" " -19	PINK	"	AA
b	" " -20	BRN-YEL	"	AB
c	" " -21	RED-YEL	"	AC
d	" " -22	ORN-YEL	"	AD
e	" " -23	BLU-YEL	"	AE
f	" " -24	PUR-YEL	"	AP
h	" " -25	GRY-YEL	"	AH
j	" " -26	ORN-BLK	"	AJ
k	025-0025-03	ORN	18	AK
m	025 0029-28	RED-BLK	24	AM
n	" " -29	PUR-ORN	"	AN
p	025-0025-04	YEL	18	AP
r	025-0029-31	WHT-BRN	24	AR
s	025 0025-05	GRN	18	AS
t	025-0029-33	WHT-ORN	24	AT
u	" " -34	WHT YEL	"	AU
v	" " -35	WHT GRN	"	AV
w	" " -36	WHT-BLU	"	AW
x	" " -37	WHT-VIO	"	AX
y	025-0025-00	BLU	18	AY
z	025 0029-39	YEL-RED	24	AZ
AA	" " -27	YEL-BLK	"	BA
BB	" " -30	WHT-BLK	"	BB
CC	025-0025-07	PUR	18	BC
DD	025-0029-32	WHT-RED	24	BD
EE	025 0024-36	WHT-GRY	22	BE
FF	025-0029-40	YEL-GRN	24	BF
HH	025-0024-41	YEL-ORN	22	BH

FROM P2 - KC 295A (030-1078-00) (UNIT) TO P101A

PIN	WIRE P/N	COLOR	GA.	PIN
A	025-5012-00	WHT	24	CA
C	" " -00	BLK	"	CC
D	025-0029-01	BRN	"	CB
E	" " -71	BLU-GRN	"	CD
F	" " -70	BLU-BRN	"	CE
H	025 0024-01	BRN	20	CF
M	025-5006-00	RED	24	CH
W	" " -00	WHT	"	CM
J	" " -00	BLK	"	CW
K	025-0029-69	BLU-BLK	"	CJ
L	025 5005-00	BLK	"	CK
N	025-0029-88	BLU-ORN	"	CL
P	025-0024-14	YEL-WHT	20	CN
R	025-0029-67	BLU-RED	24	CP
S	025-0029-13	ORN-WHT	"	CR
T	025-0029-10	BLK-WHT	"	CS
U	" " -66	GRN-BLU	"	CT
V	025-5012-00	WHT	"	CU
X	" " -00	BLK	"	CC
Y	025-0024-10	BLK-WHT	20	CV
Z	025-0029-14	YEL-WHT	24	CX
a	" " -65	GRN-RED	"	CY
b	" " -63	GRN-ORN	"	CZ
c	025-0029-62	GRN-BLK	"	DA
d	025-5005-22	RED	"	DB
e	025-0024-11	ORN-WHT	20	DC
f	025-0029-61	ORN-YEL	24	DE
h	" " -60	ORN-GRY	"	DF
j	" " -59	ORN-PUR	"	DH
k	" " -58	ORN-RED	"	DJ
m	" " -57	ORN-BLU	"	DK
n	" " -56	ORN-GRN	"	DM
p	" " -55	ORN-BRN	"	DN
r	" " -54	BRN-RED	"	DP
s	025-5000-00	RED	"	DR
u	" " -00	WHT	"	DS
CC	" " -00	BLK	"	DY
t	025-0029-53	BRN-BLU	"	EC
v	" " -52	BRN-GRN	"	DT
x	025-0024-15	GRN-WHT	20	DU
w	025-0029-51	BRN-ORN	24	DV
z	" " -50	BLK-GRY	"	DW
AA	" " -49	BLK-BLU	"	DX
BB	" " -48	BLK-GRN	"	DZ
DD	" " -47	BLK-RED	"	EA
EE	" " -46	BLK-BRN	"	EB
FF	" " -45	BLK-ORG	"	ED
HH	" " -44	BLK-YEL	"	EE
	" " -43	YEL-BRN	"	EF
				EH

SEE NOTE 1

BJ (P101A)

BF (P101A)

BP (P101A)

TO PIN F P1-295 SEE DET. S

BY (P101A) SEE DETAIL 'C'

BZ (P101A) 030-1074-00

EL (P101A) SEE DETAIL 'C'

BX (P101A) SEE DETAIL 'C'

EK (P101A) SEE DETAIL 'C'

BJ (P101A) SEE DETAIL 'C'

MALE PINS 050-1081-00

SEE NOTE 1 (FEMALE SOCKETS)

4.0 ± .33

051-1748-00 SEE DETAIL 'G'

150-0098-26

P2-KC295A (UNIT)

030-1079-00 SEE DETAIL 'E'

030-1076-00 SEE DETAIL 'F'

P1-KC295A (UNIT)

CUT CABLE SHEATHING LONG ENOUGH TO PROTRUDE 1/2" INTO CONNECTOR BODY

CUT CABLE SHEATHING FLUSH TO CONNECTOR

150-0098-29

.67

.93 ± .16

051-1748-00 SEE DETAIL 'H'

P101A

030-2257-02

087-1748-00 SEE DETAIL 'J'

030-2257-00 (SEE DETAIL D)

CAUTION! BE SURE OF P101A CONNECTOR ENCLOSURE ORIENTATION.

P1-KC295A

MALE KEYS

P2-KC295A

FEMALE KEY

FEMALE SOCKETS

MALE PINS

FEMALE KEY

DETAIL 'K'

.50

.20

- DETAIL D -

030-2257-00 CONNECTOR TO BE INDEXED TO POSN 2 PER THIS DETAIL

SOLDER CUP PIN

SHRINK TUBING

NON-SHIELDED WIRE

SEE NOTE 4

UNSHIELDED DETAIL 'A'

SOLDER CUP PIN

SHIELDED WIRE

SHRINK TUBING

TO OTHER SHIELDS

SHIELDING

SEE NOTE 4

150-0025-10 (TYP.)

SEE NOTE 4

216A. WIRE 025-0029-75

SHIELDED W/ PIGTAIL DETAIL 'B'

SOLDER CUP PIN

SHIELDED WIRE

SHRINK TUBING

SHIELDING

150-0025-10 (TYP.)

SEE NOTE 4

SHIELDED W/O PIGTAIL DETAIL 'C'

FEMALE CRIMP PINS 030-1080-00 (22AWG) 030-1083-00 (16AWG) SEE NOTE 1

P.R. ORIENTATION SEE DETAIL 'K'

P1-295

030-1076-00

DETAIL 'E'

MALE CRIMP PINS 030-1081-00 (22AWG) SEE NOTE 2

CONNECTOR BODY 030-1074-00

P.R. ORIENTATION SEE DETAIL 'K'

P2-295

030-1078-00

DETAIL 'F'

TAG STAMPED AS FOLLOWS: P2-295A UNIT

TAG STAMPED AS FOLLOWS: P1-295A UNIT

TAG STAMPED AS FOLLOWS: P101A

STANDARD KING NAME TAG (051-1748-00)

DETAIL 'G'

DETAIL 'H'

DETAIL 'J'

NOTES:

1. ON P1-KC 295 USE CONNECTOR PIN (030-1065-00) FOR PINS F, T, V, K, E, S, L, CC. ALL OTHER PINS ON P1-KC 295 ARE (030-1080-00).
2. ON P2-KC 295 USE CONNECTOR PINS (030-1081-20).
3. CONNECTOR PIN INSERTION TOOL (REF.): 071-6026-00
   " " REMOVAL TOOL (REF.): 071-6027-00
   " " CRIMP TOOL (REF.): 071-6025-00
4. REQUIRED ON P101A ONLY.

PRINTING INSTRUCTIONS
DO NOT PRINT THIS FORM IN MANUAL
FIG NO.
PAGE NO.
% of ORIG SIZE: 40%
SPECIAL INSTRUCTIONS:

271-5023-00	KTS 150
VENDOR	UNIT

REV	CO NO	DATE	BY
1	ENG.	11/4/71	RAP
2	ENG.	11/4/71	RAP
3	3K426	11/4/71	RAP

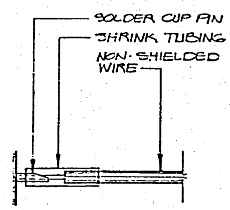
UNLESS NOTED OTHERWISE: ± .XXX ± .XX ANGLES ±

REQ	PART NO.	DESCRIPTION	ITEM
SCALE NONE	KING RADIO CORPORATION		
NAME	ASSEMBLY CABLE KC 295 ADAPTER, UNIT		
ENGR. RJC	MATL	FINISH	
DRFT. RJC			
CHKD.	DATE 12/6/71	NUMBER 300-1247-03	UNIT W 1

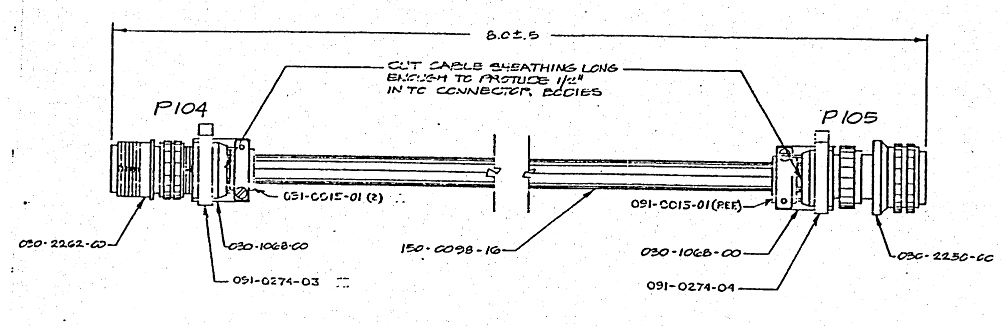
K-1498 3-71

WIRE CHART

P104 PIN	WIRE P/N	COLOR	GA	P105 PIN
A	025-0024-00	BLACK	22	A
B	" " -01	BROWN	"	B
C	025-0029-02	RED	24	C
D	" " -03	ORANGE	"	D
E	025-0024-04	YELLOW	22	E



DETAIL "A"
(TYP ALL WIRES AT BOTH CONNECTORS)



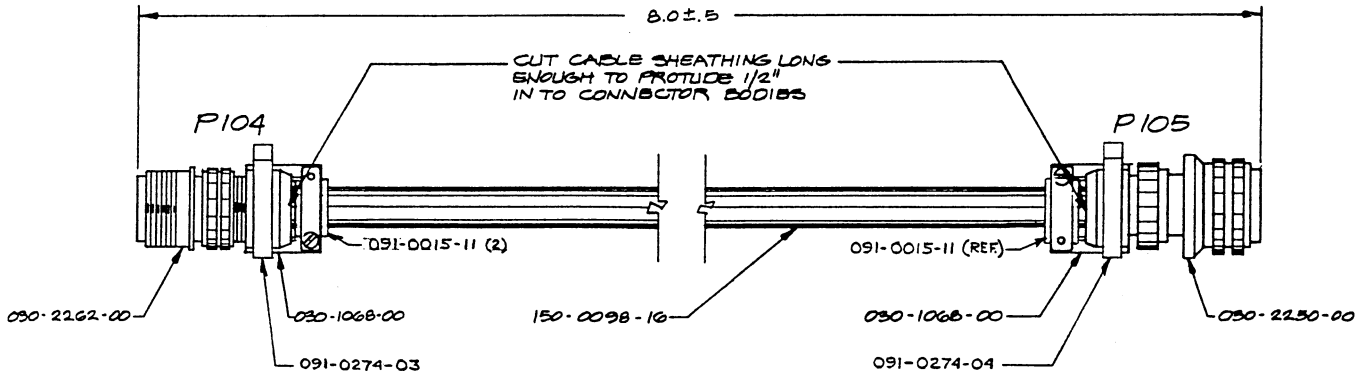
PRINTING INSTRUCTIONS
DO NOT PRINT THIS FORM IN MANUAL
FIG NO.
PAGE NO.
% of ORIG SIZE: 45%
SPECIAL INSTRUCTIONS:

K-1498 3-71

NEXT ASSY	UNIT
071-5025-00	KTS 150

TOL UNLESS NOTED .XX: INCHES .XXX: INCHES ANGLES:

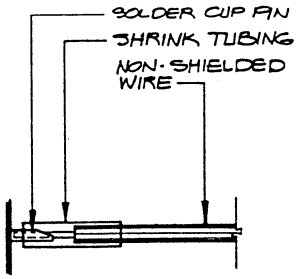
SCALE: NTS
KING RADIO CORPORATION OLATHE KANSAS 66061
NAME: ASSEMBLY, ADAPTER CABLE
NUMBER: 300-1817-02
SHT 1 OF 1



WIRE CHART

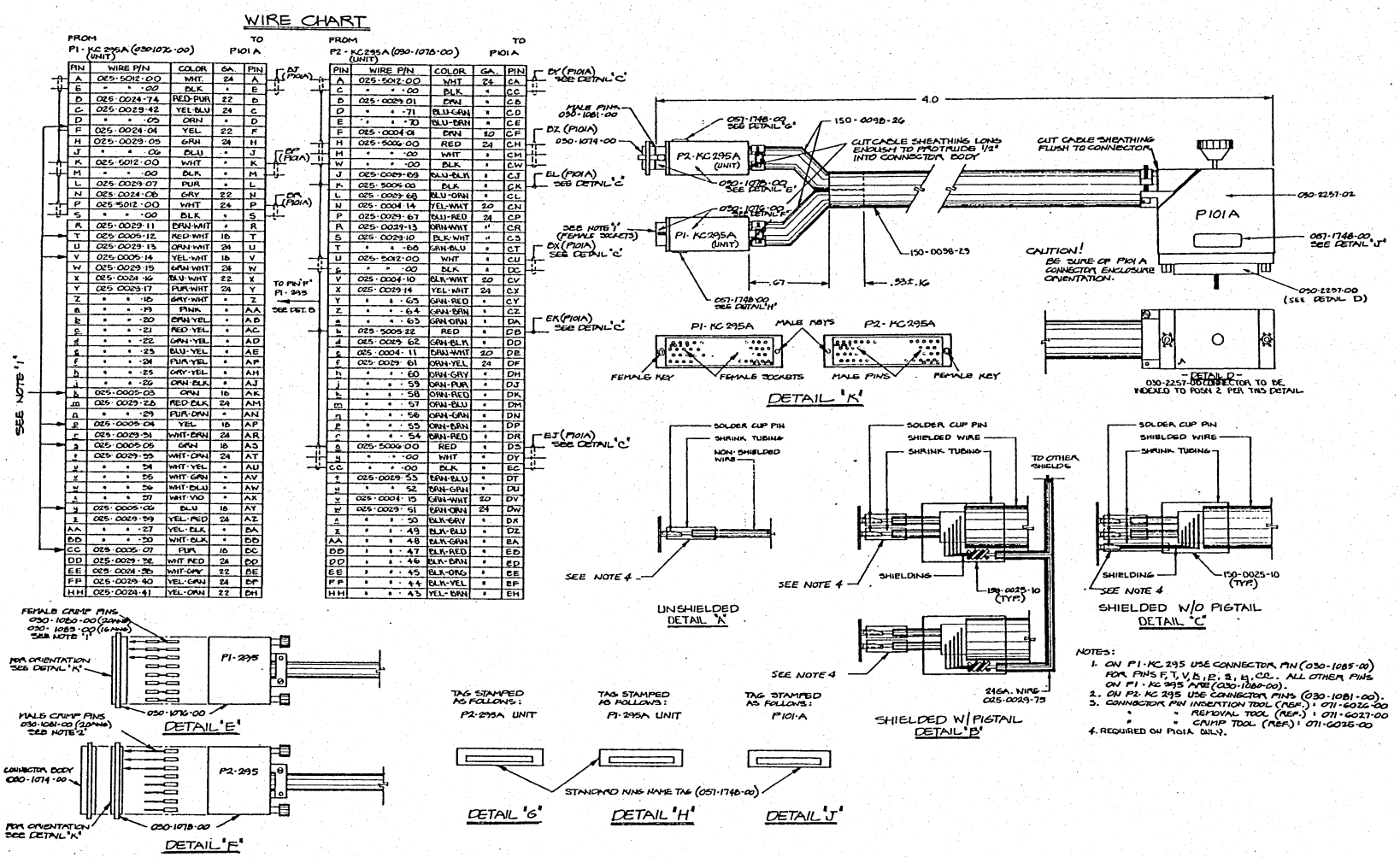
P104 P105

PIN	WIRE P/N	COLOR	GA	PIN
A	025-0024-00	BLACK	22	A
B	" " -01	BROWN	"	B
C	025-0029-02	RED	24	C
D	" " -05	ORANGE	"	D
E	025-0024-04	YELLOW	22	E



DETAIL "A"
(TYP. ALL WIRES AT BOTH CONNECTORS)

FIGURE 5-4B ADAPTOR CABLE TURN & BANK INDICATOR ASSEMBLY
(Dwg. No. 300-1847-02, R-1)



PIN	WIRE P/N	COLOR	GA.	PIN
A	025-5012-00	WHT	24	A
B	" " -00	BLK	"	B
D	025-0024-74	RED-PUR	22	D
C	025-0029-42	YEL-BLU	24	C
D	" " -05	ORN	"	D
F	025-0024-04	YEL	22	F
H	025-0029-09	GRN	24	H
J	" " -06	BLU	"	J
K	025-5012-00	WHT	"	K
M	" " -00	BLK	"	M
L	025-0029-07	PUR	"	L
N	025-0024-06	GRY	22	N
P	025-5012-00	WHT	24	P
S	" " -00	BLK	"	S
R	025-0029-11	BRN-WHT	"	R
T	025-0005-12	RED-WHT	16	T
U	025-0029-13	ORN-WHT	24	U
V	025-0005-14	YEL-WHT	16	V
W	025-0029-15	GRN-WHT	24	W
X	025-0024-16	BLU-WHT	22	X
Y	025-0029-17	PUR-WHT	24	Y
Z	" " -18	GRY-WHT	"	Z
a	" " -19	PINK	"	AA
b	" " -20	BRN-YEL	"	AB
c	" " -21	RED-YEL	"	AC
d	" " -22	ORN-YEL	"	AD
e	" " -23	BLU-YEL	"	AE
f	" " -24	PUR-YEL	"	AF
h	" " -25	GRY-YEL	"	AH
j	" " -26	ORN-BLK	"	AJ
k	025-0005-03	ORN	16	AK
m	025-0029-28	RED-BLK	24	AM
n	" " -29	PUR-ORN	"	AN
p	025-0005-04	YEL	16	AP
r	025-0029-31	WHT-BRN	24	AR
s	025-0005-05	GRN	16	AS
t	025-0029-33	WHT-ORN	24	AT
u	" " -34	WHT-YEL	"	AU
v	" " -35	WHT-GRN	"	AV
w	" " -36	WHT-BLU	"	AW
x	" " -37	WHT-VIO	"	AX
y	025-0005-06	BLU	16	AY
z	025-0029-39	YEL-RED	24	AZ
AA	" " -27	YEL-BLK	"	BA
BB	" " -30	WHT-BLK	"	BB
CC	025-0005-07	PUR	16	BC
DD	025-0029-38	WHT-RED	24	BD
EE	025-0024-30	WHT-GRY	22	BE
FF	025-0029-40	YEL-GRN	24	BF
HH	025-0024-41	YEL-ORN	22	BH

PIN	WIRE P/N	COLOR	GA.	PIN
A	025-5012-00	WHT	24	CA
C	" " -00	BLK	"	CC
D	025-0029-01	BRN	"	CD
D	" " -71	BLU-GRN	"	CD
E	" " -70	BLU-BRN	"	CE
F	025-0004-01	BRN	20	CF
H	025-5006-00	RED	24	CH
M	" " -00	WHT	"	CM
W	" " -00	BLK	"	CW
J	025-0029-69	BLU-BLK	"	CJ
K	025-5005-00	BLK	"	CK
L	025-0029-68	BLU-ORN	"	CL
N	025-0004-14	YEL-WHT	20	CN
P	025-0029-67	BLU-RED	24	CP
R	025-0029-13	ORN-WHT	"	CR
S	025-0029-10	BLK-WHT	"	CS
T	" " -66	GRN-BLU	"	CT
U	025-5012-00	WHT	"	CU
P	" " -00	BLK	"	DC
V	025-0004-10	BLK-WHT	20	CV
X	025-0029-14	YEL-WHT	24	CX
Y	" " -63	GRN-RED	"	CY
Z	" " -64	GRN-BRN	"	CZ
a	" " -65	GRN-ORN	"	DA
b	025-5005-22	RED	"	DB
d	025-0029-62	GRN-BLK	"	DD
e	025-0004-11	GRN-WHT	20	DB
f	025-0029-61	ORN-YEL	24	DF
h	" " -60	ORN-GRY	"	DH
j	" " -59	ORN-PUR	"	DJ
k	" " -58	ORN-RED	"	DK
m	" " -57	ORN-BLU	"	DM
n	" " -56	ORN-GRN	"	DN
p	" " -55	ORN-BRN	"	DP
r	" " -54	BRN-RED	"	DR
s	025-5006-00	RED	"	DS
u	" " -00	WHT	"	DY
CC	" " -00	BLK	"	EC
t	025-0029-53	BRN-BLU	"	DT
u	" " -52	BRN-GRN	"	DU
x	025-0004-15	GRN-WHT	20	DV
w	025-0029-51	BRN-ORN	24	DW
A	" " -50	BLK-GRY	"	DX
z	" " -49	BLK-BLU	"	DZ
AA	" " -48	BLK-GRN	"	BA
BB	" " -47	BLK-RED	"	ED
DD	" " -46	BLK-BRN	"	ED
EE	" " -45	BLK-ORG	"	EE
FF	" " -44	BLK-YEL	"	EF
HH	" " -43	YEL-BRN	"	EH

FIGURE 5-4C CABLE ADAPTOR ASSEMBLY, KC 295, UNIT
(Dwg. No. 300-1847-03, R-2)

NAME	ASS'Y. NO.
PANEL ASSY. (KTS 150)	200-1851-00

KING RADIO CORP. PARTS LISTING

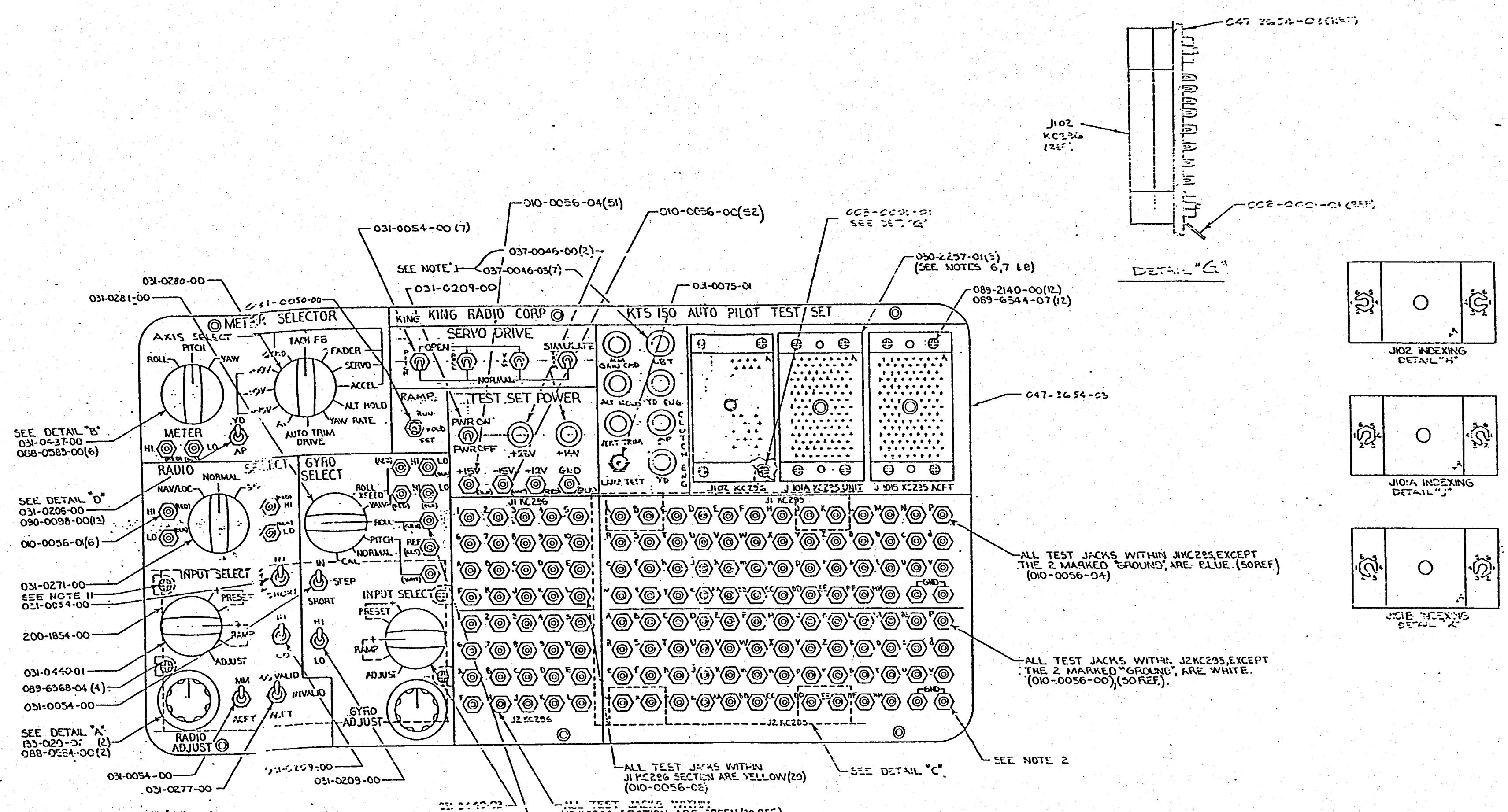
SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1851-00	Panel Assy.		X				
	200-1854-00	Pwr. Supply Assy.		1				
	200-5751-00	P.C. Board No. 1		1				
	200-5752-00	P.C. Board No. 2		1				
	200-5789-00	Extender BD No. 2		1				
	200-5790-00	Extender BD No. 1		1				
	008-0001-01	Ground Lug		1				
	010-0056-00	Test Jack, Wht		52				
	010-0056-01	Test Jack, Red		6				
	010-0056-02	Test Jack, Blk		11				
	010-0056-03	Test Jack, Grn		21				
	010-0056-04	Test Jack, Blu		51				
	010-0056-06	Test Jack, Yel		20				
	030-1061-00	Key, Connector		2				
	037-0007-01	Bulb		9				
	047-3644-02	Bracket, P.C. Boards	AF	1				
	047-3645-01	Bracket, Angle	AF	1				
	047-3654-03	Panel	F	1				
	088-0583-00	Knob, 1-1/8 Dia,1/4 Shaft		6				
	088-0584-00	Knob, 1-1/8 Dia,1/4 Shaft		2				
	089-2140-00	Nut, #4-40		12				
	089-5903-04	Scw, PHP, #4-40x1/4		2				
	089-5903-07	Scw, PHP, #4-40x7/16		4				
	089-6368-04	Scw, FHP, #4-40x1/4		4				
	089-6344-07	Scw, PHP, #4-40x5/16, Blk Chrome		12				
	090-0098-00	Boot, Tog. Sw, White		13				

NAME	ASS'Y. NO.
PANEL ASSY. (KTS 150)	200-1851-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
P101	030-1056-02	Connector, 18/36 Pin		1				
P102	030-1056-04	Connector, 25/50 Pin		1				
J101A	030-2257-01	Connector, 120 Pin		3				
J101B	030-2257-01	Connector, 120 Pin		-				
J102	030-2257-01	Connector, 120 Pin		-				
S101	031-0209-00	Switch, Toggle, 3 PDT		3				
S102	031-0075-01	Switch, Push Button		1				
S103	031-0050-00	Switch, Toggle, SPDT Cnt. Off		1				
S104	031-0209-00	Switch, Toggle, 3 PDT		-				
S105	031-0284-01	Switch, Wafer, 2P 5 Pos.		1				
S106	031-0054-00	Switch, Toggle DPDT		7				
S107	031-0284-00	Switch, Wafer, 2P 5 Pos.		1				
S108	031-0277-00	Switch, Toggle, DPDT, Cnt. Off		1				
S109	031-0054-00	Switch, Toggle, DPDT		-				
S110	031-0281-00	Switch, Wafer, 7P, 6 Pos		1				
S111	031-0209-00	Switch, Toggle, 3 PDT		-				
S112	031-0271-00	Switch, Wafer, 4P 3 Pos.		1				
S113	031-0054-00	Switch, Toggle, DPDT		-				
S114	031-0280-00	Switch, Wafer, 2P 12 Pos		1				
S115	031-0208-00	Switch, Toggle, 4 PDT		1				
S116	031-0285-00	Switch, Wafer 7P, 3 Pos.		1				
S117	031-0054-00	Switch, Toggle, DPDT		-				
S118	031-0054-00	Switch, Toggle, DPDT		-				
S119	031-0054-00	Switch, Toggle, DPDT		-				
S120	031-0054-00	Switch, Toggle, DPDT		-				
DS101	037-0046-00	Lamp, Red Lens		2				
DS102	037-0046-00	Lamp, Red Lens		-				
DS103	037-0046-05	Lamp, Yellow Lens		7				
DS104	037-0046-05	Lamp, Yellow Lens		-				
DS105	037-0046-05	Lamp, Yellow Lens		-				
DS106	037-0046-05	Lamp, Yellow Lens		-				
DS107	037-0046-05	Lamp, Yellow Lens		-				
DS108	037-0046-05	Lamp, Yellow Lens		-				
DS109	037-0046-05	Lamp, Yellow Lens		-				
R101	133-0120-01	Res, Var, 100K, 10T	M	2				
R102	133-0120-01	Res, Var, 100K, 10T	M	-				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME PANEL ASSY. (KTS 150)				ASS'Y. NO. 200-1851-00
ASS'Y. DWG. 300-1851-00			UNIT KTS 150	USED ON 200-1853-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
4				
5				
6				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976



NOTES:

1. ALL INDICATOR LAMPS ARE 037-0007-01, 9 REQ'D.
2. ALL TEST JACKS MARKED GROUND, REF & LO (010-0056-01)(11) ARE BLACK.
3. SEE SHEET TWO FOR ASSEMBLY DETAILS.
4. ALL HARDWARE NOT CALLED OUT WITH PART NO. ARE SUPPLIED WITH PART.
5. ALL TOGGLE SWITCHES TO HAVE WHITE BOOT (03[illegible]) ON TOGGLE (13 PLC'S).
6. J102 TO BE INDEXED TO POSN 1 PER DETAIL "H"
7. J101A TO BE INDEXED TO POSN 2 PER DETAIL "J"
8. J101B TO BE INDEXED TO POSN 3 PER DETAIL "K"
9. SMALL EXTENDER BOARD #2 WILL EXTEND INTO RETAINER BRACKET 1 1/4" ± 1/8". EXTENDER BOARD #1 WILL BUTT AGAINST EXTENDER BOARD #2 FROM THE OTHER DIRECTION.
10. ALIGN ALL TEST JACKS AS SHOWN.
11. USE 016-1004-00 HEAT SINK COMPOUND BETWEEN 200-1854-00 POWER SUPPLY BRACKET AND 047-3654-03 PANEL.

NEXT ASSY	UNIT
200-1851-00	KTS150

REV	C.O. NO.	DATE	BY
1	18217	1/25/[illegible]	RDW
2	41064	12-82	G.D.P.
3	42136	[illegible]	G.D.F.
4	[illegible]	[illegible]	[illegible]

TOL UNLESS NOTED .XX ± INCHES .XXX ± INCHES ANGLES ± °

KING RADIO CORPORATION

SCALE: 1:1

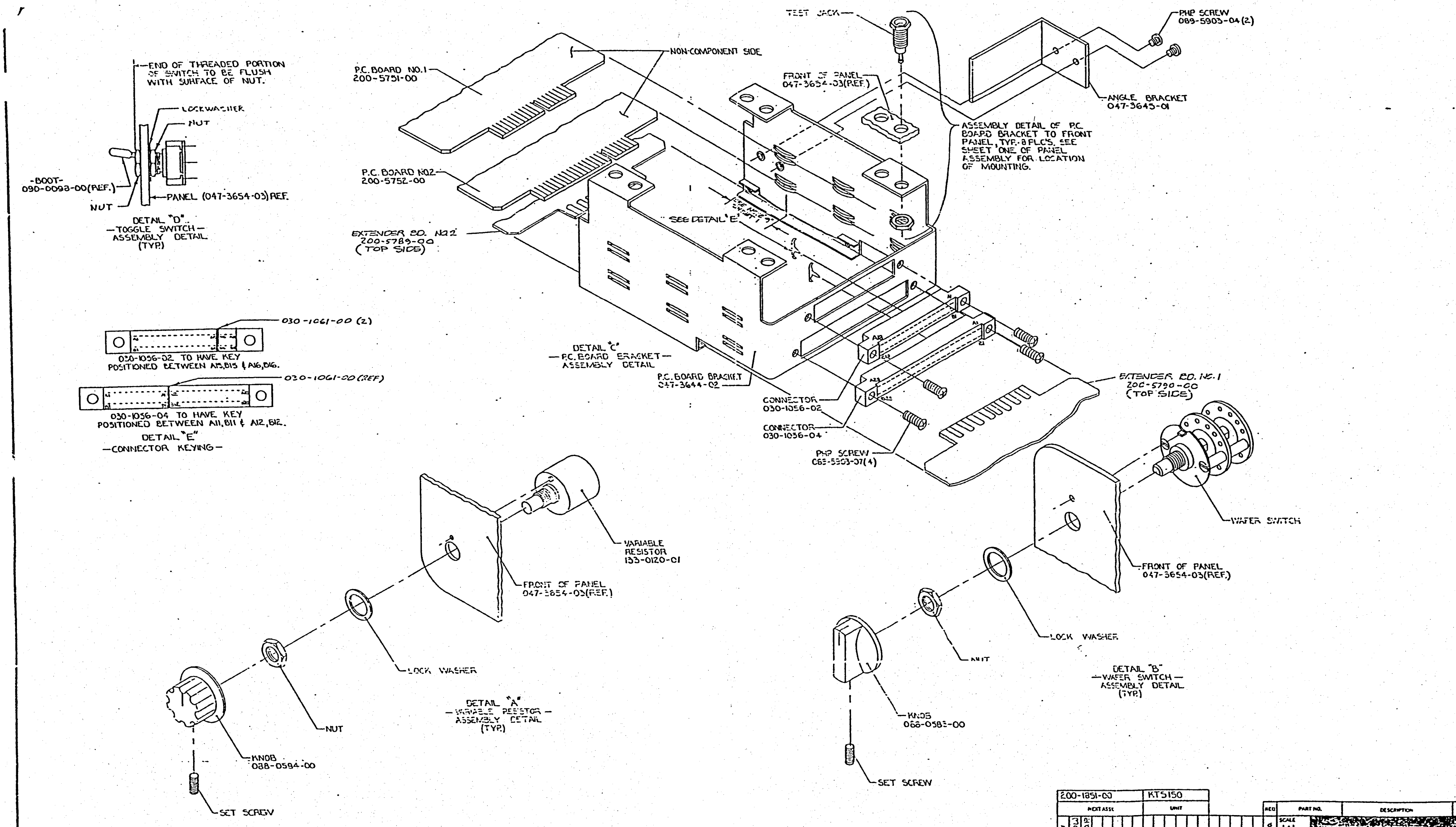
NAME: PANEL ASSEMBLY, KTS150

MAT'L: —//— FINISH: —//—

DRN: HILL CHK: [illegible]

NUMBER: 300-1851-00

SHT 1 OF 2



NEXT ASSY	UNIT
200-1851-00	KTS150

REV	C.O. NO.	DATE	BY
1	18317	7/5/75	ROW
2	41064	12-82	GDP
3			
4			

TOL UNLESS NOTED .XX ± INCHES .XXX ± INCHES ANGLES ± °

KING RADIO CORPORATION

SCALE 1:1

NAME: PANEL ASSEMBLY DETAILS, KTS150

MAT'L: —//—

NUMBER: 300-1851-00

SHT 2 OF 2

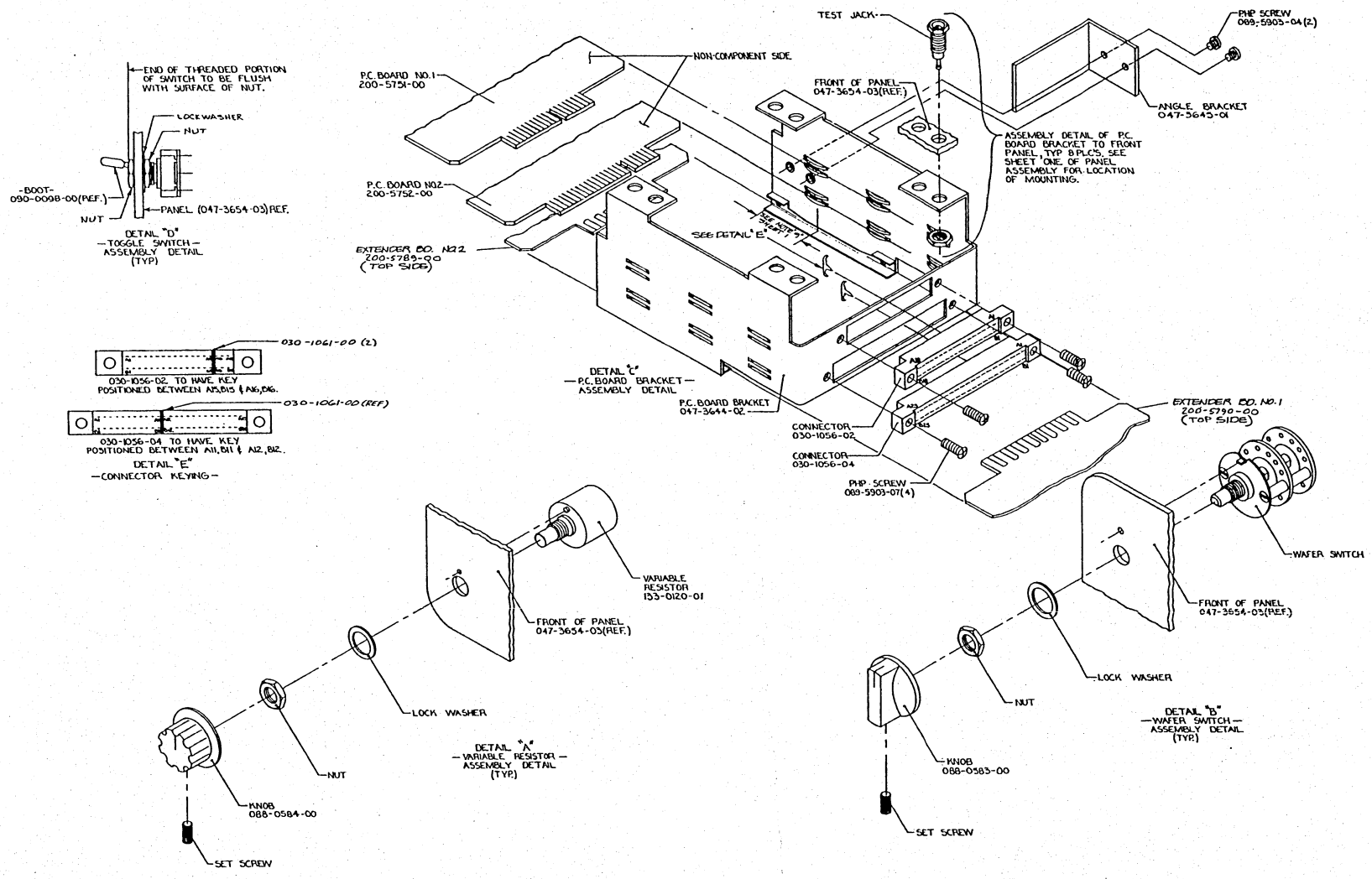


FIGURE 5-5 PANEL ASSEMBLY
(Dwg. No. 300-1851-00, R-1)

NAME WIRING LIST	ASS'Y. NO. 200-1853-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	025-0018-00	Wire, Blk 26 Awg		3.7				
	025-0018-01	Wire, Blk/Brn 26 Awg		3.4				
	025-0018-02	Wire, Blk/Red 26 Awg		2.2				
	025-0018-03	Wire, Blk/Orn 26 Awg		2.9				
	025-0018-04	Wire, Blk/Yel 26 Awg		2.5				
	025-0018-05	Wire, Blk/Grn 26 Awg		1.7				
	025-0018-06	Wire, Blk/Blu 26 Awg		1.4				
	025-0018-08	Wire, Blk/Gry 26 Awg		2				
	025-0018-09	Wire, Blk/Wht 26 Awg		1.5				
	025-0018-10	Wire, Brn/Blk 26 Awg		2				
	025-0018-11	Wire, Brn 26 Awg		2.9				
	025-0018-12	Wire, Brn/Red 26 Awg		2.1				
	025-0018-13	Wire, Brn/Orn 26 Awg		1				
	025-0018-14	Wire, Brn/Yel 26 Awg		1.4				
	025-0018-15	Wire, Brn/Grn 26 Awg		2.3				
	025-0018-16	Wire, Brn/Blu 26 Awg		2				
	025-0018-19	Wire, Brn/Wht 26 Awg		1.6				
	025-0018-20	Wire, Red/Blk 26 Awg		1.5				
	025-0018-21	Wire, Red/Brn 26 Awg		2.9				
	025-0018-23	Wire, Red/Orn 26 Awg		2				
	025-0018-24	Wire, Red/Yel 26 Awg		2.4				
	025-0018-29	Wire, Red/Wht 26 Awg		3.1				
	025-0018-30	Wire, Orn/Blk 26 Awg		1.9				
	025-0018-31	Wire, Orn/Brn 26 Awg		2.5				
	025-0018-32	Wire, Orn/Red 26 Awg		1.4				
	025-0018-33	Wire, Orn 26 Awg		4				
	025-0018-34	Wire, Orn/Yel 26 Awg		1.5				
	025-0018-35	Wire, Orn/Grn 26 Awg		2.2				
	025-0018-36	Wire, Orn/Blu 26 Awg		2.5				
	025-0018-37	Wire, Orn/Vio 26 Awg		.8				
	025-0018-38	Wire, Orn/Gry 26 Awg		1.6				
	025-0018-39	Wire, Orn/Wht 26 Awg		3				
	025-0018-40	Wire, Yel/Blk 26 Awg		2.5				
	025-0018-41	Wire, Yel/Brn 26 Awg		2.8				
	025-0018-42	Wire, Yel/Red 26 Awg		3.9				
	025-0018-43	Wire, Yel/Orn 26 Awg		3.4				
	025-0018-44	Wire, Yel 26 Awg		3.2				
	025-0018-45	Wire, Yel/Grn 26 Awg		5.2				
	025-0018-46	Wire, Yel/Blu 26 Awg		1.5				
	025-0018-49	Wire, Yel/Wht 26 Awg		2.4				
	025-0018-50	Wire, Grn/Blk 26 Awg		2				
	025-0018-51	Wire, Grn/Brn 26 Awg		2.1				
	025-0018-52	Wire, Grn/Red 26 Awg		1.2				
	025-0018-53	Wire, Grn/Orn 26 Awg		2.5				
	025-0018-54	Wire, Grn/Yel 26 Awg		2.7				
	025-0018-55	Wire, Grn 26 Awg		3.5				
	025-0018-56	Wire, Grn/Blu 26 Awg		4.3				
	025-0018-59	Wire, Grn/Wht 26 Awg		4.5				
	025-0018-60	Wire, Blu/Blk 26 Awg		3.1				
	025-0018-61	Wire, Blu/Brn 26 Awg		3.3				
	025-0018-62	Wire, Blu/Red 26 Awg		3.3				
	025-0018-63	Wire, Blu/Orn 26 Awg		4.2				
	025-0018-64	Wire, Blu/Yel 26 Awg		3.3				
	025-0018-65	Wire, Blu/Grn 26 Awg		4				

NAME	ASS'Y. NO.
WIRING LIST	200-1853-00

KING RADIO CORP. PARTS LISTING

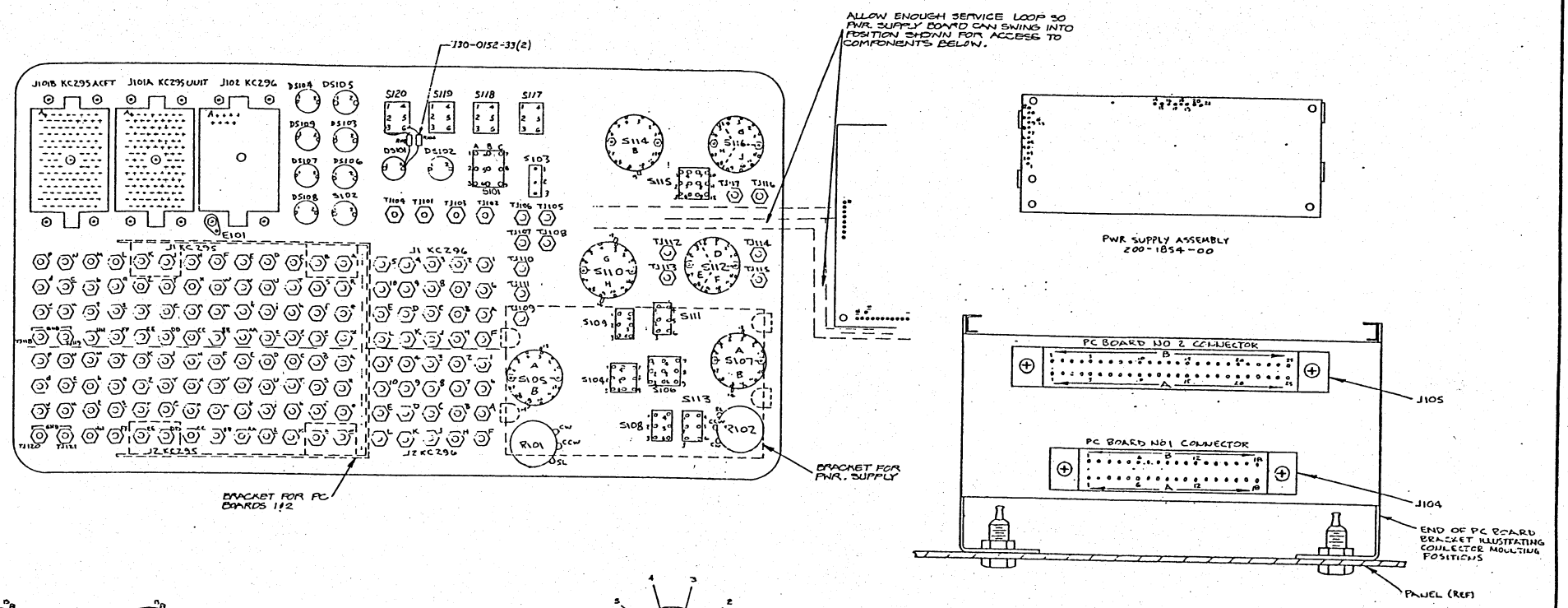
SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	025-0018-66	Wire, Blu 26 Awg		3.7				
	025-0018-67	Wire, Blu/Vio 26 Awg		3.6				
	025-0018-68	Wire, Blu/Gry 26 Awg		3.7				
	025-0018-69	Wire, Blu/Wht 26 Awg		4.2				
	025-0018-70	Wire, Vio/Blk 26 Awg		4				
	025-0018-71	Wire, Vio/Brn 26 Awg		4				
	025-0018-72	Wire, Vio/Red 26 Awg		3.9				
	025-0018-73	Wire, Vio/Orn 26 Awg		4.5				
	025-0018-74	Wire, Vio/Yel 26 Awg		2.5				
	025-0018-75	Wire, Vio/Grn 26 Awg		2.2				
	025-0018-76	Wire, Vio/Blu 26 Awg		3.3				
	025-0018-77	Wire, Vio 26 Awg		3.1				
	025-0018-78	Wire, Vio/Gry 26 Awg		3				
	025-0018-79	Wire, Vio/Wht 26 Awg		2.9				
	025-0018-80	Wire, Gry/Blk 26 Awg		4.3				
	025-0018-81	Wire, Gry/Brn 26 Awg		3.3				
	025-0018-82	Wire, Gry/Red 26 Awg		2.8				
	025-0018-83	Wire, Gry/Orn 26 Awg		3.5				
	025-0018-84	Wire, Gry/Yel 26 Awg		3.2				
	025-0018-85	Wire, Gry/Grn 26 Awg		2				
	025-0018-86	Wire, Gry/Blu 26 Awg		3				
	025-0018-88	Wire, Gry 26 Awg		3.3				
	025-0018-89	Wire, Gry/Wht 26 Awg		3.5				
	025-0018-90	Wire, Wht/Blk 26 Awg		1.4				
	025-0018-91	Wire, Wht/Brn 26 Awg		2.7				
	025-0018-92	Wire, Wht/Red 26 Awg		1.7				
	025-0018-93	Wire, Wht/Orn 26 Awg		1.8				
	025-0018-94	Wire, Wht/Yel 26 Awg		3.1				
	025-0018-95	Wire, Wht/Grn 26 Awg		2.9				
	025-0018-96	Wire, Wht/Blu 26 Awg		4.6				
	025-0018-98	Wire, Wht/Gry 26 Awg		3.5				
	025-0018-99	Wire, Wht 26 Awg		3.7				
	025-0018-22	Wire, Red 26 AWg		2.0				
	025-0024-00	Wire, Blk 22 Awg		7.2				
	025-0024-10	Wire, Blk/Wht 22 Awg		.6				
	025-0024-01	Wire, Brn 22 Awg		.3				
	025-0024-20	Wire, Brn/Yel 22 Awg		.3				
	025-0024-11	Wire, Brn/Wht 22 Awg		.3				
	025-0024-02	Wire, Red 22 Awg		8.5				
	025-0024-12	Wire, Red/Wht 22 Awg		1.6				
	025-0024-03	Wire, Orn 22 Awg		1				
	025-0024-59	Wire, Orn/Vio 22 Awg		.3				
	025-0024-04	Wire, Yel 22 Awg		3.7				
	025-0024-63	Wire, Grn/Orn 22 Awg		.8				
	025-0024-05	Wire, Grn 22 Awg		.3				
	025-0024-06	Wire, Blu 22 Awg		4				
	025-0024-16	Wire, Blu/Wht 22 Awg		.5				
	025-0024-07	Wire, Vio 22 Awg		.6				
	025-0024-17	Wire, Vio/Wht 22 Awg		1				
	025-0024-08	Wire, Gry 22 Awg		.3				
	025-0024-09	Wire, Wht 22 Awg		.3				

NAME	ASS'Y. NO.
WIRING LIST	200-1853-00

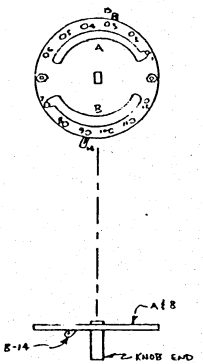
KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	026-0003-00	Buss Wire		1.2				
	150-0020-10	Tubing, Shrink		AR				
	150-0022-10	Tubing, Shrink		AR				
	200-1851-00	Panel Assy.		1				
	025-0024-68	Wire, Blu/Orn 22 Awg		1.5				
	025-0024-18	Wire, Gry/Wht 22 Awg		1.5				
	025-0024-32	Wire, Wht/Red 22 Awg		1.5				
	025-0024-45	Wire, Blk/Orn 22 Awg		1.5				
	025-0024-53	Wire, Brn/Blu 22 Awg		1.5				
	025-0024-60	Wire, Orn/Gry 22 Awg.		1.5				
	025-0024-67	Wire, Blu/Red 22 Awg		1.5				
R103	130-0152-33	Res., F/C 1.5K HW 5%		2				
R104	130-0152-33	Res., F/C 1.5K HW 5%		-				

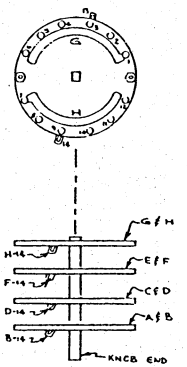
PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME WIRING LIST				ASS'Y. NO. 200-1853-00
ASS'Y. DWG. 300-1853-00/01		UNIT KTS 150		USED ON 200-1846-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976



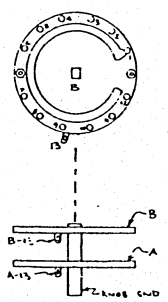
PWR SUPPLY ASSEMBLY
200-1854-00



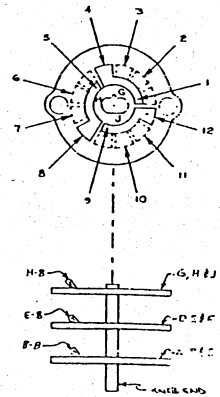
S-105 & S-107



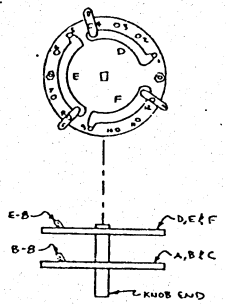
S-110



S114



S-116



S-112

NOTES:
1. REF.: SEE WIRING LIST 300-1653-01 FOR WIRE CONNECTIONS.
2. SWITCH LOCATING TAB IS ALWAYS UP WHEN LOOKING DOWN ON SWITCH.

CCL

200-1896-00	KTS-150
NEXT ASSY	UNIT

REQ	PART NO	DESCRIPTION	USED

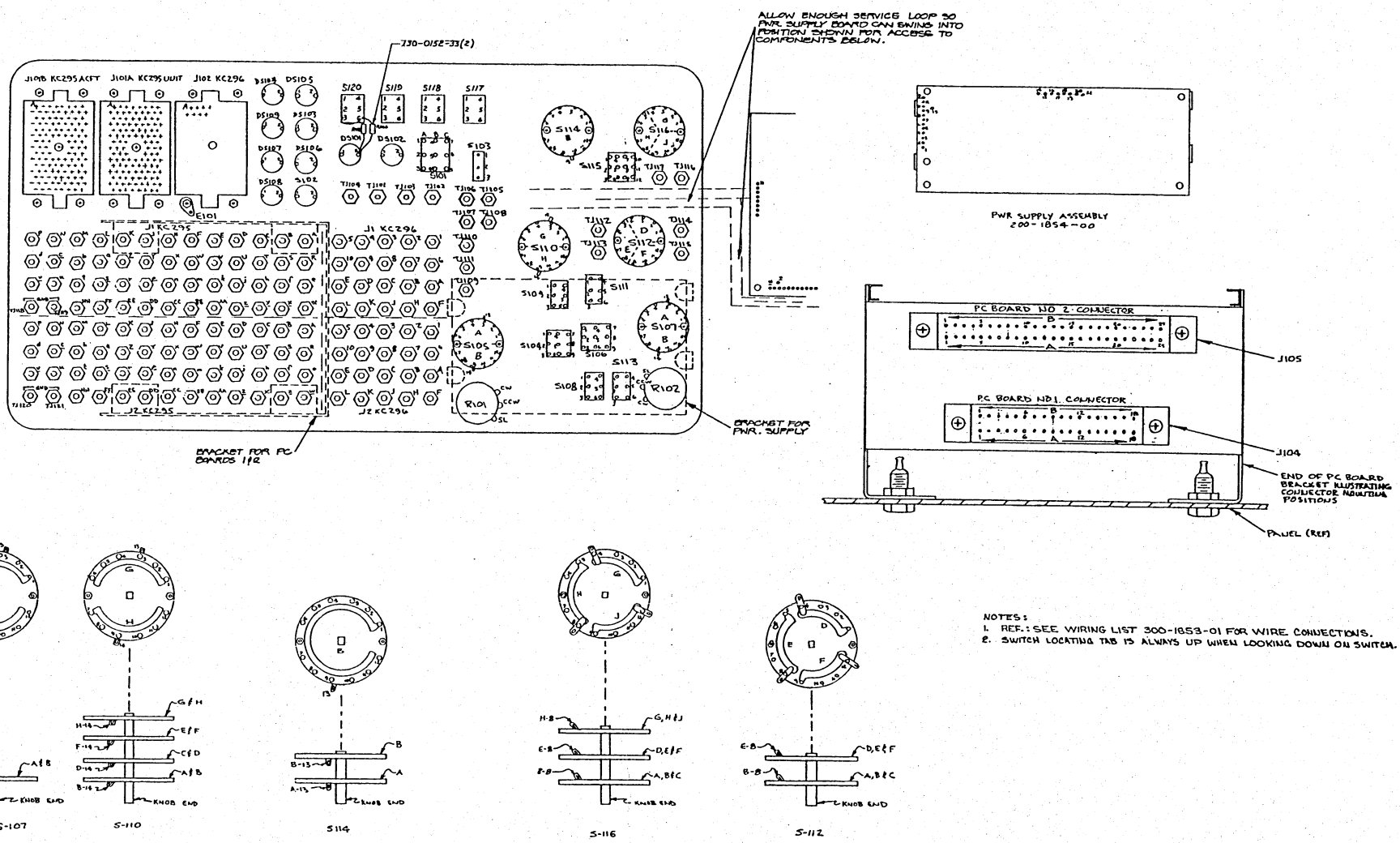
KING RADIO CORPORATION

NAME — ASSEMBLY

FINISH

DATE — NUMBER 300-1653-01

SHT 1 OF 1



NOTES:
1. REF.: SEE WIRING LIST 300-1853-01 FOR WIRE CONNECTIONS.
2. SWITCH LOCATING TAB IS ALWAYS UP WHEN LOOKING DOWN ON SWITCH.

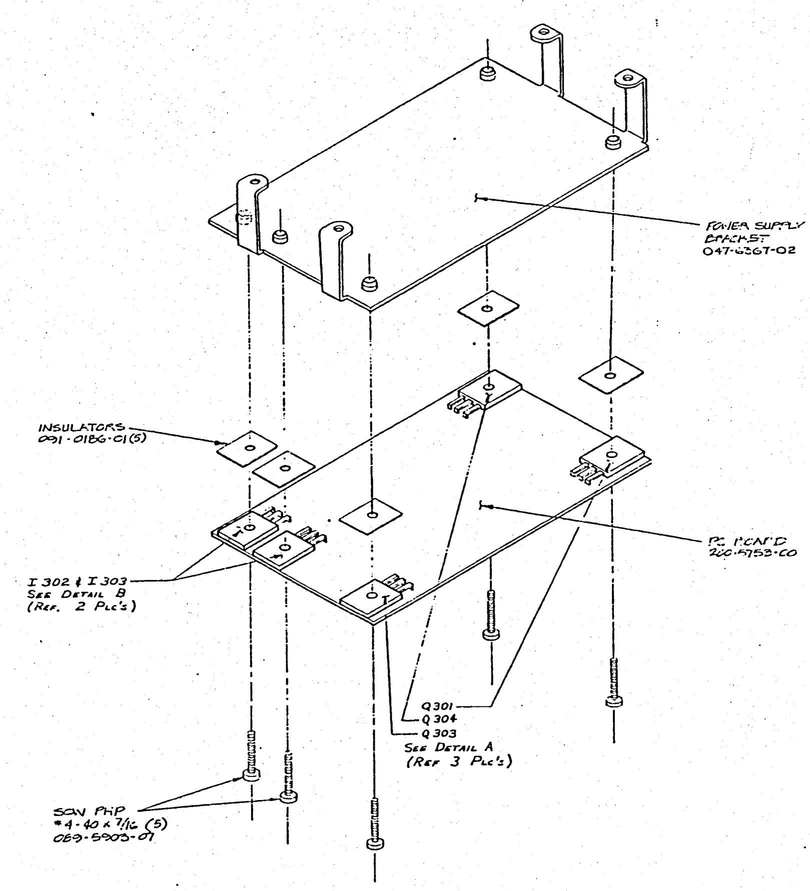
FIGURE 5-6 WIRING LIST
(Dwg. No. 300-1853-00 R-2)

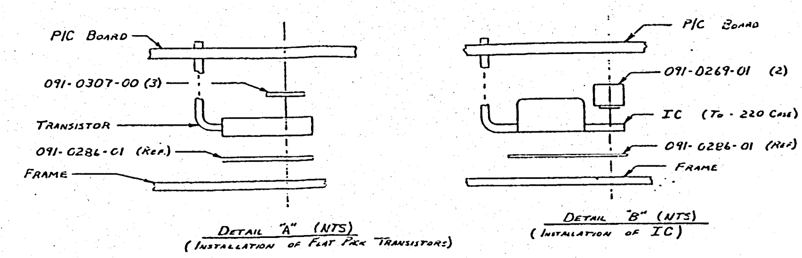
NAME	ASS'Y. NO.
POWER SUPPLY ASSY. (KTS 150)	200-1854-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1854-00	Pwr. Supply Assy.		X				
	200-5753-00	P.C. Board, Pwr Supply		1				
	016-1004-00	Heat Sink Compound		AR				
	047-3643-02	Bracket, Pwr. Supply	AF	1				
	089-5903-07	Scw, PHP, #4-40x7/16		5				
	091-0186-01	Insulators		5				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME: POWER SUPPLY ASSY. (KTS 150)				ASS'Y. NO.: 200-1854-00
ASS'Y. DWG.: 300-1854-00		UNIT: KTS 150		USED ON: 200-1851-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976





NOTE:
USE 016-1004-00 HEAT SINK COMPOUND BETWEEN TRANSISTORS, INSULATORS, AND POWER SUPPLY BRACKET AS REQUIRED.

NEXT ASSY	UNIT
300-1853-00	KTS 150

REV	C.O. NO	DATE	BY
1	22717	[illegible]	[illegible]
2	22205	[illegible]	[illegible]
3	41064	12-82	DDR

TOL UNLESS NOTED .XX : INCHES .XXX : INCHES ANGLES : °

REQ	DASH NO.	PART NO.	DESCRIPTION	ITEM

SCALE: NTS

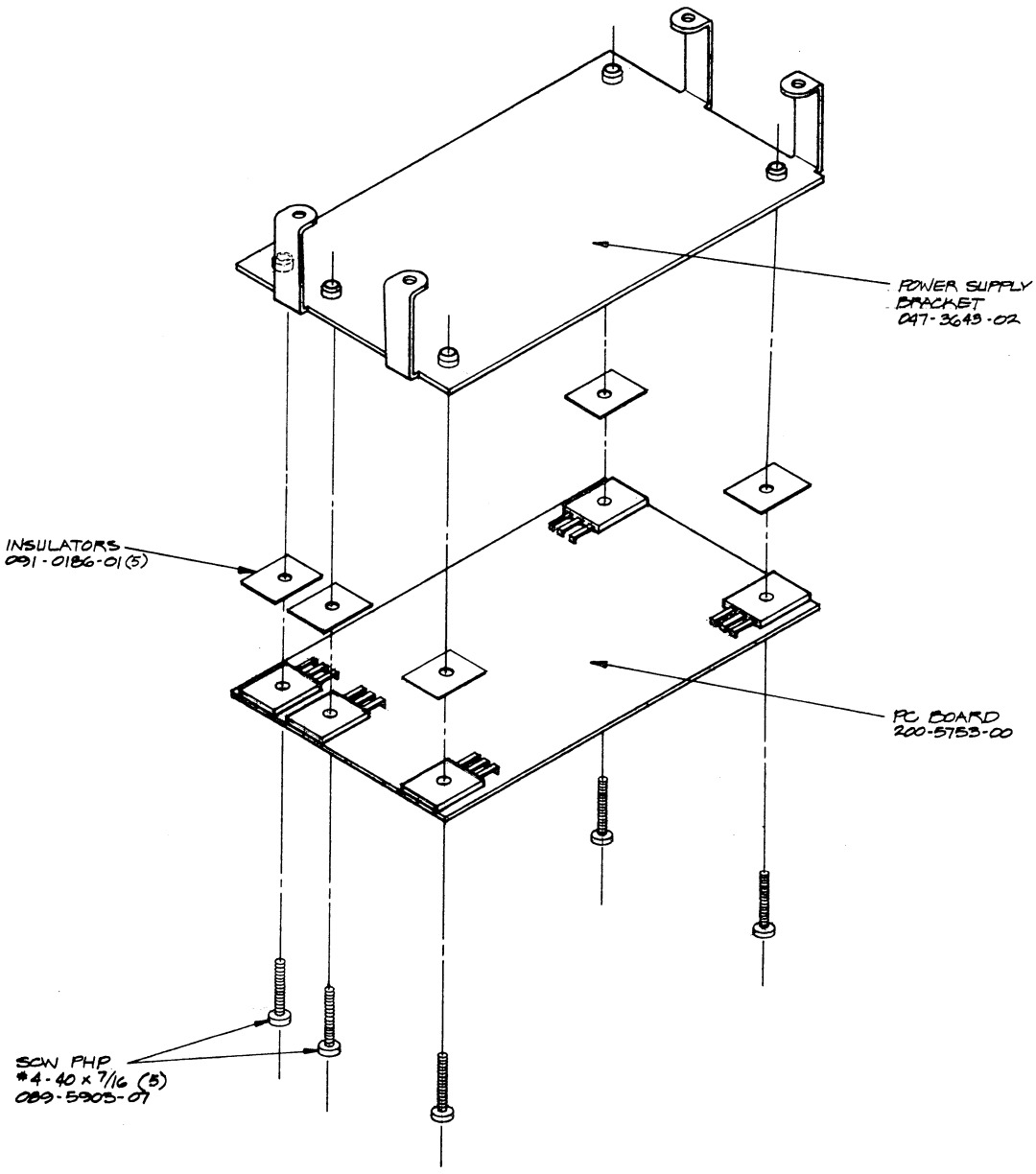
KING RADIO CORPORATION

NAME: ASSEMBLY, POWER SUPPLY KTS 150

FINISH: 45 %

NUMBER: 300-1854-00

SHT 1 OF 1



NOTE:
USE 016-1004-00 HEAT SINK COMPOUND BETWEEN TRANSISTORS, INSULATORS, AND POWER SUPPLY BRACKET AS REQUIRED.

FIGURE 5-7 POWER SUPPLY ASSEMBLY
(Dwg. No. 300-1854-00, R-0)

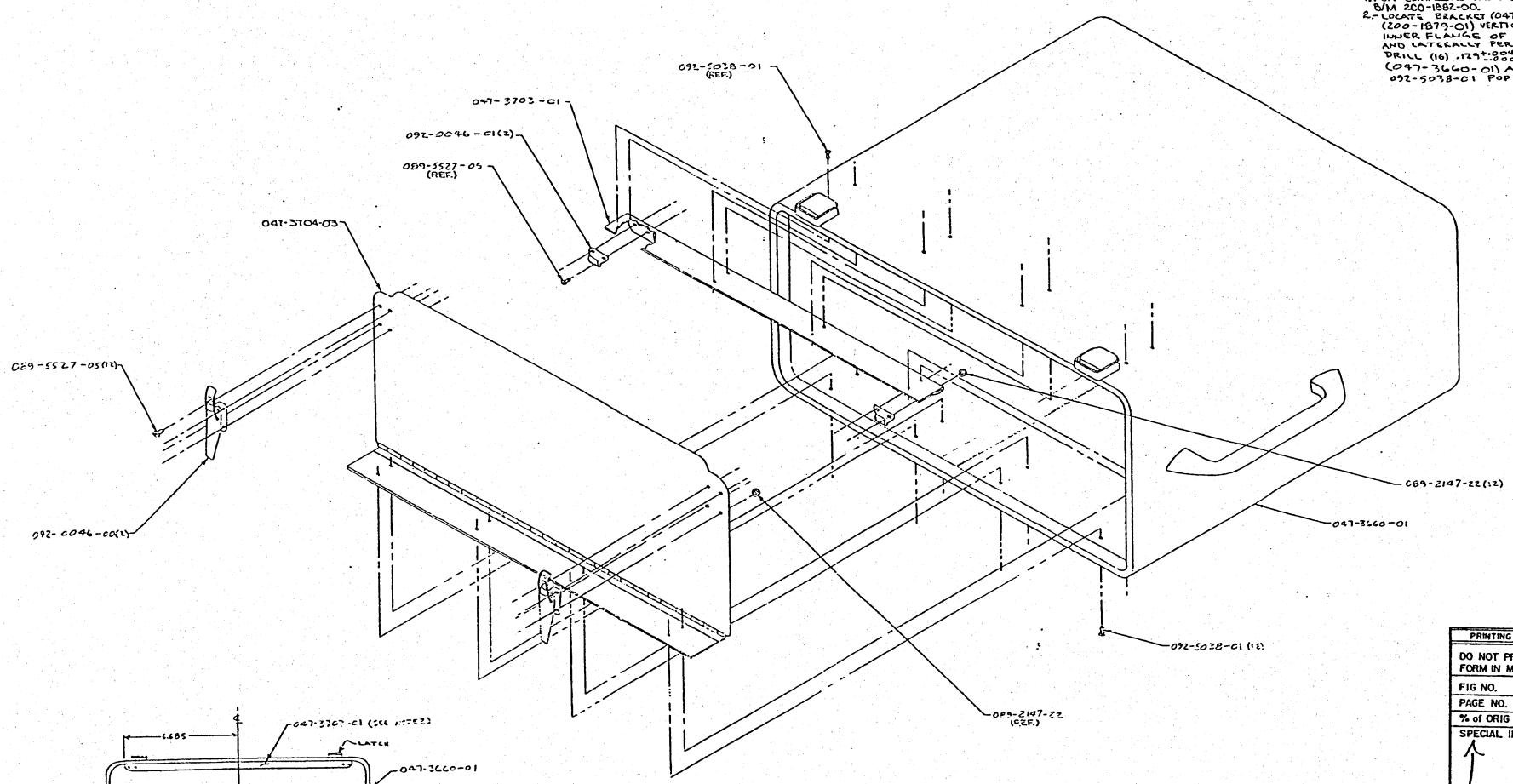
NAME	ASS'Y. NO.
CASE ASSY, LOWER HALF	200-1882-00

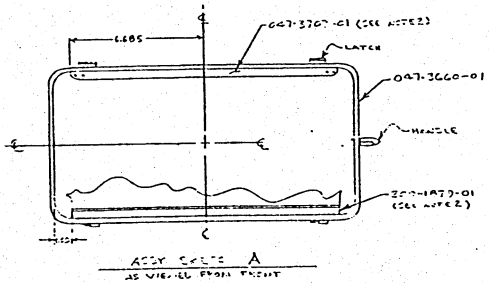
KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1882-00	Case Assy, Lower Half		X				
	047-3703-01	Bracket	F	1				
	047-3660-01	Alum. Case, Lower		1				
	047-3704-03	Lid Assy. W/HDWR	AF	1				
	089-2147-22	Nut, Nylon Lock, 6-32		12				
	089-5527-05	Scw, PHP, 6-32		12				
	092-0046-00	Latch		2				
	092-0046-01	Strike, Latch		2				
	092-5038-01	Rivet, 1/8x.275		16				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL Ron Wilson
NAME CASE ASSY. LOWER HALF				ASS'Y. NO. 200-1882-00
ASS'Y. DWG. 300-1882-00			UNIT KTS 150	USED ON 071-5025-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

NOTES:
1. FOR COMPLETE ITEM DESCRIPTION SEE B/M 200-1882-00.
2. LOCATE BRACKET (047-3703-01) & LID ASSY (200-1879-01) VERTICALLY FLUSH WITH INNER FLANGE OF CASE (047-3660-01) AND LATERALLY PER SKETCH A, MATCH DRILL (16) .129 +.004 -.000 DIA HOLES IN CASE (047-3660-01) AND INSTALL 092-5038-01 POP RIVETS (16)





ASSY SKETCH A
AS VIEWED FROM FRONT

PRINTING INSTRUCTIONS
DO NOT PRINT THIS FORM IN MANUAL
FIG NO.
PAGE NO.
% of ORIG SIZE: 45%
SPECIAL INSTRUCTIONS:

K-1498 3-71 11X17

071-5025-00 KTS-150

REQ	PART NO.	DESCRIPTION	ITEM

KING RADIO CORPORATION

NAME: CASE ASSY, LOWER HALF

SCALE: 1/1 | FINISH: 1/1

DRN | DATE | NUMBER: 200-1882-00 | SHT 1 OF 1

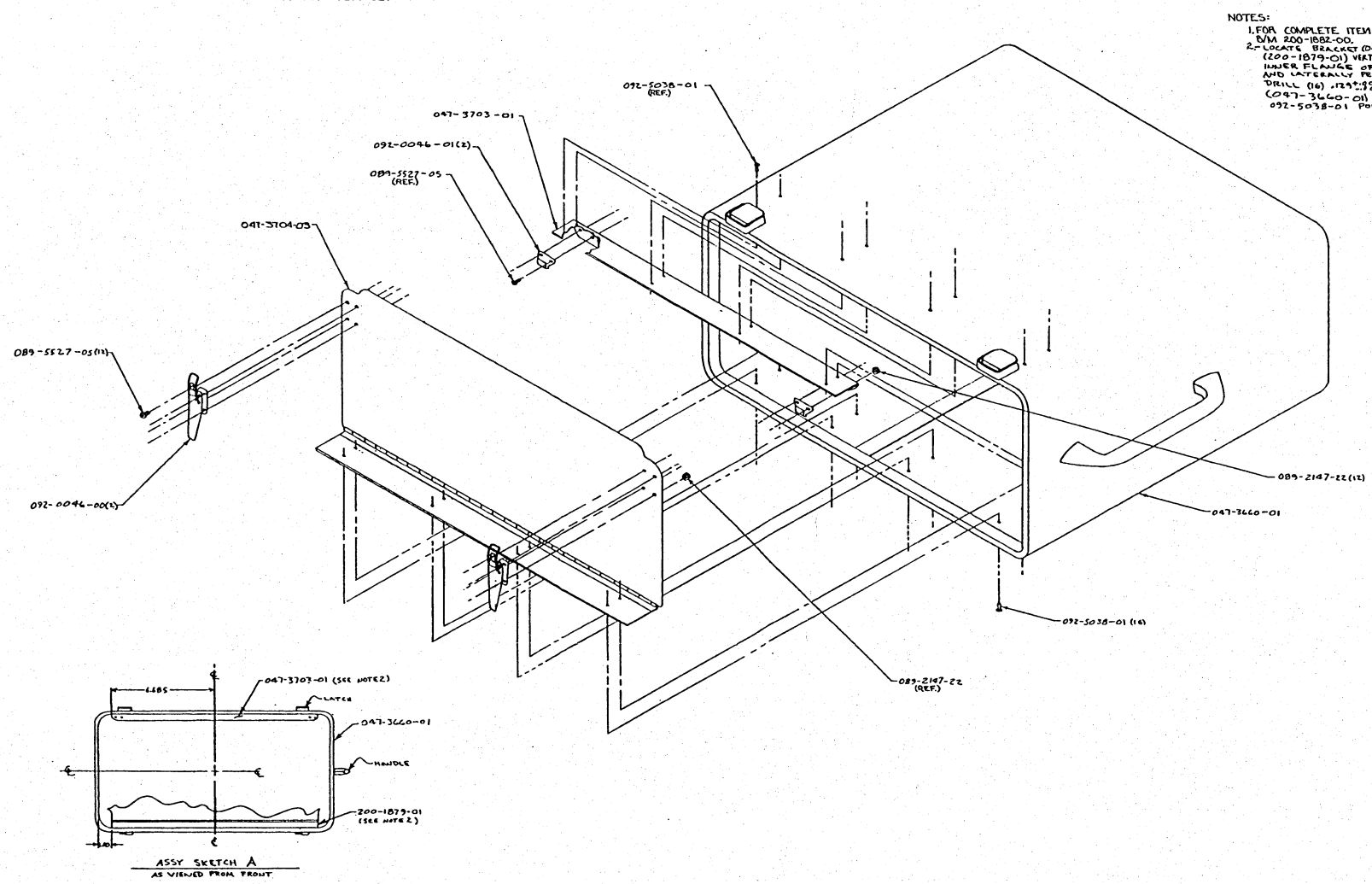


FIGURE 5-8 LOWER HALF CASE ASSEMBLY
(Dwg. No. 300-1882-00, R-1)

PARTS LIST REVISION HISTORY

ENGR. APPROVAL

NAME: GYRO EXTENDER CABLE

ASS'Y. NO.: 200-1900-00

DWG.: 300-1900-00

UNIT: KTS 150

USED ON: 071-5024-00

REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1	17738		091-0274-05	Added to B/M
	17878		025-0004-06	Qty. changed from 8 to 12
			025-0024-03, 07, 10	Qty. 's changed from 8 to 12
			025-0029-01, 04, 05, 08, 11	Qty. 's changed from 8 to 12
			025-5006-00, 02,09	Qty. 's changed from 8 to 12
			150-0098-20	Qty. changed from 8 to 12
3	18403		025-0029-04	04 changed from 03 on Rev. Sht.
			025-5006-00	Desc. of Blk, deleted from B/M
			025-5006-02	Deleted from B/M
			025-5006-09	Deleted from B/M
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

NAME	ASS'Y. NO.
GYRO EXTENDER CABLE	200-1900-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1900-00	Gyro Extender Cable		X				
	025-0004-06	Wire, Blue, 20 Awg		12				
	025-0024-03	Wire, Orn, 22 Awg		12				
	025-0024-07	Wire, Pur, 22 Awg		12				
	025-0024-10	Wire, Blk/Wht, 22 Awg		12				
	025-0029-01	Wire, Brn, 24 Awg		12				
	025-0029-04	Wire, Yel, 24 Awg		12				
	025-0029-05	Wire, Grn, 24 Awg		12				
	025-0029-08	Wire, Gry, 24 Awg		12				
	025-0029-11	Wire, Brn/Wht, 24 Awg		12				
	025-5006-00	Wire, Shielded		12				
	091-0274-05	Tie Wrap		2				
	150-0017-10	Shrink Tubing, 24 Awg		AR				
	150-0025-10	Shrink Tubing, 8 Awg		AR				
	150-0098-20	Insulating Tubing, #2		12				
P101	030-2263-00	Connector, 12 Pin		1				
P102	030-2255-00	Connector, 12 Pin		1				

NAME	ASS'Y. NO.
GYRO EXTENDER CABLE	200-1900-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-1900-00	Gyro Extender Cable		X				
	025-0004-06	Wire, Blue, 20 Awg		12				
	025-0024-03	Wire, Orn, 22 Awg		12				
	025-0024-07	Wire, Pur, 22 Awg		12				
	025-0024-10	Wire, Blk/Wht, 22 Awg		12				
	025-0029-01	Wire, Brn, 24 Awg		12				
	025-0029-04	Wire, Yel, 24 Awg		12				
	025-0029-05	Wire, Grn, 24 Awg		12				
	025-0029-08	Wire, Gry, 24 Awg		12				
	025-0029-11	Wire, Brn/Wht, 24 Awg		12				
	025-5006-00	Wire, Shielded		12				
	091-0274-05	Tie Wrap		2				
	150-0017-10	Shrink Tubing, 24 Awg		AR				
	150-0025-10	Shrink Tubing, 8 Awg		AR				
	150-0098-20	Insulating Tubing, #2		12				
P101	030-2263-00	Connector, 12 Pin		1				
P102	030-2255-00	Connector, 12 Pin		1				

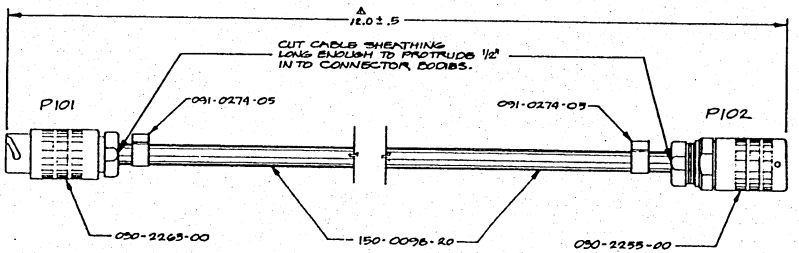
PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME GYRO EXTENDER CABLE				ASS'Y. NO. 200-1900-00
ASS'Y. DWG. 300-1900-00			UNIT KTS 150	USED ON 071-5024-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

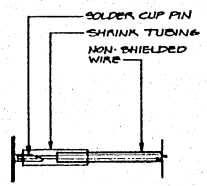
WIRE CHART

P101 P102

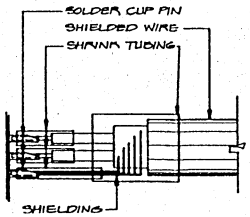
PIN	WIRE P/N	COLOR	GA	PIN
A	025-0029-01	BROWN	24	A
B	025-5006-00	RED	"	B
C	025-0024-05	ORANGE	22	C
D	025-0029-04	YELLOW	24	D
E	025-5006-00	WHITE	"	B
F	025-0029-03	GREEN	"	F
H	025-0004-06	BLUE	20	H
J	025-0024-07	PURPLE	22	J
K	025-0029-08	GREY	24	K
L	025-0024-10	BLK-WHT	22	L
M	025-0029-11	BRN-WHT	24	M
N	025-5006-00	BLACK	"	N

NOTE:
1. SHIELD CONNECTED TO PIN 'L' AT P102 END ONLY. SEE DETAIL 'B'





DETAIL 'A'



DETAIL 'B'

FIGURE 5-9 GYRO EXTENDER CABLE
(Dwg. No. 300-1900-00, R-1)

NAME	ASS'Y. NO.
P. C. BOARD #1 KTS 150	200-5751-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
C401	108-5020-00	Cap. Polycarb 5uf 50v		2				
C403	113-5102-00	Cap. D/C .001uf		2				
C404	108-5020-00	Cap. Polycarb 5uf 50v		-				
C406	113-5102-00	Cap. D/C .001uf		-				
C407	105-0031-32	Cap. Mylar .01uf 80v 10%		2				
C408	096-1005-00	Cap. Tant. 1uf 35v		2				
C409	105-0031-32	Cap. Mylar .01uf 80v 10%		-				
C410	096-1005-00	Cap. Tant. 1uf 35v		-				
CR401	007-6029-00	Diode, Silicon 1N457A		3				
CR402	007-6029-00	Diode, Silicon 1N457A		-				
CR403	007-6029-00	Diode, Silicon 1N457A		-				
I401	120-3052-00	Op Amp, Quad LM324		2				
I402	120-3012-03	Int. Ckt. Op Amp 741		2				
I403	120-3052-00	Op Amp, Quad LM324		-				
I404	120-3012-03	Int. Ckt. Op Amp 741		-				
K401	032-0032-00	Relay, DPDT 12v		1				
K402	032-0033-00	Relay, DPST 12v		1				
Q401	007-0139-00	Tstr, Dual FET 2N3955		2				
Q402	007-0139-00	Tstr, Dual FET 2N3955		-				
R401	130-0103-23	Res. F/C 10K QW 5%		2				
R402	130-0102-23	Res. F/C 1K QW 5%		2				
R403	130-0105-23	Res. F/C 1 Meg QW 5%		1				
R404	133-0096-60	Var. Res. 50K		5				
R405	136-2002-22	Res. F/F 20K QW 1%		4				
R406	130-0513-23	Res. F/C 51K QW 5%		1				
R407	136-2002-22	Res. F/F 20K QW 1%		-				
R408	136-2492-22	Res. F/F 24.9K QW 1%		10				
R409	136-2492-22	Res. F/F 24.9K QW 1%		-				
R410	136-2492-22	Res. F/F 24.9K QW 1%		-				
R411	133-0096-57	Var. Res. 10K		1				
R412	136-4992-22	Res. F/F 49.9K QW 1%		9				
R413	136-4992-22	Res. F/F 49.9K QW 1%		-				
R414	136-2492-22	Res. F/F 24.9K QW 1%		-				

NAME	P. C. BOARD #1 KTS 150	ASS'Y. NO.	200-5751-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
R415	026-0018-00	Circuit Jumper		8				
R416	026-0018-00	Circuit Jumper		-				
R417	026-0018-00	Circuit Jumper		-				
R418	136-4992-22	Res. F/F 49.9K QW 1%		-				
R419	136-4992-22	Res. F/F 49.9K QW 1%		-				
R420	136-4992-22	Res. F/F 49.9K QW 1%		-				
R421	026-0018-00	Circuit Jumper		-				
R422	136-2492-22	Res. F/F 24.9K QW 1%		-				
R423	136-2493-22	Res. F/F 249K QW 1%		1				
R424	136-4122-22	Res. F/F 41.2K QW 1%		1				
R425	026-0018-00	Circuit Jumper		-				
R426	136-4992-22	Res. F/F 49.9K QW 1%		-				
R427	136-4992-22	Res. F/F 49.9K QW 1%		-				
R428	136-2492-22	Res. F/F 24.9K QW 1%		-				
R429	130-0103-23	Res. F/C 10K QW 5%		-				
R430	130-0104-23	Res. F/C 100K QW 5%		6				
R431	133-0096-60	Var. Res. 50K		-				
R432	130-0104-23	Res. F/C 100K QW 5%		-				
R433	133-0096-60	Var. Res. 50K		-				
R434	026-0018-00	Circuit Jumper		-				
R435	133-0096-60	Var. Res. 50K		-				
R436	130-0104-23	Res. F/C 100K QW 5%		-				
R437	133-0096-60	Var. Res. 50K		-				
R438	130-0104-23	Res. F/C 100K QW 5%		-				
R439	136-2002-22	Res. F/F 20K QW 1%		-				
R440	136-1003-22	Res. F/F 100K QW 1%		1				
R441	136-2002-22	Res. F/F 20K QW 1%		-				
R442	136-2492-22	Res. F/F 24.9K QW 1%		-				
R443	136-2492-22	Res. F/F 24.9K QW 1%		-				
R444	136-2492-22	Res. F/F 24.9K QW 1%		-				
R445	136-5112-22	Res. F/F 51.1K QW 1%		2				
R447	136-2492-22	Res. F/F 24.9K QW 1%		-				
R448	136-5110-22	Res. F/F 511 QW 1%		2				
R449	136-5110-22	Res. F/F 511 QW 1%		-				
R450	133-0096-61	Var. Res.100K		2				
R451	130-0104-23	Res. F/C 100K QW 5%		-				
R452	130-0104-23	Res. F/C 100K QW 5%		-				
R453	133-0096-61	Var. Res.100K		-				
R455	026-0018-00	Circuit Jumper		-				
R457	026-0018-00	Circuit Jumper		-				
R460	136-5112-22	Res. F/F 51.1K QW 1%		-				
R461	136-4992-22	Res. F/F 49.9K QW 1%		-				
R462	136-4992-22	Res. F/F 49.9K QW 1%		-				
R463	130-0102-23	Res. F/C 1K QW 5%		-				
R464	136-1000-22	Res. F/F 100 QW 1%		1				
R465	130-0101-23	Res. F/C 100 QW 5%		1				
R466	130-0511-23	Res. F/C 510 QW 5%		1				

NAME	ASS'Y. NO.
P. C. BOARD #1 KTS 150	200-5751-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
TP401	008-0048-00	Solderless Pin		6				
TP402	008-0048-00	Solderless Pin		-				
TP403	008-0048-00	Solderless Pin		-				
TP404	008-0048-00	Solderless Pin		-				
TP405	008-0048-00	Solderless Pin		-				
TP406	008-0048-00	Solderless Pin		-				
	009-5751-00	P.C.Board		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME P.C. BOARD #1 KTS 150				ASS'Y. NO. 200-5751-00
ASS'Y. DWG. 300-5751-00		UNIT KTS 150		USED ON 200-1851-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976

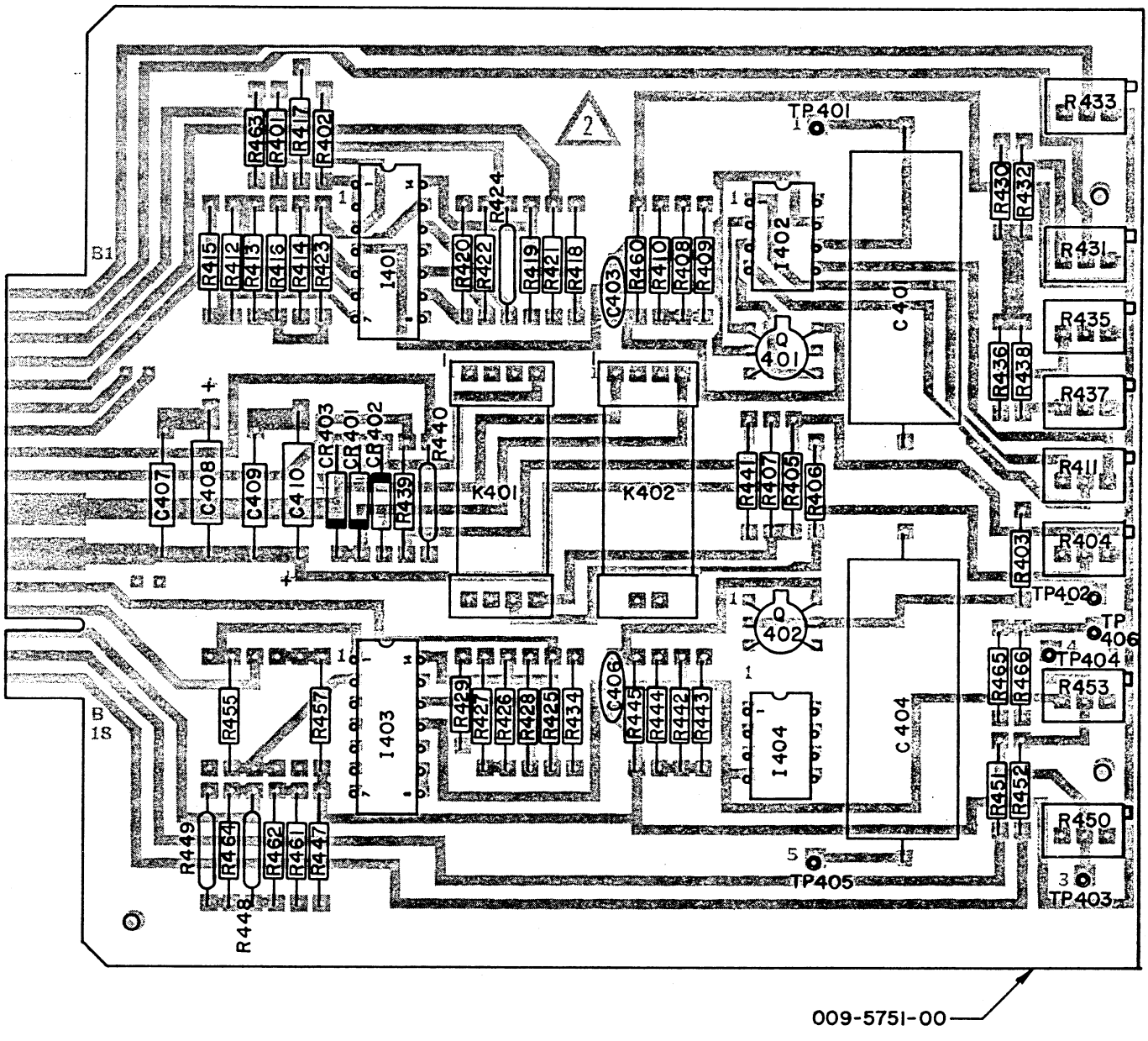


FIGURE 5-10 P. C. BOARD NO. 1 ASSEMBLY
(300-5751-00, R-0)

NAME	P. C. BOARD #2 KTS 150	ASS'Y. NO.	200-5752-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	009-5752-00	P. C. Board		1				
C201	096-1017-00	Cap. Tant, 100uf 20v		2				
C204	096-1005-00	Cap. Tant. 1.0uf 35v		3				
C205	096-1015-00	Cap. Tant. 10uf 20v		2				
C206	096-1015-00	Cap. Tant. 10uf 20v		-				
C207	096-1005-00	Cap. Tant. 1.0uf 35v		-				
C208	105-0031-32	Cap. Mylar .01uf 80v 10%		2				
C209	096-1005-00	Cap. Tant. 1.0uf 35v		-				
C210	105-0031-32	Cap. Mylar .01uf 80v 10%		-				
C211	096-1017-00	Cap. Tant. 100uf 20v		-				
CR201	007-5011-41	Diode, Zener 8.2v 1W		1				
CR202	007-5011-15	Diode, Zener 7.5v 1W		2				
CR203	007-6033-00	Diode, Ge 1N270		2				
CR204	007-6033-00	Diode, Ge 1N270		-				
CR205	007-5011-15	Diode, Zener 7.5v 1W		-				
CR208	007-6029-00	Diode, Si 1N457A		13				
CR209	007-6029-00	Diode, Si 1N457A		-				
CR210	007-6029-00	Diode, Si 1N457A		-				
CR211	007-6029-00	Diode, Si 1N457A		-				
CR212	007-6029-00	Diode, Si 1N457A		-				
CR213	007-6029-00	Diode, Si 1N457A		-				
CR214	007-6029-00	Diode, Si 1N457A		-				
CR215	007-6029-00	Diode, Si 1N457A		-				
CR216	007-6029-00	Diode, Si 1N457A		-				
CR217	007-5011-13	Diode, Zener 5.6v 1W		1				
CR218	007-6029-00	Diode, Si 1N457A		-				
CR219	007-6029-00	Diode, Si 1N457A		-				
CR220	007-6029-00	Diode, Si 1N457A		-				
CR221	007-6029-00	Diode, Si 1N457A		-				
I201	120-3027-00	Balanced Mod 1496		1				
I202	120-3052-00	Op Amp, Quad LM324		2				
I203	120-3052-00	Op Amp, Quad LM324		-				
TP201	008-0048-00	Solderless Pin		1				

NAME	ASS'Y. NO.
P. C. BOARD #2 KTS 150	200-5752-00

KING RADIO CORP. PARTS LISTING

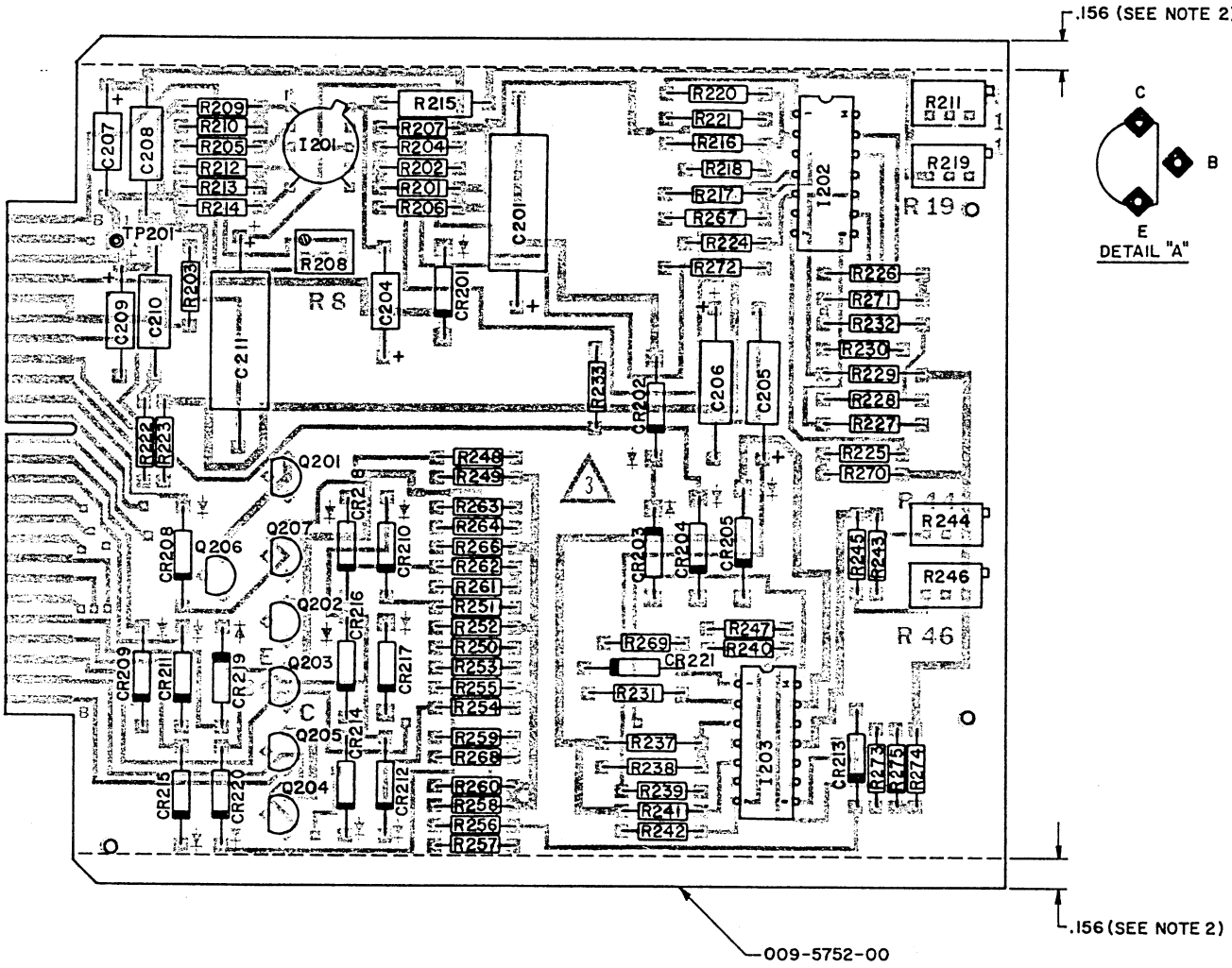
SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
Q201	007-0246-01	Transistor, Si SPS6830		7				
Q202	007-0246-01	Transistor, Si SPS6830		-				
Q203	007-0246-01	Transistor, Si SPS6830		-				
Q204	007-0246-01	Transistor, Si SPS6830		-				
Q205	007-0246-01	Transistor, Si SPS6830		-				
Q206	007-0246-01	Transistor, Si SPS6830		-				
Q207	007-0246-01	Transistor, Si SPS6830		-				
R201	130-0102-23	Res. F/C 1K QW 5%		3				
R202	130-0102-23	Res. F/C 1K QW 5%		-				
R203	130-0103-23	Res. F/C 10K QW 5%		9				
R204	130-0510-23	Res. F/C 51 QW 5%		3				
R205	130-0102-23	Res. F/C 1K QW 5%		-				
R206	130-0472-23	Res. F/C 4.7K QW 5%		2				
R207	130-0472-23	Res. F/C 4.7K QW 5%		-				
R208	133-0096-33	Var. Res. 20K		1				
R209	130-0510-23	Res. F/C 51 QW 5%		-				
R210	130-0103-23	Res. F/C 10K QW 5%		-				
R211	133-0096-60	Var. Res. 50K		4				
R212	130-0103-23	Res. F/C 10K QW 5%		-				
R213	130-0510-23	Res. F/C 51 QW 5%		-				
R214	130-0682-23	Res. F/C 6.8K QW 5%		1				
R215	130-0681-33	Res. F/C 680 HW 5%		1				
R216	136-4422-22	Res. F/F 44.2K QW 1%		2				
R217	136-4422-22	Res. F/F 44.2K QW 1%		-				
R218	130-0754-23	Res. F/C 750K QW 5%		1				
R219	133-0096-60	Var. Res. 50K		-				
R220	136-9093-22	Res. F/F 909K QW 1%		2				
R221	136-4991-22	Res. F/F 4.99K QW 1%		3				
R222	130-0104-23	Res. F/C 100K QW 5%		3				
R223	130-0104-23	Res. F/C 100K QW 5%		-				
R224	130-0103-23	Res. F/C 10K QW 5%		-				
R225	130-0202-23	Res. F/C 2K QW 5%		3				
R226	136-4991-22	Res. F/F 4.99K QW 1%		-				
R227	136-1003-22	Res. F/F 100K QW 1%		2				
R228	136-1003-22	Res. F/F 100K QW 1%		-				
R229	136-4992-22	Res. F/F 49.9K QW 1%		1				
R230	130-0103-23	Res. F/C 10K QW 5%		-				
R231	130-0103-23	Res. F/C 10K QW 5%		-				
R232	136-4991-22	Res. F/F 4.99K QW 1%		-				
R233	130-0203-23	Res. F/C 20K QW 5%		1				
R237	130-0202-22	Res. F/C 2K QW 5%		-				
R238	130-0133-23	Res. F/C 13K QW 5%		2				
R239	130-0334-23	Res. F/C 330K QW 5%		1				
R240	130-0103-23	Res. F/C 10K QW 5%		-				
R241	130-0103-23	Res. F/C 10K QW 5%		-				
R242	130-0124-23	Res. F/C 120K QW 5%		1				

NAME	P. C. BOARD #2 KTS 150	ASS'Y. NO.	200-5752-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
R243	130-0514-23	Res. F/C 510K QW 5%		2				
R244	133-0096-60	Var. Res. 50K		-				
R245	130-0104-23	Res. F/C 100K QW 5%		-				
R246	133-0096-60	Var. Res. 50K		-				
R247	130-0242-23	Res. F/C 2.4K QW 5%		1				
R248	130-0513-23	Res. F/C 51K QW 5%		19				
R249	130-0513-23	Res. F/C 51K QW 5%		-				
R250	130-0513-23	Res. F/C 51K QW 5%		-				
R251	130-0513-23	Res. F/C 51K QW 5%		-				
R252	130-0513-23	Res. F/C 51K QW 5%		-				
R253	130-0513-23	Res. F/C 51K QW 5%		-				
R254	130-0513-23	Res. F/C 51K QW 5%		-				
R255	130-0513-23	Res. F/C 51K QW 5%		-				
R256	130-0513-23	Res. F/C 51K QW 5%		-				
R257	130-0513-23	Res. F/C 51K QW 5%		-				
R258	130-0513-23	Res. F/C 51K QW 5%		-				
R259	130-0513-23	Res. F/C 51K QW 5%		-				
R260	130-0513-23	Res. F/C 51K QW 5%		-				
R261	130-0513-23	Res. F/C 51K QW 5%		-				
R262	130-0513-23	Res. F/C 51K QW 5%		-				
R263	130-0514-23	Res. F/C 510K QW 5%		-				
R264	130-0513-23	Res. F/C 51K QW 5%		-				
R266	130-0513-23	Res. F/C 51K QW 5%		-				
R267	136-9093-22	Res. F/F 909K QW 1%		-				
R268	130-0513-23	Res. F/C 51K QW 5%		-				
R269	136-0513-23	Res. F/C 51K QW 5%		-				
R270	130-0101-23	Res. F/C 100 QW 5%		1				
R271	136-1000-22	Res. F/F 100 QW 1%		1				
R272	136-4990-22	Res. F/F 499 QW 1%		1				
R273	130-0103-23	Res. F/C 10K QW5%		-				
R274	130-0202-23	Res. F/C 2K QW5%		-				
R275	130-0133-23	Res. F/C 13K QW5%		-				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL
NAME P.C. BOARD #2 KTS 150				ASS'Y. NO. 200-5752-00
ASS'Y. DWG. 300-5752-00			UNIT KTS 150	USED ON 200-1851-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1				
2				
3				
				KFC 200 Maintenance/Overhaul Manual Rev. 0, January, 1976



NOTES:

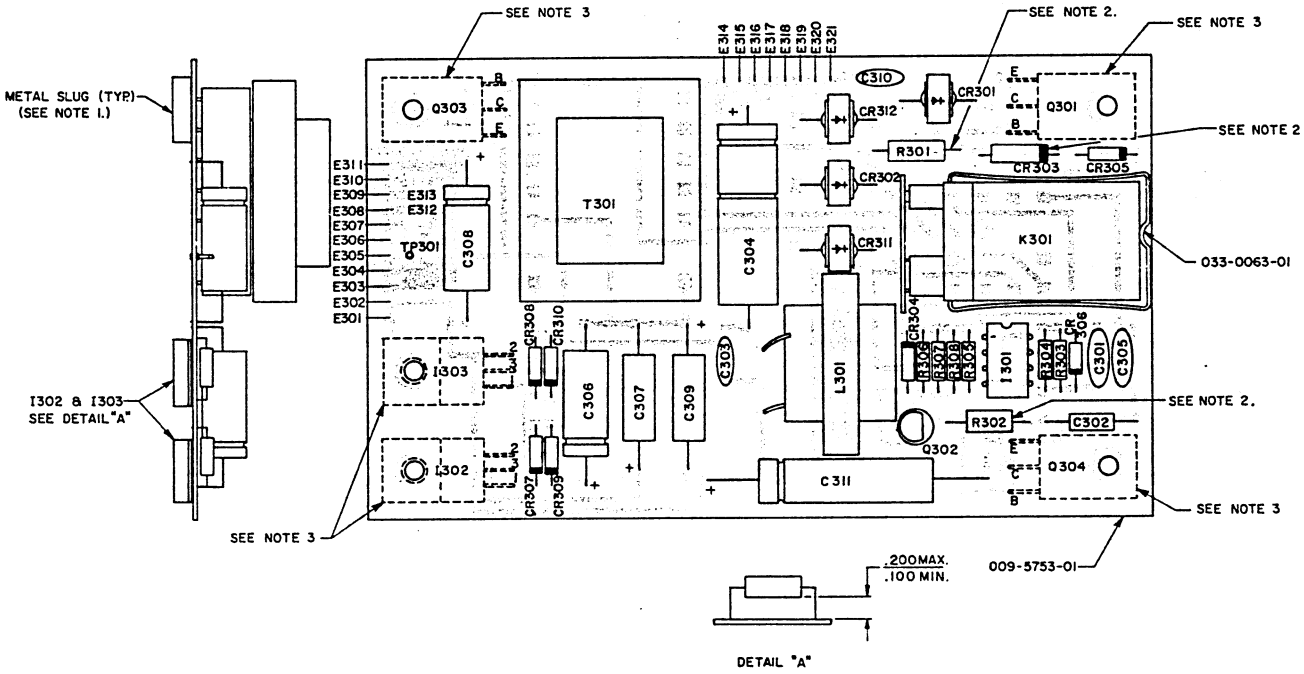
1. TRANSISTORS Q201, Q202, Q203, Q204, Q205, Q206, AND Q207, SEE DETAIL "A".
2. THERE CAN BE NO COMPONENTS IN THOSE AREAS NOTED.

FIGURE 5-11 P. C. BOARD NO. 2 ASSEMBLY
(300-5752-00, R-0)

KING RADIO CORPORATION
PARTS LISTING

200-5753-00 POWER SUPPLY BD R: 7 KTS0150

SYMBOL		PART NUMBER	DESCRIPTION	A	UM	QUANTITY 00
		009-5753-01	A3 PWR SPY BD W/HW	A	EA	1.00
		033-0063-01	SCKT RT ANGLE 2P		EA	1.00
C	301	116-6104-00	CAP DC .1UF 25V		EA	1.00
C	302	105-0018-15	CAP MY .001UF 200V		EA	1.00
C	303	113-6103-00	CAP DC .01UF 50V		EA	1.00
C	304	097-0057-29	CAP AL 150UF 63V		EA	1.00
C	305	116-6104-00	CAP DC .1UF 25V		EA	1.00
C	306	097-0066-01	CAP AL 50UF 50V		EA	1.00
C	307	096-1028-00	CAP TN 10UF 35V		EA	1.00
C	308	097-0066-01	CAP AL 50UF 50V		EA	1.00
C	309	096-1028-00	CAP TN 10UF 35V		EA	1.00
C	310	113-6103-00	CAP DC .01UF 50V		EA	1.00
C	311	095-0006-34	CAP EL 100UF 40V		EA	1.00
CR	301	007-6073-00	DIO MR751		EA	1.00
CR	302	007-6073-00	DIO MR751		EA	1.00
CR	303	007-5032-38	DIO Z 1N5352A		EA	1.00
CR	304	007-6029-00	DIO S 1N457A		EA	1.00
CR	305	007-5032-38	DIO Z 1N5352A		EA	1.00
CR	306	007-5011-13	DIO Z 5.6V 1W 5%		EA	1.00
CR	307	007-6025-00	DIO S 1N4003		EA	1.00
CR	308	007-6025-00	DIO S 1N4003		EA	1.00
CR	309	007-6025-00	DIO S 1N4003		EA	1.00
CR	310	007-6025-00	DIO S 1N4003		EA	1.00
CR	311	007-6073-00	DIO MR751		EA	1.00
CR	312	007-6073-00	DIO MR751		EA	1.00
I	301	120-3040-00	IC SA555P		EA	1.00
I	302	120-3096-08	IC MC7815CT		EA	1.00
I	303	120-3093-13	IC MC7915CT		EA	1.00
K	301	032-0008-00	RELAY 12VDC DPDT		EA	1.00
L	301	019-2152-01	CH .350MH		EA	1.00
Q	301	007-0206-03	XSTR MJE1100		EA	1.00
Q	302	007-0026-03	XSTR S NPN 2N3416		EA	1.00
Q	303	007-0206-03	XSTR MJE1100		EA	1.00
Q	304	007-0206-03	XSTR MJE1100		EA	1.00
R	301	132-0105-82	RES WW 750 1.5W 5%		EA	1.00
R	302	132-0106-55	RES WW 100 2.25W5%		EA	1.00
R	303	130-0102-23	RES FC 1K QW 5%		EA	1.00
R	304	130-0164-23	RES FC 160K QW 5%		EA	1.00
R	305	130-0102-23	RES FC 1K QW 5%		EA	1.00
R	306	130-0201-23	RES FC 200 QW 5%		EA	1.00
R	307	130-0102-23	RES FC 1K QW 5%		EA	1.00
R	308	130-0201-23	RES FC 200 QW 5%		EA	1.00
T	301	019-7061-01	XFMR PWR		EA	1.00
TP	301	008-0048-00	SLDRLS PIN & RECPT		EA	1.00

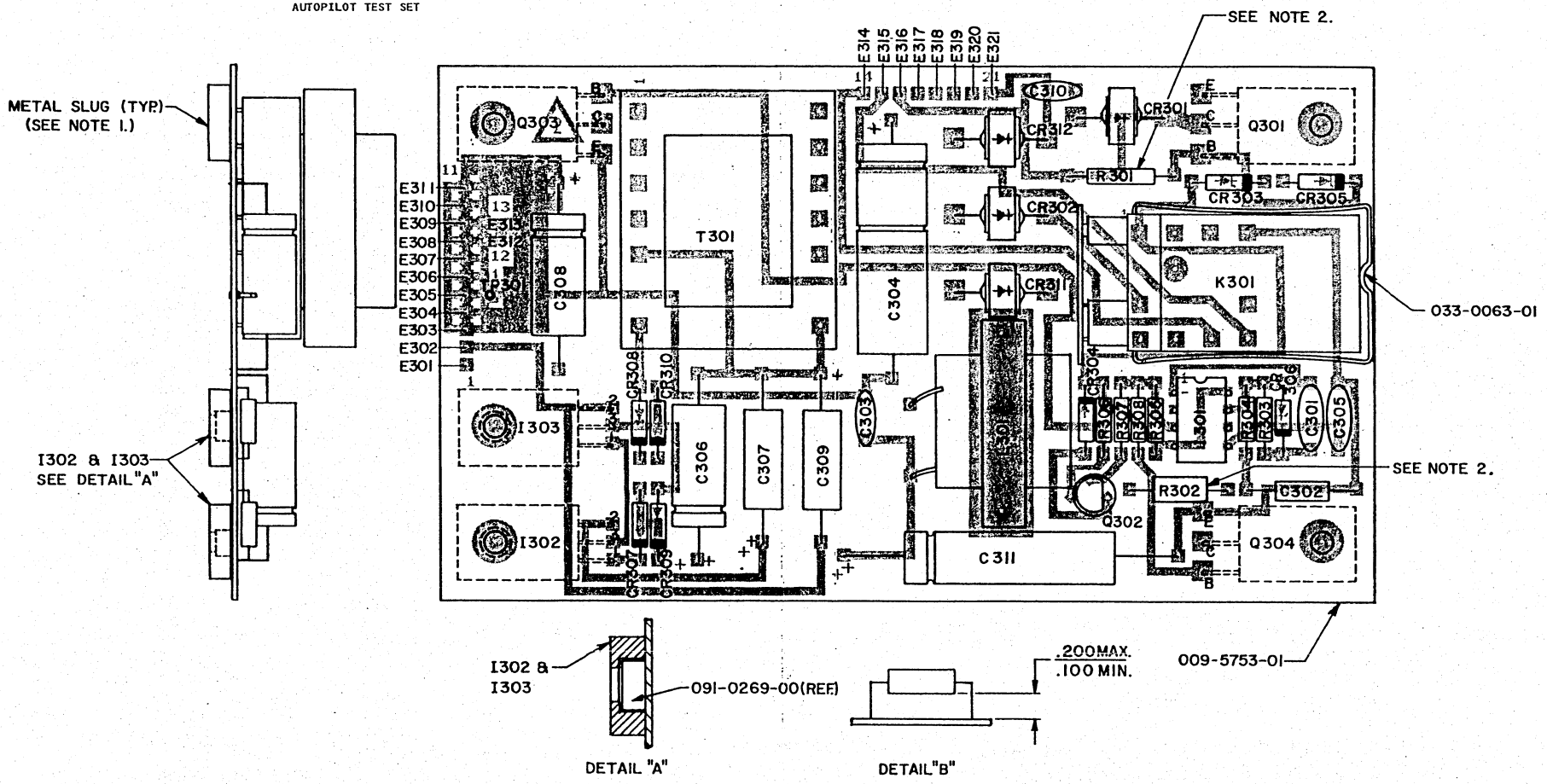


NOTES:

1. INSTALL Q301, Q303, Q304, I302, AND I303 ON FAR SIDE OF BOARD, WITH METAL SLUGS FACING AWAY FROM BD..
2. R301, R302 & CR303 TO BE MOUNTED PER DETAIL "A".
3. SEE DETAIL "A" ON ASSEMBLY DRAWING 300-1854-00 FOR PLACEMENT OF SPACERS.

FIGURE 5-12 A3 POWER SUPPLY BOARD
(Dwg. No. 300-5753-00, R-3)

KING
KTS 150
AUTOPILOT TEST SET



NOTES:

1. INSTALL Q301, Q303, Q304, I302, AND I303 ON FAR SIDE OF BOARD, WITH METAL SLUGS FACING AWAY FROM BD..
2. R301 AND R302 TO BE MOUNTED PER DETAIL "B".

FIGURE 5-12 A3 POWER SUPPLY BOARD
(Dwg. No. 300-5753-00, R-0)

NAME	ASS'Y. NO.
SLIP CLUTCH TEST STAND	071-6028-00

KING RADIO CORP. PARTS LISTING

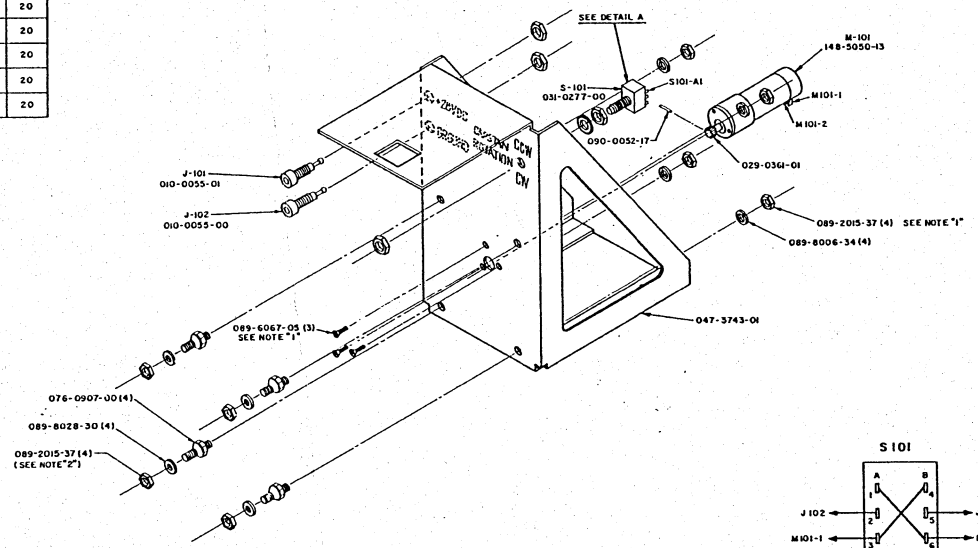
SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
J102	010-0055-00	Terminal; Black		1				
J101	010-0055-01	Terminal; Red		1				
	016-1008-04	Glyptal		AR				
	025-0004-00	Wire; Blk, #20		.6				
	025-0004-02	Wire; Red, #20		.6				
	025-0004-10	Wire; Blk/Wht, #20		.9				
	025-0004-12	Wire; Red/Wht, #20		.9				
	029-0361-01	Gear, 10T		1				
S101	031-0277-00	Switch; DPDT		1				
	047-3743-01	Stand		1				
	076-0907-00	Screw, Centering		4				
	089-2015-37	Nut; Hex, #8-32		8				
	089-6067-05	Scr; FHP #4-40x5/16		3				
	089-8006-34	Washer; Lock, #8		4				
	089-8028-30	Washer; Flat, #8		4				
	090-0052-17	Roll Pin		1				
M101	148-5050-13	Motor/Gearhead		1				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL James R. Harrington
NAME SLIP CLUTCH TEST STAND				ASS'Y. NO. 071-6028-00
ASS'Y. DWG. 300-1903-00		UNIT KM 275		USED ON 050-1453-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1		J102	010-0055-00	Symbol added to B/m
		J101	010-0055-01	" " " "
			016-1008-04	Added to B/M
			029-0361-01	Added to B/M
		S101	031-0277-00	Symbol added to B/M
			089-8006-34	Desc. changed from FAP to FHP
			090-0052-17	Added to B/M
		M101	148-5037-13	Symbol added to B/m
2			071-6021-03	Deleted from B/M
3			089-2348-00	Deleted from B/M
			089-2015-37	Qty. changed from 4 to 8
4		M101	148-5050-13	P/N changed from 148-5037-13

WIRE CHART 071-6028-00

NO.	FROM	TO	WIRE P/N	COLOR	GA.
1	J101	S101-B5	025-0004-02	RED	20
2	J102	S101-A2	025-0004-00	BLACK	20
3	S101-A3	S101-B4	025-0004-10	BLK/WHT	20
4	S101-B6	S101-A1	025-0004-12	RED/WHT	20
5	S101-A3	M101-1	025-0004-10	BLK/WHT	20
6	S101-B6	M101-2	025-0004-12	RED/WHT	20

NOTES:
1. APPLY GLYPTAL 016-1008-04 AFTER SECURING.
2. DO NOT APPLY GLYPTAL TO THESE FOUR NUTS.



DETAIL "A"

FIGURE 5-13 SLIP CLUTCH TEST STAND ASSEMBLY
(Dwg. No. 300-1903-00, R-2)

KING RADIO CORPORATION
PARTS LISTING

050-1543-00 BD PROVISION KIT R: 2 KTS0150

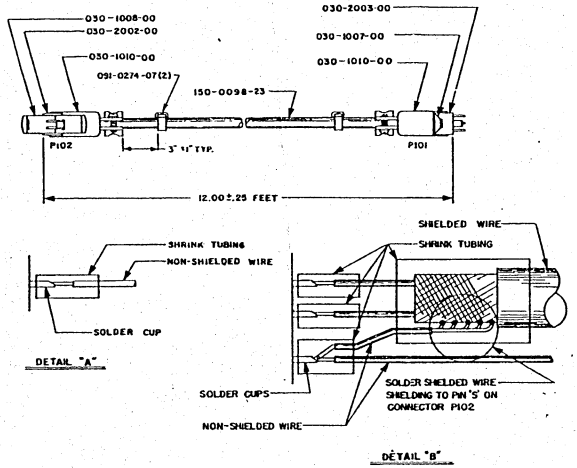
SYMBOL	PART NUMBER	DESCRIPTION	A	UM	QUANTITY 00
	047-1277-00	EXTRACTOR BOARD		EA	1.00
	200-1716-01	LOGIC BD ASSY	A	EA	1.00
	200-1717-00	LATERAL AXIS BD	A	EA	1.00
	200-1718-00	PITCH AXIS BD	A	EA	1.00
	200-5797-02	ALTITUDE HOLD BD	A	EA	1.00

200-2298-00 ADPT CABLE KI 256 R: 4 KTS0150

SYMBOL	PART NUMBER	DESCRIPTION	A	UM	QUANTITY 00
	025-0024-03	WIRE 22 ORN		FT	12.50
	025-0024-04	WIRE 22 YEL		FT	12.50
	025-0024-05	WIRE 22 GRN		FT	12.50
	025-0024-06	WIRE 22 BLU		FT	12.50
	025-0024-07	WIRE 22 PUR		FT	12.50
	025-0024-08	WIRE 22 GRY		FT	12.50
	025-0024-09	WIRE 22 WHT		FT	12.50
	025-0024-10	WIRE 22 BK/WH		FT	12.50
	025-0024-11	WIRE 22 BN/WH		FT	12.50
	025-0024-12	WIRE 22 RD/WH		FT	12.50
	025-0024-13	WIRE 22 OR/WH		FT	12.50
	025-0024-14	WIRE 22 YL/WH		FT	12.50
	025-0024-15	WIRE 22 GN/WH		FT	12.50
	025-0024-16	WIRE 22 BU/WH		FT	12.50
	025-0024-17	WIRE 22 VI/WH		FT	12.50
	025-0024-18	WIRE 22 GY/WH		FT	12.50
	025-5012-00	WIRE 2C SHD WHTBLK		EA	25.00
	030-1007-00	TAB LOCKING		EA	2.00
	030-1008-00	LVR/PVT ASSY		EA	2.00
	030-1010-00	HOOD CONN		EA	2.00
	030-2002-00	CONN 20 PIN FEM		EA	1.00
	030-2003-00	CONN 20 PIN MALE		EA	1.00
	091-0274-07	CABLE TIE		EA	2.00
	150-0020-10	TUBING SHNK 18AWG		AR	0.00
	150-0024-10	TUBING SHNK 10AWG		AR	0.00
	150-0098-23	INSUL TUBING 3/8D		FT	12.50

WIRE CHART				
PIN (P101)	WIRE P/N	COLOR	GAGE	PIN (P102)
A	025-5012-00	BLK	24AWG	A
B	025-0024-16	BLU/WHT	22AWG	B
C	025-5012-00	WHT	24AWG	C
D	025-5012-00	BLK	24AWG	D
E	025-5012-00	WHT	24AWG	E
F	025-0024-17	PUR/WHT	22AWG	F
H	025-0024-18	GRY/WHT	22AWG	H
J	025-0024-03	ORN	22AWG	J
K	025-0024-04	YEL	22AWG	K
L	025-0024-05	GRN	22AWG	L
M	025-0024-06	BLU	22AWG	M
N	025-0024-07	PUR	22AWG	N
P	025-0024-08	GRY	22AWG	P
R	025-0024-09	WHT	22AWG	R
S	025-0024-10	BLK/WHT	22AWG	S
T	025-0024-11	BRN/WHT	22AWG	T
U	025-0024-12	RED/WHT	22AWG	U
V	025-0024-13	ORN/WHT	22AWG	V
W	025-0024-14	YEL/WHT	22AWG	W
X	025-0024-15	GRN/WHT	22AWG	X

025-0024-10 (AR)



NOTES:
1) INSULATED TUBING (150-0098-23) SHALL EXTEND 1/2 INCH INTO EACH CONNECTOR HOOD (030-1010-00).
2) APPLY PROPER SIZE SHRINK TUBING TO ALL SOLDER CONNECTIONS.
3) THE SHIELDING FROM WIRES 025-5012-00 SHALL BE CONNECTED TO PIN 'S' ON THE CONNECTOR P102.
4) REF: B/M 200-2298-00.

FIGURE 5-14 KI 256 ADAPTER CABLE ASSEMBLY
(Dwg. No. 300-2298-00, R-5)

NAME	ASS'Y. NO.
Adapter Plate Ass'y KI 256	200-2318-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	200-2318-00	Adapter Plate Ass'y		X				
	047-4590-01	Plate, Adapter	F	1				
	076-1016-01	Standoff	F	4				
	089-2348-00	Wing Nut, #8-32		4				
	089-5115-05	Scw.,FHP,82°,#6-32x5/16		4				
	089-6015-06	Scw, FHP,#10-32x3/8,100°		4				

PARTS LIST REVISION HISTORY				ENGR. APPROVAL R. Wilson
NAME Adapter Plate Ass'y KI 256				ASS'Y. NO. 200-2318-00
ASS'Y. DWG. 300-2318-00		UNIT KTS 150		USED ON 050-1708-00
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1			089-6015-06 089-8007-34	P/N changed from 089-5910-08 Deleted from B/M
2			071-5024-00 050-1708-00	Deleted from Used On Added to Used On

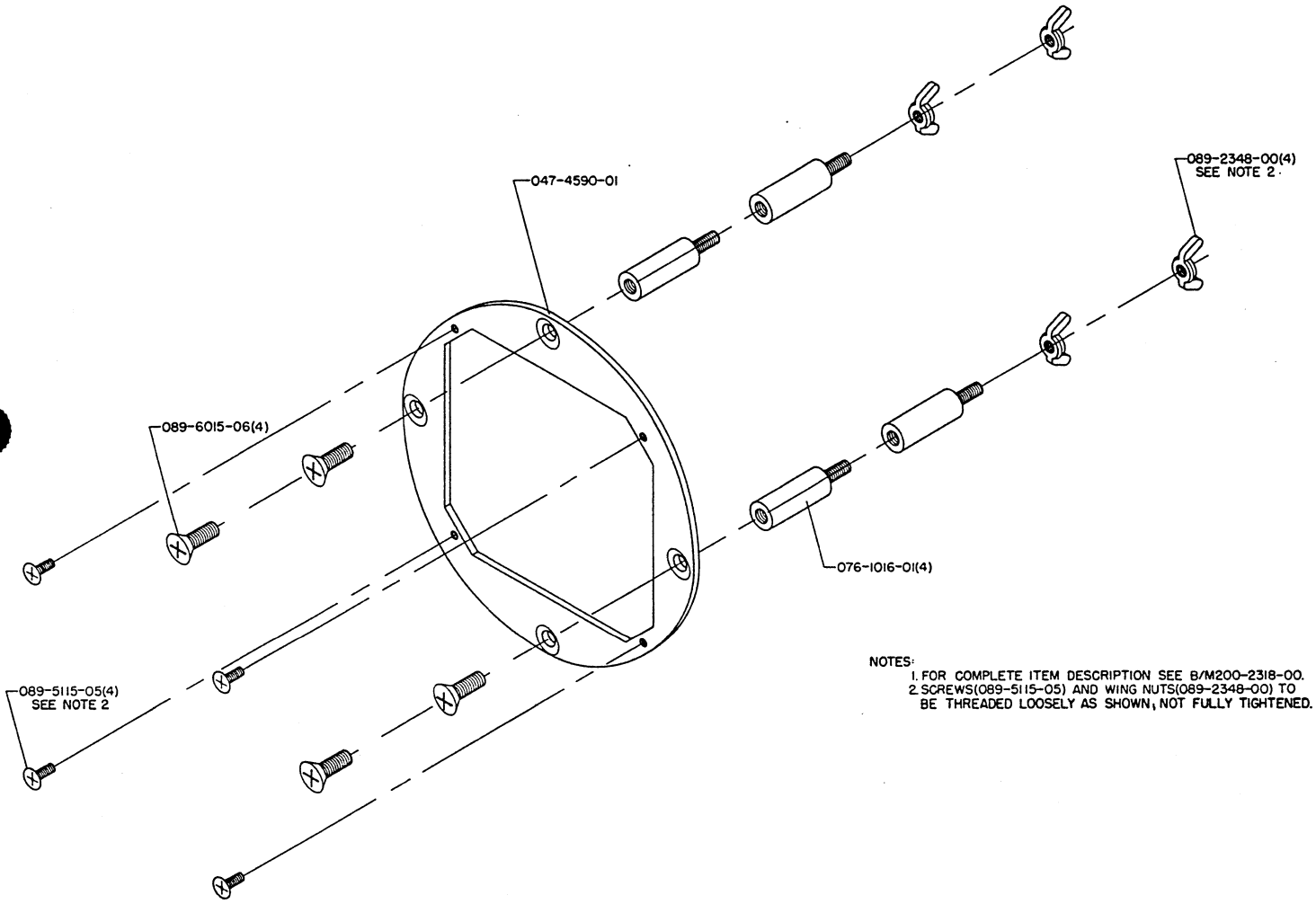
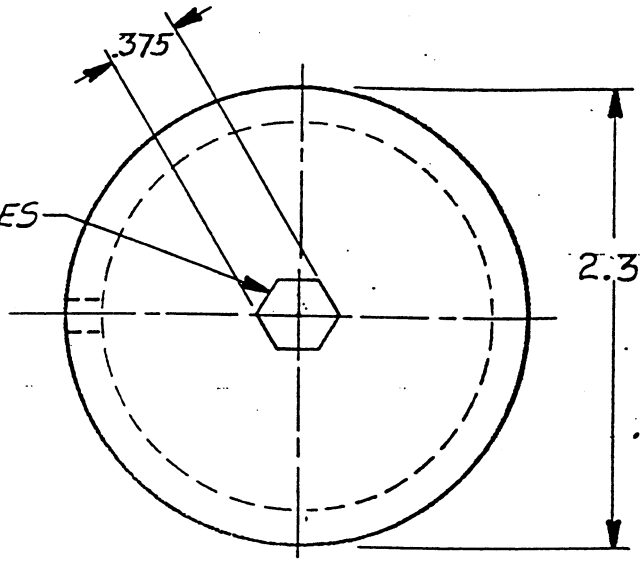
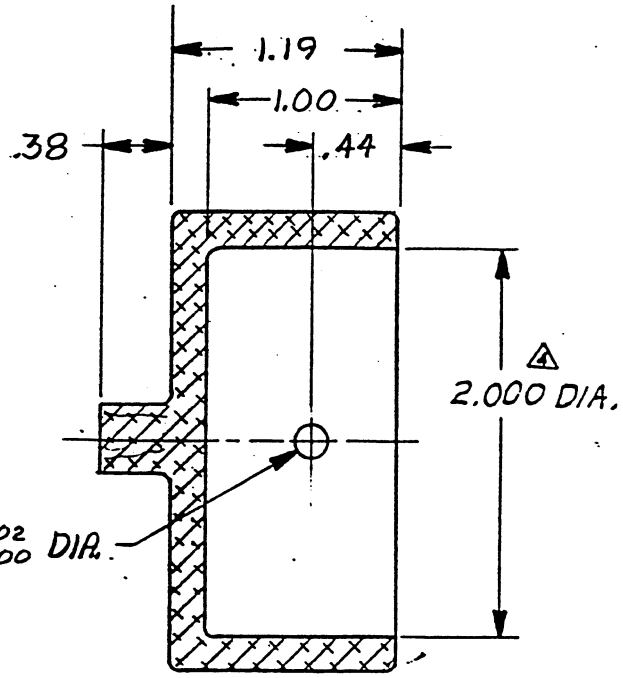


FIGURE 5-15 KI 256 ADAPTER PLATE ASSEMBLY
(Dwg. No. 300-2318-00, R-2)

071-6021-00/03 | 1 | 1

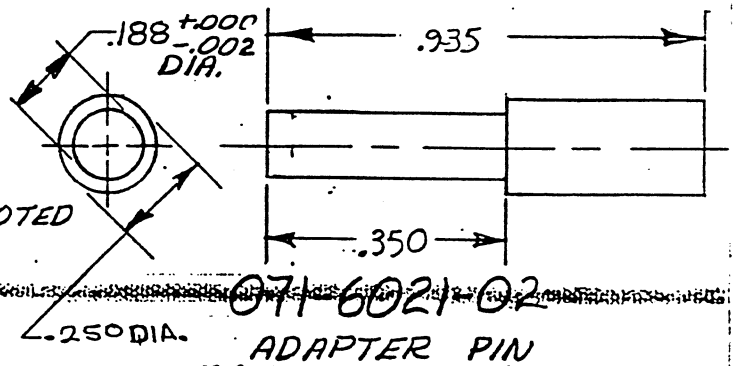
FAB 8 HRS
& 20 MACH





071-6021-00/01

ADAPTER, HUB
MAT'L: ALUM 6061 T6 OR
6061 T651



071-6021-02

ADAPTER PIN
MAT'L: STAINLESS STEEL

NOTES:

1. ALL RAD. SHALL BE .06 MAX UNLESS NOTED
2. REMOVE ALL BURRS & SHARP EDGES
3. ORIENTATION OF NUT IS INSIGNIFICANT.
4. NUT MAY BE MACHINED AS AN INTEGRAL PART OR PRESSED IN (VENDORS CHOICE), HOWEVER IT CAN NOT EXTEND PAST THE INSIDE SURFACE AND SHALL WITHSTAND A TORQUE OF 150 IN-LBS.
5. FINISH: ALUM. LIGHT ETCH.
   STAINLESS STEEL: NONE

X				071-6021-03	ADAPTER W/FINISH & PIN	4
1	X			071-6021-02	ADAPTER PIN	3
1		X		071-6021-01	ADAPTER HUB W/FINISH	2
		1	X	071-6021-00	ADAPTER HUB	1
			REQ	PART NO.	DESCRIPTION	ITEM

REV	C.O.	DATE	BY
1	18182	9/75	AEC
2	18274	9/17/75	MEC
3	20546	6-17-76	JLS
4	29437	6-20-79	RB
5	40284	9-82	SDS

071-6021-03
071-6021-02
071-6021-01
071-6021-00

SCALE: NTS

NAME: ADAPTER, AUTO TRIM SETTING, KS270

ELEC ENG
MECH ENG
TOL UNLESS NOTED: XX = ±.01, XXX = ±.005

MAT'L: NOTED

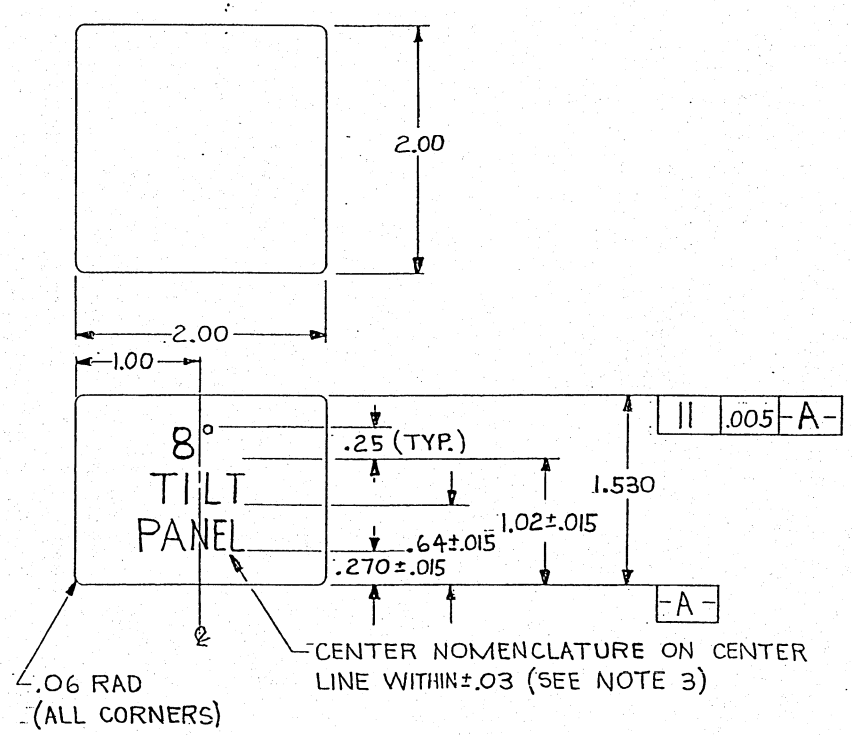
DRN: L.V. HICKS — DATE: 3/6/75
CHK — DATE: 3/20/75

NUM: 071-06021-0000/0003
KRC AUTHORIZED PRINT

SHT 1 OF 1

K-1219 1-67

NOTES
1. DEBURR AND BREAK ALL SHARP EDGES.
2. FINISH: ALLIED-KELITE # 14-2 PER KING SPEC. 001-0187-12 OR EQUIVALENT.
3. STAMP NOMENCLATURE (8° TILT PANEL) ON SIDE OF ADJUSTMENT BLOCK APPROXIMATELY AS SHOWN USING METAL STAMP.



REQ	REQ	REQ	PART NO.	DESCRIPTION	ITEM
X	-	-	047-4243-01	BLOCK W/FINISH	2
1	X	-	047-4243-00	BLOCK	1

NEXT ASSY.	UNIT
071-5024-00	KTS 150

DASH NO. -01 -001

TOL UNLESS NOTED
.XX ±.010 INCHES
.XXX ±.005 INCHES
ANGLES ± 1°

SCALE 1:1

KING RADIO CORPORATION OLATHE KANSAS 66061

NAME BLOCK, ADJUSTMENT, 8° TILT PANEL

ELEC ENG
MECH ENG
MAT'L 2024-T3 ALUMINUM
FINISH SEE NOTES
DRN BJ DATE 6-7-76
CHK DATE
047-04243-0000/0001
SHT 1 OF 1

BY
DATE
C.O. NO.
REV

K-1220

PARTS LIST REVISION HISTORY

ENGR. APPROVAL Jim Rowden

NAME: CABLE ASSEMBLY

ASS'Y. NO.: 200-2463-00

ASS'Y. DWG.: 300-2463-00

UNIT: KTS 150 / KTS 154

USED ON: 071-5025-00 & 071-5033-00

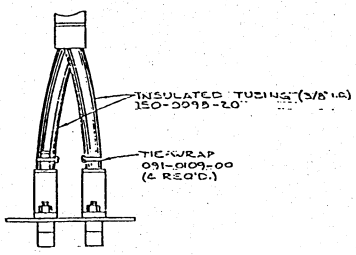
REV	CHANGE	SYMBOL	PART NUMBER	DESCRIPTION
1	26309		091-0015-01	P/N changed from 091-0015-11
2	26576		089-5436-08	P/N changed from 089-5436-06
3	26649		047-3751-08	P/N changed from 047-3751-05
			091-0015-08	P/N changed from 091-0015-01
			150-0098-20	P/N changed from 150-0098-23
			150-0098-25	P/N changed from 150-0098-26
4	28535		016-1129-00	P/N changed from 016-1021-00

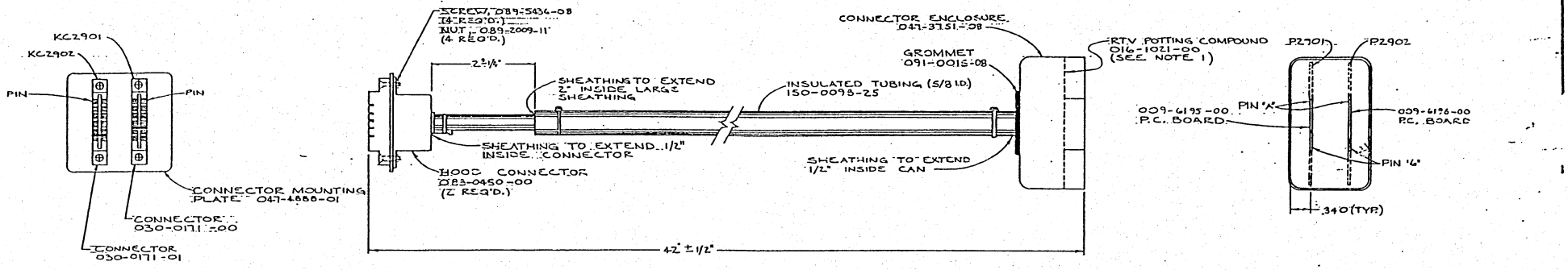
55-0855-00

NAME	ASS'Y. NO.
CABLE ASSEMBLY	200-2463-00

KING RADIO CORP. PARTS LISTING

SYMBOL	PART NUMBER	DESCRIPTION	CODE	QUANTITY -00	-01	-02	-03	-04
	025-0024-00	Wire, 22 GA. Black		3.5FT				
	025-0024-01	Wire, 22 GA. Brown		7.0FT				
	025-0024-02	Wire, 22 GA. Red		3.5FT				
	025-0024-03	Wire, 22 GA. Orange		3.5FT				
	025-0024-04	Wire, 22 GA. Yellow		3.5FT				
	025-0024-05	Wire, 22 GA. Green		3.5FT				
	025-0024-06	Wire, 22 GA. Blue		3.5FT				
	025-0024-07	Wire, 22 GA. Violet		3.5FT				
	025-0024-08	Wire, 22 GA. Gray		3.5FT				
	025-0024-10	Wire, 22 GA. Blk/Wht		3.5FT				
	025-0029-01	Wire, 24 GA. Brown		3.5FT				
	025-0029-02	Wire, 24 GA. Red		3.5FT				
	025-0029-03	Wire, 24 GA. Orange		3.5FT				
	025-0029-04	Wire, 24 GA. Yellow		3.5FT				
	025-0029-05	Wire, 24 GA. Green		3.5FT				
	025-0029-06	Wire, 24 GA. Blue		3.5FT				
	025-0029-07	Wire, 24 GA. Violet		3.5FT				
	025-0029-12	Wire, 24 GA. Red/Wht		3.5FT				
	025-0029-13	Wire, 24 GA. Org/Wht		3.5FT				
	025-0029-14	Wire, 24 GA. Yel/Wht		3.5FT				
	025-0029-15	Wire, 24 GA. Grn/Wht		3.5FT				
	025-0004-02	Wire, 20 GA. Red		3.5FT				
	025-0005-02	Wire, 18 GA. Red		3.5FT				
	030-0171-00	Connector, 6/12 Pin		1				
	030-0171-01	Connector, 6/12 Pin		1				
	009-6195-00	P.C. Board		1				
	009-6196-00	P.C. Board		1				
	047-3751-08	Connector Enclosure		1				
	047-4888-01	Connector Mounting Plate		1				
	088-0450-00	Hood Connector		2				
	091-0015-08	Grommet		1				
	091-0109-00	Tie-wrap		4				
	016-1021-00	RTV Potting Compound		AR				
	150-0098-20	Insulator Tubing		0.8FT				
	150-0098-25	Insulator Tubing		3.4FT				
	089-5436-08	Screw		4				
	089-2009-11	Nut		4				





WIRE CHART

COLOR	PART NO.	GA.	KCZ901 FROM PIN	PZ901 TO PIN
BLACK	025-0024-00	22	A	A
BROWN	025-0029-01	24	B	B
RED	025-0029-02	24	C	C
ORANGE	025-0029-03	24	D	D
BROWN	025-0024-01	22	E	E
YELLOW	025-0029-04	24	F	F
RED	025-0004-02	20	1	1
GREEN	025-0029-05	24	2	2
ORANGE	025-0024-03	22	3	3
YELLOW	025-0024-04	22	4	4
GREEN	025-0024-05	22	5	5
BLUE	025-0024-06	22	6	6

COLOR	PART NO.	GA.	KCZ902 FROM PIN	PZ902 TO PIN
BLUE	025-0029-06	24	A	A
VIOLET	025-0024-07	22	B	B
GRAY	025-0024-08	22	C	C
RED	025-0024-02	22	D	D
BLK/WHT	025-0024-10	22	E	E
VIOLET	025-0029-07	24	F	F
RED/WHT	025-0029-12	24	1	1
ORG/WHT	025-0029-13	24	2	2
YEL/WHT	025-0029-14	24	3	3
BROWN	025-0024-01	22	4	4
GRN/WHT	025-0029-15	24	5	5
RED	025-0005-02	18	6	6

NOTES:
1. WHEN POTTING CONNECTOR, FILL TO BOTTOM OF P.C. BOARD FINGERS.

SEE B/M 200-2463-00 FOR ITEM DESCRIPTION.

071-5033-00	KTS 154
071-5025-00	KTS 150

NEXT ASSY. | UNIT

REV	ECO NO.	DATE	BY
1	24309	6-25	CVM
2	24574	9-25	CVM
3	24641	10-25	CVM

REQ	PART NO.	DESCRIPTION	ITEM

DRAWING | SCALE | KING RADIO CORPORATION | OLATHE, KANSAS 66061

NAME: CABLE ASSEMBLY

TOL UNLESS NOTED: .XX ± INCHES; .XXX ± INCHES; ANGLES ± °

ELEC. ENG. | MATL. | FINISH

MECH. ENG. | DRN. CCC | DATE 5/11/76

QA | DATE | NUMBER 300-2463-00 | SHT 1 OF 1

section vi
maintenance

6.1 GENERAL

The following are procedures to determine if the calibration of the KTS 150 is satisfactory. The alignment procedures are given in order to bring the unit up to its minimum performance standards after a repair has been completed. It is important that alignment be checked as far as possible before troubleshooting is attempted.

6.2 REQUIRED TEST EQUIPMENT

6.2.1 REQUIRED CALIBRATION EQUIPMENT

DESCRIPTION	CHARACTERISTICS REQUIRED	REPRESENTATIVE TYPE
Oscilloscope	Vertical Sensitivity: 10mV/div Bandwidth DC to 10MHz Dual Trace	Tektronix Type 564 or equivalent
Digital Voltmeter	DC/AC Voltage Measurement	Data Precision 245 or equivalent
Stop Watch		Endura 1/5 or equivalent
DC Power Source	+14VDC or +28VDC Supplying A Minimum of 2 AMP Current	Shop Bench Power
AC Power Source	10VAC 400Hz	Small inverter or operational KC 295 with Adapter Card connected to the KTS 150-KC 295 Unit Connector

6.2.2 REQUIRED TEST AND ALIGNMENT EQUIPMENT

DESCRIPTION	CHARACTERISTICS REQUIRED	REPRESENTATIVE TYPE
Test Panel	See Section 6.3	
Oscilloscope	Vertical Sensitivity: 10mV/div Bandwidth DC to 10MHz Dual Trace	Tektronix Type 564
Stop Watch	Resolution: .2 seconds	Endura 1/5

6.3 CALIBRATION OF KTS 150 FLIGHTLINE TEST SET

NOTE

THE KTS 150 TEST SET SHOULD BE CALIBRATED ANNUALLY TO ASSURE ACCURATE OPERATION.

The KTS 150 contains circuits that are used to simulate certain inputs to the KC 295 and KC 296 - KFC 200 Computers. Since these inputs are used to determine the proper operation of one of the computers, the circuits should be checked annually to confirm proper and accurate operation.

6.3.1 REFERENCE MATERIAL

The KTS 150 Section of the KFC 200 Flight Control System, (KPN 006-5134-XX), Figure 6-4 for 400 series circuit board and Figure 6-5 for 200 series circuit board. Figure 5-3 may be used for reference to remove the Panel Assembly from the upper case.

6.3.2 CALIBRATION PROCEDURE

A. Connect the +14VDC or +28VDC power to the test set with jumper wires. Power will be connected to Test Jack 2951-V and ground will be connected to Test Jack 2951-s. Connect the AC power source to Test Jack 2952-w and the AC reference to Test Jack 2952-s or connect the KC 295 to the test set with the short extender cable. The KC 295 will be connected to the large connector labled "J101A KC 295 Unit".

NOTE

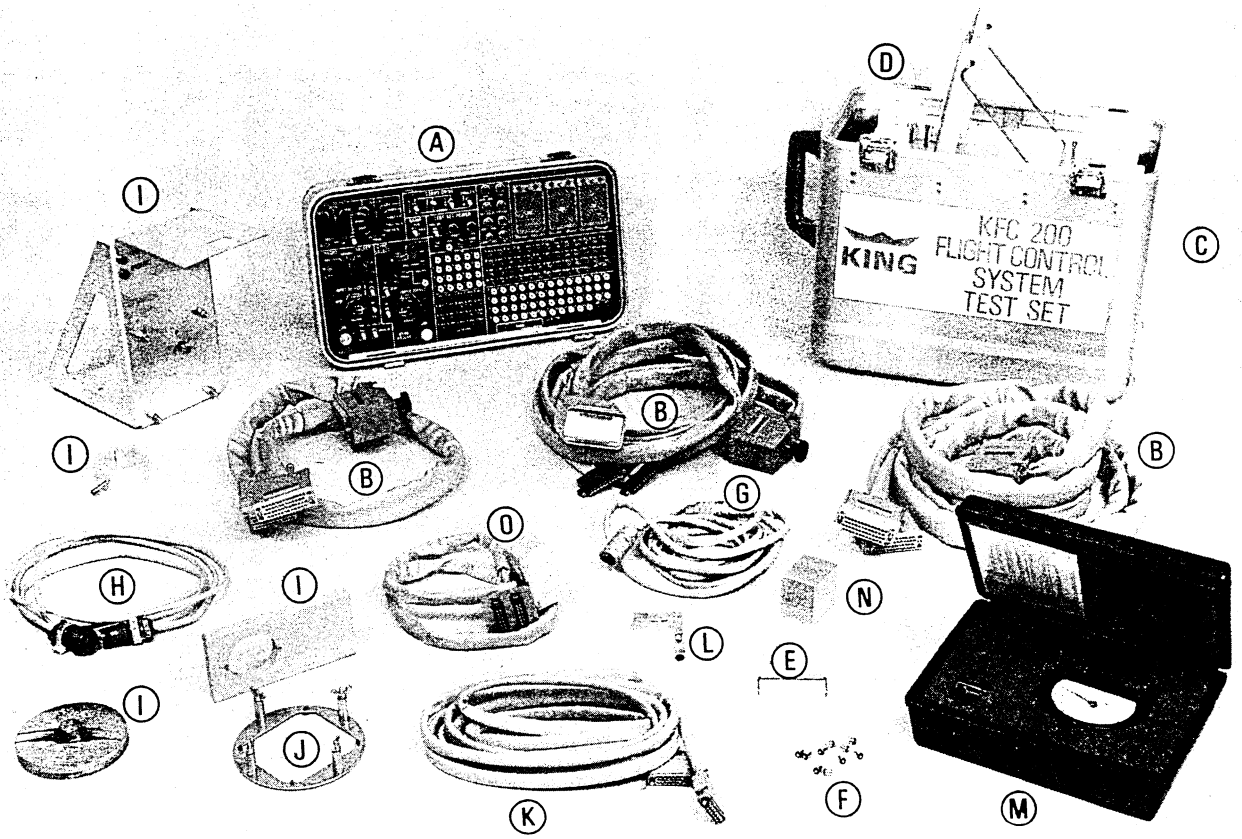
MAKE SURE THE KC 295 POWER SWITCH IS IN THE CORRECT POSITION.
TURN THE DC POWER SUPPLY ON THEN TURN THE KTS 150 POWER SWITCH ON.
CONFIRM THAT THE PROPER TEST SET VOLTAGE LIGHT COMES ON.

B. RADIO SIMULATOR CALIBRATION (Vert. Trim is lit, unless u grd 2951-H,)

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT
1.	Radio Select	Normal	0V (open)/TJ2952-A to TJ2952-C
2.	Radio Select	GS	0V (open)/TJ2952-A to TJ2952-C
3.	Radio Select	NAV/LOC	0.0V ± 0.1VDC/TJ2952-A to TJ2952-C
4.	Step Switch Radio Input Select Step Switch HI/LO Ramp RAMP Adjust R244 for Output	Short + Preset IN LO Set	 +7.50mV ± 0.1mVDC/TJ2952-A to TJ2952-C
5.	HI/LO Adjust R246 for Output	HI	+15.0mV ± 0.1mVDC/TJ2952-A to TJ2952-C
6.	Radio Input Select	- Preset	-15.0mV ± 0.1mVDC/TJ2952-A to TJ2952-C
7.	Radio Input Select Adjust R437 for Output	+ Ramp	0.150 ± 0.005mVDC, NAV/LOC Test Jacks HI to LO
8.	Ramp Adjust R453 for Output	Run	-8.75mV ± 0.5mV/sec ramp NAV/LOC Test Jacks HI to LO

NOTE: To make the ramp rate easier to monitor, the ramp may be allowed to run 10 sec, then the amount of voltage change divided by 10.

Figure 6-1 shows the complete KTS 150 System Tester Kit.



The components of the KTS 150 are as follows:

A. Test Set Panel
B. Interconnect Cables
C. Cable Storage Case
D. Gyro Test Stand for the KI 255
E. Card Puller
F. Extra Light Bulbs
G. KI 255 Extender Cable
H. KG 257 Extender Cable
I. Servo Tools
J. Gyro Adapter Plate for the KI 256
K. KI 256 Extender Cable
L. Cross Test Level
M. Cable Tension Meter
N. 8° Tilt Block
O. KC 290/292 Extender Cable
P. KRG 331 Extender Cable (Not Shown)

FIGURE 6-1 KTS 150 AUTOPILOT TEST SET

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT
9.	When ramp rate has been set, select ramp Ramp Wait 10 seconds Ramp	Set Run Hold	~~+62.5mV~~ +62.5 mV +62.5mV ± 10mVDC, NAV/LOC Test Jacks HI to LO. Drift less than 2mVDC/min.
10.	HI/LO Ramp Adjust R435 for Output	LO Set	+0.100 ± 0.005VDC, NAV/LOC Test Jacks HI to LO
11.	Ramp Adjust R450 for Output	Run	+1.7mV ± 0.1mV/sec ramp NAV/LOC Test Jacks HI to LO ≈ 823
NOTE:	See Step 8 Above.		
12.	Ramp	Set	
13.			0V (open)/TJ2951-M to TJ2951-K
14.	Radio Select	Normal	0V (open)/TJ2951-M to TJ2951-K
15.	Radio Select Radio Input Select	GS + Preset	+7.50mV ± 0.1mVDC/TJ2951-M to TJ2951-K +7.50mV ± 0.1mVDC/GS TJ HI to LO
16.	Radio Input Select	Adjust	Adjustable from -0.225V ±0.025 CCW to +0.225V ± 0.025VDC CW/GS TJ HI
17.	Radio Select Step	Normal Short	
18.	MM Switch	ACFT	0V (open)/TJ2951-E to TJ2951-A
19.	MM Switch	MM	3.5V + 10Vp-p squarewave 2Hz ± 1Hz/TJ2951-E to TJ2951-A
20.	MM Switch	ACFT	
21.	GS Valid	ACFT	0V (open)/TJ2951-C to TJ2951-D
22.	GS Valid	Invalid	0V (open)/TJ2951-C to TJ2951-D
23.	GS Valid	Valid	+0.4V ± 0.1VDC/TJ2951-C to TJ2951-D
24.			+7.8V ± 0.5VDC/TJ2951-C to GND
25.	GS Valid	ACFT	

C. GYRO SIMULATOR CALIBRATION

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT
1.	Gyro Select	Normal	0V (open)/TJ2961-F to TJ2961-H
2.	Gyro Input Select	+ Preset	
	Step	Short	0V ± 0.10VDC/TJ2961-F to TJ2961-H
	Gyro Select	Roll X Feed	
3.	Step	IN	
	HI/LO	LO	
	Adjust R433		+0.25V ± 0.01VDC/TJ2961-F to TJ2961-H
	for Output		+0.25V ± 0.01VDC/Roll X Feed TJ HI to LO
4.	HI/LO	HI	+1.25V ± 0.01VDC/Roll X Feed TJ HI to LO
5.	Gyro Input Select	- Preset	-1.25V ± 0.01VDC/Roll X Feed TJ HI to LO
6.	Gyro Input Select	+ Ramp	
	Adjust R411 For Null		0V ± 0.005VDC/Roll X Feed TJ HI to LO
7.	Ramp	Run	
	Adjust R404 For Output		+1.00V ± 0.05V/sec, ramp Roll X Feed TJ HI to LO
NOTE:	To make the ramp rate easier to monitor, the ramp may be allowed to run 10 seconds, then the amount of voltage change divided by 10.		
	Ramp	Set	
8.	Gyro Input Select	- Ramp	-1.00V ± 0.05V/sec, ramp Roll X Feed TJ HI to LO
	Ramp	Run	
	Ramp	Set	
9.	Gyro HI/LO	LO	-0.20V ± 0.01V/sec ramp Roll X Feed TJ HI to LO
	Ramp	Run	
10.	Ramp	Set	
11.	Gyro Input Select	Adjust	
	Gyro Adjust	Adjust for Output	Adjustable from -6.0 ± 2VDC (CCW) to +6.0 ± 2VDC (CW) Roll X Feed TJ HI to LO
12.	Gyro Input Select	+ Preset	
	Gyro Select	Yaw	
	HI/LO	HI	+1.25VDC ± 0.02VDC/Yaw TJ HI to LO
			+1.25VDC ± 0.02VDC/TJ2961-2 to TJ2961-C

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT
13.	Gyro Select	Roll	0V (open) TJ2961-2 to TJ2961-C
14.	Input Select	+ Ramp	Adjust R219 for 0VDC ± 0.05VDC/ Roll Gyro TJ to Ref TJ Adjust R211 for 0VAC ± 0.02VAC/ Roll Gyro TJ to Ref TJ
15.	Input Select	+ Preset	Adjust R208 for 0.250VAC ± 0.010VAC/ Roll Gyro TJ to Ref TJ in phase with respect to TJ2952-w
16.	Input Select	- Preset	0.250VAC ± 0.015VAC/Roll Gyro TJ to Ref TJ outphase with respect to TJ2952-w.
17.	Repeat Steps 14 through 16 for minimum null and minimum change between + Preset and - Preset.		
18.	HI/LO	LO	0.050VAC ± 0.015VAC/Roll Gyro TJ to Ref TJ 0.050VAC ± 0.015VAC/TJ2952-CC to TJ2952-s
	Gyro Select		
19.	Input Select Ramp Ramp	 + Ramp Run	 0.04V ± 0.004V/sec ramp TJ2952-CC to TJ2952-s
	See Step 7 Above Ramp	 Set	
20.	Gyro Select Input Select	Pitch - Preset	0V (open) TJ2952-CC to TJ2952-s 0.050VAC ± 0.015VAC/outphase with respect to TJ2952-w at TJ2952-y to TJ2952-s 0.050VAC ± .015VAC Pitch Gyro TJ to Ref TJ
21.	Input Select Gyro Adjust	Adjust Adjust for Output	 Output adjustable from 1.25V ± 0.25VAC outphase (CCW) to 1.25V ± 0.25VAC inphase (CW). Pitch Gyro TJ to Ref TJ
22.	Gyro Select	Normal	0V (open) Pitch Gyro TJ to Ref TJ
23.	Step Switch	Short	
24.	All power OFF and equipment disconnected and/or reassembled. This completes the KTS 150 Calibration Procedure.		

6.4 TEST PANEL FOR KTS 150

Figure 6-1 and Figure 6-2 describe a recommended Breakout (B.O.) Box and interconnection with the KTS 150. The KTS 150 is connected with the cables supplied with the tester. Many functions may be tested or calibrated without the Breakout Box. Connect 14 or 28VDC power to appropriate KC 295 or KC 296 Test Jacks and apply input signals and loads as required per Figure 6-2.

6.5 TEST AND ALIGNMENT PROCEDURE

The KTS 150 Test and Alignment Procedure is presented in Section 6.6. Alignment sections are incorporated within the procedure but can be performed individually if desired. The alignment sections are on the following pages.

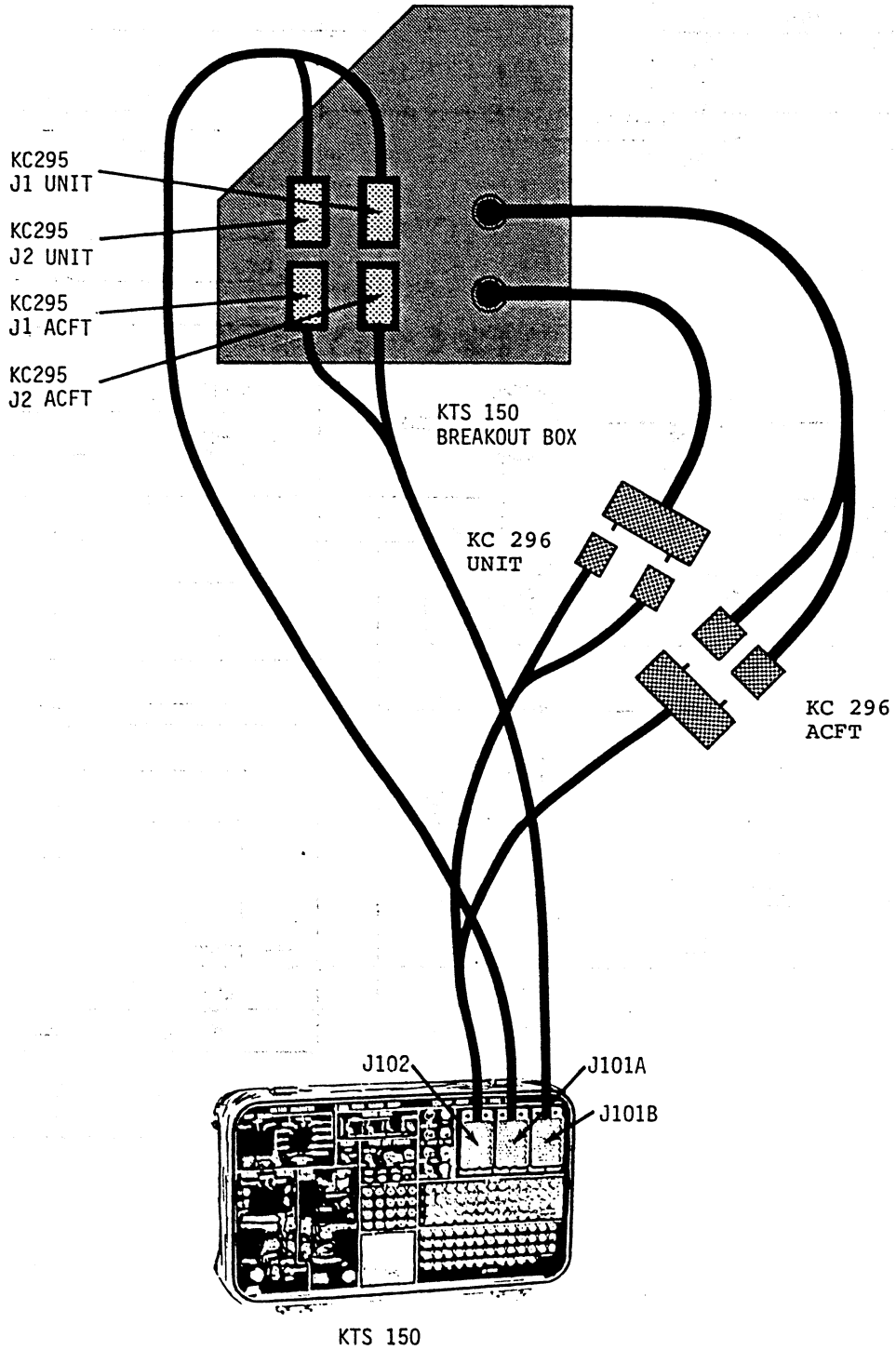


FIGURE 6-1 KTS 150 BREAKOUT BOX INTERCONNECT

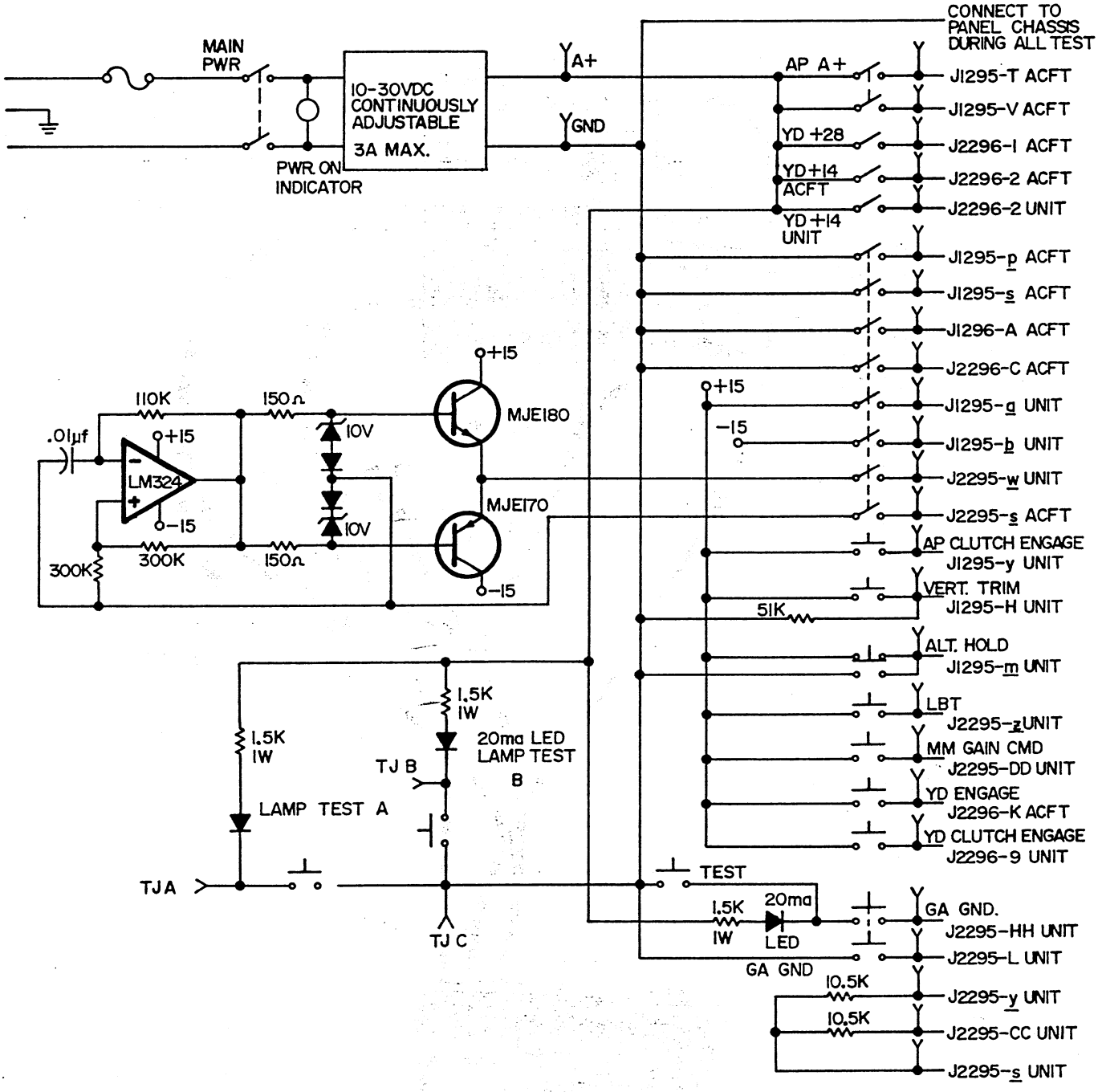
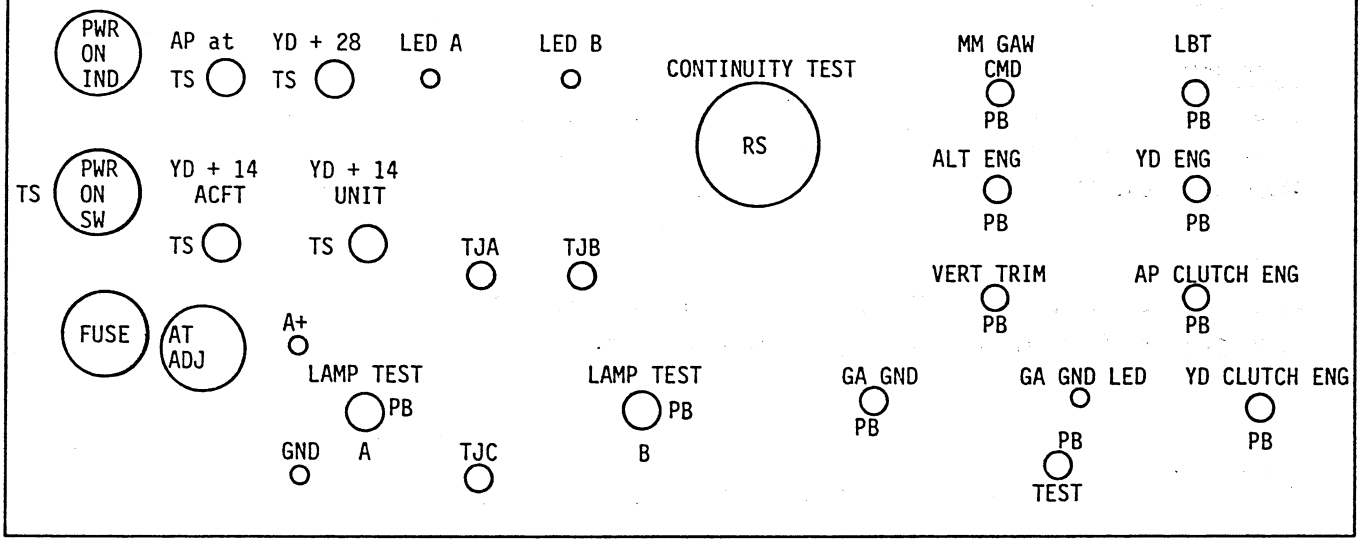


FIGURE 6-2 KTS 150 BREAKOUT BOX SCHEMATIC

KING
KTS 150
AUTOPILOT TEST SET

KC 295 J1 UNIT 50 TEST JACKS	KC 295 J1 ACFT 50 TEST JACKS	KC 296 J1 UNIT 20 TEST JACKS	KC 296 J1 ACFT 20 TEST JACKS
KC 295 J2 UNIT 50 TEST JACKS	KC 295 J2 ACFT 50 TEST JACKS	KC 296 J2 UNIT 20 TEST JACKS	KC 296 J2 ACFT 20 TEST JACKS



PB = PUSH BUTTON
TS = TOGGLE SWITCH
RS = ROTARY SWITCH

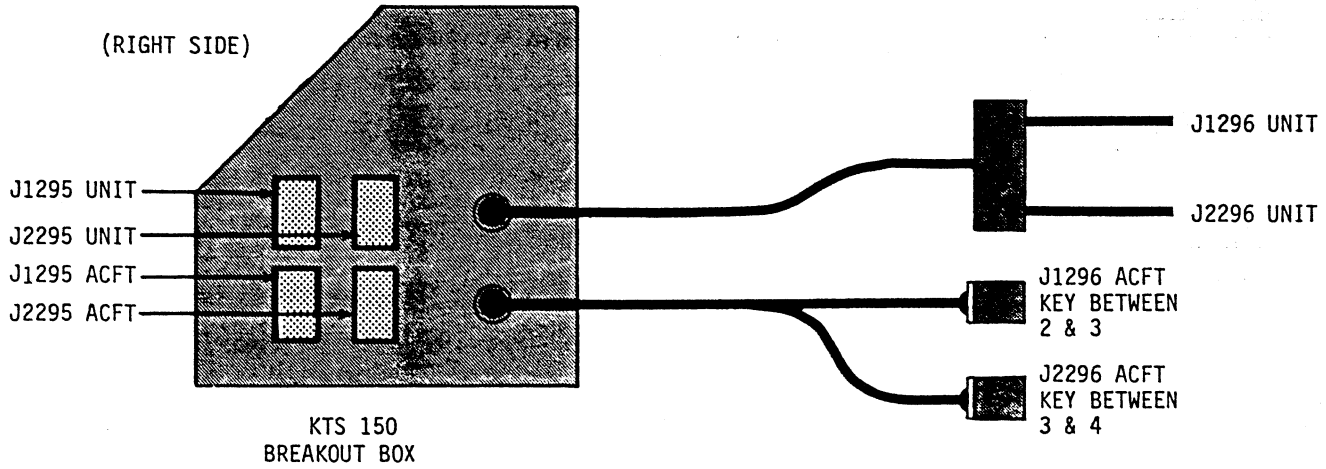


FIGURE 6-3 KTS 150 BREAKOUT BOX SUGGEST PANEL LAYOUT

Except as shown on previous page, all remaining pins are run pin for pin from connectors to test jacks.

J1295 UNIT

A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z,
c, d, e, f, h, j, k, m, n, p, r, s, t, u, v, w, x, y, z,
AA, BB, CC, DD, EE, FF, HH

J2295 UNIT

A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z,
a, b, c, d, e, f, h, j, k, m, n, p, r, s, t, u, v, x, y, z,
AA, BB, CC, DD, EE, FF

J1295 ACFT

A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z,
a, b, c, d, e, f, h, j, k, m, n, r, t, u, v, w, x, y, z,
AA, BB, CC, DD, EE, FF, HH

J2295 ACFT

A, B, C, D, E, F, H, J, K, L, M, N, P, R, S, T, U, V, W, X, Y, Z,
a, b, c, d, e, f, h, j, k, m, n, p, r, t, u, v, w, y, z,
AA, BB, CC, DD, EE, FF, HH

J1295 UNIT

A, B, C, D, E, F, H, J, K, L, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

J2296 UNIT

A, B, C, D, E, F, H, J, K, L, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

J1296 AFCT

B, C, D, E, F, H, J, K, L, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

J2296 ACFT

A, B, D, E, F, H, J, K, L, 3, 4, 5, 6, 7, 8, 9, 10

6.5 FUNCTIONAL TESTS

A. Connect the KTS 150 to a power source via breakout box of Figure 6-2 and Figure 6-3. Connect cables as shown in Figure 6-1.

B. Set the Test/Continuity switch on the B.O. Box to test. Set all other switches on the B.O. Box to the down position.

C. In the following tests start at each double line with all toggle switches, except power, in the down position and all rotary switches in the full counterclockwise or normal position. Meter selector may be in any position.

D. Connect jumper between KTS 150 +15V TJ and KTS 150 TJ1295-a. Connect jumper between KTS 150 -15V TJ and KTS 150 TJ1295-b.

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
1.	POWER TESTS - Remove two plugs in PC Board				
a.	B.O. Box A+ Adjust B.O. Box APA + (B.O. Box) KTS 150 Pwr On/ On/Off	On 28V ±1VDC On On	+15.0 ±0.50VDC/ +15V to GND	+28V +14V	On Off
b.			+15V ±2.0VDC/ +12V to GND		
c.			-15.0 ±0.50VDC/ -15V to GND		
f.	B.O. Box A+ Adjust	Adjust slowly down to +14V		Transfer from +28V to +14V at 18V ±3VDC	+14 On +28 Off
g.	B.O. Box A+ Adjust	Adjust to +12V	+15.0 ±0.50VDC/ +15V to GND		
h.			+11V ±1.0VDC/ +12V to GND		
j.			-15.0 ±0.50VDC/ -15V to GND		
k.	B.O. Box A+ Adjust	Adjust slowly to 24 volts		Transfer from +14V to +28V at 20V ±3VDC	+28 On +14 Off
l.	B.O. Box A+ Adjust	Adjust to +12V		+14 +28	On Off

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
m.	B.O. Box APA+ B.O. Box YD +28	Off On		+14 +28	On Off
o.	B.O. Box YD +28 B.O. Box YD +14 ACFT	Off On		+14 +28	On Off
r.	KTS 150 Pwr On/Off Plug in two PC Boards	Off		+28	Off
s.	KTS 150 Pwr On/Off	On	+15V ±0.50VDC/ +15V to GND	+14	On
t.			-15V ±0.50VDC/ -15V to GND		
u.			+11V ±1.0VDC/ +12V to GND		
v.	B.O. Box A+ Adjust	Adjust to +28V	+15.0 ±0.50VDC/ +15V to GND -15.0 ±0.50VDC/ -15V to GND +15V ±2VDC/ +12V to GND		
w.	B.O. Box YD +14 Unit B.O. Box YD +14 ACFT	On Off	+28V ±2VDC/ B.O. Box TJ2296-2 (Unit) to KTS 150 Sig GND TJ 0V ±2VDC/ KTS 150 TJ2296-2	+14 +28	Off Off
2.	INDICATOR TESTS				
	B.O. Box A+ Adjust	Adust for +28VDC			
a.	B.O. Box APA+	On		+28 All Others	On Off
b.	Depress Lamp			+28 +14 All Others	On Off On
c.	B.O. Box Vert Trim	On Off		Vert Trim	On Off
d.	B.O. Box Alt Hold	Off On		Alt Hold	Off On

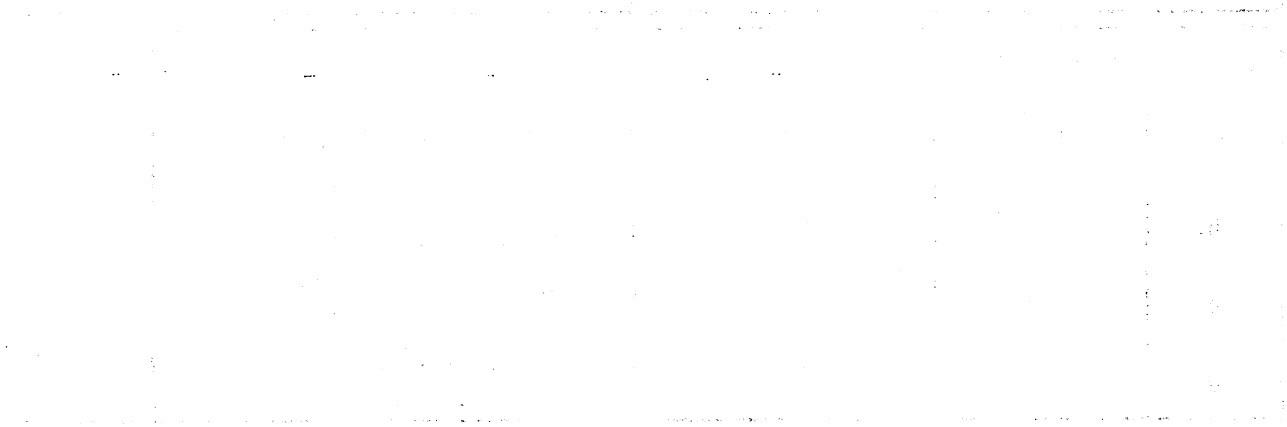
STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
e.	B.O. Box AP Clutch Eng	Off On		AP Clutch Eng	Off On
f.	B.O. Box MM Gain CMD	Off On		MM Gain CMD	Off On
g.	B.O. Box LBT	Off On		LBT	Off On
h.	B.O. Box YD Eng	Off On		LBT YD Eng	Off On
j.	B.O. Box YD Clutch Eng	Off On		YD Clutch Eng	On Off
k.		Off			Off
3.	RADIO TESTS				
a.	Radio Select	Normal	0V (Open)/TJ2295-A to TJ2295-C		
b.	Radio Select	GS	0V (Open)/TJ2295-A to TJ2295-C		
c.	Radio Select step	Nav/Loc Short	0.0V ±0.1VDC/ TJ2295-A to TJ2295-C		
d.	Radio Input Select Step Hi/Lo Ramp Adjust R244 for output	+ Preset In Lo Set	+7.50mV ±0.1mVDC/ TJ2295-A to TJ2295-C		
e.	Hi/Lo Adjust R246 for output	Hi	+15.0mV ±0.1mVDC/ TJ2295-A to TJ2295-C		
f.	Radio Input select	- Preset	-15.0mV ±0.1mVDC/ TJ2295-A to TJ2295-C		
g.	Radio Input select Adjust R437 for output	+ Ramp	+0.150 ±0.005mVDC/Nav/ Loc Test Jacks Hi to Lo		
h.	Ramp Adjust R453 for output (Monitor TP404 to TP406 as an aid in setting R453)	Run	-8.75mV ±0.5mV/sec ramp/ Nav/Loc Test Jacks Hi to Lo		

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
j.	When ramp rate has been set, select ramp Ramp Wait 10 seconds Ramp	 Set Run Hold	 +62.5mV ±10mVDC/Nav/Loc Test Jacks Hi to Lo Drift less than 2mVDC/min.		
k.	Hi/Lo Ramp Adjust R435 for Output	Lo Set	 +0.100 ±0.005VDC/Nav/Loc Test Jacks Hi to Lo		
l.	Ramp Adjust R450 for output (Monitor TP403 to TP406 as an aid in setting R450).	Run	 -1.7mV ±0.1mV/sec/ramp/Nav/Loc Test Jacks Hi to Lo		
m.			OV (Open)/TJ1295-M to TJ1295-K		
n.	Radio Select	Normal	OV/(Open) TJ1295-M to TJ1295-K		
p.	Radio Select Radio Input Select	GS + Preset	+7.50mV ±0.1mVDC/TJ1295-M to TJ1295-K +7.50mV ±0.1mVDC/GS TJ Hi to Lo		
q.	Radio Input Select	Adjust	Adjustable from -0.225V ±0.025 ccw to +0.225V ±0.025VDC cw/GS TJ Hi to Lo		
r.	MM Switch	ACFT	OV (Open)/TJ1295-E to TJ1295-A		
s.	MM Switch	MM	3.5V ±1.0Vp-p Square Wave 2Hz ±1Hz/TJ1295-E to TJ1295-A		
t.	GS Valid	ACFT	OV (Open)/TJ1295-C to TJ1295-D		
u.	GS Valid	Invalid	OV (Open) TJ1295-C to TJ1295-D		
v.	GS Valid	Valid	+0.4V ±0.1VDC/TJ1295-C to TJ1295-D		
w.			+7.8V ±0.5VDC/TJ1295-C to GND		

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
4.	GYRO TESTS				
a.	Gyro Select	Normal	0V (Open)/TJ1296-F to TJ1296-H		
b.	Gyro Input Select step Gyro Select R208	+ Preset Short Short Roll x Feed Max CCW	0.0V ±0.10VDC/ TJ1296-F to TJ1296-H		
c.	Step Hi/Lo Adjust R433 for Output	In Lo	+0.25V ±.01VDC/ TJ1296-F to TJ1296-H +0.25V ±.01VDC Roll X Feed TJ Hi to Lo		
d.	Hi/Lo	Hi	+1.25V ±0.01VDC/ Roll X Feed TJ Hi to Lo		
e.	Gyro Input select	- Preset	-1.25V ±0.01VDC/ Roll X Feed TJ Hi to Lo		
f.	Gyro Input select Adjust R411 for null	+ Ramp	0V ±0.005VDC/ Roll X Feed TJ Hi to Lo		
g.	Ramp Adjust R404 for output (Monitor TP402 to aid in adjusting ramp rate). Ramp	Run NOTE: Whenever R404 is adjusted after initial calibration, R208 must be re-adjusted. Set	+1.00V ±0.05V/S ramp/ Roll X Feed TJ Hi to Lo		
h.	Gyro Input select Ramp Ramp	- Ramp Run Set	-1.00V ±0.05V/S Ramp/ Roll X Feed TJ Hi to Lo		
i.	Gyro Hi/Lo Ramp	Lo Run	-0.20V ±0.01V/S Ramp/ Roll X Feed TJ Hi to Lo		
j.	Gyro Input select Gyro Adjust	Adjust Adjust for output	Adjustable from -6.0 ±2VDC (CCW) to +6.0 ±2VDC (CW) Roll X Feed TJ Hi to Lo		

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
k.	Gyro Input select	+ Preset			
	Gyro Select Hi/Lo	Yaw Hi	+1.25VDC ±0.02VDC/ Yaw TJ/Hi to Lo +1.25VDC ±0.02VDC/ TJ1296-2 to TJ1296-C		
l.	Gyro Select	Roll	0V (Open)/TJ1296-2 to TJ1296-C		
m.	Input Select	+ Ramp	Adjust R219 for 0VDC ±0.05VDC/ Roll Gyro TJ to Ref TJ Adjust R211 for 0VAC ±0.02VAC/ Roll Gyro TJ to Ref TJ		
n.	Input Select	+ Preset	Adjust R208 for 0.250VAC ±0.010VAC/ Roll Gyro TJ to Ref TJ in phase with respect to TJ2295-w		
p.	Input Select	- Preset	0.25VAC ±0.015VAC/ Roll Gyro TJ to Ref TJ outphase with respect to TJ2295-w		
q.	Repeat m through p for minimum null and minimum change between + Preset and - Preset.				
r.	Hi/Lo	Lo	0.05VAC ±0.015VAC/ Roll gyro TJ to Ref TJ 0.050VAC ±0.015VAC/ TJ2295-CC to TJ2295-s		
s.	Input Select Ramp Ramp Ramp	+ Ramp Run Set	0.04V ±0.004V/Sec ramp/ TJ2295-CC to TJ2295-s		
t.	Gyro Select input select	Pitch - Preset	0V (Open) TJ2295-CC to TJ2295-s 0.050VAC ±0.015VAC/ outphase with respect to TJ2295-w/TJ2295-y to TJ2295-s 0.050VAC ±0.015VAC Pitch Gyro TJ to Ref TJ		
u.	Input Select Gyro Adjust	Adjust Adjust for output	Output adjustable from 1.25V ±0.25VAC outphase (CCW) to 1.25V ±0.25VAC inphase (CW)/ Pitch Gyro TJ to Ref TJ		
v.	Gyro Select	Normal	0V (Open)/ Pitch Gyro TJ to Ref Tj		
w.	B.O. Box GA Switch	On and hold		B.O. Box GA GND Led	Off

STEP NO.	CONTROL	CONTROL POSITION	MEASUREMENT	INDICATOR	INDICATOR STATUS
x.	Gyro Select	Cal		--	On
y.	B.O. Box GA Switch	Release		--	Off
5.	SERVO DRIVE				
a.	Trim Servo Drive	Normal	Open circuit/ TJ2295-F to GND		
b.		Simulate	1.5K ohm ±75 ohm TJ2295-F to GND		
c.		Normal	Open circuit/ TJ2295-N to GND		
d.		Simulate	1.5K ohm ±75 ohm/ TJ2295-N to GND		



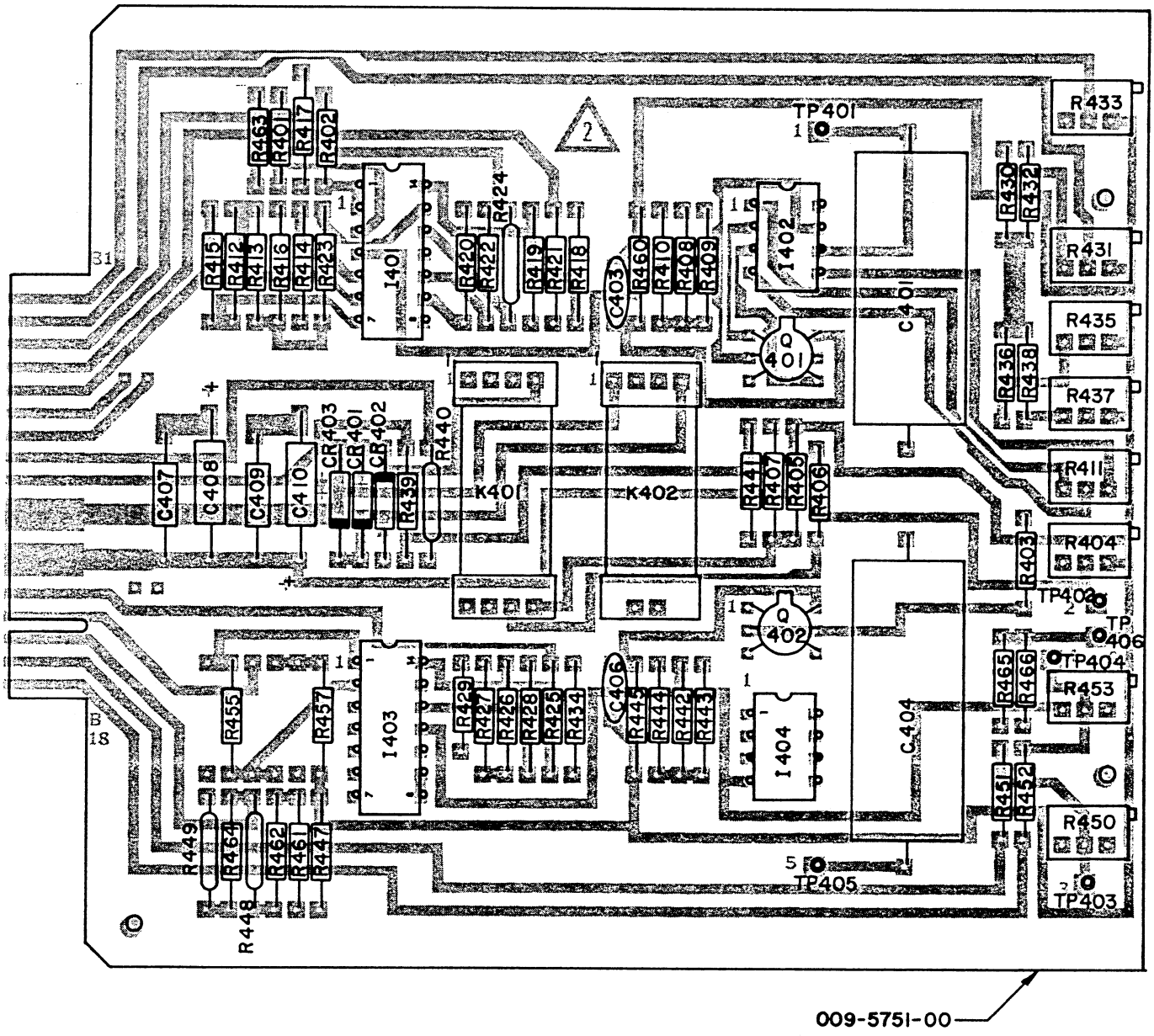
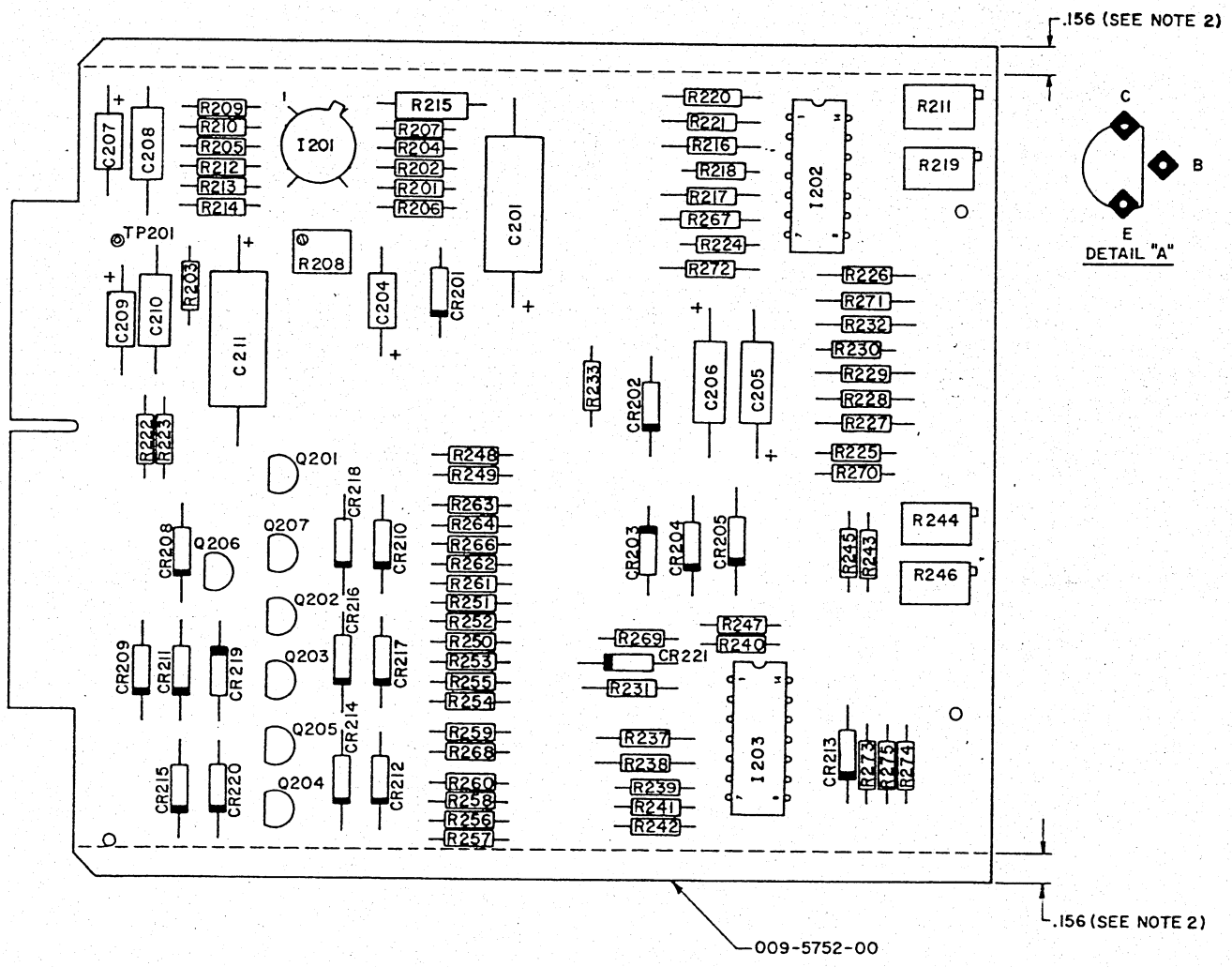


FIGURE 6-4 A1 SWITCHING BOARD
(DWG. NO. 002-0422-01)
(DWG. NO. 300-5751-00 R-0)

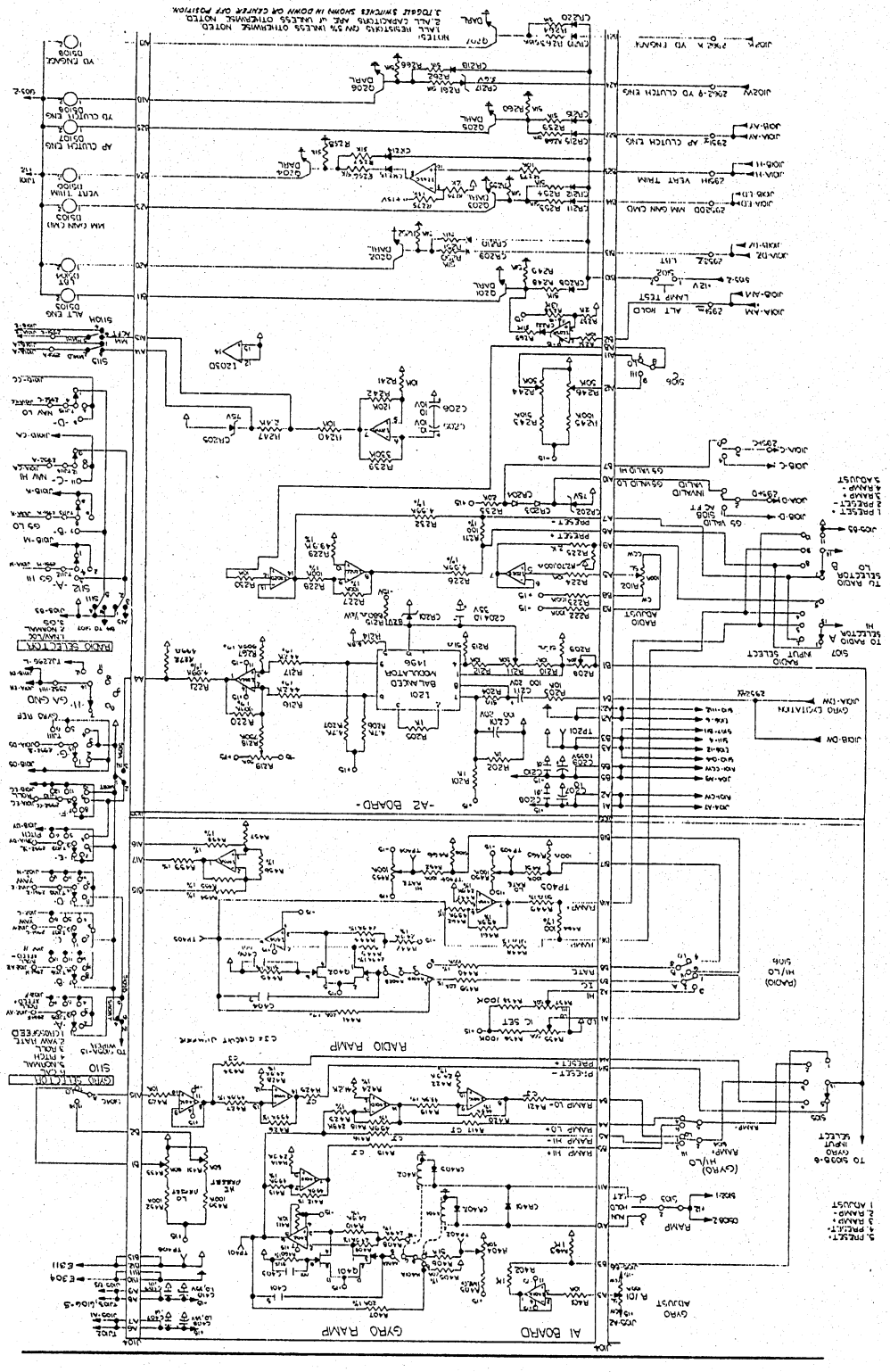


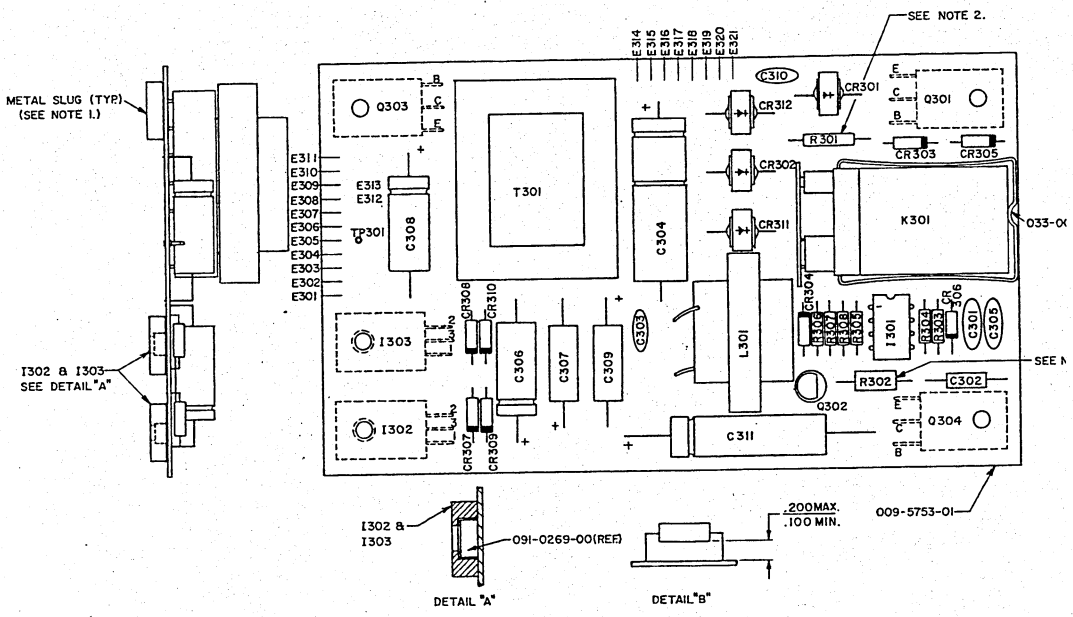
NOTES:

1. TRANSISTORS Q201, Q202, Q203, Q204, Q205, Q206, AND Q207, SEE DETAIL "A".
2. THERE CAN BE NO COMPONENTS IN THOSE AREAS NOTED.

FIGURE 6-5 A2 SWITCHING BOARD
(DWG. NO. 002-0422-02)
(DWG. NO. 300-5752-00 R-0)

A1, A2 SWITCHING
BD. SCHEMATIC

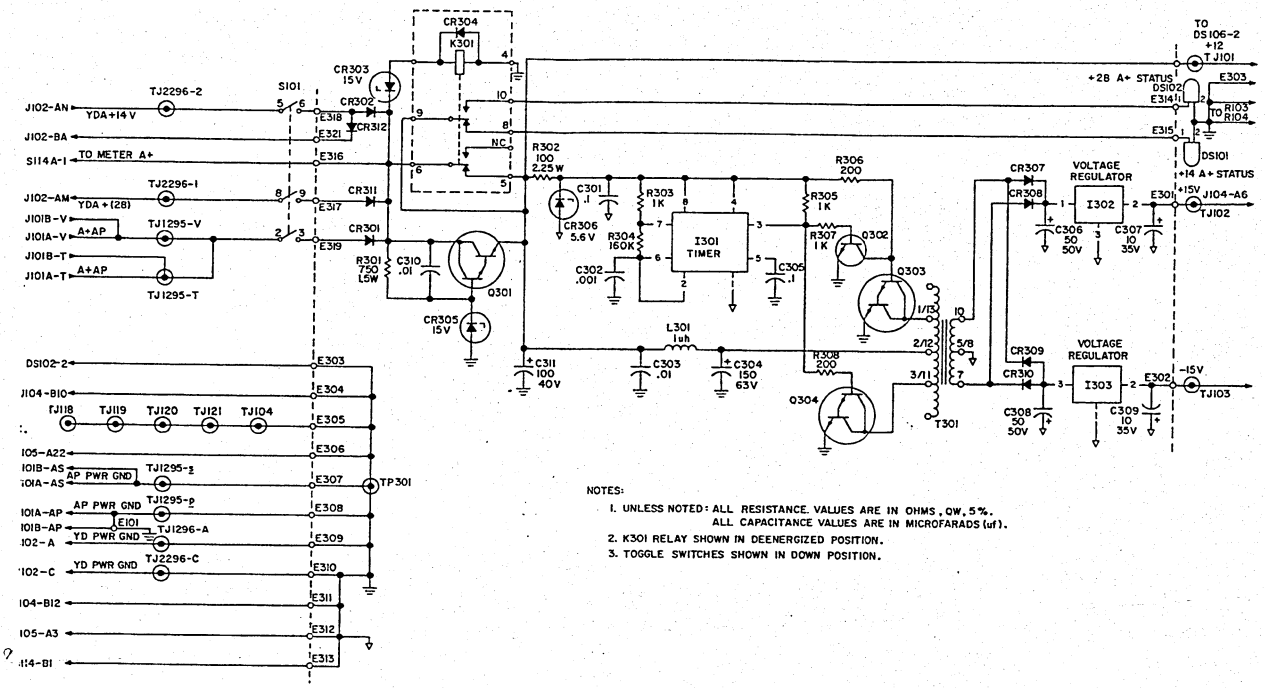




NOTES:

1. INSTALL Q301, Q303, Q304, I302, AND I303 ON FAR SIDE OF BOARD, WITH METAL SLUGS FACING AWAY FROM BD..
2. R301 AND R302 TO BE MOUNTED PER DETAIL "B".

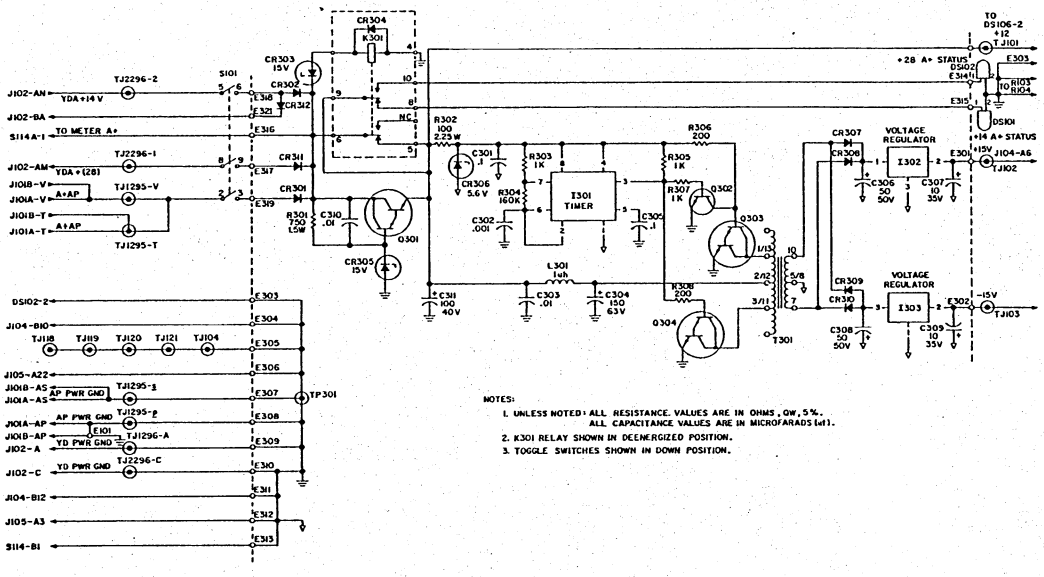
FIGURE 6-6 POWER SUPPLY BOARD
(DWG. NO. 002-0422-03)
(DWG. NO. 300-5753-00 R-0)



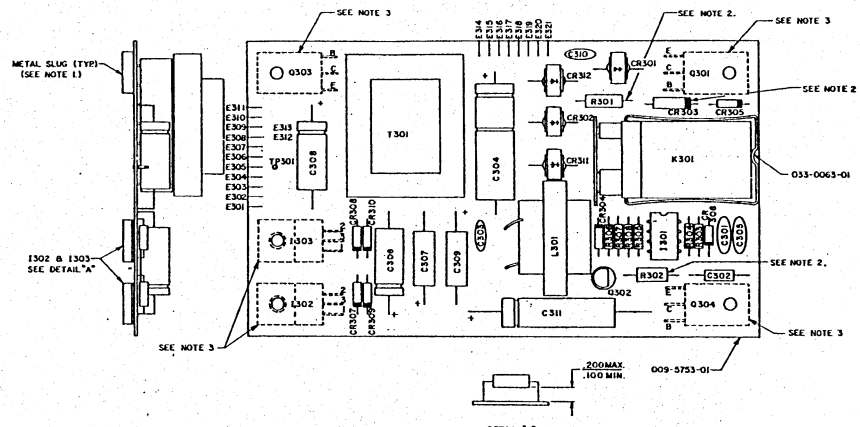
NOTES:

1. UNLESS NOTED: ALL RESISTANCE VALUES ARE IN OHMS, 0W, 5%.
   ALL CAPACITANCE VALUES ARE IN MICROFARADS (uf).
2. K301 RELAY SHOWN IN DEENERGIZED POSITION.
3. TOGGLE SWITCHES SHOWN IN DOWN POSITION.

BD. SCHEMATIC



NOTES:
1. UNLESS NOTED: ALL RESISTANCE VALUES ARE IN OHMS, QW, 5%.
ALL CAPACITANCE VALUES ARE IN MICROFARADS (uf).
2. K301 RELAY SHOWN IN DEENERGIZED POSITION.
3. TOGGLE SWITCHES SHOWN IN DOWN POSITION.



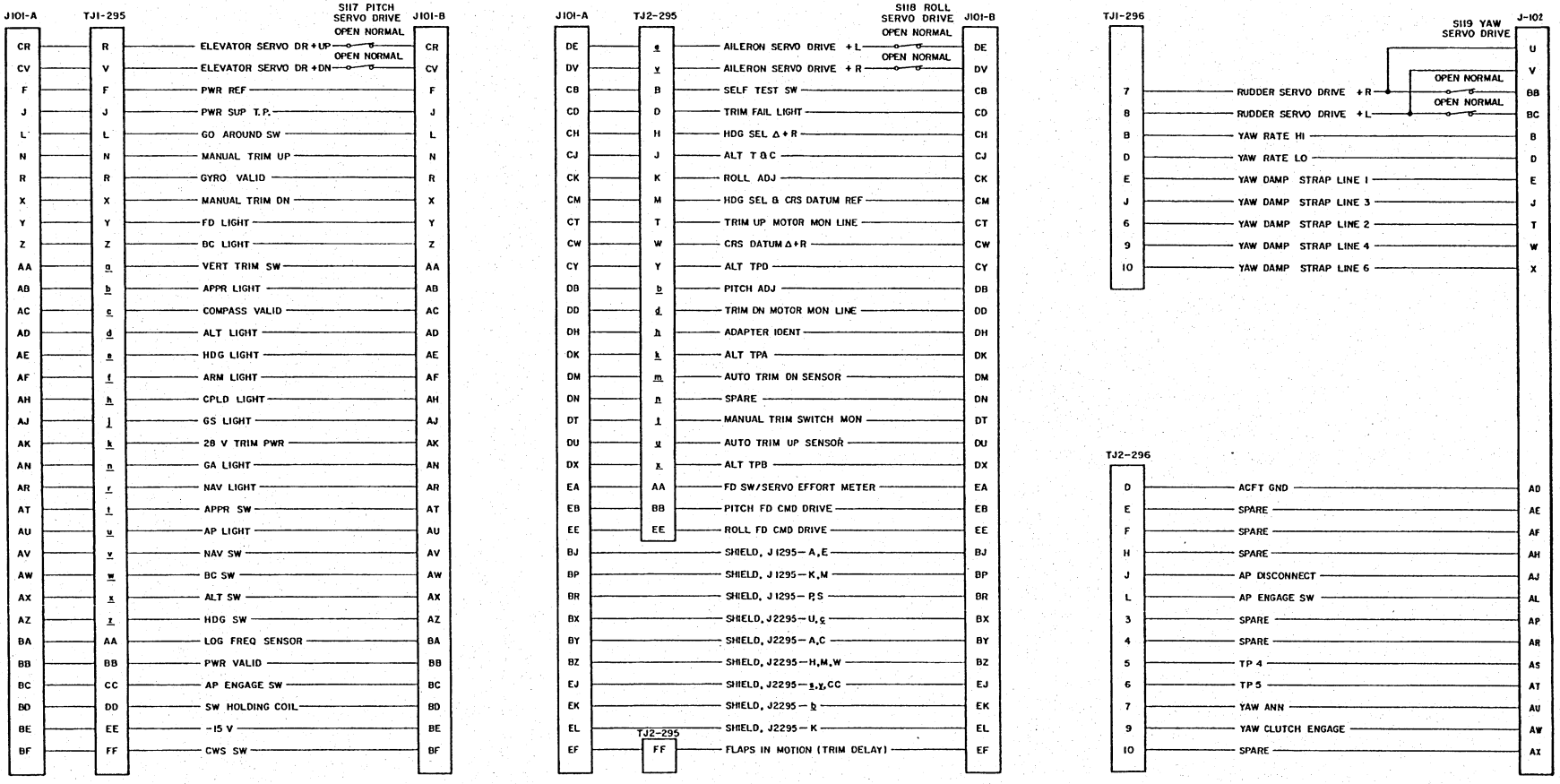
NOTES:
1. INSTALL Q301, Q303, Q304, I302, AND I303 ON FAR SIDE OF BOARD, WITH METAL SLUGS FACING AWAY FROM BD..
2. R301, R302 & CR303 TO BE MOUNTED PER DETAIL "A"
3. SEE DETAIL "A" ON ASSEMBLY DRAWING 300-1854-00 FOR PLACEMENT OF SPACERS.

FIGURE 6-6 POWER SUPPLY BOARD AND SCHEMATIC
(Dwg. No. 300-5753-00, R-3)
(Dwg. No. 002-0422-03, R-1)

KING

KTS 150

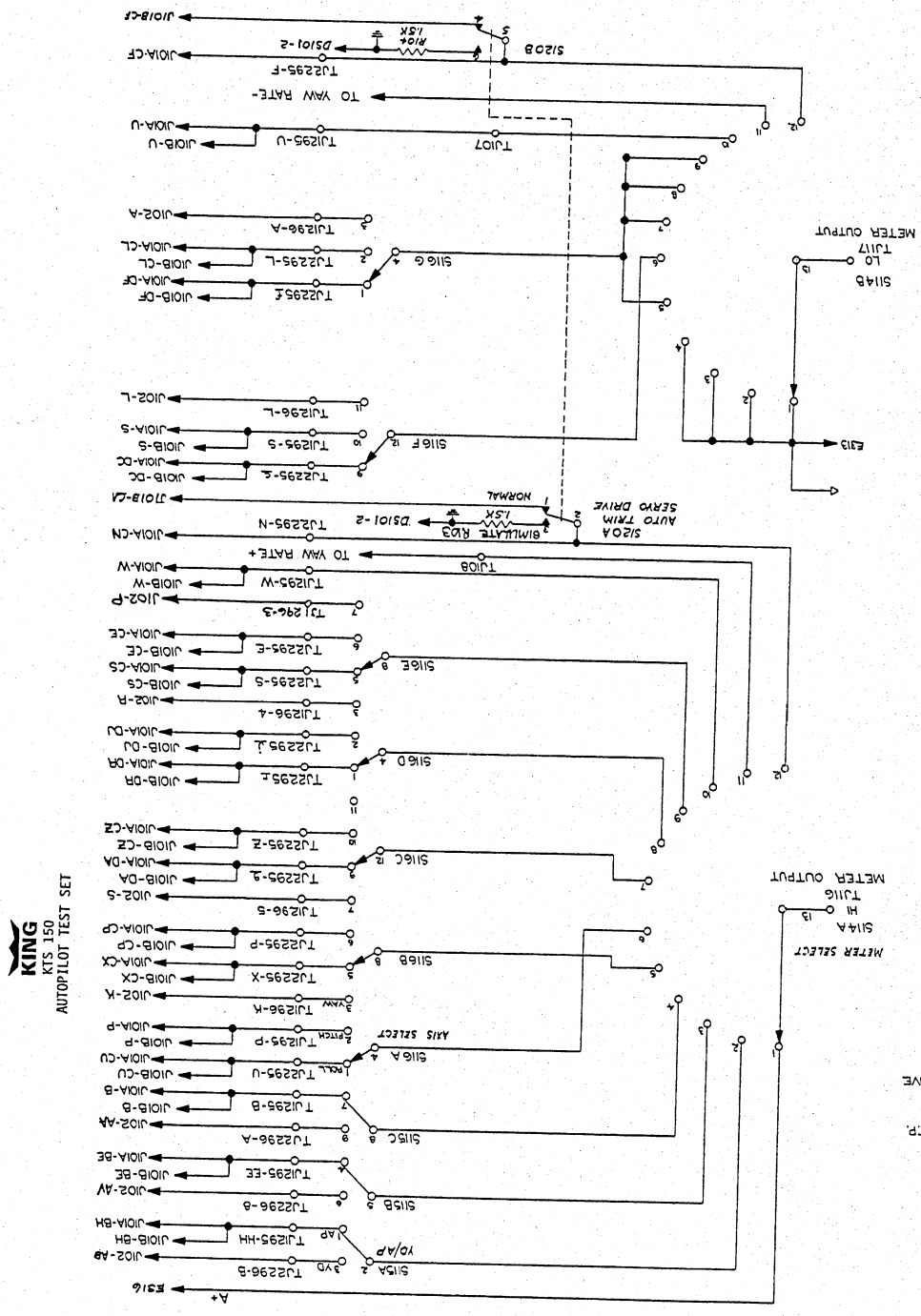
AUTOPILOT TEST SET



NOTES:

1. CONNECTIONS SHOWN ON THIS SHEET DO NOT CONNECT TO ANY OTHER PORTION OF THE TEST SET.
2. TOGGLE SWITCHES SHOWN IN DOWN POSITION.

FIGURE 6-7 CONNECTOR & PANEL SCHEMATIC
(DWG. NO. 002-0422-04 SHT. 1)



-S114 POSITIONS-
1. A+
2. +15
3. -15
4. +10
5. GYRO T.P.
6. TACH F.B.
7. FADER T.P.
8. SERVO T.P.
9. ACCELERATION T.P.
10. ALT HOLD
11. YAW RATE
12. AUTO TRIM DRIVE

NOTES:
1. TOGGLE SWITCHES SHOWN IN DOWN POSITION.
2. RESISTORS HW5% UNLESS OTHERWISE NOTED.

FIGURE 6-8 CONNECTOR & PANEL SCHEMATIC
(DWG. NO. 002-0422-04 SHT. 2)

1.1 GENERAL

Due to the wide utilization of semiconductors in this electronic equipment, somewhat different techniques are necessary in maintenance procedures. In solid state circuits the impedances and resistances encountered are of much lower values than those encountered in vacuum-tube circuits. Therefore, a few ohms discrepancy can greatly affect the performance of the equipment. Also, coupling and filter capacitors are of larger values and usually are of the tantalum type. Hence, when measuring values of capcitors, an instrument accurate in the high ranges must be employed. Capacitor polarity must be observed when measuring resistance. Usually more accurate measurements can be obtained if the semiconductors are removed or disconnected from the circuit.

1.1.1 SEMICONDUCTOR TEST EQUIPMENT

Damage to semiconductors by test equipment is usually the result of accidentally applying too much current or voltage to the elements. Common causes of damage from test equipment are discussed in the following paragraphs.

(1) Transformerless Power Supplies.
Test equipment with transformerless power supplies is one source of high current. However, this type of test equipment can be used by employing an isolation transformer in the AC power line.

(2) Line Filter.
It is possible to damage semiconductors from line current, even though the test equipment has a power transformer in the power supply, if the test equipment is provided with a line filter. This filter may function as a voltage divider and apply half voltage to the semiconductor. To eliminate this condition, connect a ground wire from the chassis of the test equipment to the chassis of the equipment under test before making any other connections.

(3) Low-Sensitivity Multimeters.
Another cause of semiconductor damage is a multimeter that requires excessive current to provide adequate indications. Multimeters with sensitivities of less than 20,000 ohms-per-volt should not be used on semiconductors. When in doubt as to the amount of current supplied by a multimeter, measure it with another multimeter. If more than one millampere is drawn on any range, this range cannot be safely used on small semiconductors.

(4) Power Supply.
When using a battery type power supply, always use fresh batteries of the proper value. Make certain that the polarity of the power supply is correct for the equipment under test. Do not use power supplies having poor voltage regulation.

1.1.2 SEMICONDUCTOR VOLTAGE AND RESISTANCE MEASUREMENTS

When measuring voltage or resistance in circuits containing semiconductors devices, remember that these components are polarity and voltage conscious. Since the values of capacitors used in semiconductor circuits are usually large, time is required to charge these capacitors when they appear. Thus, any reading obtained is subject to error if sufficient time is not allowed for the capacitor to fully charge. When in doubt, it may be best in some cases to isolate the components in question and measure them individually.

1.1.3 TESTING OF TRANSISTORS

A transistor checker should be used to properly evaluate transistors. If a transistor tester is not available, a good multimeter may be used. Make sure that the multimeter meets the requirements outlined in the preceding paragraph.

(1) PNP Transistor.
To check a PNP transistor, connect the positive lead of the multimeter to the base of the transistor and the negative lead to the emitter or collector. Generally, a resistance reading of 50,000 ohms or more should be obtained. Reconnect the multimeter with the negative lead to the base. With the positive lead connected to the emitter or collector a resistance value of 500 ohms or less should be obtained.

(2) NPN Transistor.
Similar tests made on an NPN transistor should produce the following results:

With the negative lead of multimeter connected to the base of the transistor the value of resistance between the base and the collector or emitter should be high. With the positive lead of the multimeter connected to the base, the value of resistance between the base and the collector or emitter should be low. If these results are not obtained, the transistor is probably defective and should be replaced.

—CAUTION—

IF A TRANSISTOR IS FOUND TO BE DEFECTIVE, MAKE CERTAIN THAT THE CIRCUIT IS IN GOOD OPERATING ORDER BEFORE INSTALLING A REPLACEMENT TRANSISTOR. IF A SHORT CIRCUIT EXISTS IN THE CIRCUIT, PUTTING IN ANOTHER TRANSISTOR WILL MOST LIKELY RESULT IN BURNING OUT THE NEW COMPONENT. DO NOT DEPEND UPON FUSES TO PROTECT TRANSISTORS.

(3) Always check the value of the bias resistors in series with the various elements. A transistor is very sensitive to improper bias voltage; therefore, a short or open circuit in the bias resistance may damage the transistor.

1.1.4 REPLACING SEMICONDUCTORS

Never remove or replace a semiconductor with the supply voltage turned on. Transients thus produced may damage the semiconductor or others remaining in the circuit. If a semiconductor is to be evaluated in an external test circuit, be sure that no more voltage is applied to the semiconductor than normally is used in the circuit from which it came.

(1) Use only a low heat soldering iron when installing or removing soldered-in parts.

(2) When installing or removing a soldered-in semiconductor grasp the lead to which heat is applied between the solder joint and the semiconductor with long nosed pliers. This will dissipate some of the heat that would otherwise conduct into the semiconductor from the soldering iron. Make certain that all wires soldered to semiconductor terminals have first been properly tinned so that the necessary connection can be made quickly. Excessive heat will permanently damage a semiconductor.

(3) In some cases, power transistors are mounted on heat-sinks that are designed to dissipate heat away from them. In some power circuits, the transistor must also be insulated from ground. Often, this insulating is accomplished by means of insulating washers made of mica. When replacing transistors mounted in this manner, be sure that the insulating washers are replaced in proper order. Before installing the mica washers, treat them with a film of thermal compound (King Part Number 016-1004-00). This treatment helps in the transfer of heat. After the transistor is mounted and before making any connections, check from the case of the transistor to ground with a multimeter to see that the insulation is effective.

1.2 INTEGRATED CIRCUIT MAINTENANCE

1.2.1 GENERAL

A knowledge of integrated circut fundamentals is as necessary in testing digital logic circuits involving I.C.'s as a knowledge of rectification fundamentals is needed to test a power supply.

1.2.2 TERMINOLOGY

Several terms are used whenever logic circuits are discussed: (Refer to Figures 1 through 10).

(1) A logic state is defined as a high or low level voltage applied to the input or seen at the output of a device. A high voltage is called a logic "1". A low level voltage is called a logic "0". Logic threshold voltage of a device is the input voltage required at an input to change the output state.

(2) A truth table is a list of input logic states that will yield certain output logic states. A digital logic element should be thought of as a circuit element with its output level being either HI or LO as programmed by the levels present on its inputs. A logic element may be tested by verifying that it is performing per the Truth Table of that logic element.

(3) Logic elements which have multiple inputs and a single output are known as gates. The OR gate produces a HI output when one or more of the inputs are HI. With all inputs LO, the output is LO. The AND gate produces a HI output only when all inputs are HI. When any input is LO, the output is LO. A small circle at the output of a gate on the schematics indicates "negation" which means that the sense of the gate logic is reversed. An OR gate with a negation is called a NOR gate and an AND gate with negation is called a NAND gate. A NOR gate produces a LO output when one or more of the inputs are HI and a NAND gate produces a LO output only when all inputs are HI.

(4) The Flip-Flop logic element is the basic data storage element of digital logic. It has two outputs that are always at oppositie logic levels. That is, when one output is HI, the other output is LO. The Flip-Flop will remain in a particular state until that state is changed by an input signal.

The operation of these Flip-Flops is controlled by the signals on their inputs, and is best understood by a careful study of their Truth Tables. It should be kept in mind that the small circle on either the input or the output indicates negation. Also, a circle on a clock input indicates that a HI to LO transition causes the Flip-Flop to function.

(5) Another data storage element is the latch. The logic level present at the input is transferred to the output and then held there, so it can be used despite subsequent changes in level at the input. The logic level at the clock input controls when the input to output transference takes place.

(6) A shift-register is used to convert serial data into parallel data. The logic level present at the data input is transferred to the output of the first register state and the output of each register stage is transferred to the output of the following stage with each positive-going clock transition.

(7) A counter is used to provide one output pulse for every N input pulses. This means F(out) = F(in)/N. In a programmable counter N may be selected from any one of several choices. Programmable counters are divided into two classifications:

Reset counters and preset counters. The reset counter uses the principle that when the counter reaches a selected load state, it sets to a fixed reset state and then recycles. The preset counter reaches a fixed load state, sets to a selected preset state and recycles.

Counters are further specified on the basis of the count method employed. The most common method used is to establish a decimal weighted code for each flip-flop and to gate the respective outputs accordingly. Typical of this method would be a binary counter.

1.2.3 INTEGRATED CIRCUIT TEST EQUIPMENT

As with semiconductors, damage to integrated circuits by test equipment is usually the result of applying too much current or voltage to the elements. The same precautions as discussed in paragraph 1.1.1 apply here.

—CAUTION—

IMPROPER GROUNDING OF TEST EQUIPMENT MAY CAUSE DAMAGE TO INTEGRATED CIRCUITS. MAKE CERTAIN OF PROPER GROUND BEFORE MAKING COS/MOS TESTS.

1.2.4 TESTING OF DIGITAL INTEGRATED CIRCUITS

Precise voltage measurements are not needed in testing digital I.C.'s other than to see that the voltage is a HI or a LO level. An oscilloscope is needed when the input levels are of short duration,

either HI or LO. For instance, if a 10 microsecond pulse going from LO to HI was applied to one input of a NOR gate, while the other input stayed LO, the output would go LO for 10 microseconds and then return HI. This, of course, could not be seen without an oscilloscope.

a) A Truth Table of the logic elements under question is the primary tool to be used. When checking input and output levels of a logic element under question, it should be remembered that an input or output may not agree with its truth table, not because it has malfunctioned, but because some other component connected to the same point has shorted to ground or to V_{DD}. This is not uncommon when an output of one element is connected to an input or output of another. It may be necessary to isolate the gate under question by unsoldering the necessary I.C. pins. A majority of digital I.C. failures can be grouped into three categories.

(1) Input(s) or output shorted to ground pin of I.C.
(2) Input(s) or output shorted to V_{DD} pin of I.C.
(3) Open input(s) or output.

An input or output shorted to ground would be a constant LO and an input or output shorted to V_{DD} would be a constant HI. An open input would not cause any change in the output state. An open output would be less than 0.5VDC.

b) Other failures common in digital I.C.'s are:

(4) Ground pin open.
(5) V_{DD} pin open.
(6) Inputs shorted together.

If either the ground pin or V_{DD} pin is open, COS/MOS digital I.C.'s may or may not work; their behavior is unpredictable.

(Remember to isolate the device from other components connected to it). Two or more inputs shorted together can be checked by grounding one of the inputs under question. If the other input also goes to ground they are probably shorted.

1.2.5 TESTING OF LINEAR INTEGRATED CIRCUITS

An oscilloscope with a calibrated vertical and horizontal axis is normally used in order to measure the signals associated with linear I.C.'s. Precision DC voltage measurements should be made with a digital voltmeter with a floating ground.

a) Possible Problems with Operational Amplifiers.

(1) Wrong DC voltages on input terminals. This problem is generally caused by excess leakage in a bypass or coupling capacitor. If the voltage returns to normal when the capacitor is disconnected, the capacitor is leaky. If the voltage does not return to normal then the op amp is most likely at fault.

(2) The input terminals are normal while the output terminal is at $\pm V_{CC}$. This problem is generally caused by an open feedback loop.

(3) The DVM, connected across the input terminals of the op amp indicate in excess of 6.0mV. This condition, called excess offset, indicates a defective op amp.

b) Possible Problems with Balanced Modulators.

(1) The carrier input cannot be nulled at the output. This indicates a defective balanced modulator.

1.2.6 REPLACING INTEGRATED CIRCUITS

If an I.C. is known to be defective, the easiest way to remove it is to cut off each of its pins, remove the case, and then unsolder the remaining pins from the printed circuit board one by one. This is preferable over removing the I.C. intact because attempts to remove the I.C. intact may result in damage to the printed circuit board. If it is desired to remove an I.C. intact, a soldering iron with a special tip may be used that will heat all the pins on the backside of the board at the same time. After removal the holes of the board should be cleaned of solder so that the replacement I.C. may be installed. Note the marking identification of the I.C. before removal, and replace the new one with the same orientation as the one removed.

—CAUTION—

IF AN I.C. IS FOUND TO BE DEFECTIVE, VERIFY THAT THERE IS NO GREATER THAN V_{CC} +10% ON ANY OF THE I.C. HOLES ON THE BOARD OR A GROUND ON AN I.C. HOLE THAT SHOULD NOT BE GROUNDED, BEFORE INSTALLING A REPLACEMENT I.C.

Never remove or replace an I.C. with the supply voltage turned on. Transients thus produced may damage the I.C. or others remaining in the circuit. If an I.C. is to be evaluated in an external test circuit, be sure no more voltage is applied to the I.C. than normally is used in the circuit from which it came.

Because MOS devices have extremely high input resistance, they are susceptible to damage when exposed to extremely high static electrical charges. Therefore, to avoid possible damage to the devices during handling, testing, or actual operation, the following procedures should be followed:

1. COS/MOS devices that are removed from a circuit should have all leads shorted together by the storage container supplied by the vendor or by inserting them in conductive material such as "ECCOSORB LD 26" or equivalent.

2. Soldering-iron tips, metal parts of fixtures and tools, and handling facilities should be grounded.

3. Devices should not be inserted into or removed from circuits with the power on because transient voltages may cause permanent damage.

4. Signals should not be applied to the inputs while the device power supply is off.

5. All unused input leads must be connected to either V_{SS} (ground) or V_{DD} (device supply), whichever is appropriate for the logic circuit involved.

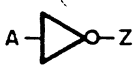
1.3 TYPICAL LOGIC CIRCUITS AND TRUTH TABLES

FIGURE 1. BUFFER

$Z = A$

A	Z
0	0
1	1

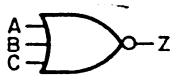
FIGURE 2. INVERTER



$Z = \overline{A}$

A	Z
0	1
1	0

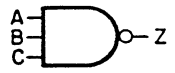
FIGURE 3. NOR GATE



$Z = \overline{A+B+C}$

A	B	C	Z
0	0	0	1
1	0	0	0
0	1	0	0
0	0	1	0
1	1	0	0
1	0	1	0
0	1	1	0
1	1	1	0

FIGURE 4. NAND GATE



$Z = \overline{ABC}$

A	B	C	Z
0	0	0	1
1	0	0	1
0	1	0	1
0	0	1	1
1	1	0	1
1	0	1	1
0	1	1	1
1	1	1	0

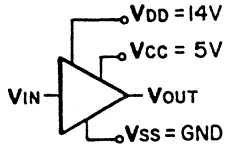
FIGURE 5. EXCLUSIVE OR GATE

$Z = A \oplus B$

A	B	Z
0	0	0
1	0	1
0	1	1
1	1	0

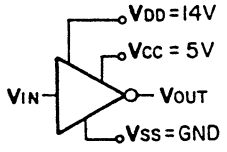
FIGURE 6. TTL TO CMOS VOLTAGE LEVEL TRANSLATORS

BUFFER



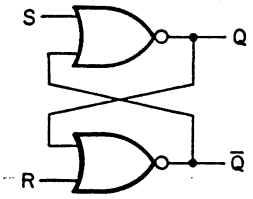
V_{IN}	0V	14V
V_{OUT}	0V	5V

INVERTER



V_{IN}	0V	14V
V_{OUT}	5V	0V

FIGURE 7. NOR GATE FLIP-FLOP



S	R	Next Q	$\overline{Q}$
1	1	0	0
0	1	1	0
0	0	NC	NC
1	0	0	1

NC = NO CHANGE

FIGURE 8. MONOSTABLE MULTIVIBRATOR (ONE-SHOT)

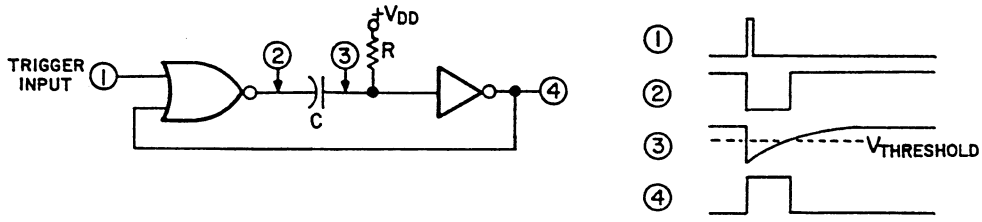
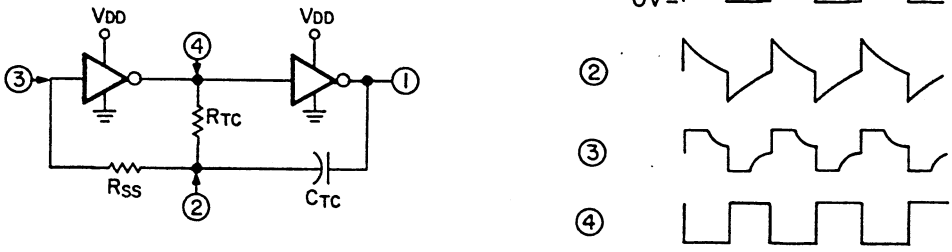


FIGURE 9. ASTABLE MULTIVIBRATOR (FREE-RUNNING)



FREQUENCY OF OPERATION IS DETERMINED BY R_{TC} AND C_{TC}.
A NOR OR NAND GATE MAY BE USED IN PLACE OF THE FIRST INVERTER TO PERMIT GATING OF THE MULTIVIBRATOR.

FIGURE 10. DIFFERENTIATOR

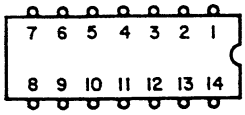
OFTEN USED TO CHANGE A STEP SIGNAL TO A SHORT PULSE SIGNAL.

1.4 INTEGRATED CIRCUIT DATA

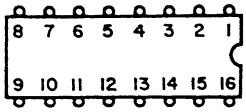
INTEGRATED CIRCUIT PIN LOCATION DIAGRAMS

(Viewed From TOP of IC)

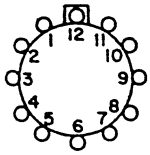
(1)



(2)



(3)



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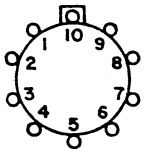
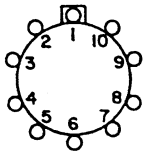


(5)



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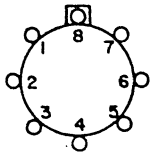

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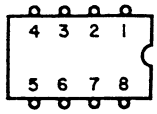


1.4.2 DATA FOR INTEGRATED CIRCUITS USED IN KTS 150

IC TYPE	DESCRIPTION
a) LM 741	Linear Op Amp
b) MC1596	Mono Balanced Modulator
c) LM 324	Quad Op Amp
d) MC7815	+15V voltage Regulator
e) MC7915	-15V Voltage Regulator
f) SE555	Timer

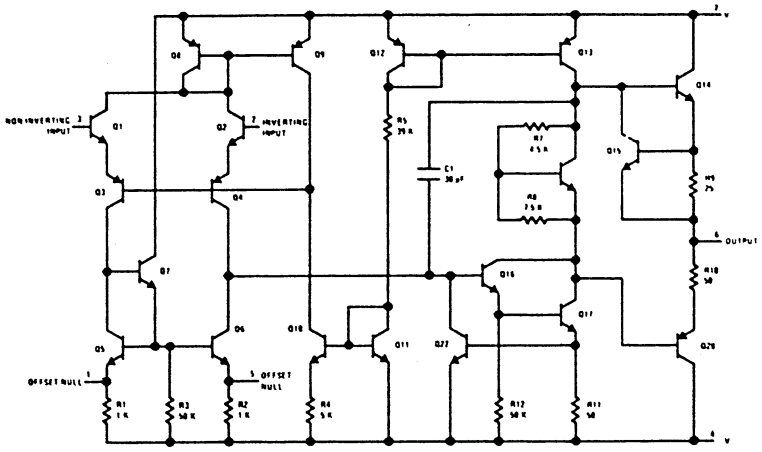
general description

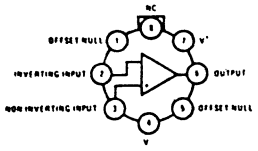
The LM741 and LM741C are general purpose operational amplifiers which feature improved performance over industry standards like the LM709. They are direct, plug-in replacements for the 709C, LM201, MC1439 and 748 in most applications.

The offset voltage and offset current are guaranteed over the entire common mode range. The amplifiers also offer many features which make their application nearly foolproof: overload protection on the input and output, no latch-up when the common mode range is exceeded, as well as freedom from oscillations.

The LM741C is identical to the LM741 except that the LM741C has its performance guaranteed over a 0°C to 70°C temperature range, instead of -55°C to 125°C.

schematic and connection diagrams



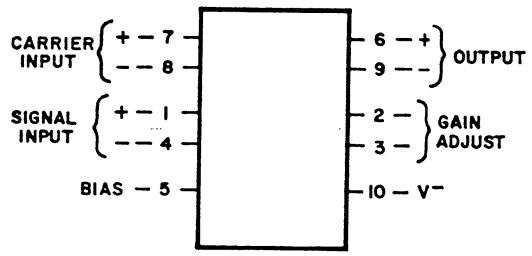


TOP VIEW

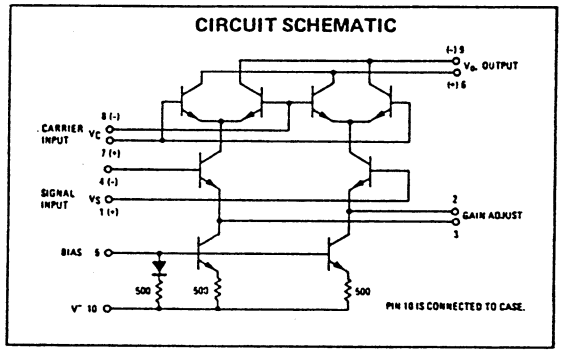
NOTE: Pin 4 connected to case

Order Number LM741H or LM741CH
See Package 11

MC1596G



REF: PIN LOCATION DIAGRAM #4



The MC1596/MC1496 is a monolithic balanced modulator circuit.

This circuit consists of an upper quad differential amplifier driven by a standard differential amplifier with dual current sources. The output collectors are cross-coupled so that full-wave balanced multiplication of the two input voltages occurs. That is, the output signal is a constant times the product of the two input signals.

Mathematical analysis of linear ac signal multiplication indicates that the output spectrum will consist of only the sum and difference of the two input frequencies. Thus, the device may be used as a balanced modulator, doubly balanced mixer, product detector, frequency doubler, and other applications requiring these particular output signal characteristics.

The lower differential amplifier has its emitters connected to the package pins so that an external emitter resistance may be used. Also, external load resistors are employed at the device output.

The upper quad differential amplifier may be operated either in a linear or a saturated mode. The lower differential amplifier is operated in a linear mode for most applications.

For low-level operation at both input ports, the output signal will contain sum and difference frequency components and have an amplitude which is a function of the product of the input signal amplitudes.

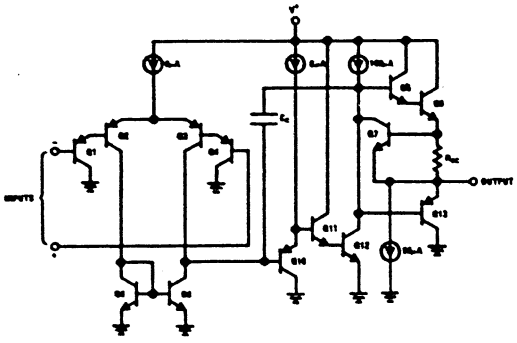
For high-level operation at the carrier input port and linear operation at the modulating signal port, the output signal will contain sum and difference frequency components of the modulating signal frequency and the fundamental and odd harmonics of the carrier frequency. The output amplitude will be a constant times the modulating signal amplitude. Any amplitude variation in the carrier signal will not appear in the output.

general description

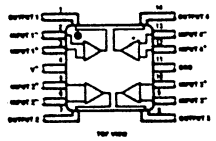
The LM124 series consists of four independent, high gain, internally frequency compensated operational amplifiers which were designed specifically to operate from a single power supply over a wide range of voltages. Operation from split power supplies is also possible and the low power supply current drain is independent of the magnitude of the power supply voltage.

Application areas include transducer amplifiers, DC gain blocks and all the conventional op amp circuits which now can be more easily implemented in single power supply systems. For example, the LM124 series can be directly operated off of the standard $+5V_{DC}$ power supply voltage which is used in digital systems and will easily provide the required interface electronics without requiring the additional $\pm 15\ V_{DC}$ power supplies.

schematic and connection diagrams

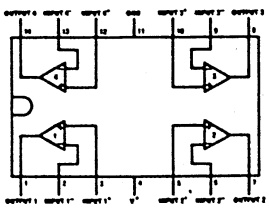


Flat Package



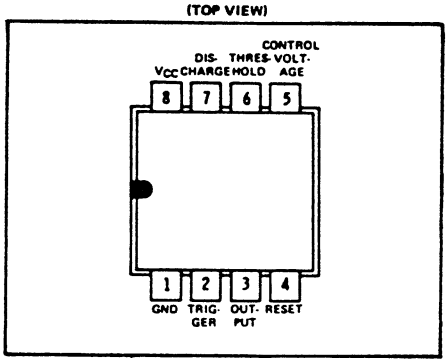
Order Number LM124F
See Package 4

Dual-In-Line Package

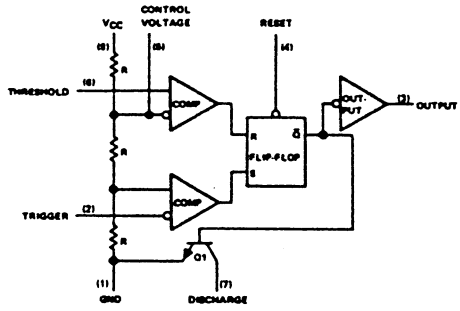


SE555CV

(TOP VIEW)



functional block diagram



MC7800C SERIES THREE-TERMINAL POSITIVE VOLTAGE REGULATORS

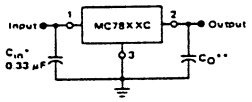
The MC7800C Series of three-terminal positive voltage regulators are monolithic integrated circuits designed as fixed-voltage regulators for a wide variety of applications including local, on-card regulation. Available in seven fixed output voltage options from 5.0-to-24 volts, these regulators employ internal current limiting, thermal shutdown, and safe area compensation — making them essentially blow-out proof. With adequate heatsinking they can deliver output currents in excess of 1.0 ampere. The last two digits of the part number indicate nominal output voltage.

P SUFFIX
PLASTIC PACKAGE
CASE 199-04

Pin 1 Input (Base)
Pin 2 Output (Emitter)
Pin 3 Ground (Collector)

Heat sink surface connected to pin 3.

STANDARD APPLICATION



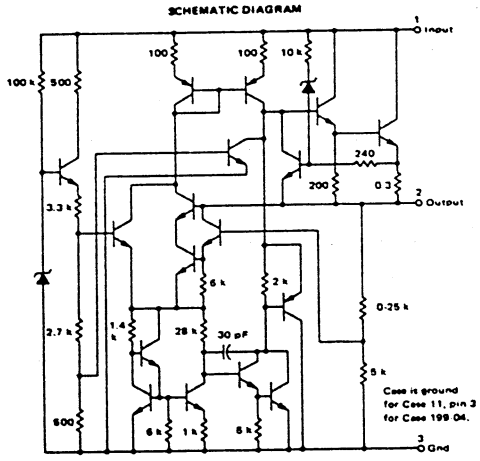
A common ground is required between the input and the output voltages. The input voltage must remain typically 2.0 V above the output voltage even during the low point on the input ripple voltage.

XX = these two digits of the type number indicate voltage.

* = C_{in} is required if regulator is located an appreciable distance from power supply filter.

** = C_O is not needed for stability; however, it does improve transient response.

SCHEMATIC DIAGRAM



TYPE NO./VOLTAGE

MC7805C 5.0 Volts	MC7809C 9.0 Volts	MC7818C 18 Volts
MC7806C 6.0 Volts	MC7812C 12 Volts	MC7824C 24 Volts
	MC7815C 15 Volts	

APPENDIX "A"

MC7900C SERIES THREE-TERMINAL NEGATIVE VOLTAGE REGULATORS

The MC7900C Series of fixed output negative voltage regulators are intended as complements to the popular MC7800C Series devices. These negative regulators are available in the same seven-voltage options as the MC7800C devices. In addition, two extra voltage options commonly employed in MECL systems are also available in the negative MC7900C Series.

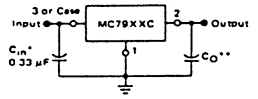
Available in fixed output voltage options from -2.0 to -24 volts, these regulators employ current limiting, thermal shutdown, and safe-area compensation – making them remarkably rugged under most operating conditions. With adequate heat-sinking they can deliver output currents in excess of 1.0 ampere.

P SUFFIX
PLASTIC PACKAGE
CASE 199-04

Pin 1 GND (B)
Pin 2 Output (E)
Pin 3 Input (C)

Heat sink surface connected to pin 3.

STANDARD APPLICATION



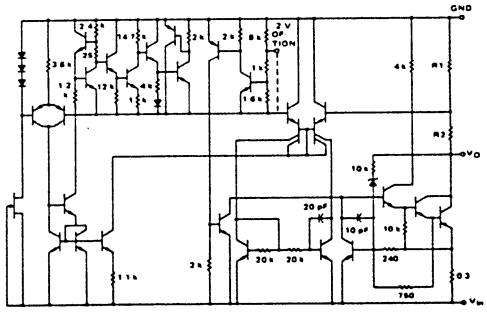
A common ground is required between the input and the output voltages. The input voltage must remain typically 2.0 V more negative even during the high point on the input ripple voltage.

XX = these two digits of the type number indicate voltage.

* = C_{in} is required if regulator is located an appreciable distance from power supply filter.

** = C_O improves stability and transient response.

SCHEMATIC DIAGRAM



DEVICE TYPE/NOMINAL OUTPUT VOLTAGE

MC7902C - 2.0 Volts	MC7906C - 6.0 Volts	MC7915C - 15 Volts
MC7905C - 5.0 Volts	MC7908C - 8.0 Volts	MC7918C - 18 Volts
MC7905.2C - 5.2 Volts	MC7912C - 12 Volts	MC7924C - 24 Volts