


WJ-8628-4-6 SUPPLEMENT
TO THE
WJ-8628-4 VHF/UHF RECEIVER
INSTRUCTION MANUAL

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WATKINS-JOHNSON COMPANY 
700 QUINCE ORCHARD ROAD
GAITHERSBURG, MARYLAND 20878-1794

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WJ-8628-4-6 VHF/UHF RECEIVER

REVISION RECORD

WJ-8628-4-6 VHF/UHF RECEIVER SUPPLEMENT

REVISION RECORD

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1.1 GENERAL DESCRIPTION

The WJ-8628-4-6 VHF/UHF Receiver is a modified version of the WJ-8628-4 VHF/UHF Receiver. The IF bandwidth for AM operation has been increased to 16 MHz. The IF bandwidth for the FM detection mode is 16 MHz when selected. However, the FM demodulation is only 8 MHz wide and the FM video is limited to 4 MHz. The WJ-8628-4-6 VHF/UHF Receiver is only configured to operate in the WJ-9040/SYS003-2 Broadband Receiving System. This system uses the WJ-8628-4-6 Receiver as the master receiver to control the other units in the receiving system. The WJ-8628-4-6 VHF/UHF Receiver operates in conjunction with the following equipment in the WJ-9040/SYS003-2 Broadband Receiving System.

- EFR100 Equipment Frame
- IOM108 Interface Module
- SRM105A VHF/UHF Receiver
- EPS100 Power Supply
- IFD220 IF Demodulator
- HFE223 HF Extender
- WJ-8625 VLF Receiver

1.2 WJ-8628-4-6 MODIFICATIONS

Modifications made to the WJ-8628-4-6 VHF/UHF Receiver include both hardware and software changes. These changes provide IF bandwidths of 1 MHz, 4 MHz, 8 MHz and 16 MHz. The modification allows the display of the video output bandwidth rather than the IF bandwidth. Other changes involve the front panel keypad switches and certain operating modes.

The following assemblies have been modified in the WJ-8628-4-6 Receiver: the RF Tuner (A1), the 21.4 MHz IF Demodulator (A2), the Synthesizer Module (A3), and the Keyboard Assembly (A8).

In the RF Tuner, the Preselector, the 2nd IF Converter, and the Dual IF Amplifier are changed. In the 21.4 MHz IF Demodulator, the AM/SSB/CW Demodulator, the Video/Audio/COS, and the Digital Interface Assemblies are changed. In the Synthesizer Module, the 2nd LO PLL, the Aux/PLL, and the 1st LO Phase Detector/Divider Assemblies are changed.

Control switches on the front panel keypad have been changed. Table 1-1 lists the standard switches and also the modified switches. In addition to the keypad changes, scan, handoff, and remote operations have been deleted. The keypad and operational changes are described in the following paragraphs. Refer to paragraphs 5.5 through 5.5.6 in the WJ-8628-4 manual for changes in the receiver parts lists. Figures 1-1 through 1-14 are the schematics for new or modified modules in the WJ-8628-4-6 VHF/UHF Receiver.

1.2.1 CONTROL CHANGES

The following paragraphs describe control changes that are different than the controls described in the WJ-8628-4 Instruction Manual. Refer to the WJ-8628-4 Instruction Manual for controls that have not been modified for the WJ-8628-4-6 configuration.

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Table 1-1. Keypad Modifications

Switch	WJ-8628-4	WJ-8628-4-6
S2	IF BW	BW
S4	H/OFF STO	STO
S5	EXAM RCL	RCL
S6	CTRL EXEC	EXEC
S7	R/LCL COS	COS
S8	DWL AFC	AFC
S9	SET SCAN	SLIDE BACK
S11	INCL L/OUT	R/LCL
S12	↑ ↓	TUNE RES

1.2.1.1 TUNE RES Switch, S12

In the WJ-8628-4-6 VHF/UHF Receiver, the TUNE RES Switch toggles the operator specified tuning range either OFF or ON. Pressing the TUNE RES switch once enables the operator specified tuning range operation. When first enabled, the following prompt is visible on the display:

Enter Step: f.ffff
EXECUTE < ? > EXIT

This prompt allows the operator to enter a desired tuning resolution. The tuning resolution selection is variable from 1 Hz to 4 MHz, depending on the tuned frequency. For tuned frequencies from 0 Hz to 1.5 MHz, the tuning resolution is from 1 Hz to 100 kHz and for tuned frequencies from 1.5 MHz to 1400 MHz, the tuning resolution is from 100 Hz to 4 MHz.

After entering a valid tuning resolution value and a proper terminator ("kHz" or "MHz"), the CURSOR control switch must be pressed to the LEFT or RIGHT, as indicated by the "<?>" prompt on the display. Pressing the CURSOR switch to the LEFT position, (EXEC) executes the selected tuning resolution. Successful execution of the tuning resolution is indicated on the display by an asterisk ("*") to the right of the FREQUENCY display. Pressing

the CURSOR switch to the RIGHT position, (EXIT) exits the tuning resolution mode and displays the cursor to the right of the FREQUENCY display. With the cursor to the right of the display, the CURSOR switch is used to control the tuning resolution.

1.2.1.2 **R/LCL Switch, S11**

In the WJ-8628-4-6 VHF/UHF Receiver, this switch is used for remote/local operations. This switch is only operable when the 488 option is installed.

1.2.1.3 **SLIDEBACK Switch, S9**

The slideback value is used to reverse bias the AM detector. Changing the value of the slideback varies the point at which the AM detector starts conducting. The greater the reverse bias determines the voltage necessary to cause the AM detector to conduct. In the WJ-8628-4-6 VHF/UHF Receiver, the SLIDEBACK Switch is only used during the AM detection mode. Pressing the SLIDEBACK switch displays a "s" next to the AM for the detection mode. When slideback is enabled, a three digit number is displayed in the BFO window. This number is variable from 000 to 255. Using the CURSOR switch to position the cursor beneath a digit of the slideback number allows the tuning wheel to change the value of that digit.

1.2.1.4 **AFC Switch, S8**

In the WJ-8628-4-6 VHF/UHF Receiver, the AFC Switch is used to select the Automatic Frequency Control mode. With the AFC mode enabled, an "A" is visible at the bottom right of the display. During the AFC operating mode, the receiver tuned frequency is controlled by the digital AFC circuitry. AFC operation allows the receiver to remain tuned to a signal, as long as the receiver is tuned to within one-half of the selected IF bandwidth of the signal. Thus, if the tuning resolution is less than one-half of the selected IF bandwidth, slowly rotating the tuning wheel will not tune the receiver off the received signal. To tune the receiver, AFC must be turned off or the tuning resolution must be greater than one-half of the selected IF bandwidth.

When AFC is not selected, the "A" is replaced with a vertical bar. When the receiver is exactly tuned on the received frequency, the bar is vertical. If the receiver is mistuned, the top of the vertical bar is deflected to either the right or the left to indicate the relation of the received signal to the receiver tuned frequency.

1.2.1.5 **COS Switch, S7**

In the WJ-8628-4-6 VHF/UHF Receiver, the COS (Carrier Operated Squelch) Switch is used as a termination command for an entered numeric value for the COS threshold or to view the COS threshold value. A graphic representation of the COS threshold value is visible on the display as a segmented line. A COS threshold level of 0 is indicated by no line. For every increase of 10 one segment is displayed. Thus a level of 63 is indicated by a six segmented line. Each segment represents a COS level of 10. Press the "COS" Switch to display the selected COS threshold value. Pressing the COS switch displays the COS value (COS = XX) in place of the segmented line. After approximately three seconds the COS value is replaced by the segmented line again.

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When the COS threshold is exceeded by the signal strength, an asterisk "*" is displayed at the right end of the COS THRESHOLD line. The asterisk appears on the display above the area labeled COS STATUS. When the COS threshold is not exceeded, the asterisk is not visible.

1.2.1.6 **BW Switch, S2**

In the WJ-8628-4-6 VHF/UHF Receiver, the BW Switch is used to select one of the available video bandwidths. Pressing the BW key changes the displayed bandwidth and momentarily displays VIDEO after the bandwidth value indicating the video bandwidth. Repeatedly pressing this switch cycles through the available video bandwidths. The video bandwidth is one-half of the IF bandwidth. The IF bandwidths installed in the receiver are determined by the customer. Five IF bandwidths are provided for VLF frequencies (less than 1.5 MHz) and nine IF bandwidths are provided for HF/VHF frequencies (greater than 1.5 MHz).

1.3 **OPERATIONAL CHANGES**

The following changes have been made in the receiver operation.

- No Upper case keypad functions
- No Remote operation
- No Scan operation
- No Handoff operation
- Receiver displays bandwidth of video output rather than IF bandwidth

These changes effectively eliminate receiver operations described in paragraphs 2.4.3.4 through 2.4.3.7.4 of the WJ-8628-4 VHF/UHF Receiver Instruction Manual.

1.4 **PARTS LIST**

The following parts lists only contain modules or components that are unique to the WJ-8628-4-6 Receiver. All other modules or components not listed are identical to the modules and components contained in the WJ-8628-4 VHF/UHF Receiver Instruction Manual. Refer to the parts lists in the WJ-8628-4 VHF/UHF Receiver Instruction Manual (**Section V**) for the complete parts lists.

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1.4.1 TYPE WJ-8628-4-6 VHF/UHF RECEIVER

REF DESIGN PREFIX MAIN CHASSIS

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 01				
A1	RF Tuner 20-512 MHz	1	794445-5	14632	
A2	21.4 MHz IF Demodulator	1	794446-8	14632	
A3	Synthesizer Module	1	794447-2	14632	
A8	Keyboard	1	371037-4	14632	
*FE	Frequency Extender	1	WJ-8628-4/FE	14632	
P3	Connector Housing	1	87499-7	00779	
W1P2	Same as W1P1				
W4	Cable Assembly	1	271716-1	14632	
W7	Cable Assembly	1	271409-2	14632	
W10J1	Connector, Receptable	1	DBSFY-25P	71468	

* Refer to the WJ-8628-4/FE Instruction Manual for additional information.

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1.4.1.1 Type 794445-5 RF Tuner (20-512 MHz)

REF DESIG PREFIX A1

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 01				
A1	Preselector	1	371140-4	14632	
A4	2nd IF Converter	1	371137-3	14632	
A6	Dual IF Amplifier	1	371285-3	14632	

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1.4.1.1.1 Type 371140-4 Input Preselector

REF DESIG PREFIX A1A1

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 02				
C6	Not Used				
C17	Not Used				
CR3	Not Used				
CR6	Not Used				
CR7	Not Used				
CR16 Thru CR19	Not Used				
CR26	Diode	4	U11-3102	52673	
CR27	Diode	2	KV3901	52673	
CR28	Not Used				
CR29	Same as CR26				
CR30	Same as CR27				
CR35	Same as CR26				
CR36	Same as CR26				
L1	Coil, Fixed: 3.3 μ H	9	1025-32	99800	
L9	Coil, Mounted	2	271423-35	14632	
L24	Coil, Fixed: .82 μ H, 10%	1	1025-18	99800	
L25	Same as L1				
R3	Resistor, Fixed, Film: 47 k Ω , 5%, 1/8 W	13	CF1/8-47K/J	09021	
R4	Not Used				
R11	Not Used				
R12	Not Used				
T1	Coil, Mounted	1	271423-36	14632	
T2	Coil, Mounted	1	271423-37	14632	
T3	Coil, Mounted	1	271423-38	14632	
T4	Coil, Mounted	1	271423-39	14632	

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1.4.1.1.2 Type 371137-3 2nd IF Converter

REF DESIG PREFIX A1A4

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision C2				
R1	Resistor, Fixed, Film: 910Ω, 5%, 1/8 W	2	CF1/8-910 OHMS/J	09021	
R2	Resistor, Fixed, Film: 6.8Ω, 5%, 1/8 W	1	CF1/8-6.8 OHMS/J	09021	
R3	Same as R1				
U4	Power Splitter	1	TSC-2-1	15542	

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1.4.1.1.3 Type 371285-3 Dual IF Amplifier

REF DESIG PREFIX A1A6

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 01				
FL1	Filter, Bandpass: 27 MHz	1	92544	14632	
FL2	Filter, Bandpass: 22 MHz	1	92543	14632	

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1.4.1.2 Type 794446-8 21.4 MHz IF Demodulator

REF DESIG PREFIX A2

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 02				
A2	AM/SSB/CW Demodulator	1	371575-2	14632	
A3	Video/Audio/COS	1	371571-5	14632	
A4	Digital Interface	1	371691-1	14632	
W3	Cable Assembly	1	371213-16	14632	
W3P1	Connector, Plug	1	IDS-16-G	55322	

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1.4.1.2.1 Type 371575-2 AM/SSB/CW Demodulator

REF DESIG PREFIX A2A2

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 05				
C1	Capacitor, Ceramic, Disc: 4700 pF, 10%, 50 V	37	8111-050-X7RO-472K	59660	
C11	Capacitor, Ceramic, Disc: .015 μ H, 10%, 100 V	1	8121-100-X7RO-153K	59660	
C33	Capacitor, Variable, Ceramic: 2.5-9, 100 V	1	518-002A2.5-9	59660	
C35	Capacitor, Ceramic, Monolithic: 9.1 pF, \pm .25, pF, 100 V	1	100-100-NPO-919C	51642	
C36	Capacitor, Ceramic, Disk: 1.8 pF, \pm .1 pF, 100 V	1	100-100-NPO-189B	59660	
C87	Capacitor, Ceramic, Chip: 1000 pF	1	841314-073	14632	
CR1	Diode	6	1N4446	80131	
CR2	Diode	6	5082-3188	28480	
CR3	Same as CR2				
CR4	Same as CR2				
L1	Coil, Fixed: .47 μ H	1	1025-12	99800	
L3	Coil, Fixed: 33 μ H	1	1025-56	99800	
L8	Coil, Fixed	1	1537-60	99800	
L13	Coil, Fixed	1	1025-50	99800	
R1	Resistor, Fixed, Film: 100 k Ω , 5%, 1/8 W	7	CF1/8-100K/J	09021	
R9	Resistor, Fixed, Film: 820 Ω , 5%, 1/8 W	2	CF1/8-820 OHMS	09021	
R14	Resistor, Fixed, Film: 680 Ω , 5%, 1/8 W	3	CF1/8-680 OHMS	09021	
R35	Resistor, Fixed, Film: 1.0 k Ω , 5%, 1/8 W	1	CF1/8-1.0K/J	09021	
R53	Resistor, Fixed, Film: 470 Ω , 5%, 1/8 W	2	CF1/8-470 OHMS	09021	
R97	Same as R53				
R112	Same as R14				
R120	Same as R1				

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1.4.1.2.2 Type 371571-5 Video/Audio/COS

REF DESIG PREFIX A2A3

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision 04				
C5	Not Used				
C9	Capacitor, Ceramic, Disk: 1 μ F, 20%, 50 V	1	8131-050-651-105M	59660	
L2	Not Used				
R5	Resistor, Fixed, Film: 4.7 k Ω , 5%, 1/8 W	8	CF1/8-4.7K/J	09021	
R10	Resistor, Fixed, Film: 1.0 k Ω , 5%, 1/8 W	3	CF1/8-1.0K/J	09021	
R13	Resistor, Fixed, Film: 4.7 Ω , 5%, 1/8 W	1	CF1/8-4.7 OHMS/J	09021	
R31	Same as R5				
R34	Same as R5				
R38	Same as R5				
R39	Same as R5				
R41 Thru R43	Same as R5				

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1.4.1.2.3 Type 371691-1 Digital Interface

REF DESIG PREFIX A2A4

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision C				
E1	Terminal, Forked	3	140-1941-02-01	71279	
J3	Connector, Plug	1	65500-116	22526	
R5	Resistor, Fixed, Film: 100 k Ω , 5%, 1/8 W	6	CF1/8-100K/J	09021	
R6	Resistor, Fixed, Film: 10 k Ω , 5%, 1/8 W	1	CF1/8-10K/J	09021	
R14	Resistor, Fixed, Film: 100 k Ω , 1%, 1/10 W	1	RNC55H1003FM	81349	
R18	Resistor, Fixed, Film: 47 k Ω , 5%, 1/8 W	1	CF1/8-47K/J	09021	
R25	Same as R5				
R27	Resistor, Fixed, Film: 1.0 k Ω , 5%, 1/8 W	1	CF1/8-1.0K/J	09021	
U7	Integrated Circuit	2	TL062BCP	01295	
Y1	Resonator, Sonic: 10 MHz	1	CSA10.00MT	72982	

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1.4.1.3 Type 794447-2 Synthesizer Module

REF DESIG PREFIX A3

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision F				
A4	2nd LO PLL	1	371162-2	14632	
A5	Auxillary, PLL, Phase Detector	1	371442-1	14632	
A9	1st LO Phase Detector/Divider	1	371762-1	13632	

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1.4.1.3.1 Type 371162-2 2nd LO PLL

REF DESIG PREFIX A3A4

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision B1				
C1	Capacitor, Ceramic, Disc: 2.2 μ F, 10%, 50 V	1	8141-050-651-225M	59660	
C5	Capacitor, Ceramic, Disc: 1.0 μ F, 20%, 50 V	4	8131-050-651-105M	59660	
C10	Same as C5				
C12	Same as C5				
C13	Same as C5				
CR1	Not Used				
CR2	Not Used				
R1	Resistor, Fixed, Film: 200 Ω , 5%, 1/8W	1	CF1/8-200 OHMS/J	09021	
R6	Resistor, Fixed, Film: 10 k Ω , 5%, 1/8W	2	CF1/8-10K/J	09021	
R9	Not Used				

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1.4.1.3.2 Type 371442-1 AUX/PLL Phase Detector

REF DESIG PREFIX A3A5

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision A				
C2	Capacitor, Ceramic, Disc: 1 μ F, 20%, 50 V	8	8131-050-651-105M	59660	
C3	Capacitor, Ceramic, Disc: 47 μ F, 20%, 50 V	2	34452-1	14632	
C6	Capacitor, Ceramic, Monolithic: 470 pF, 5%, 100 V	1	8121-100-COGO-471J	59660	
C9	Capacitor, Ceramic, Disc: .1 μ F, 20%, 100 V	1	8131M100-651-104M	59660	
C11	Same as C2				
CR1	Diode	1	1N4446	80131	
CR2 Thru CR5	Not Used				
R6	Resistor, Fixed, Film: 470 k Ω , 5%, 1/8 W	1	CF1/8-470K/J	09021	
R7	Resistor, Fixed, Film: 1.2 k Ω , 5%, 1/8 W	1	CF1/8-1.2K/J	09021	
R8	Resistor, Fixed, Film: 1.5 k Ω , 5%, 1/8 W	1	CF1/8-1.5K/J	09021	
R10	Resistor, Fixed, Film: 15 k Ω , 5%, 1/8 W	1	CF1/8-15K/J	09021	
R11	Resistor, Fixed, Film: 10 k Ω , 5%, 1/8 W	2	CF1/8-10K/J	09021	
R12	Same as R11				
R14	Resistor, Fixed, Film: 100 Ω , 5%, 1/8 W	1	CF1/8-100 OHMS/J	09021	
R15	Resistor, Fixed, Film: 120 k Ω , 5%, 1/8 W	1	CF1/8-120K/J	09021	
U4	Integrated Circuit	1	LM358N	27014	
U7	Integrated Circuit	1	DG301ACJ	17856	
U8	Integrated Circuit	1	MM74C221N	27014	

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1.4.1.3.3 Type 371762-1 1st LO Phase Detector/Divider

REF DESIG PREFIX A3A9

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision B				
C1	Capacitor, Ceramic, Disc: 1 μ F, 20%, 50 V	6	8131-050-651-105M	59660	
C4	Capacitor, Ceramic, Disc: 1 μ F, 20%, 50 V	3	34475-1	14632	
C6	Same as C1				
C21	Capacitor, Ceramic, Monolithic: 330 pF, 5%, 100 V	1	8121-100-COGO-331J	59660	
C22	Same as C4				
CR2	Not Used				
CR3	Not Used				
CR4	Diode	2	1N4446	80131	
CR5	Same as CR4				
R1	Resistor, Fixed, Film: 22 k Ω , 5%, 1/8 W	1	CF1/8-22K/J	09021	
R3	Resistor, Fixed, Film: 12 k Ω , 5%, 1/8 W	4	CF1/8-12K/J	09021	
R4	Resistor, Fixed, Film: 510 k Ω , 5%, 1/8 W	1	CF1/8-510K/J	09021	
R7	Same as R3				
R8	Same as R3				
R20	Same as R3				

SUPPLEMENT

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1.4.1.4 Type 371037-4 Keyboard Assembly

REF DESIG PREFIX A8

REF DESIG	DESCRIPTION	QTY PER ASSY	MANUFACTURER'S PART NO.	MFR. CODE	RECM VENDOR
	Revision B				
S2	Switch, PB "BW"	1	371126-50	14632	
S7	Switch, PB "COS"	1	371126-48	14632	
S8	Switch, PB "AFC"	1	371126-47	14632	
S9	Switch, PB "SLIDEBACK"	1	371126-46	14632	
S11	Switch, PB "R/LCL"	1	371126-44	14632	
S12	Switch, PB "TUNE, RES"	1	371126-49	14632	

NOTES

1. UNLESS OTHERWISE SPECIFIED,
 - a) FEED-THRU CAPACITORS ARE 100pF.
 - b) INDUCTANCE IS 1000 uH.
 - c) RESISTANCE IS IN OHMS ±5%, 1/4W
2. FOR DIFFERENT DASH NUMBERS, SEE TABULATION.

TABULATION

TYPE NUMBER	A4 PART NUMBER	A6 PART NUMBER	A1 PART NUMBER	J2
794445-1	371137-1	371285-1	371140-1	SM
794445-2	371137-2	371285-2	371140-1	SM
794445-3	371137-3	371285-2	371140-1	IF
794445-4	371137-2	371285-2	371140-3	SM
794445-5	371137-2	371285-3	371140-4	IF

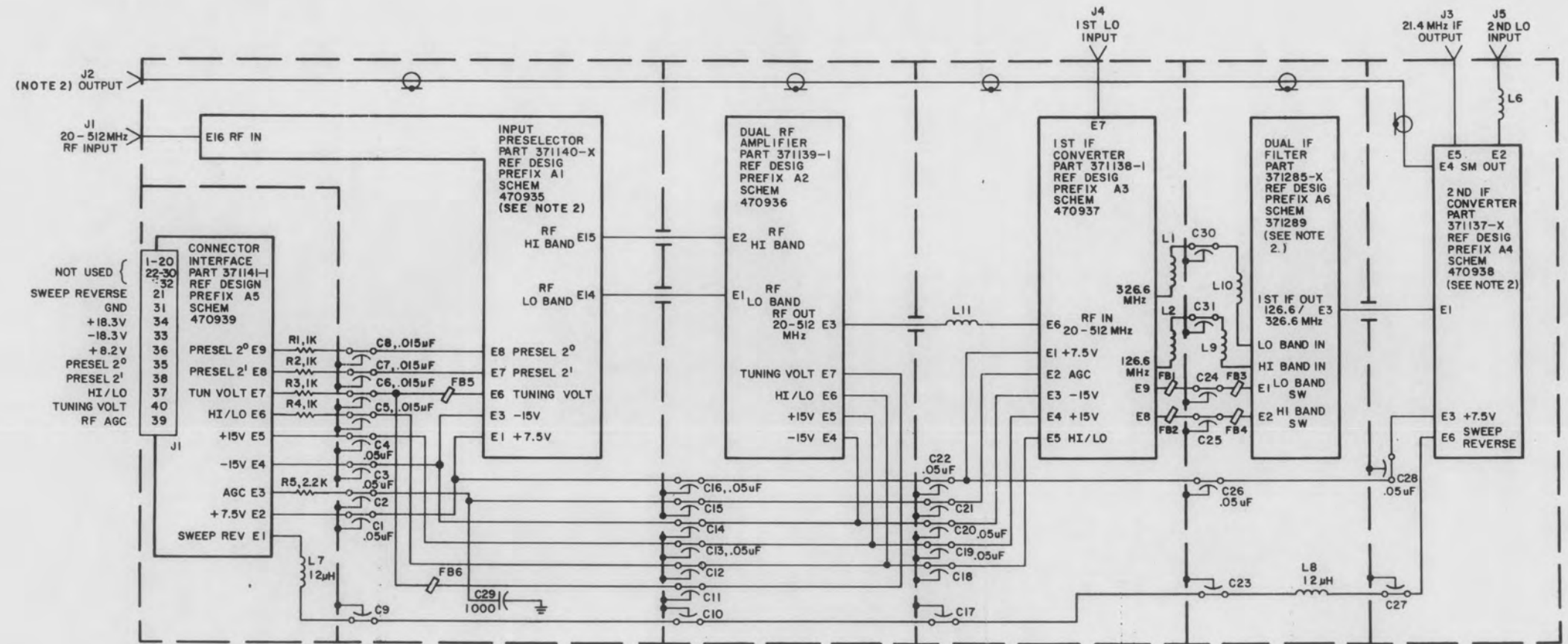
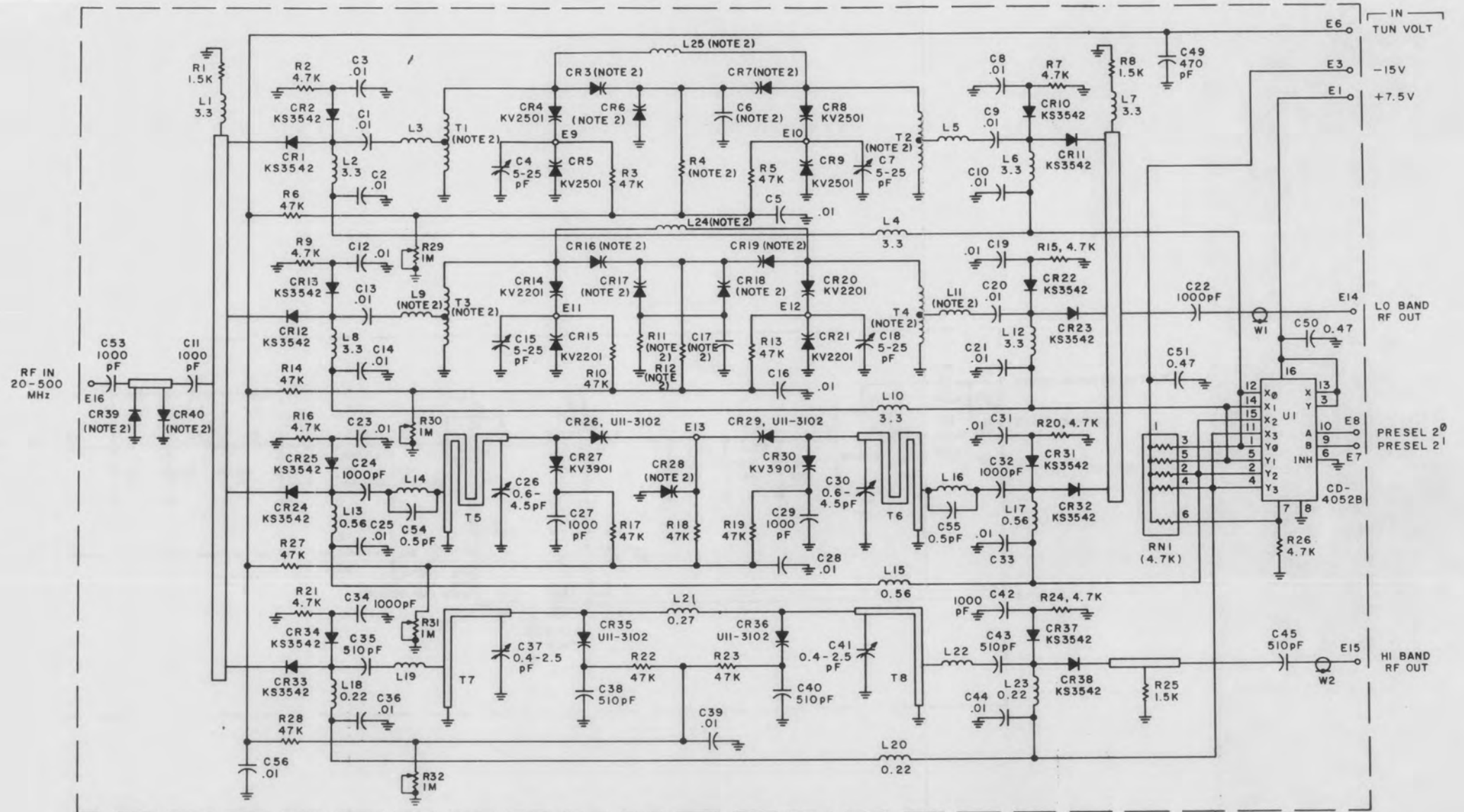


Figure 1-1. Type 794445-5, RF Tuner 20-512 MHz (A1), Schematic Diagram 470932 (J)

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- NOTES:
1. UNLESS OTHERWISE SPECIFIED
 - a) RESISTANCE IS IN OHMS, ±5% 1/8W.
 - b) CAPACITANCE IS IN μF.
 - c) INDUCTANCE IS IN μH.
 2. FOR DASH NO. DIFFERENCES SEE TABULATION.



DASH NO.	CR39	CR40	CR18	CR6	CR3,CR7	CR16,CR17,CR19,CR28	R4,11,12	L24	L25	C6	C17	T1	T2	T3	T4	L9, L11
371140-1	NOT USED	NOT USED	U11-3102	KV3901	KV3901	U11-3102	47K	NOT USED	NOT USED	1.5pF	68pF	-2	-3	-4	-5	-7
371140-2	UM9401	5082-2800	U11-3102	KV3901	KV3901	U11-3102	47K	NOT USED	NOT USED	1.5pF	68pF	-2	-3	-4	-5	-7
371140-3	NOT USED	NOT USED	NOT USED	U11-3102	KV3901	U11-3102	47K	NOT USED	NOT USED	1.5pF	68pF	-2	-3	-4	-5	-7
371140-4	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	1025-18	1025-32	NOT USED	NOT USED	-36	-37	-38	-39	-35

Figure 1-2. Type 371140-4, Preselector (A1A1), Schematic Diagram 470935 (F)

- NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 a) RESISTANCE IS IN OHMS, 5%, 1/8W.
 b) CAPACITANCE IS IN pF.
 c) INDUCTANCE IS IN μH.
 2. DIFFERENCES IN TYPE NUMBERS IS SHOWN
 IN TABULATION.

TABULATION				
TYPE	U4	R1	R2	R3
371137-1	DIR CPLR 10dB 10C 10-1	300	18	300
371137-2	DIR CPLR 10dB 10C 10-1	300	18	300
371137-3	POWER SPLITTER TSC 2-1	910	6.8	910

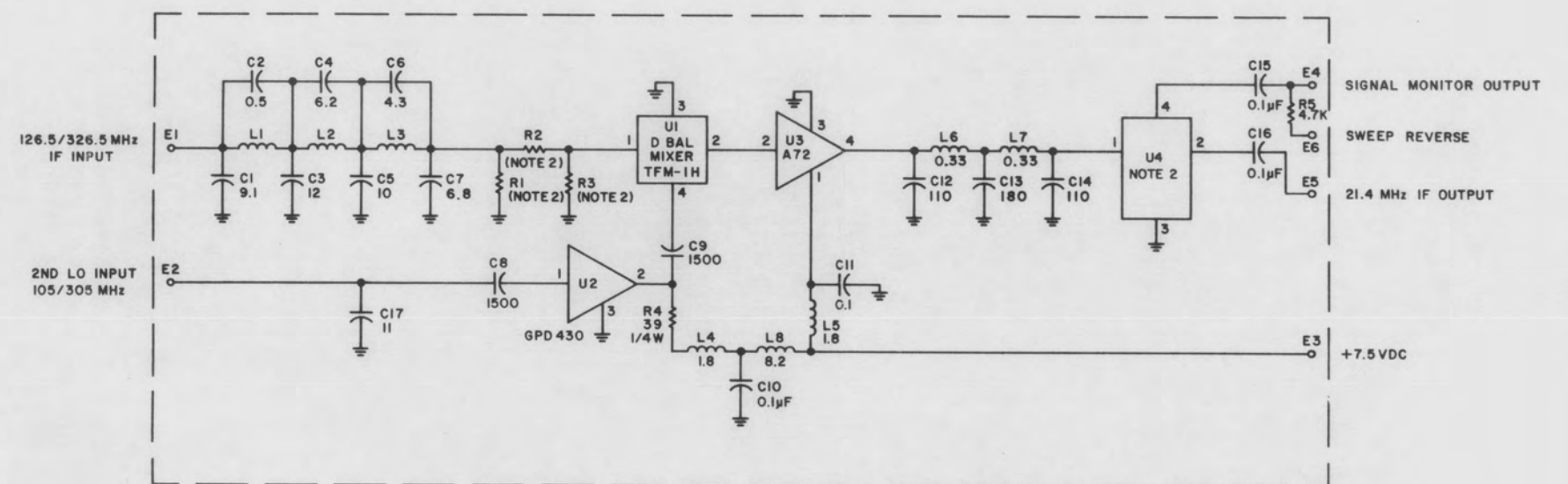


Figure 1-3. Type 371137-3, 2nd IF Converter (A1A4), Schematic Diagram 470938 (D)

- NOTES:
1. UNLESS OTHERWISE SPECIFIED:
 - a) RESISTANCE IS IN OHMS, $\pm 5\%$, 1/8W.
 - b) CAPACITANCE IS IN pF.
 - c) INDUCTANCE IS IN μ H.
 2. FOR DIFFERENT DASH NUMBERS, SEE TABULATION.

TYPE NO.	FL1		FL2	
	PART	BW	PART	BW
371285-1	92448	16.3MHz	92449	6.32 MHz
371285-2	92448	16.3MHz	92452	13.5 MHz
371285-3	92544	27MHz	92543	22 MHz

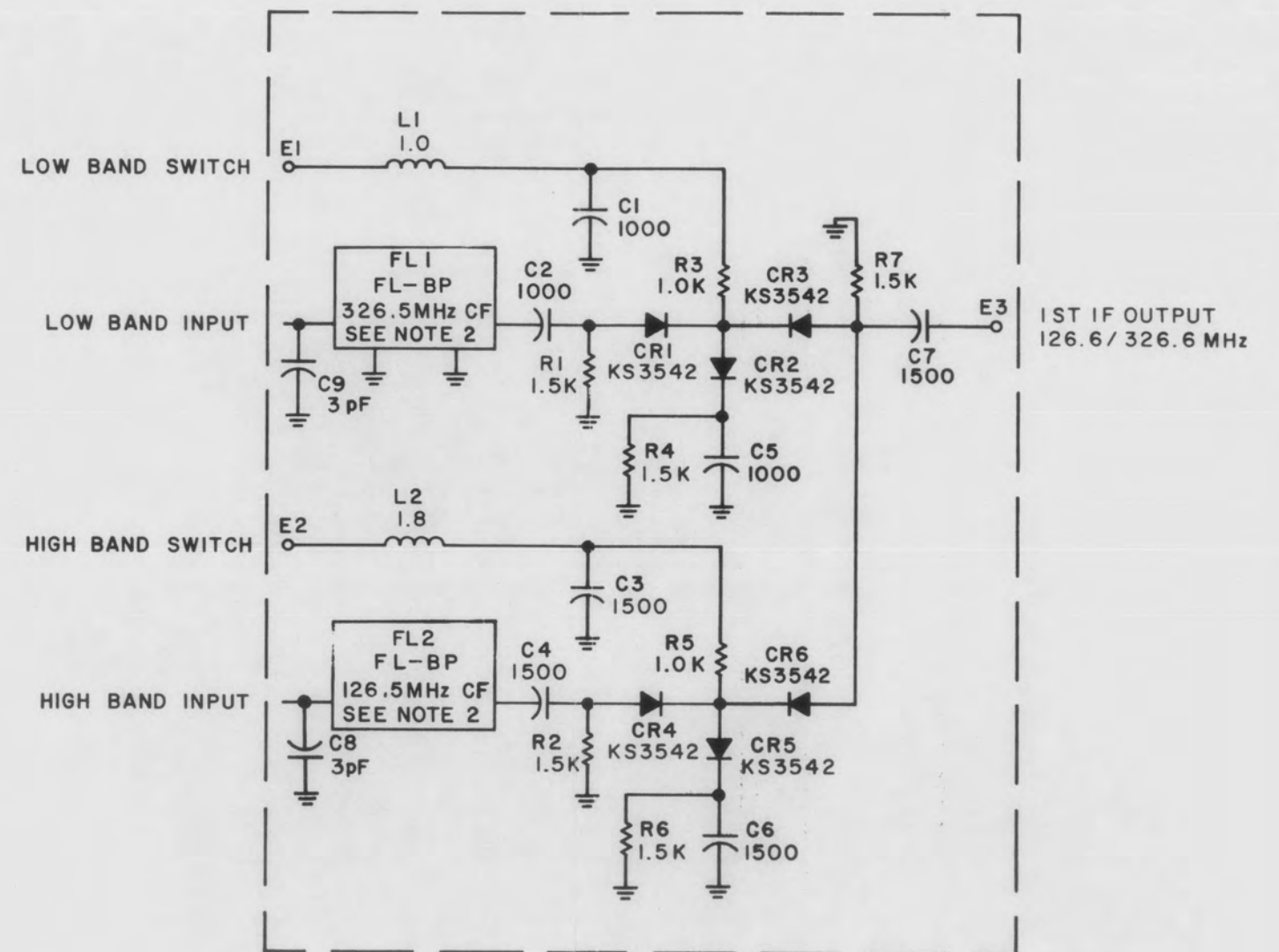


Figure 1-4. Type 371285-3, Dual IF Filter (A1A6), Schematic Diagram 371289 (G)

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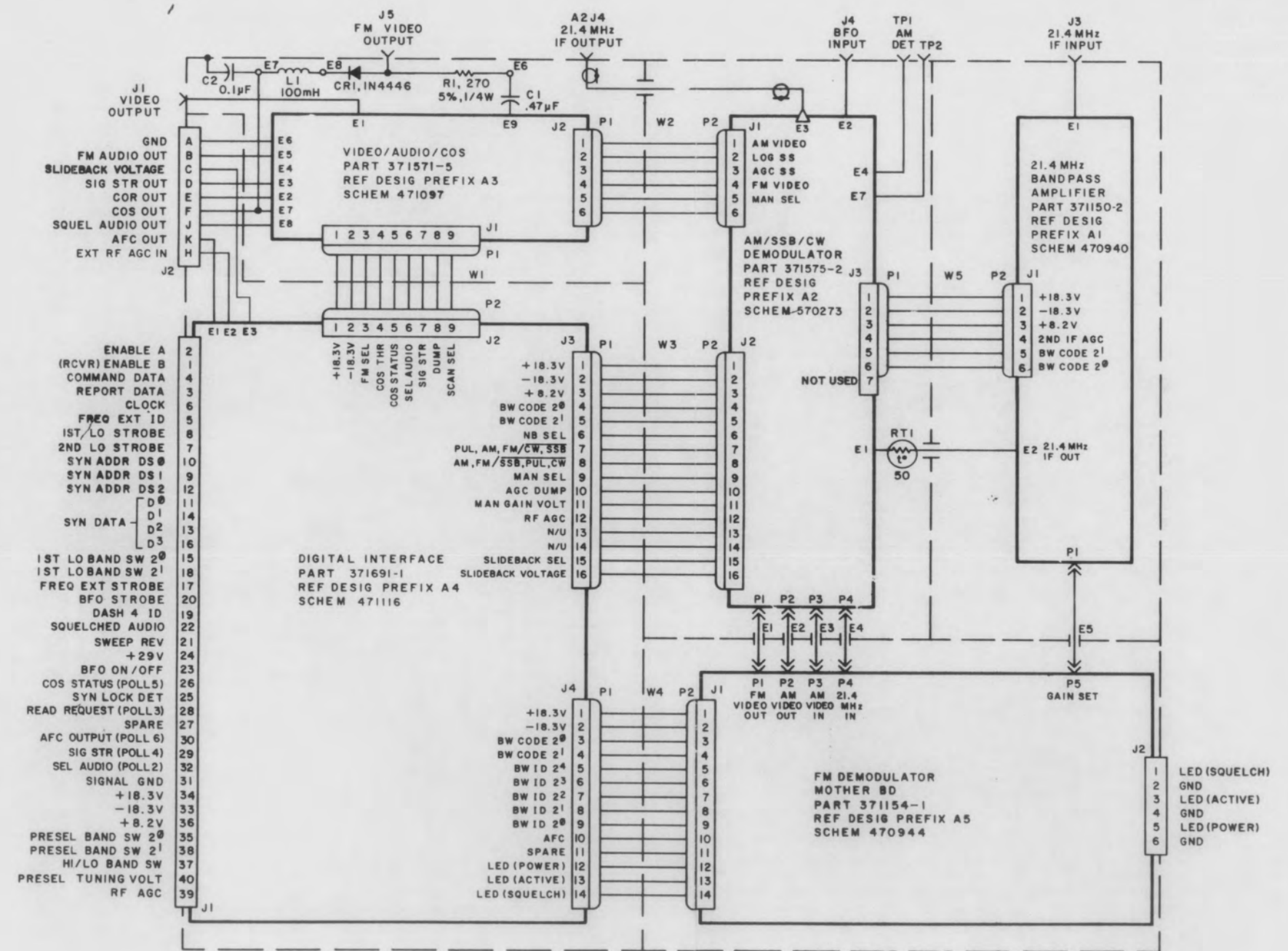


Figure 1-5. Type 794446-8, 21.4 MHz IF Demodulator (A2), Schematic Diagram 481593 (01)

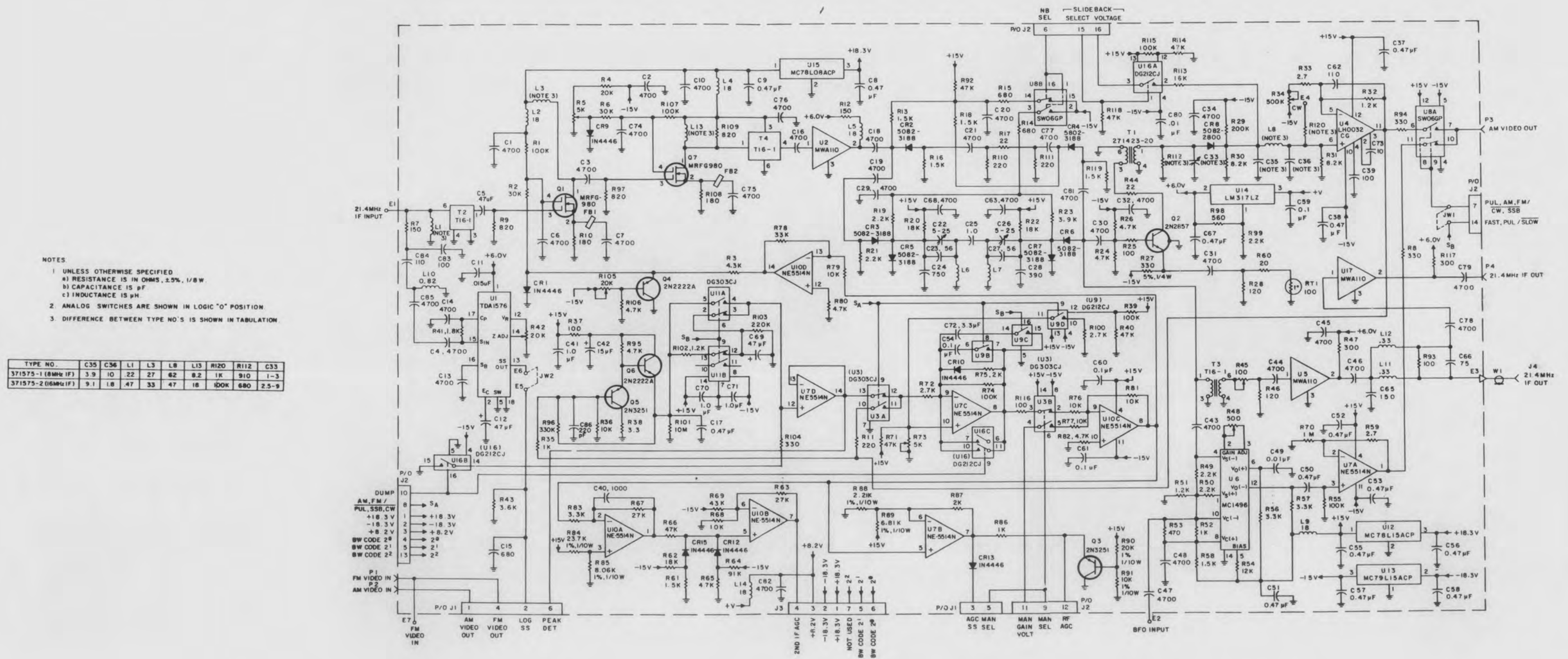
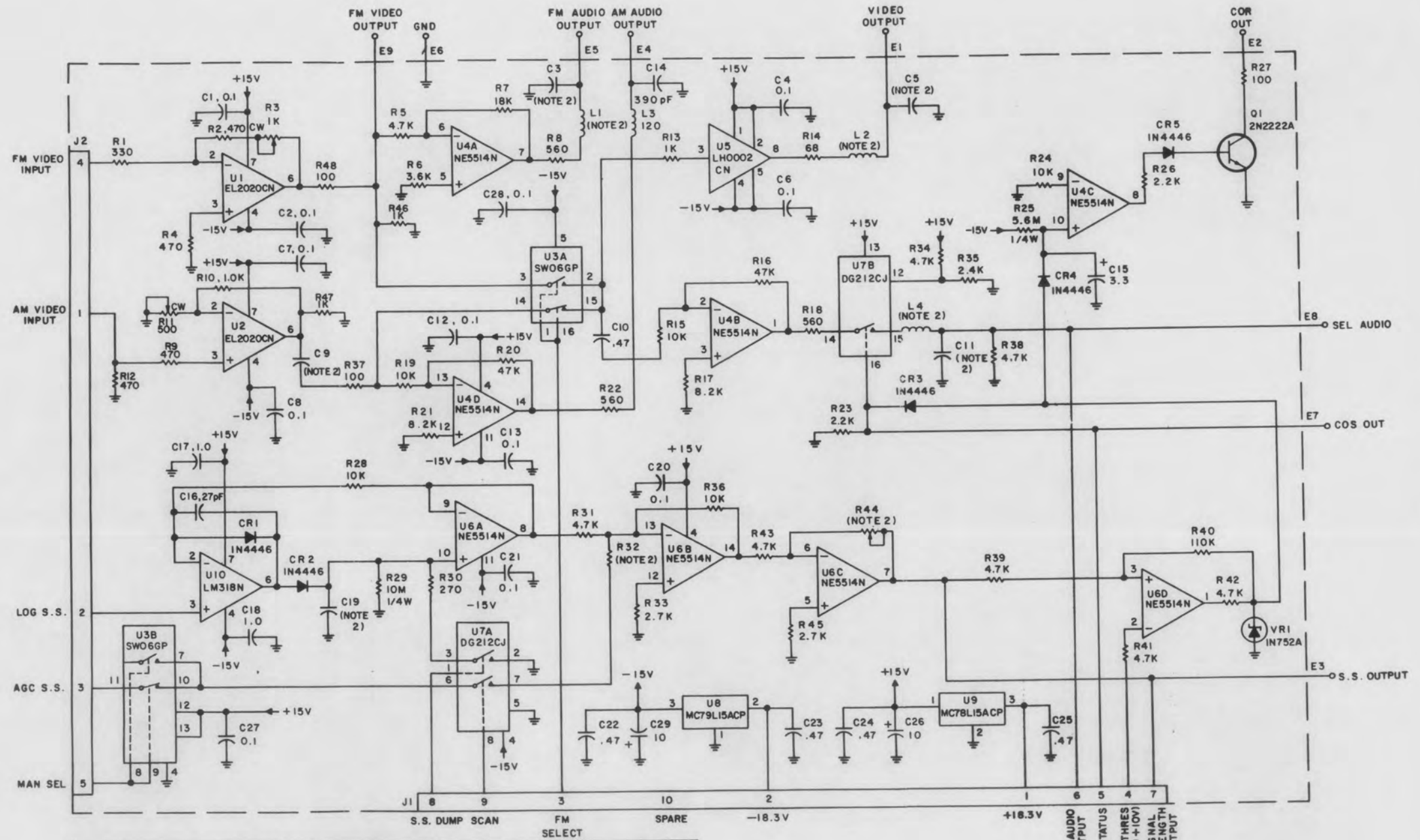


Figure 1-6. Type 371575-2, AM/SSB/CW Demodulator (A2A2), Schematic Diagram 570273 (K)

- NOTES:
1. UNLESS OTHERWISE SPECIFIED:
 - a) RESISTANCE IS IN OHMS, ±5%, 1/8W.
 - b) CAPACITANCE IS pF.
 - c) INDUCTANCE IS μH.
 2. SEE TABULATION FOR DIFFERENCE IN DASH NUMBERS.
 3. SWITCHES ARE SHOWN IN LOGIC "0" STATE.



TABULATION											
DASH NO.	C3	L1	C19	R32	R44	J1	C11	L4	C5	L2	C9
371571-1	390 pF	120	.015	13K	10K	9 PIN	390pF	120	240	1.5	2.2
371571-2	0.1	68mH	.015	13K	20K	9 PIN	0.1	68mH	240	1.5	2.2
371571-3	0.1	68mH	NOT USED	NOT USED	20K	9 PIN	0.1	68mH	240	1.5	2.2
371571-4	390pF	120	.015	13K	10K	10 PIN	390pF	120	240	1.5	2.2
371571-5	390pF	120	.015	13K	10K	9 PIN	390pF	120	NOT USED	JW1	1.0

Figure 1-7. Type 371571-5, Video/Audio/COS (A2A3), Schematic Diagram 471097 (F)

NOTES:
UNLESS OTHERWISE SPECIFIED:
a) RESISTANCE IS IN OHMS, ±5%, 1/8W.
b) CAPACITANCE IS IN µF.

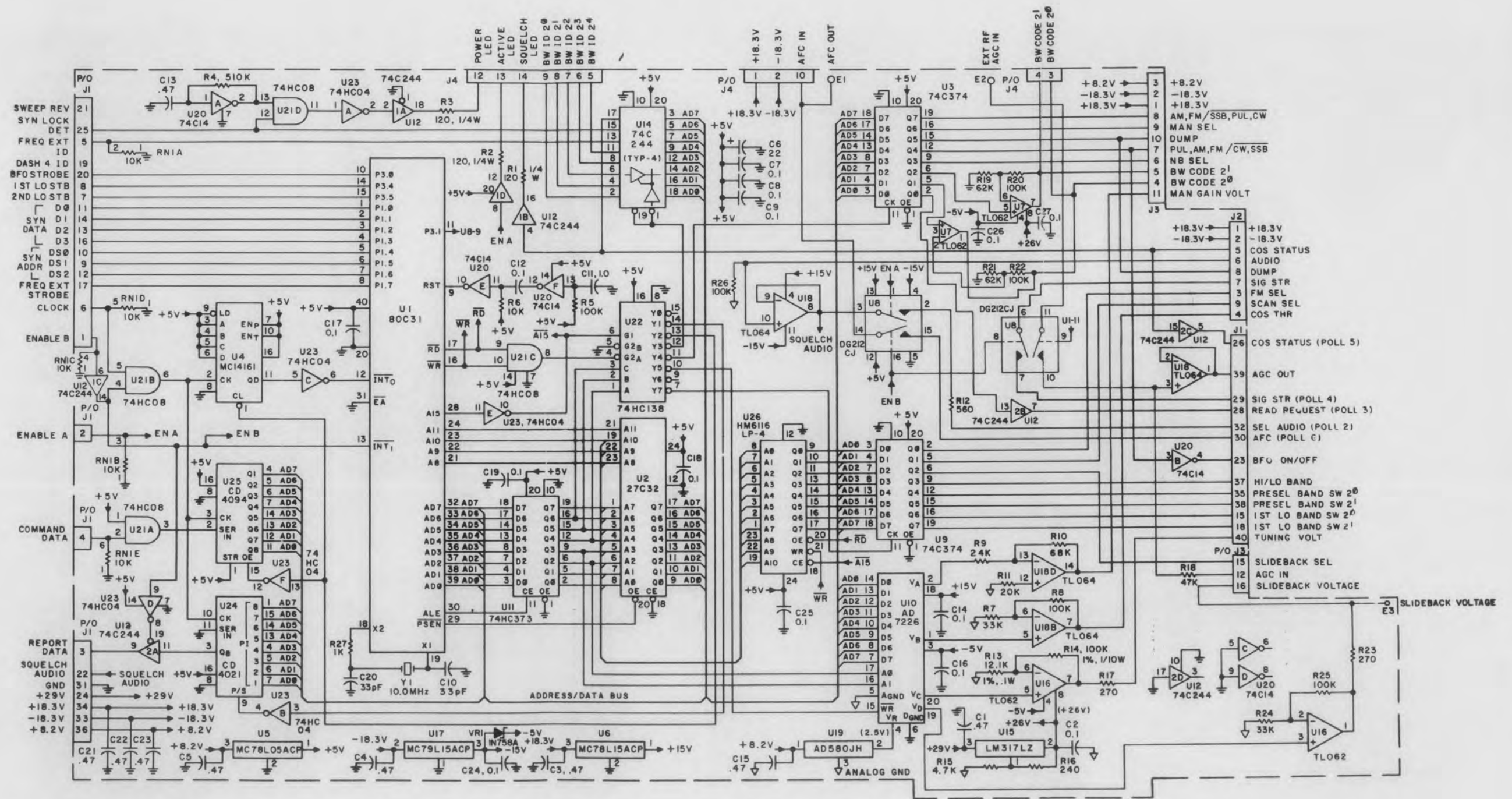
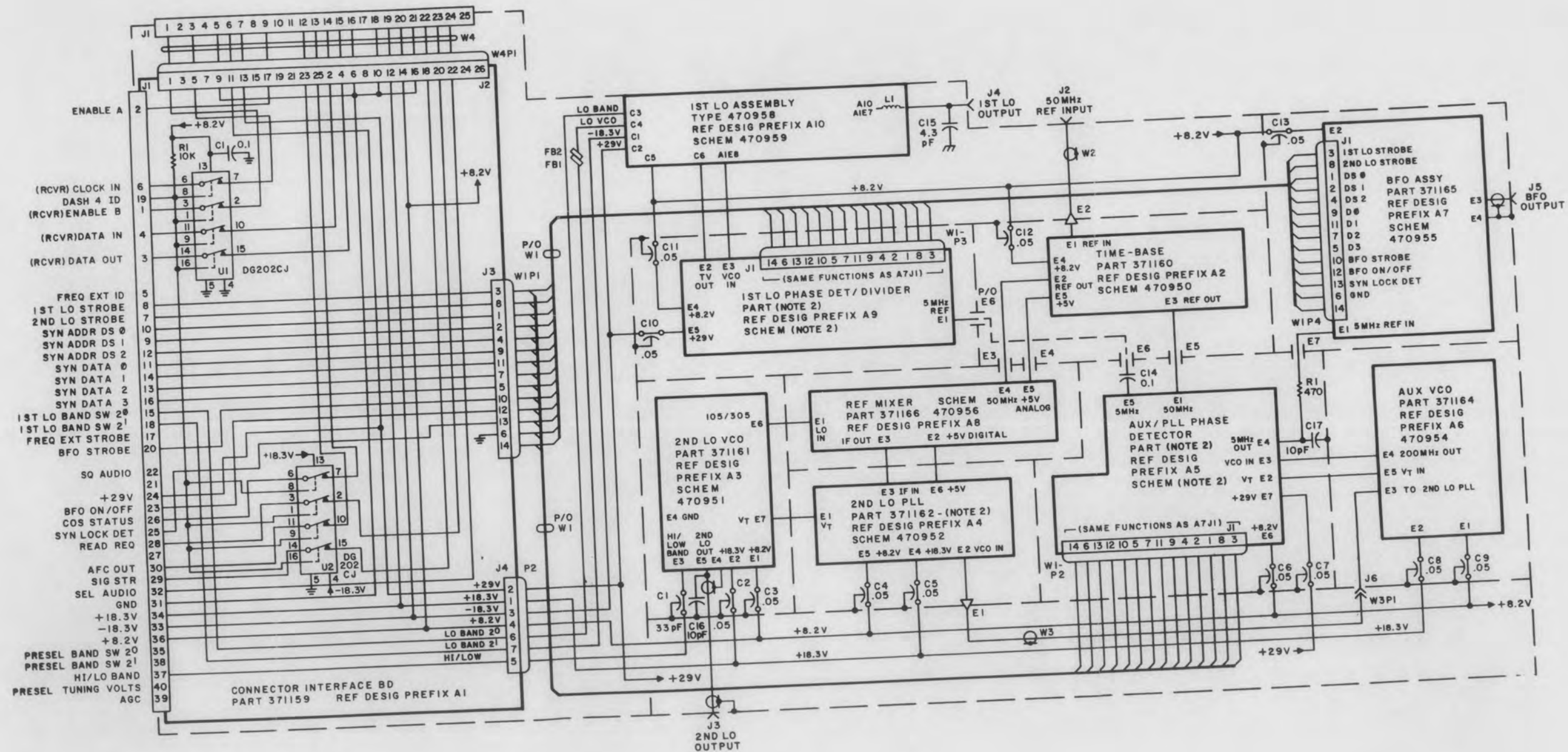


Figure 1-8. Type 371691-1, Digital Interface (A2A4), Schematic Diagram 471116 (A)

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NOTES:
 1. UNLESS OTHERWISE SPECIFIED,
 a) CAPACITANCE IS IN μ F.
 b) RESISTANCE IS IN OHMS, 1%, 1/8W.
 2. DIFFERENCE BETWEEN TYPE NOS SEE
 TABULATION BLOCK.

TYPE NO.	A5	A5 SCHEM	A9	A9 SCHEM	A4
794447-1	371163	470953	371167-1	470957	371162-1
794447-2	371442	471340	371782	471372	371162-2
794447-3	371163	470953	371167-2	470957	371162-1

Figure 1-9. Type 794447-2, Synthesizer Module (A3), Schematic Diagram 470934 (M)

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NOTES:

1. UNLESS OTHERWISE SPECIFIED:
 - a. RESISTANCE IS IN OHMS, ±5%, 1/8W
 - b. CAPACITANCE IS IN pF
 - c. INDUCTANCE IS IN μH
2. DIFFERENCE BETWEEN TYPES SEE TABULATION BLOCK.

TYPE NO	C1	CR1	CR2	R1	R9
371162-1	1.0μF	1N4449	1N4449	2K	10K
371162-2	2.2μF	NOT USED	NOT USED	200	NOT USED

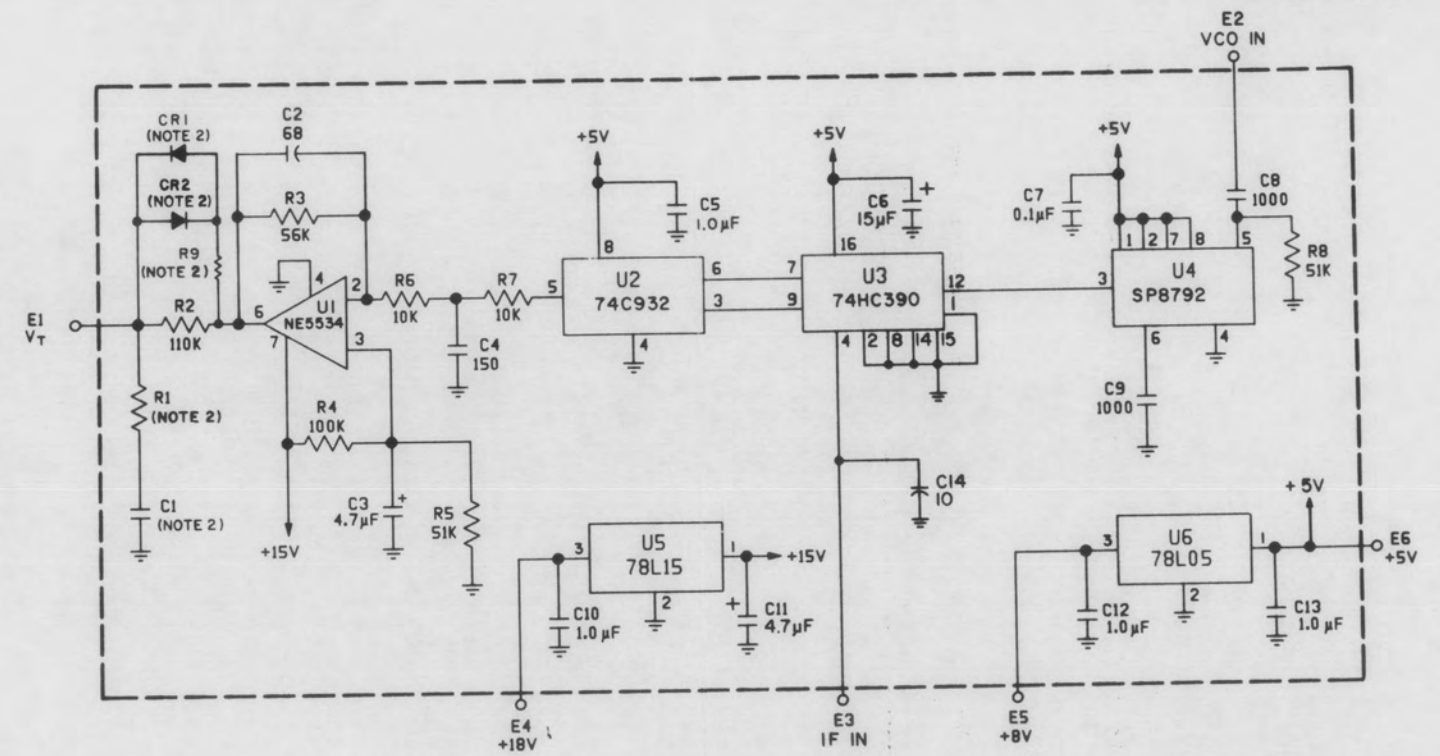


Figure 1-10. Type 371162-2, 2nd LO PLL (A3A4), Schematic Diagram 470952 (D)
1-37

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NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 a. RESISTANCE IS IN OHMS, 5%, 1/8 W.
 b. CAPACITANCE IS IN μ F.

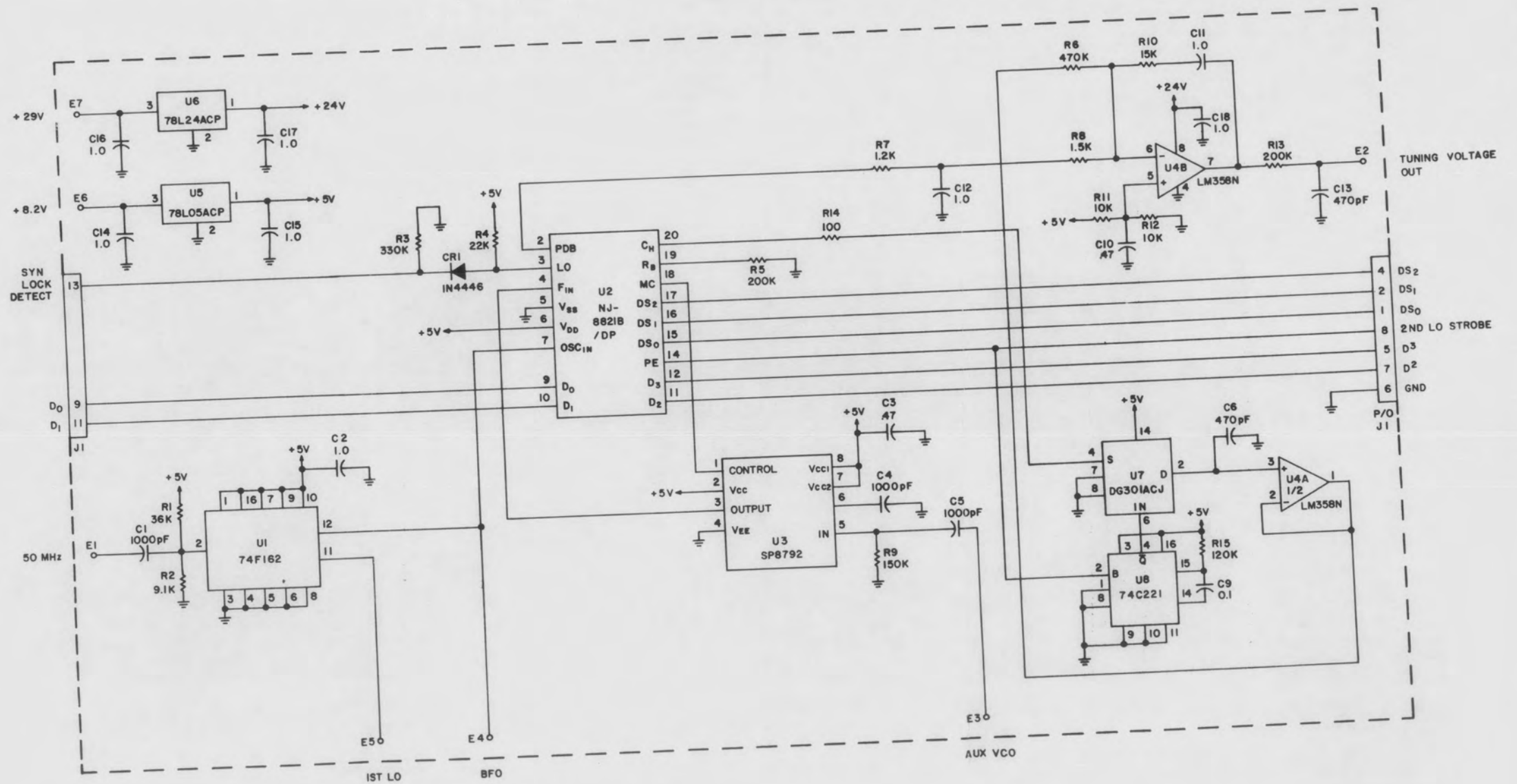


Figure 1-11. Type 371442-1, Auxiliary PLL Phase Detector (A3A5), Schematic Diagram 471340 (A)

NOTES:
 1. UNLESS OTHERWISE SPECIFIED:
 a. RESISTANCE IS IN OHMS, ±5%, 1/8 W.
 b. CAPACITANCE IS IN pF

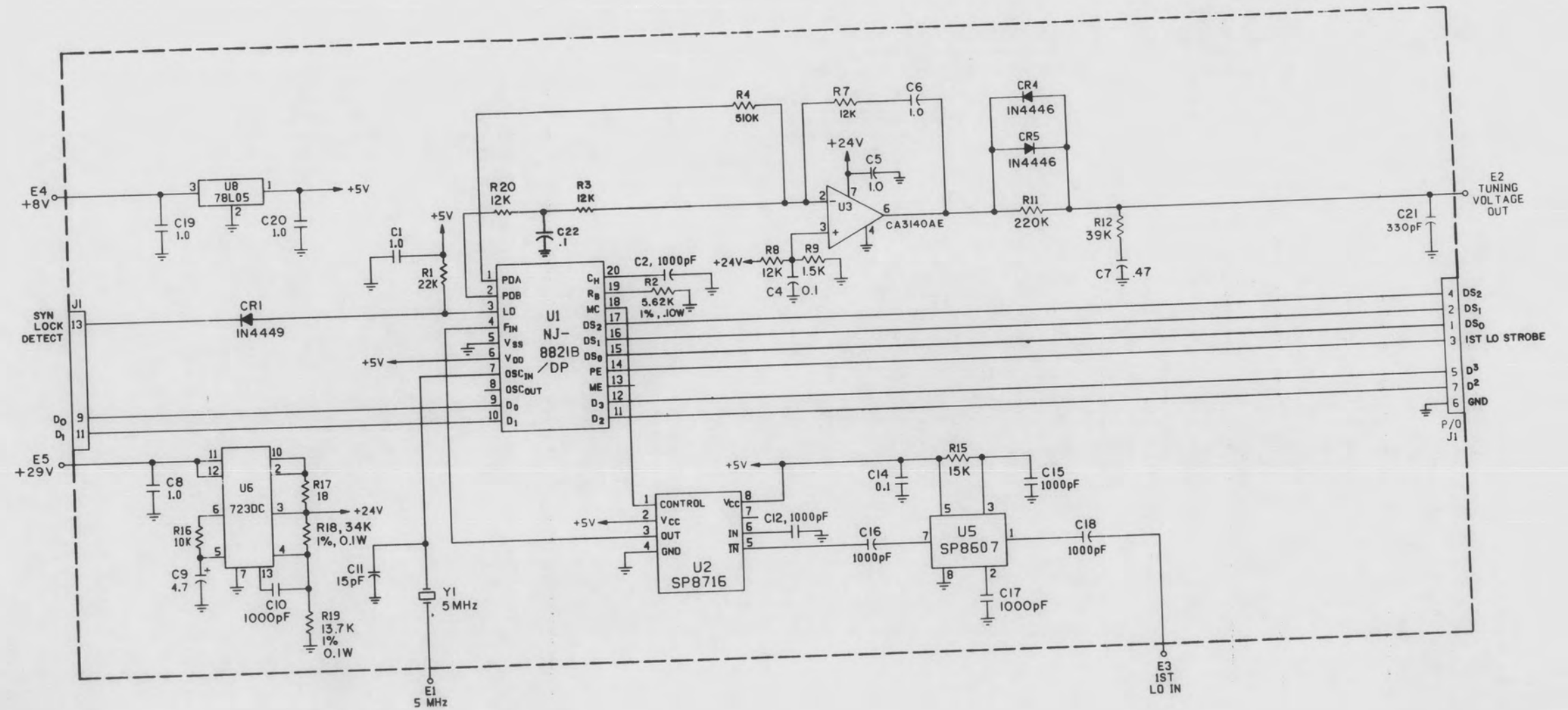


Figure 1-12. Type 371762-1, 1st LO Phase Detector (A3A9), Schematic Diagram 471372 (B)

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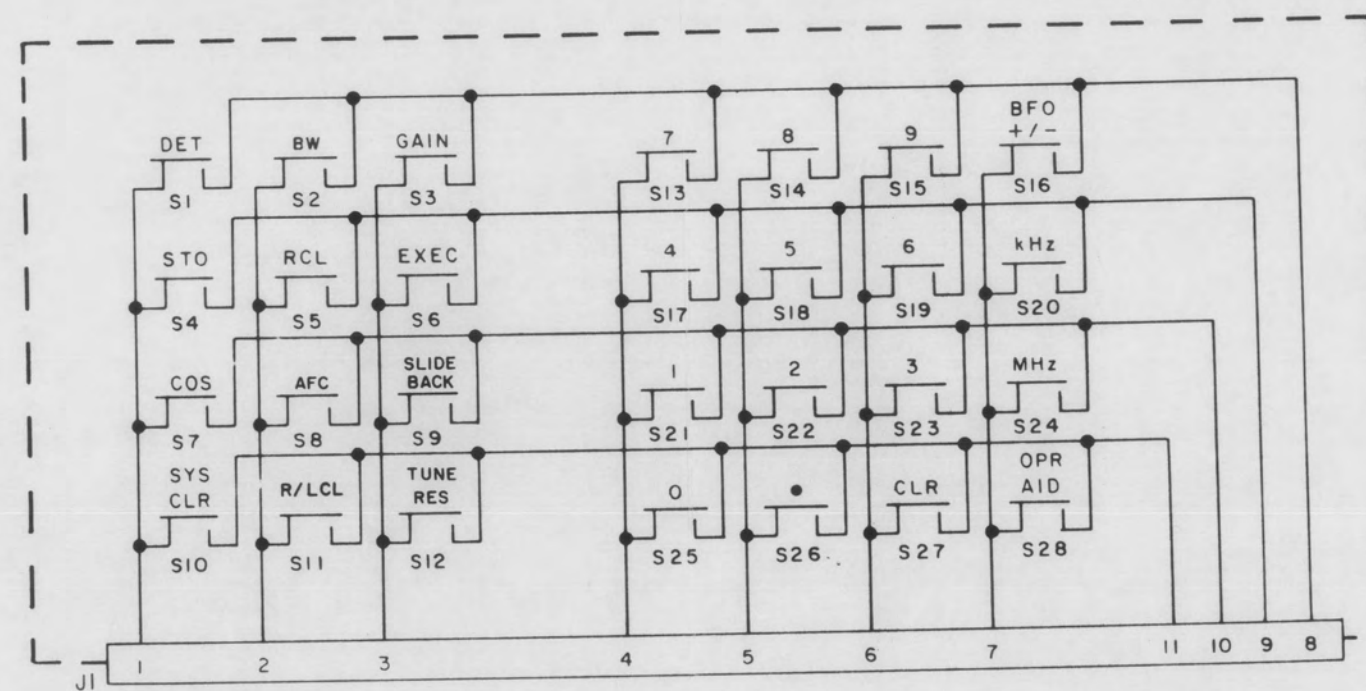
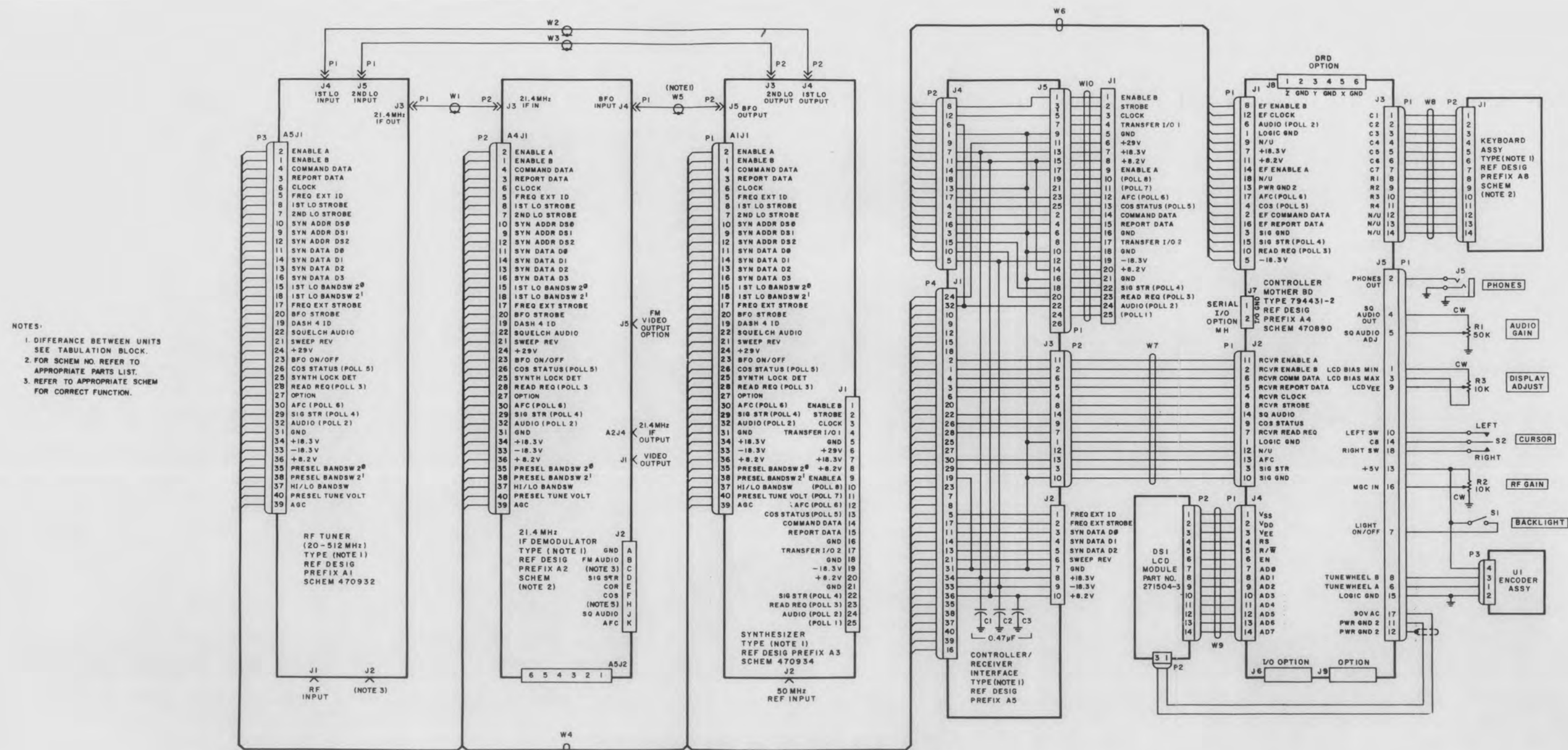


Figure 1-13. Type 371037-4, Keyboard Assembly (A8), Schematic Diagram 371742 (B)

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NOTES:
 1. DIFFERENCE BETWEEN UNITS SEE TABULATION BLOCK.
 2. FOR SCHEM NO. REFER TO APPROPRIATE PARTS LIST.
 3. REFER TO APPROPRIATE SCHEM FOR CORRECT FUNCTION.

UNIT NO.	A1	A2	A3	A8	W5	A5
WJ-8628-4-1	794445-4	794446-3	794447-1	371037-2	USED	794457-1
WJ-8628-4-2	794445-2	794446-6	794447-1	371037-2	USED	(SAT-1) 794457-1
WJ-8628-4-3	794445-1	794446-1	794447-1	371037-2	USED	794457-1
WJ-8628-4-4	794445-1	794446-1	794447-1	371037-2	USED	794457-1
WJ-8628-4-5	794445-3	794446-4	794447-2	371037-4	NOT USED	794457-1
WJ-8628-4-6	794445-5	794446-8	794447-2	371037-4	NOT USED	794457-1

Figure 1-14. Type WJ-8628-4-6 VHF/UHF Receiver, Main Chassis Schematic Diagram 570404 (C)