

RST ENGINEERING

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27 November 01

RST-442

DOCUMENT SUMMARY

442-3060 -- Intercom PTT Schematic

442-4000 -- Mechanical Assembly and Chassis Component Identification

442-4060 -- Radio Interface Wiring and Plug Pinouts

442-4070 -- Radio Interface Diagram

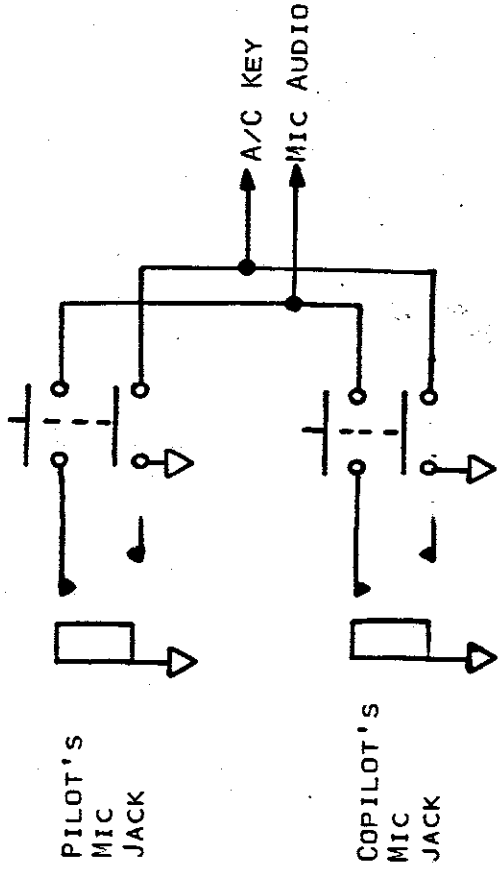
442-4072 -- Intercom Interconnect Diagram

442-5100 -- PC 051 Parts Value, Parts Numbering, and Trace Drawing

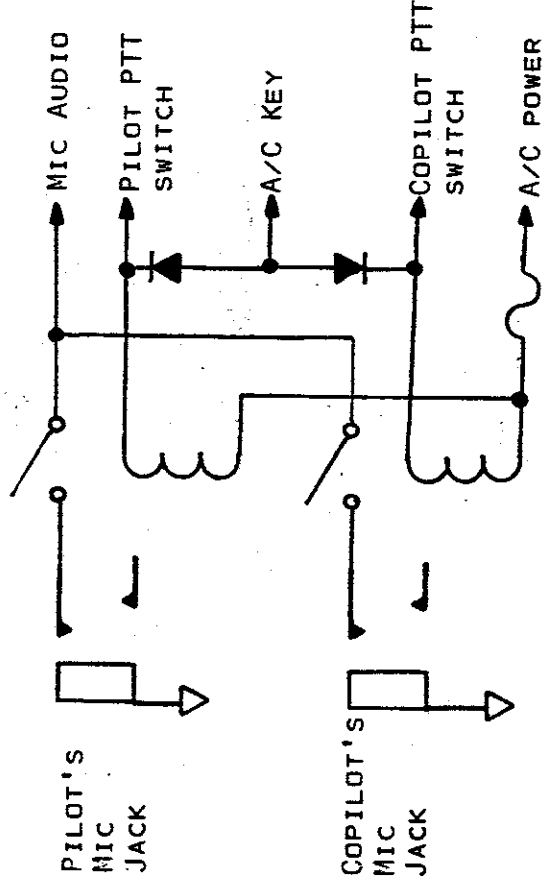
442-7000 -- PC 051F Schematic

442-7800 -- Chassis Schematic

PTT SYSTEM USING DPDT SWITCHES
(SUCH AS C&K 8225 DPDT MOMENTARY
PUSH BUTTON SWITCH)



PTT SYSTEM USING RELAYS



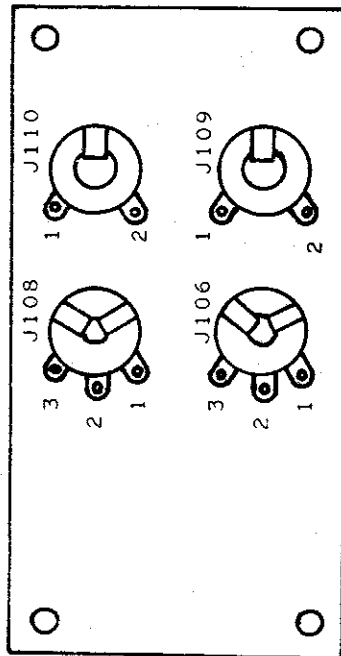
PTT SYSTEMS

SCALE: NS	APPROVED BY:	DRAWN BY: BMMW
DATE: 30 NOV 84		REVISED:

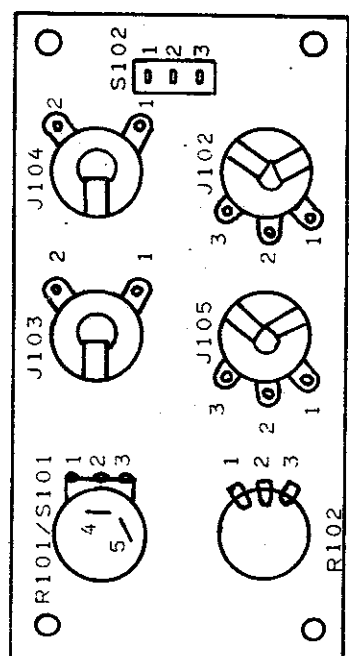
RADIO SYSTEMS TECHNOLOGY
GRASS VALLEY, CALIFORNIA 95945

DRAWING NUMBER
442-3060

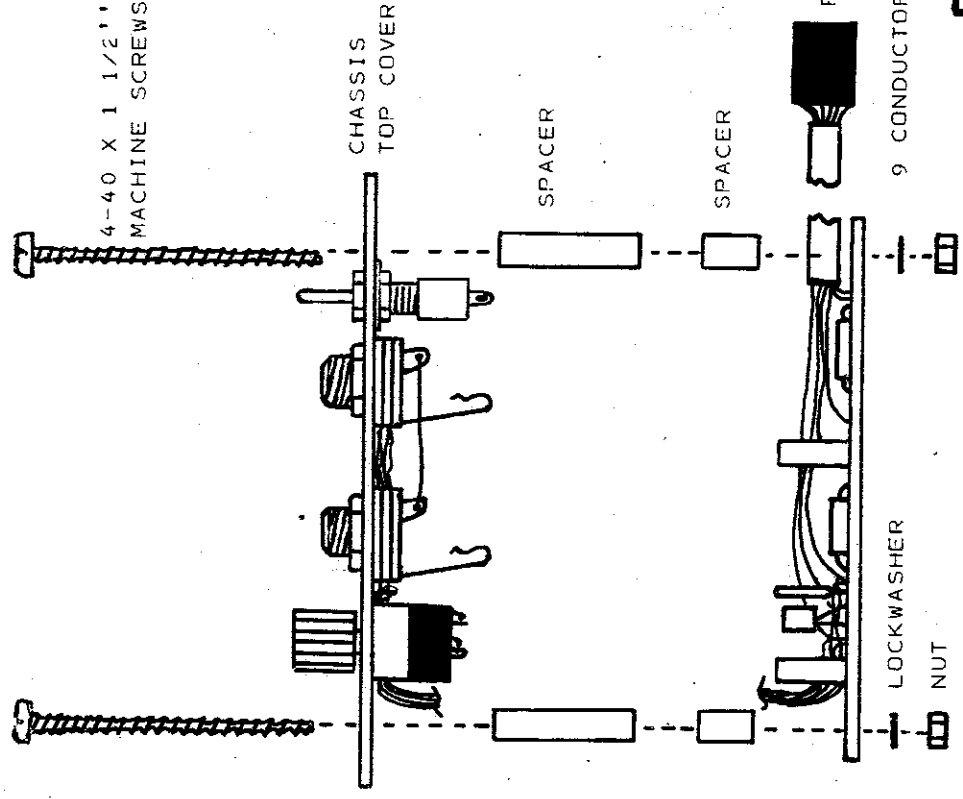
EXTENSION BOX, INSIDE VIEW (445 ONLY)



CHASSIS TOP COVER, INSIDE VIEW



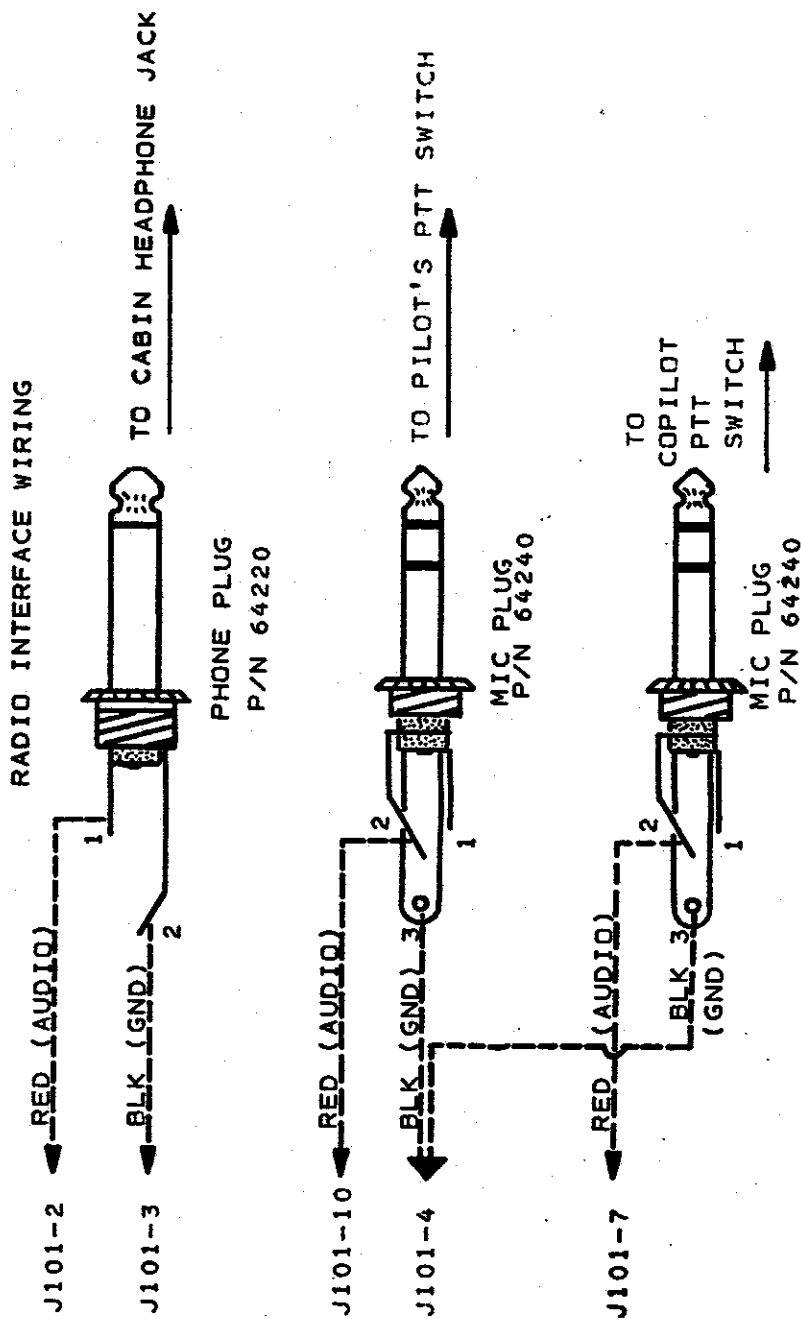
4-40 X 1 1/2" MACHINE SCREWS



9 CONDUCTOR CABLE 2. BREV ECO#18.
 NOTES: 1. AREV ECO#16.

MECHANICAL ASSEMBLY RST-442 / 445

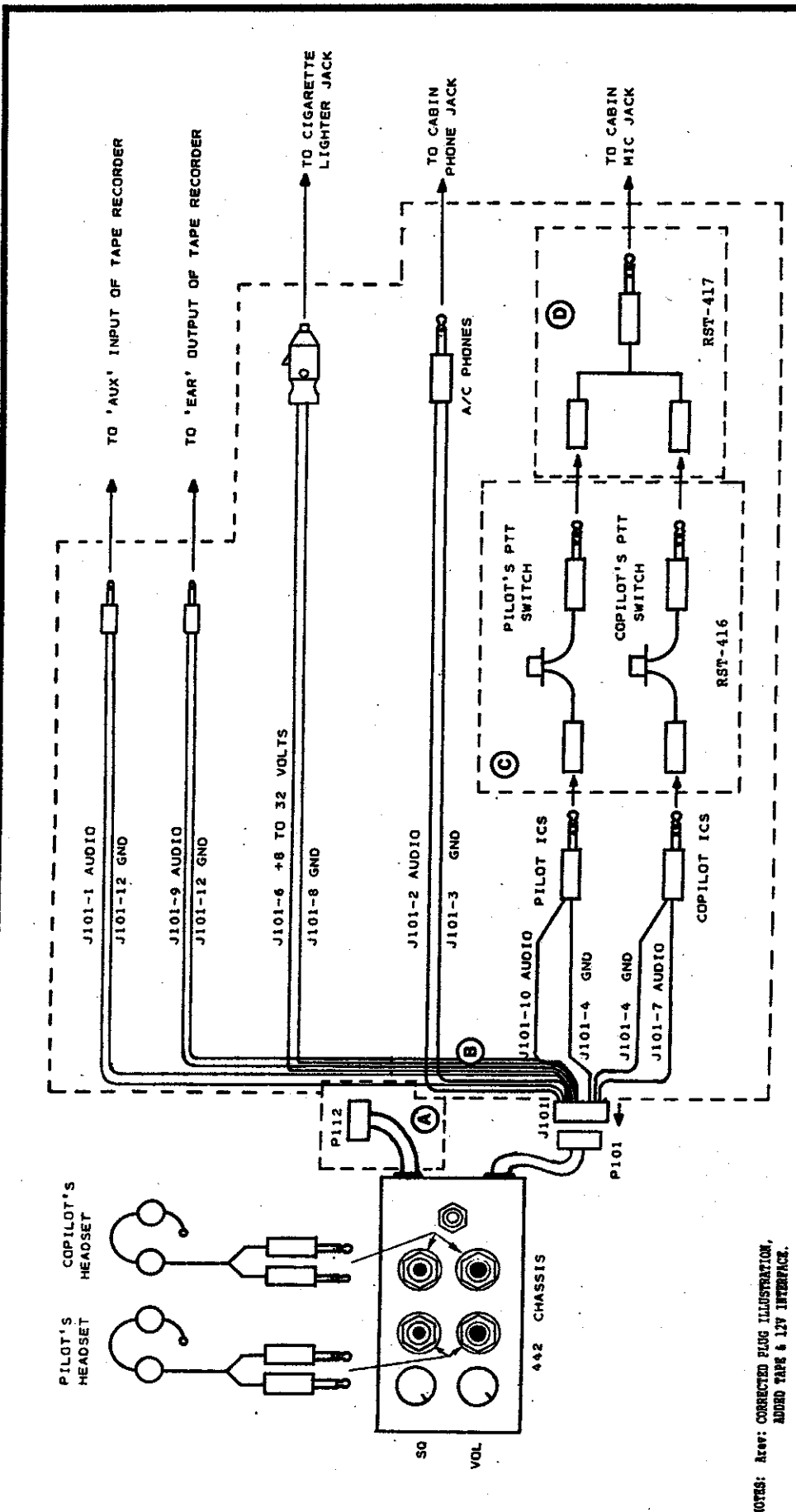
DESIGNED BY	DRIVEN BY	MWW
DATE	REVISED	B15JAN84
DRAWING NUMBER		442-4000
RADIO SYSTEMS TECHNOLOGY GRASS VALLEY CALIFORNIA 95945		



RADIO INTERFACE WIRING: PLUG PIN OUTS

SCALE: NTS	APPROVED BY: <i>[Signature]</i>	DRAWN BY TLP
DATE: 2-15-79		REVISED 34OCT90
RST 442 - 2 CHANNEL INTERCOM		
RADIO SYSTEMS TECHNOLOGY		DRAWING NUMBER
GRASS VALLEY, CALIFORNIA 95945		442-4060

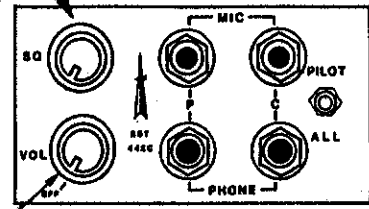
- NOTES**
1. INSULATING COVERS FOR PLUGS ARE NOT SHOWN
 2. Arev: 3/C CABLE USED FOR 'Y', RST P/N'S ADDED
 3. Brev: REDRAWN ON A SIZE SHEET W/O 'Y' ADAPTER



RST-442 / 445 RADIO INTERFACE DIAGRAM	
SCALE: NTS	APPROVED BY: JAM
DATE: 20 MARCH 81	REVISED: 840CT80
DRAWING NUMBER: 442-4070	
RADIO SYSTEMS TECHNOLOGY GRASS VALLEY, CALIFORNIA 95945	

NOTES: A: CORRECTED PLUG ILLUSTRATION, ADDED TAP & 12V INTERFACE.
 B: REVISED FACEPLATE & NOTES.
 C: P112 PROVIDED FOR EXTENSION CHASSIS (RST-445 ONLY)
 D: INTERCONNECTING WIRING FOR AIRCRAFT RADIO, AIRCRAFT POWER AND TAPE RECORDER
 E: PTT SWITCHES NOT PROVIDED, PTT SWITCHES MUST OPEN THE HIGH SIDE OF THE MICROPHONE AUDIO SUCH AS THE RST-416
 F: RST-417 'Y' ADAPTER OPTIONAL (NOT PROVIDED IN RST-442 KIT)

SQUELCH CONTROL: SET FULLY CCW FOR 'HOT MIC' INTERCOM.
 SET ABOUT 2 O'CLOCK FOR VOICE ACTIVATED (VOX) INTERCOM.
 ADJUST FOR VARIATIONS IN BACKGROUND NOISE.

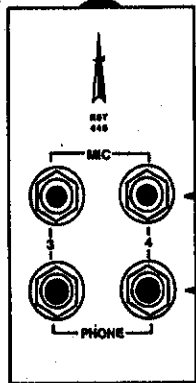


VOLUME CONTROL/ON-OFF SWITCH:
 ADJUST FOR COMFORTABLE LISTENING LEVEL.
 TURN OFF WHEN NOT IN USE TO MAXIMIZE BATTERY LIFE.

RADIO & AIRCRAFT POWER INTERFACE CABLES

EXTENSION BOX (MODEL 445 ONLY)

USE ONLY NICAD OR ALKALINE 9 VOLT CELLS



#4 PASSENGER'S HEADSET

PILOT'S (P), COPILOT'S (C), AND #3 PAX (3) HEADSETS ARE INSTALLED IN A SIMILAR FASHION.

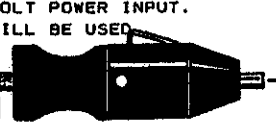
PLACE MICROPHONE CLOSE TO LIPS (CENTER MOUTH) FOR BEST RESULTS



(A)

OPTIONAL 14 OR 28 VOLT POWER INPUT. (9 VOLT CELL MAY STILL BE USED AS A 'FAILSAFE').

TAPE IN
 TAPE OUT
 TAPE OUTPUT JACK (EARPHONE JACK)
 TAPE INPUT JACK (AUX JACK)



CIGARETTE LIGHTER JACK

ICS PHONES

LIGHTER JACK

HEADPHONE JACK

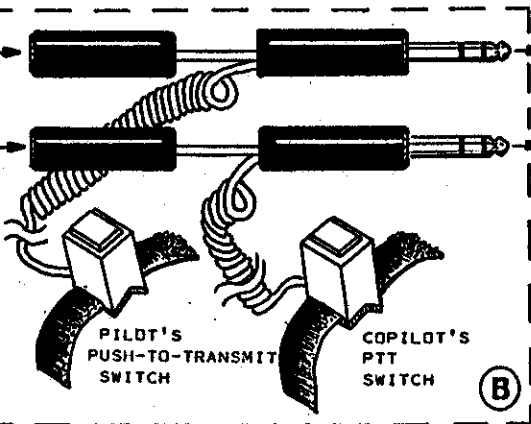
'Y' ADAPTOR

ALLOWS EITHER PILOT OR COPILOT TO TRANSMIT OVER RADIO WHEN THEIR INDIVIDUAL PTT SWITCH IS PRESSED.

MICROPHONE JACK (C)

Notes:

- (A) USE STANDARD CIVILIAN AIRCRAFT HEADSETS. MINIMUM IMPEDANCE = 150 OHM/HEADSET.
- (B) USE ONLY PTT SWITCHES WHICH OPEN THE MIC AUDIO LINE WHEN NOT TRANSMITTING. SEE DWG# 442-3060 FOLLOWING.
- (C) THESE ARE AIRCRAFT CABIN JACKS. BE SURE CIGARETTE LIGHTER JACK HAS BEEN PROPERLY FUSED OR CONNECTED TO AN APPROPRIATE CIRCUIT BREAKER.

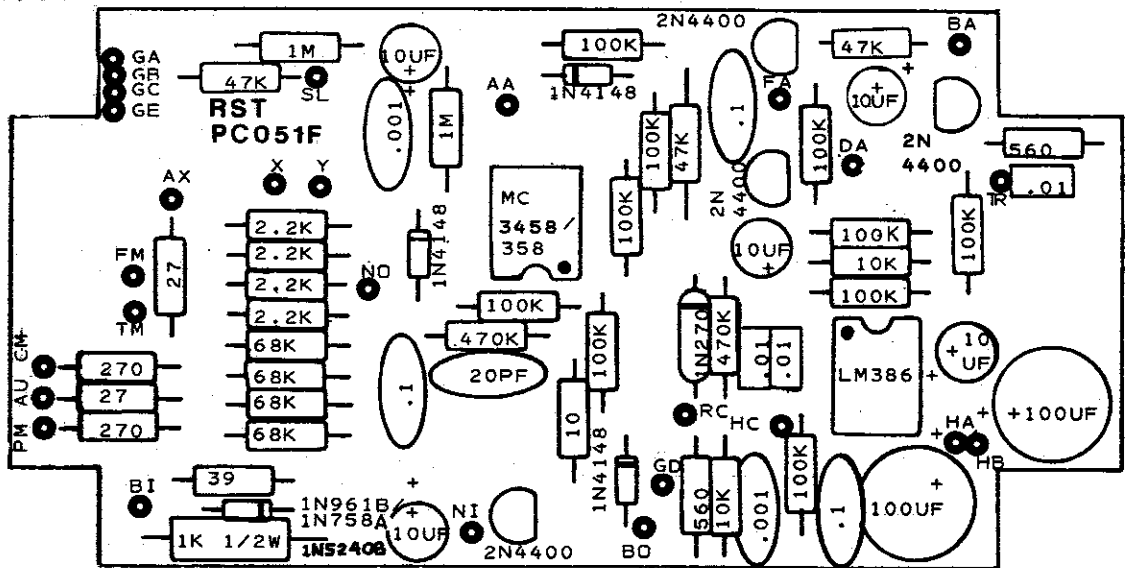


(B)

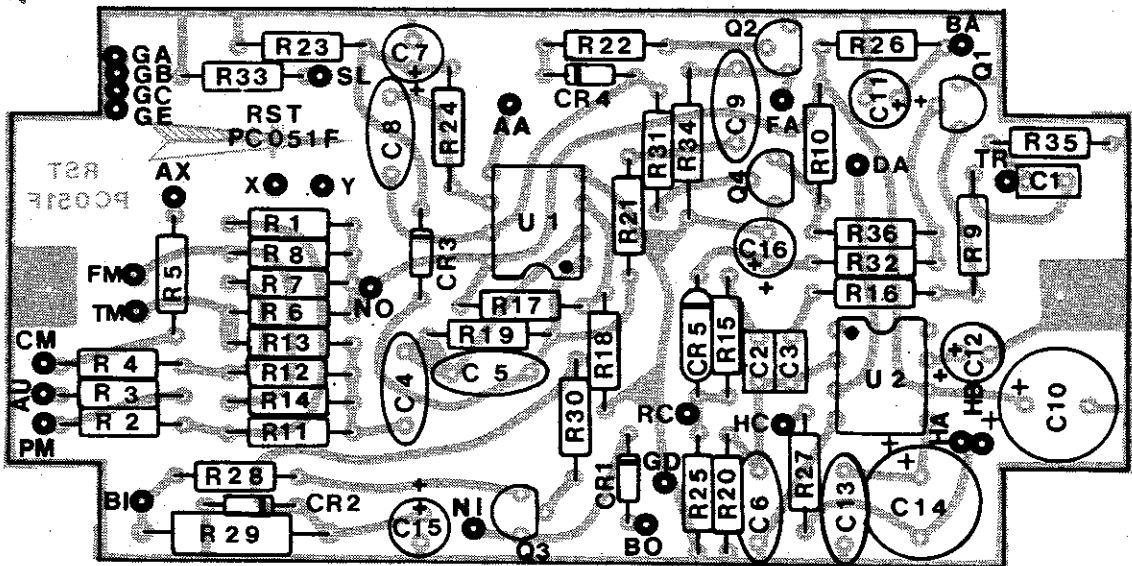
442/445 INTERCOM INTERCONNECTION DIAGRAM

SCALE: NTS	APPROVED BY: <i>[Signature]</i>	DRAWN BY TLP
DATE: 26OCT81		REVISED 40CT90

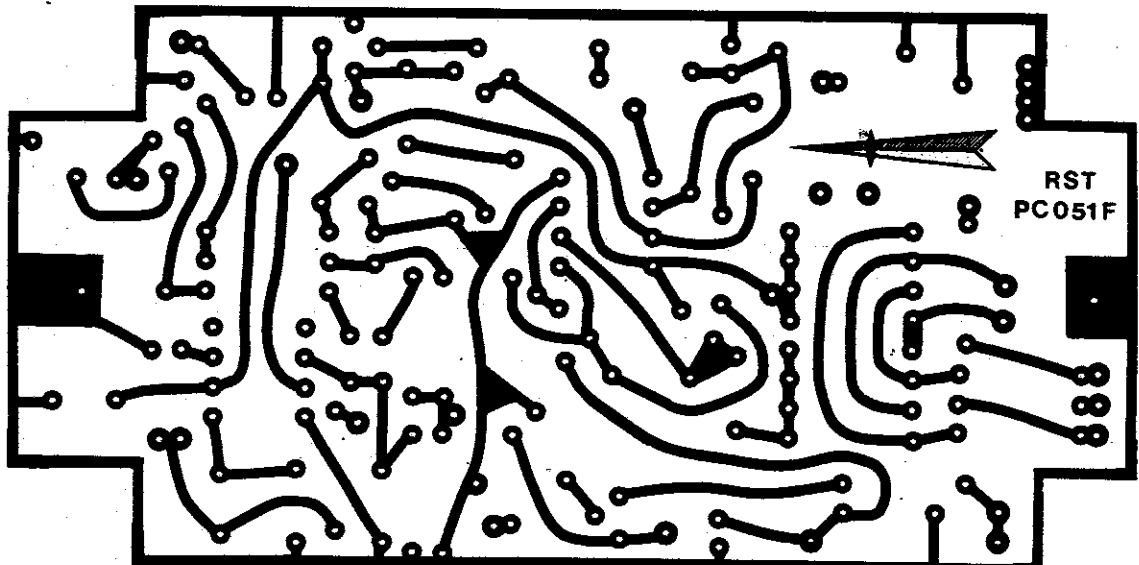
RADIO SYSTEMS TECHNOLOGY
 GRASS VALLEY, CALIFORNIA 95945
 DRAWING NUMBER 442-4072



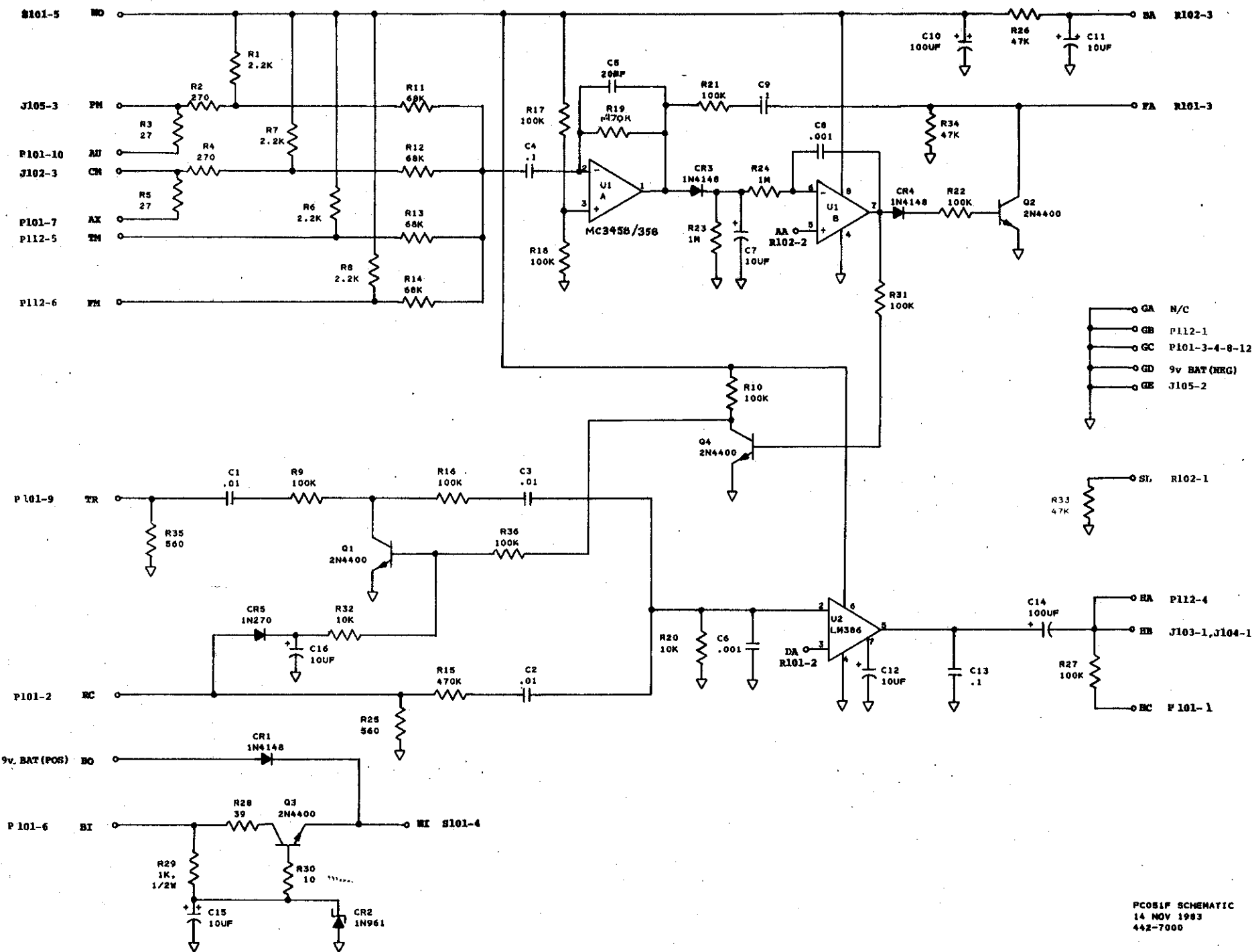
PARTS VALUES



PARTS DESIGNATIONS AND X-RAY VIEW OF TRACES



TRACES

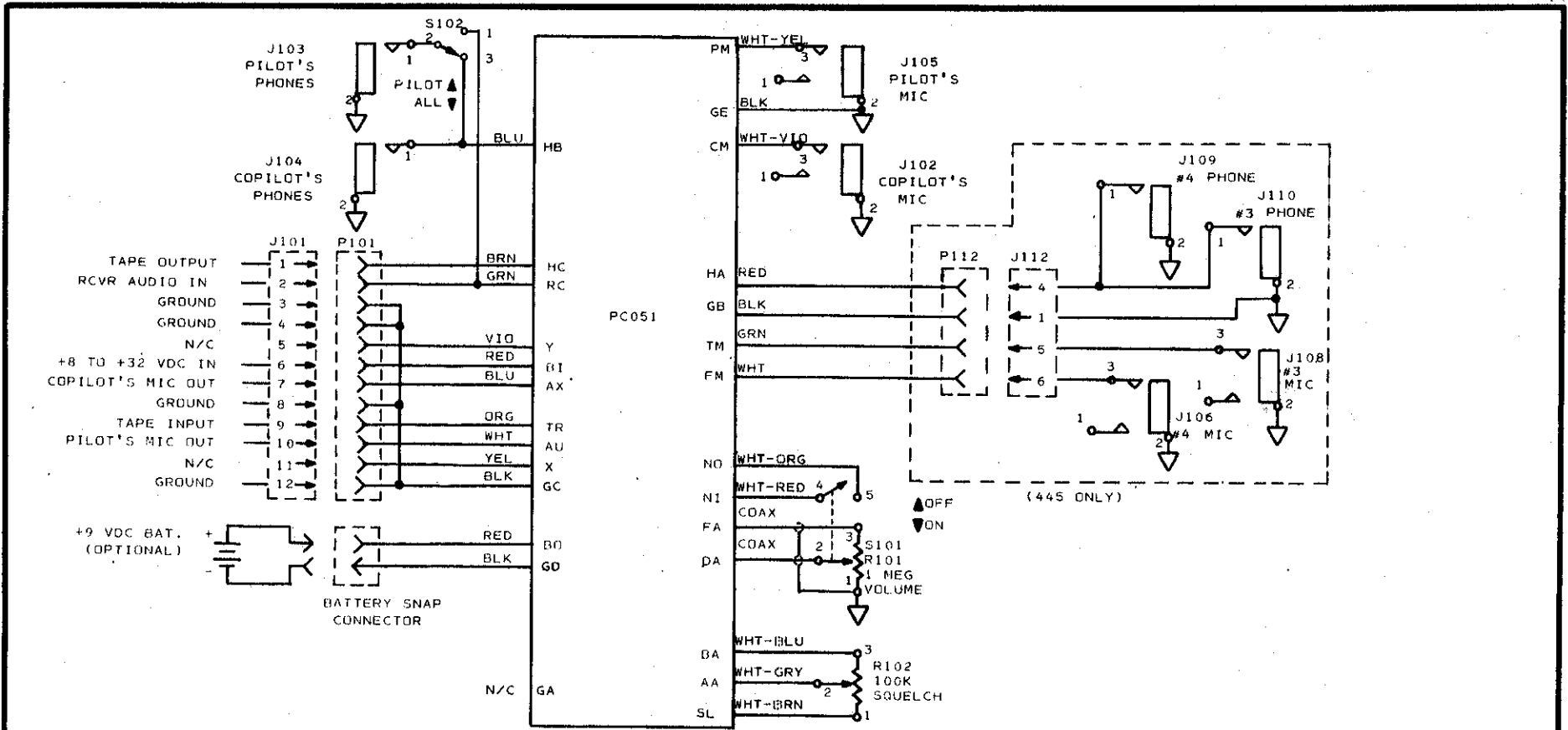


- GA N/C
- GB P112-1
- GC P101-3-4-8-12
- GD 9v BAT (NRG)
- GE J105-2

- SL R102-1

- HA P112-4
- HB J103-1, J104-1
- HC P101-1

PCOS1F SCHEMATIC
14 NOV 1983
442-7000



CHASSIS SCHEMATIC		
SCALE: NTS	APPROVED BY:	DRAWN BY S. ROY
DATE: 6 MAR 81		REVISED B15JAN85
RST-442 ,445 INTERCOM		
RADIO SYSTEMS TECHNOLOGY GRASS VALLEY, CALIFORNIA 95945		DRAWING NUMBER 442-7800

B REV ECO #18
NOTE: A REV. ECO # 12