



Rockwell
International

supplement

HF-8054A Receiver (622-3475-210)

Collins Defense Communications Division

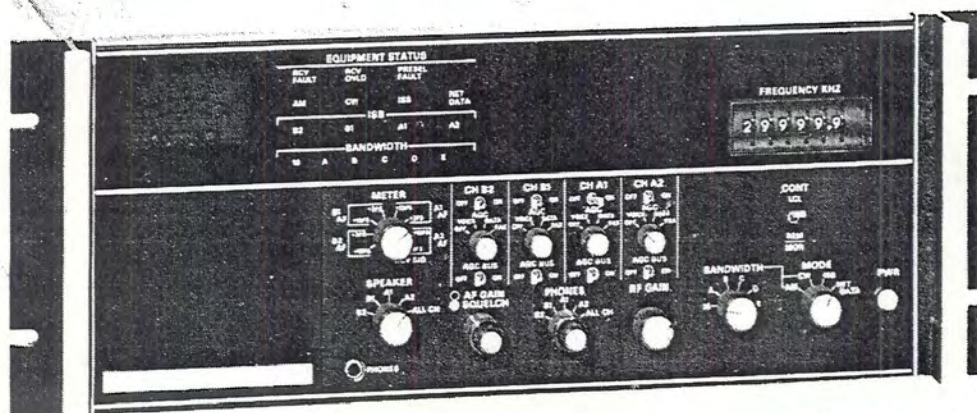
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GENERAL

The purpose of this supplement is to provide information for HF-8054A Receiver, Rockwell-Collins part number 622-3475-210 (figure 1). When used with the HF-8054() Receiver Instruction Book (523-0770698), this supplement provides the user with a complete instruction book on the HF-8054A Receiver (622-3475-210).



TPA-4227-017

HF-8054A Receiver (622-3475-210)
Figure 1

FRONT MATTER

In the list of instruction books on the title page, place the following entry to correspond with the physical placement of the supplement:

HF-8054A Receiver (622-3475-210) Supplement

523-0773477

INTRODUCTION

The introduction is applicable to the HF-8054A Receiver (622-3475-210) with the exception that the receiver is a 2-channel receiver, and with the addition of the following design feature.

- The HF-8054A Receiver (622-3475-210) is capable of utilizing: 1) serial input data from a remote control to control all receiver functions, 2) parallel binary coded decimal data for frequency control, 3) parallel binary weighted data for rf gain control, 4) parallel coded-frequency input data for frequency control, or 5) the front panel controls while in the local mode.

DESCRIPTION (523-0770699-002218)

1. GENERAL

Add the following paragraph between the first and second paragraphs.

The HF-8054A Receiver (622-3475-210) provides reception of AM, CW, and 2-channel ISB signals over the frequency range of 1.6000 to 29.9999 MHz in 1-Hz steps. The HF-8054A Receiver (622-3475-210) may be controlled locally or controlled remotely using a compatible remote control. The frequency of the HF-8054A Receiver (622-3475-210) may be additionally controlled by parallel data inputs from a compatible parallel formatted remote control or processor.

2. EQUIPMENT SUPPLIED/CONFIGURATION

Replace table 1 with table 1 provided.

Table 1. Equipment Supplied/Configuration.

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
Main chassis	634-8177-001	X	X	X	
Bottom cover	634-8179-001	X	X	X	
Top cover	634-8181-002	X	X	X	
Rear panel	642-2462-001	X	X		
Rear panel	652-7268-001			X	
Cable assembly W1	634-8226-001	X	X		Interconnects TB1.
	634-8226-002			X	
Cable assembly W2	634-8227-001	X	X		Interconnects TB2.
	634-8227-002			X	
Cable assembly W3	634-8225-001	X	X	X	Interconnects J47, TB3, and audio connections (speaker cable).
Rf cable assembly J40/J22	637-1525-002	X	X	X	Interconnects J40 and J22 (RCV ANT).
Rf cable assembly J38/J23	637-1525-003	X	X	X	Interconnects J38 and J23 (CH B2 IF OUT).
Rf cable assembly J37/J26	637-1525-003	X	X	X	Interconnects J37 and J26 (CH A2 IF OUT).
Rf cable assembly J36/J24	637-1525-003	X	X	X	Interconnects J36 and J24 (CH B1 IF OUT).
Rf cable assembly J35/J25	635-1525-003	X	X	X	Interconnects J35 and J25 (CH A1 IF OUT).
Rf cable assembly A35J2/J28	652-7398-001			X	Interconnects A35J2 to J28.
Ribbon cable assembly	652-7408-001			X	Interconnects A31P5 to A11P2 and A31P5 to A12P2.
Rf cable assembly J41/J42	637-1526-002	X	X	X	Interconnects J41 and J42 (9.45-MHz receive if).
Rf cable assembly, 450-kHz if	642-2454-001	X	X	X	Interconnects J50, J51, J52, and J53 (450-kHz if from channel A1 if).
Rf cable assembly J34/J59	637-1526-003			X	Interconnects J34 and J59 (450-kHz if from vbfo).

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
Rf cable assembly J32/J58	637-1526-003				Interconnects J32 and J58 (9.9-MHz if from AFC).
Rf cable assembly, AFC	646-6534-001				Interconnects J50, J51, J52, J53, and J56 (450-kHz if from channel A1 for AFC option).
Power supply A1	635-9649-001	X	X	X	Input can be switched for 100, 115, 215, or 230 V ac (47 to 420 Hz).
Front panel assembly A2	634-8200-001	X	X		10-Hz tuning
	634-8200-002				100-Hz tuning, frequency display, AGC = OFF, VOICE, DATA, FAX
	634-8200-003				100-Hz tuning, frequency display, AFC, vbfo
	634-8200-004				100-Hz tuning, frequency display
	634-8200-005			X	10-Hz tuning, channel A2 and B2 if deleted, vbfo, AGC = VOICE, FAX, DATA.
LED status display A2A1	635-0825-013	X	X	X	
Switch mounting board A2A2	638-6873-001			X	AGC = OFF, VOICE, DATA, FAX
	638-6873-002	X	X		AGC = OFF, FAST, MED, SLOW
Frequency switchboard A2A3	635-0830-001				100-Hz tuning
	635-0830-002	X	X	X	10-Hz tuning
Frequency display A2A5	637-1781-006				100-Hz display
	637-1781-007				10-Hz display
	637-1781-008			X	
Frequency display cable A2W1	634-8289-001			X	Interconnects A2P8, A2P2, and cable assembly 634-8210-001 (P2).

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
AFC A3	642-3224-001				
	642-3224-002				
Vbfo A4	638-6067-002			X	
Channel B2 if A5	638-6975-006	X	X		Same as 638-6975-003 except has AGC decay time constants: FAST = 15 - 30 ms MED = 70 - 150 ms SLOW = 1 - 2 s
	638-6975-003				Includes 2.85-kHz LLSB if filter and CH B2 SSB audio detector. AGC decay time constants: VOICE = 1 - 2 s DATA = 15 - 30 ms FAX = 3 - 6 s
Channel A2 if A6	638-6975-005	X	X		Same as 638-6975-002 except has AGC decay time constants: FAST = 15 - 30 ms MED = 70 - 150 ms SLOW = 1 - 2 s
	638-6975-002				Includes 2.85-kHz UUSB if filter and CH A2 SSB audio detector. AGC decay time constants: VOICE = 1 - 2 s DATA = 15 - 30 ms FAX = 3 - 6 s
Channel B1 if A7	638-6975-004	X	X		Same as 638-6975-001 except has AGC decay time constants: FAST = 15 - 30 ms MED = 70 - 150 ms SLOW = 1 - 2 s
	638-6975-001			X	Includes 2.85-kHz LSB if filter and CH B1 SSB audio detector. AGC decay time constants: VOICE = 1 - 2 s DATA = 15 - 30 ms FAX = 3 - 6 s

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION												
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()														
			-001	-210													
Channel A1 if A8	638-6871-002	X	X		Same as 638-6871-001 except has AGC decay time constants: FAST = 15 - 30 ms MED = 70 - 150 ms SLOW = 1 - 2 s												
	638-6871-001			X	Includes 2.85-kHz USB and 16-kHz AM if filters and AM and CH A1 SSB audio detector. AGC decay time constants: VOICE = 1 - 2 s DATA = 15 - 30 ms FAX = 3 - 6 s												
Filter A8A2					Contains optional bandwidth filters in addition to those included on the channel B and/or channel A if cards. Filters (bandwidths in kHz) available on each filter card are as follows:												
					<table border="1"> <tr> <td>LSB</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> </tr> <tr> <td>FL2</td> <td>FL3</td> <td>FL4</td> <td>FL5</td> <td>FL6</td> <td>FL7</td> </tr> </table>	LSB	A	B	C	D	E	FL2	FL3	FL4	FL5	FL6	FL7
	LSB	A	B	C	D	E											
	FL2	FL3	FL4	FL5	FL6	FL7											
	637-2515-001				<table border="1"> <tr> <td>NA</td> <td>6.0</td> <td>3.0</td> <td>1.0</td> <td>0.5</td> <td>0.2</td> </tr> </table>	NA	6.0	3.0	1.0	0.5	0.2						
	NA	6.0	3.0	1.0	0.5	0.2											
					Part of AC-8055 IF Filters Kit 622-3452-001												
	637-2515-002				<table border="1"> <tr> <td>NA</td> <td>6.0</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>0.2 USB</td> </tr> </table>	NA	6.0	NA	NA	NA	0.2 USB						
NA	6.0	NA	NA	NA	0.2 USB												
				Part of AC-8055 IF Filters Kit 622-3452-002													
637-2515-003				<table border="1"> <tr> <td>NA</td> <td>6.0</td> <td>3.0</td> <td>1.0 USB</td> <td>0.5 USB</td> <td>0.2 USB</td> </tr> </table>	NA	6.0	3.0	1.0 USB	0.5 USB	0.2 USB							
NA	6.0	3.0	1.0 USB	0.5 USB	0.2 USB												
				Part of AC-8055 IF Filters Kit 622-3452-003													
637-2515-004				<table border="1"> <tr> <td>2.75</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </table>	2.75	NA	NA	NA	NA	NA							
2.75	NA	NA	NA	NA	NA												
				(Non-USB radio)													
637-2515-005				<table border="1"> <tr> <td>2.75</td> <td>6.0</td> <td>3.0</td> <td>1.0</td> <td>0.5</td> <td>0.2</td> </tr> </table>	2.75	6.0	3.0	1.0	0.5	0.2							
2.75	6.0	3.0	1.0	0.5	0.2												
				Part of AC-8055 IF Filters Kit 622-3452-004 (non-USB radio)													

(Cont)

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION					
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		LSB	A	B	C	D	E
			-001	-210						
Filter A8A2 (Cont)	637-2515-006				NA	6.0	3.0	1.0	0.5	0.1
					Part of AC-8055 IF Filters Kit 622-3452-005					
					0.2 USB	NA	NA	NA	NA	NA
	637-2515-007				(Non-ISB radio)					
					NA	NA	NA	NA	NA	0.37 USB
	637-2515-008				2.75 LSB	NA	NA	1.0	NA	0.2
					(Non-ISB radio)					
	637-2515-010				NA	6.0	NA	NA	NA	NA
					Part of AC-8055 IF Filters Kit 622-3452-006					
	637-2515-011				NA	6.0	NA	1.0	NA	0.2
					Part of AC-8055 IF Filters Kit 622-3452-007					
	637-2515-012				2.75 LSB	3.0	1.0	0.5	0.3	0.2
					(Non-ISB radio)					
	637-2515-013				NA	0.25 USB	0.7 USB	0.7 LSB	0.25 LSB	5.0
					Part of AC-8055 IF Filters Kit 622-3452-008					
	637-2515-015				NA	NA	NA	0.3	0.1	NA
Part of AC-8055 IF Filters Kit 622-3452-009										
637-2515-016				NA	NA	NA	1.0	0.5	0.2	
				Part of AC-8055 IF Filters Kit 622-3452-010						

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
Rf translator A9	637-1767-002	①	③		Standard
	637-1767-003			X	High performance
	637-1767-004	②	④		Standard
Control A10	638-6629-001	X	X	X	
Parallel input A11	642-3135-001		X		
	642-3135-002			X	
Parallel output A12	642-3137-001		X		
	642-3137-002			X	
Serial interface A13	638-6896-001		X	X	Can be switched for 7-bit ASCII or 8-bit character data format. Can be switched for various serial controls: FSK; EIA RS-232C (CCITT V.24); or MIL-STD-188C. Can be switched for various baud rates: 75, 109, 150, 300, 600, 1200, 2400, 4800, 9600, or 19 200 bauds.
	638-6896-002				Can be switched for 7-bit ASCII or 8-bit character data format. Can be switched for serial controls FSK or RS-422. Can be switched for various baud rates: 75, 109, 150, 300, 600, 1200, 2400, 4800, 9600, or 19 200 bauds.
Synthesizer voltage regulator A14	635-0656-001	X	X		
Synthesizer subcarrier generator A15	638-6962-001	X	X		
Synthesizer reference A16	642-2451-001	X	X		Can be strapped for an internal (INT) or external (EXT) frequency standard. If strapped EXT, external phase lock must be installed.

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
External phase-lock A16A4	635-0655-001		X		Can be strapped for 100-kHz, 1-MHz, or 5-MHz external frequency standard. Part of AC-8012 Oven Standard Kit (622-3460-001) and AC-8013 External Standard Kit (622-3461-001).
Synthesizer end decade	635-0657-001	5	A18		Installed as A18 provides 10-Hz tuning. Installed as A19 provides 100-Hz tuning. With appropriate decades added, installed as A17 provides 1-Hz tuning.
Synthesizer 100/10-Hz decade A19	623-2080-004	6	X		Installed as A19 for 10-Hz tuning. Not installed for 100-Hz tuning. Two installed, one as A19 and one as A18, for 1-Hz tuning.
Synthesizer 1-kHz decade A20	623-2080-003	X	X		
Synthesizer 10-kHz decade A21	623-2080-002	X	X		
Synthesizer 100-kHz decade A22	623-2080-001	X	X		
Synthesizer output A23	635-4930-002	X	X		
	635-4930-003				
Synthesizer chassis assembly A24	634-8201-001	X	X		
Rf cable assembly J43/J29 (P/O A24)	637-1526-003	X	X		Interconnect J43 and J29 (118.8-MHz inj in).
Rf cable assembly J45/J28 (P/O A24)	637-1526-003	X	X		Interconnects J45 and J28 (variable inj in).
Rf cable assembly J44/J32 (P/O A24) or Rf cable assembly J44/J57 (P/O A24)	637-1526-006	X	X		Interconnects J44 and J32 (9.9-MHz inj in).
					Interconnects J44 and J57 (9.9-MHz inj in, AFC).

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
Rf cable assembly A1-if (P/O A24) or Rf cable assembly vbfo (P/O A24)	637-1529-001	X	X		Interconnects A24-E1 and J34 (450-kHz inj in).
					Interconnects A24-E1 and J60 (450-kHz inj in, vbfo).
Rf cable assembly B1-if (P/O A24)	637-1529-001	X	X		Interconnects A24-E1 and J39 (450-kHz inj in).
Rf cable assembly A2-if (P/O A24)	637-1529-001	X	X		Interconnects A24-E7 and J54 (456.29 kHz inj in).
Rf cable assembly B2-if (P/O A24)	637-1529-001	X	X		Interconnects A24-E5 and J55 (443.71 kHz inj in).
Synthesizer sideboard (P/O A24)	638-6973-001	X	X		
Synthesizer chassis (P/O A24)	634-8178-001	X	X		
Synthesizer bottom cover (P/O A24)	634-8186-001	X	X		
Synthesizer top cover	642-2409-001	X	X		
Direct Digital Synthesizer A24	652-6615-001			X	
DDS top cover (P/O A24)	651-4502-001			X	
DDS chassis assembly (P/O A24)	652-7263-001			X	
DDS sideboard (P/O A24)	646-6259-002			X	
DDS bottom cover (P/O A24)	651-4499-001			X	
Rf cable assembly (P/O A24)	652-7398-001			X	Interconnects J45 and P2.
Cable assembly ribbon W10 (P/O A24)	652-7365-001			X	Interconnects J1 and J2 of W10.

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
				-001	-210
Frequency standard/power supply A32 (P/O A24)	646-5930-001			X	
VFO/VCO module A33 (P/O A24)	652-1015-002			X	
DDS Control interface A34 (P/O A24)	646-5905-003			X	
Receive audio A25	635-0748-002	X	X	X	
Receive audio A26	635-0748-002	X	X		
Rfi filter A27	637-2712-003	X	X		
Rfi filter modified A27	659-2053-002			X	
Sideboard assembly A28	634-8224-001	X	X		
	634-8224-002				
	634-8224-003			X	
Sideboard (P/O A28)	638-6627-001	X	X	X	
Cable assembly (P/O A28)	634-8210-001	X	X		Interconnects P11, J11, and P2 (frequency control).
	634-8210-002			X	
Cable assembly (P/O A28)	634-8228-001	X	X	X	Interconnects J19, P4, P5, P3, and J12 (status control and display).
Oven standard, oscillator assembly A29	622-3460-001				AC-8012 Oven Standard Kit
	637-9135-001			X	Part of Oven Oscillator/Frequency Standard Switch Kit (652-1966-001)

Table 1. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		RECEIVER			DESCRIPTION/FUNCTION
TITLE	PART NUMBER*	HF-8054 622-3474-001	HF-8054A 622-3475-()		
			-001	-210	
Frequency standard switch A30	622-3499-001				AC-8015 Frequency Standard Switch Kit. Can be switched for 100-kHz, 1-MHz, or 5-MHz external frequency standard. Automatically switches over from an external frequency reference input to the oven standard upon loss of the external frequency standard. Can be used only if oven standard is installed.
	646-6558-001			X	Part of Oven Oscillator/Frequency Standard Switch Kit (652-1966-001)
Parallel interface A31	646-6329-001			X	Provides interface between parallel format inputs and exciter.
Injection blanker assembly A35	652-6861-001			X	
Power cable	426-1034-010	X	X	X	
Maintenance kit	637-1769-001	X	X	X	2-A fuse installed for 100- or 115-V ac operation. 1-A fuse installed for 215- or 230-V ac operation.
Hexwrench, 0.062 in (1)	024-0058-000				
Hexwrench, 0.050 in (1)	024-0057-000				
2-A fuse (5)	264-0305-000				
1-A fuse (5)	264-4280-000				
Lamps (2)	262-1106-000				
Instruction sheet	637-1777-001				
<p>*All part numbers are Rockwell-Collins.</p> <p>① Effective through REV C, HF-8054.</p> <p>② Effective REV D and later, HF-8054.</p> <p>③ Effective through REV J, HF-8054A.</p> <p>④ Effective REV K and later, HF-8054A.</p> <p>⑤ Installed as A19 through REV C, installed as A18 at REV D and later, HF-8054.</p> <p>⑥ Effective REV D and later, HF-8054.</p>					

4. ACCESSORIES

Add the following manual to the list of manuals.

<u>TITLE</u>	<u>PART NUMBER</u>
HF Radio Set Cabinet	523-0773552

5. OPTIONS

Currently there are no options available for the HF-8054A Receiver (622-3475-210).

6. EQUIPMENT SPECIFICATIONS

Add the following sentence to the paragraph and place table 4A behind table 4.

Specifications for the HF-8054A Receiver (622-3475-210) that are different from the HF-8054() are listed in table 4A.

Table 4A. Equipment Specifications.

CHARACTERISTIC	SPECIFICATION
Frequency tune time	100 μ s to \pm 1000 Hz
Parallel frequency control	Capability of parallel bcd frequency input and parallel coded-frequency input through the rear panel. The parallel bcd inputs control the standard bcd bus lines in the receiver. The parallel coded-frequency inputs control the direct digital synthesizer when actuated and ignores all other sources of frequency information.

SUPPLEMENT (523-0770700-002218)

Not applicable.

SUPPLEMENT (523-0770701-002218)

2. DESCRIPTION

Replace table 1 with table 1 provided.

Table 1. HF-8054A Receiver Characteristics.

CHARACTERISTICS	HF-8054A RECEIVER 622-3475- ()									
	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Tuning										
100 Hz		X		X	X	X		X		
10 Hz	X		X				X			
1 Hz									X	
Bandwidths (kHz)										
USB — A1	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	
UUSB — A2	2.85	2.85	2.85			2.85				
LSB — B1	2.85	2.85	2.85	2.85		2.85	2.85	2.85	2.85	
LLSB — B2	2.85	2.85	2.85			2.85				
A			6.0			6.0				
B										
C			1.0							
D										
E			0.2							
16	X	X	X	X	X	X	X	X	X	
ISB										
2-channel				X			X	X	X	
4-channel	X	X	X			X				
AFC			X							
Dvbfo			X				X			
Remote control	X	X	X	X	X	X	X	X	X	
Oven standard		X	X	X	X	X	X		X	
External standard		X	X	X	X	X	X	X	X	

Table 1. HF-8054A Receiver Characteristics (Cont).

CHARACTERISTICS	HF-8054A RECEIVER 622-3475- ()									
	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Frequency standard switch		X	X	X	X	X	X		X	
Frequency display		X	X	X	X	X	X	X	X	
AGC										
OFF-FAST-MED-SLOW	X		X	X	X			X		
OFF-VOICE-DATA-FAX		X				X	X		X	
Rf translator										
Standard	X		X							
High performance		X		X	X	X	X	X	X	

3. DIFFERENCE DATA

Replace table 2 with table 2 provided.

Table 2. Equipment Supplied/Configuration.

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Main chassis	634-8177-001	X	X	X	X	X	X	X	X	X	
Bottom cover	634-8179-001	X	X	X	X	X	X	X	X	X	
Top cover	634-8181-002	X	X	X	X	X	X	X	X	X	
Rear panel	642-2462-001	X	X	X	X	X	X	X	X		
	652-7268-001									X	
Cable assembly W1	634-8226-001	X	X	X	X	X	X	X	X		
	634-8226-002									X	
Cable assembly W2	634-8227-001	X	X	X	X	X	X	X	X		
	634-8227-002									X	

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Cable assembly W3	634-8225-001	X	X	X	X	X	X	X	X	X	
Rf cable assembly J40/J22	637-1525-002	X	X	X	X	X	X	X	X	X	
Rf cable assembly J38/J23	637-1525-003	X	X	X	X	X	X	X	X	X	
Rf cable assembly J37/J26	637-1525-003	X	X	X	X	X	X	X	X	X	
Rf cable assembly J36/J24	637-1525-003	X	X	X	X	X	X	X	X	X	
Rf cable assembly J35/J25	637-1525-003	X	X	X	X	X	X	X	X	X	
Rf cable assembly J41/J42	637-1526-002	X	X	X	X	X	X	X	X	X	
Rf cable assembly, 450-kHz if	642-2454-001	X	X		X	X	X	X	X	X	
Rf cable assembly J34/J59	637-1526-003			X							
Rf cable assembly J32/J58	637-1526-003			X							
Rf cable assembly AFC	646-6534-001			X							
Power supply A1	635-9649-001	X	X	X	X	X	X	X	X	X	
Front panel assembly A2	634-8200-001	X									
	634-8200-002		X				X				
	634-8200-003			X							
	634-8200-004				X	X			X		
	634-8200-005							X		X	
LED status display A2A1	635-0825-013	X	X	X	X	X	X	X	X	X	
Switch mounting board A2A2	638-6873-001		X				X	X		X	
	638-6873-002	X		X	X	X			X		
Frequency switchboard A2A3	635-0830-001		X		X	X	X		X		
	635-0830-002	X		X				X		X	
Dvbfo switchboard A2A4	638-6437-001			X				X		X	

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Frequency display A2A5	637-1781-006		X		X	X	X		X		
	637-1781-008			X				X		X	
Frequency display cable A2W1	634-8289-001		X	X	X	X	X	X	X	X	
AFC A3	642-3224-001			③							
	642-3224-002			④							
Vbfo A4	638-6067-002			X				X		X	
Channel B2 if A5	638-6975-006	X		X							
	638-6975-003		X				X				
Channel A2 if A6	638-6975-005	X		X							
	638-6975-002		X				X				
Channel B1 if A7	638-6975-004	X		X	X				X		
	638-6975-001		X				X	X		X	
Channel A1 if A8	638-6871-002	X		X	X	X			X		
	638-6871-001		X				X	X		X	
Filter A8A2	637-2515-001										
	637-2515-002										
	637-2515-003										
	637-2515-004										
	637-2515-005										
	637-2515-006										
	637-2515-007										
	637-2515-008										
(Cont)	637-2515-009										

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Filter ASA2 (Cont)	637-2515-010						X				
	637-2515-011										
	637-2515-012										
	637-2515-013			X							
	637-2515-015										
	637-2515-016										
Rf translator A9	637-1767-002	①		①							
	637-1767-003		X		X	X	X	X	X	X	
	637-1767-004	②		②							
Control A10	638-6629-001	X	X	X	X	X	X	X	X	X	
Parallel input A11	642-3135-001	X	X	X	X	X	X	X	X		
	642-3135-002									X	
Parallel output A12	642-3137-001	X	X	X	X	X	X	X	X		
	642-3137-002									X	
Serial interface A13	638-6896-001	X	X	X	X	X		X	X	X	
	638-6896-002						X				
Synthesizer voltage regulator A14	635-0656-001	X	X	X	X	X	X	X	X		
Synthesizer subcarrier generator A15	638-6962-001	X	X	X			X				
Synthesizer reference A16	642-2451-001	X	X	X	X	X	X	X	X		
External phase-lock A16A4	635-0655-001		X	X	X	X	X	X	X		
Synthesizer end decade	635-0657-001	A18	A19	A18	A19	A19	A19	A18	A19		

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Synthesizer 100/10-Hz decade A19	623-2080-004	X		X				X			
Synthesizer 1-kHz decade A20	623-2080-003	X	X	X	X	X	X	X	X		
Synthesizer 10-kHz decade A21	623-2080-002	X	X	X	X	X	X	X	X		
Synthesizer 100-kHz decade A22	623-2080-001	X	X	X	X	X	X	X	X		
Synthesizer output A23	635-4930-002	X	X	X	X	X	X	X			
	635-4930-003								X		
Synthesizer chassis assembly A24	634-8201-001	X	X	X	X	X	X	X	X		
Rf cable assembly J43/J29 (P/O A24)	637-1526-003	X	X	X	X	X	X	X	X		
Rf cable assembly J45/J28 (P/O A24)	637-1526-003	X	X	X	X	X	X	X	X		
Rf cable assembly J44/J32 (P/O A24) or Rf cable assembly J44/J57 (P/O A24)	637-1526-006	X	X		X	X	X	X	X		
				X							
Rf cable assembly A1-if (P/O A24) or Rf cable assembly vbfo (P/O A24)	637-1529-001	X	X		X	X	X	X	X		
				X							
Rf cable assembly B1-if (P/O A24)	637-1529-001	X	X	X	X	X	X	X	X		
Rf cable assembly A2-if (P/O A24)	637-1529-001	X	X	X	X	X	X	X	X		
Rf cable assembly B2-if (P/O A24)	637-1529-001	X	X	X	X	X	X	X	X		
Synthesizer sideboard (P/O A24)	638-6973-001	X	X	X	X	X	X	X	X		
Synthesizer chassis (P/O A24)	634-8178-001	X	X	X	X	X	X	X	X		

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Synthesizer bottom cover (P/O A24)	634-8186-001	X	X	X	X	X	X	X	X		
Synthesizer top cover	642-2409-001	X	X	X	X	X	X	X	X		
Direct Digital Synthesizer A24	652-6615-001									X	
DDS top cover (P/O A24)	651-4502-001									X	
DDS chassis assembly (P/O A24)	652-7263-001									X	
DDS sideboard (P/O A24)	646-6259-002									X	
DDS bottom cover (P/O A24)	651-4499-001									X	
Rf cable assembly (P/O A24)	652-7398-001									X	
Cable ribbon assembly (P/O A24)	652-7365-001									X	
Frequency standard/power supply A32 (P/O A24)	646-5930-001									X	
VFO/VCO module A33 (P/O A24)	652-1015-002									X	
DDS Control interface A34 (P/O A24)	646-5905-003									X	
Receive audio A25	635-0748-002	X	X	X	X	X	X	X	X	X	
Receive audio A26	635-0748-002	X	X	X			X				
Rfi filter A27	637-2712-003	X	X	X	X	X	X	X	X		
Rfi filter modified A27	659-2053-002									X	
Sideboard assembly A28	634-8224-001	X	X		X	X	X		X		
	634-8224-002			X				X			
	634-8224-003									X	
Sideboard (P/O A28)	638-6627-001	X	X	X	X	X	X	X	X	X	

Table 2. Equipment Supplied/Configuration (Cont).

SUBASSEMBLY/CIRCUIT CARD		HF-8054A RECEIVER 622-3475-()									
TITLE	PART NUMBER*	-001	-002	-003	-004	-005	-006	-007	-009	-210	
Cable assembly (P/O A28)	634-8210-001	X	X	X	X	X	X	X	X		
	634-8210-002									X	
Cable assembly (P/O A28)	634-8228-001	X	X	X	X	X	X	X	X	X	
Oven standard, oscillator assembly A29	637-3460-001		X	X	X	X	X	X			
Frequency standard switch A30	622-3499-001		X	X	X	X	X				
Oven oscillator/frequency standard switch kit	652-1966-001									X	
Parallel interface A31	646-6329-001									X	
Injection blanker assembly A35	652-6861-001									X	
Power cable	426-1034-010	X	X	X	X	X	X	X	X	X	
Maintenance kit	637-1769-001	X	X	X	X	X	X	X	X	X	

*All part numbers are Rockwell-Collins.

① Effective through REV J.

② Effective REV K and later.

③ Effective through REV T.

④ Effective REV U and later.

3. DIFFERENCE DATA

Add the following sentence to the first paragraph.

Only step d is applicable to HF-8054A Receiver (622-3475-210).

INSTALLATION (523-0770722-002218)

1. GENERAL

Add the following entry to the listing of equipment manuals.

<u>TITLE</u>	<u>PART NUMBER</u>
HF Radio Set Cabinet Intermediate Maintenance Instruction Book	523-0773552

3.1.4 Frequency Standard

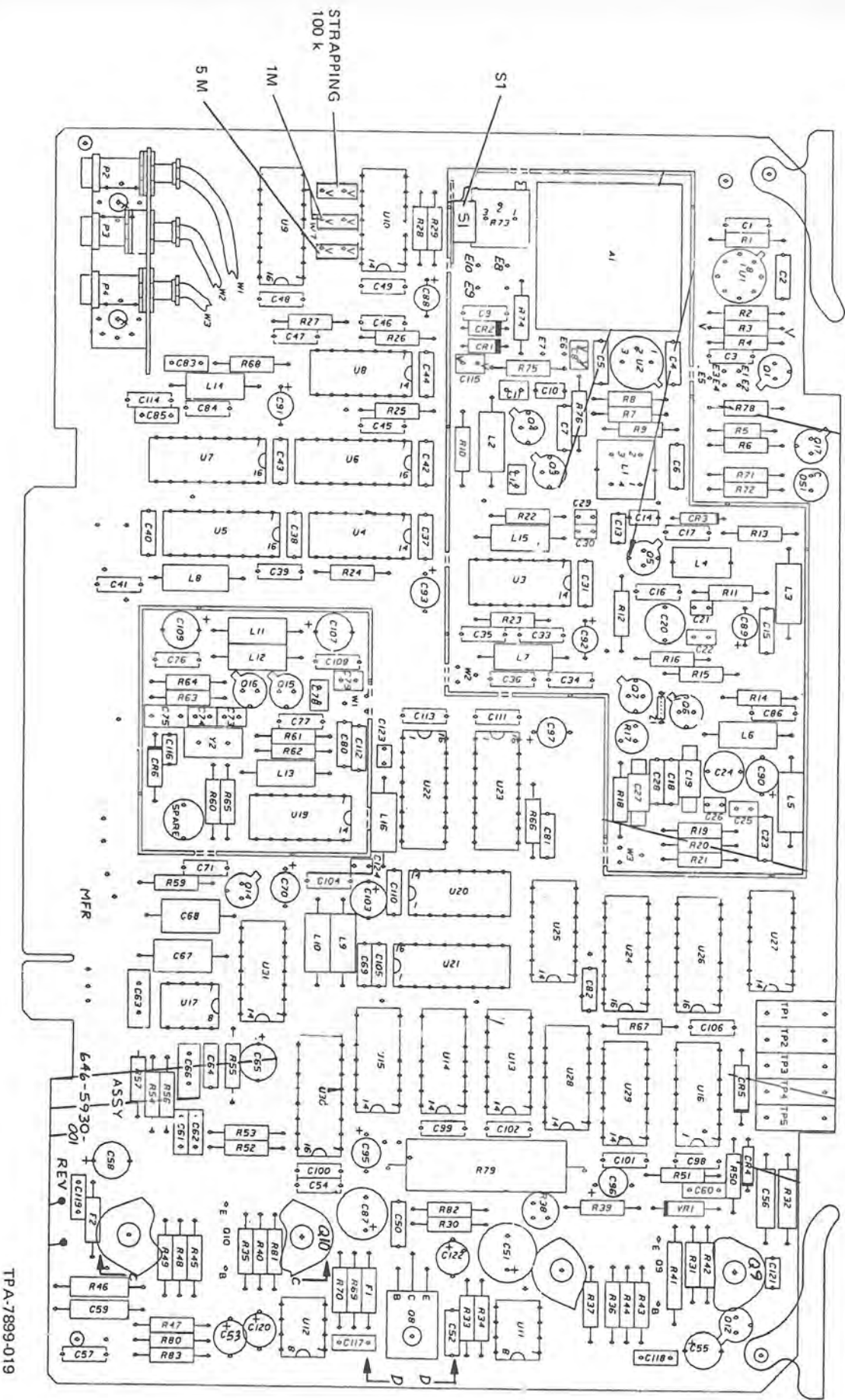
Add paragraph 3.1.4.1A behind paragraph 3.1.4.1 and paragraph 3.1.4.3A behind paragraph 3.1.4.3. Paragraph 3.1.4.2 is not applicable. Add figure 5A behind figure 5.

3.1.4.1A Internal Standard

To use the internal frequency standard, the switch S1 on frequency standard/power supply card A32 in the direct digital synthesizer must be placed in the INT position. Refer to figure 5A for location of the switch.

3.1.4.3A External Frequency Standard

To use the external frequency standard, switch S1 on frequency standard/power supply A34 in the direct digital synthesizer must be placed in the EXT position and the strap moved to the proper position. Refer to figure 5A for location of the switch and position of the straps.



Strapping for External Frequency Standard
 for HF-8054A Receiver (622-3475-210)
 Figure 5A

4. CABLING (Refer to figure 6)

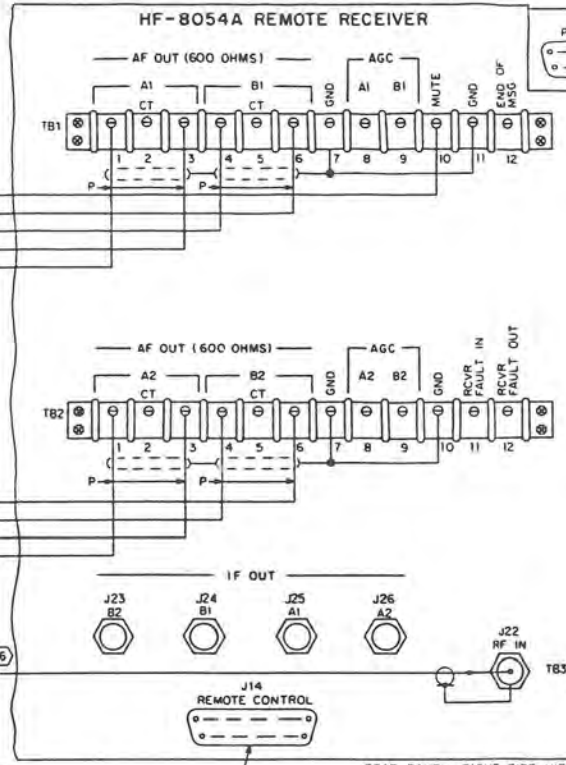
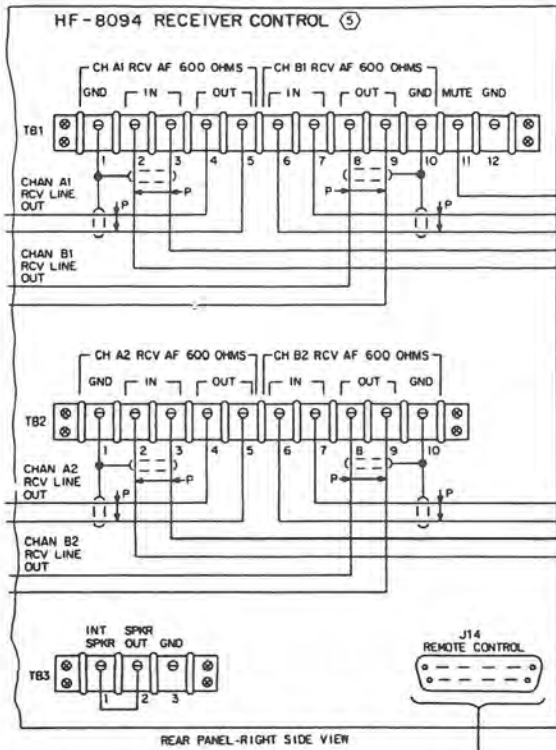
Add the following paragraph after paragraph 4.10.4. Place figure 6A behind figure 6.

4.11 Receiver to Parallel Format Input Device

Separation between the receiver and any parallel format input device should be kept as short as possible. If the parallel format device operates in binary coded decimal (bcd), then it should be connected to J66/A31P1 PARALLEL INPUT. If the parallel format device operates in parallel coded-frequency, then the device should be connected to the J67/A31P2 DDS INPUT at the rear of the exciter. This connection gives direct control over the direct digital synthesizer. Either connection requires a 50-pin connector. Refer to figure 6A for HF-8054A Receiver (622-3475-210) typical installation diagram.

5. INSTALLATION PROCEDURES

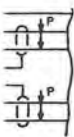
Replace figure 7 with figure 7 attached.



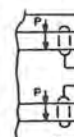
NOTES:

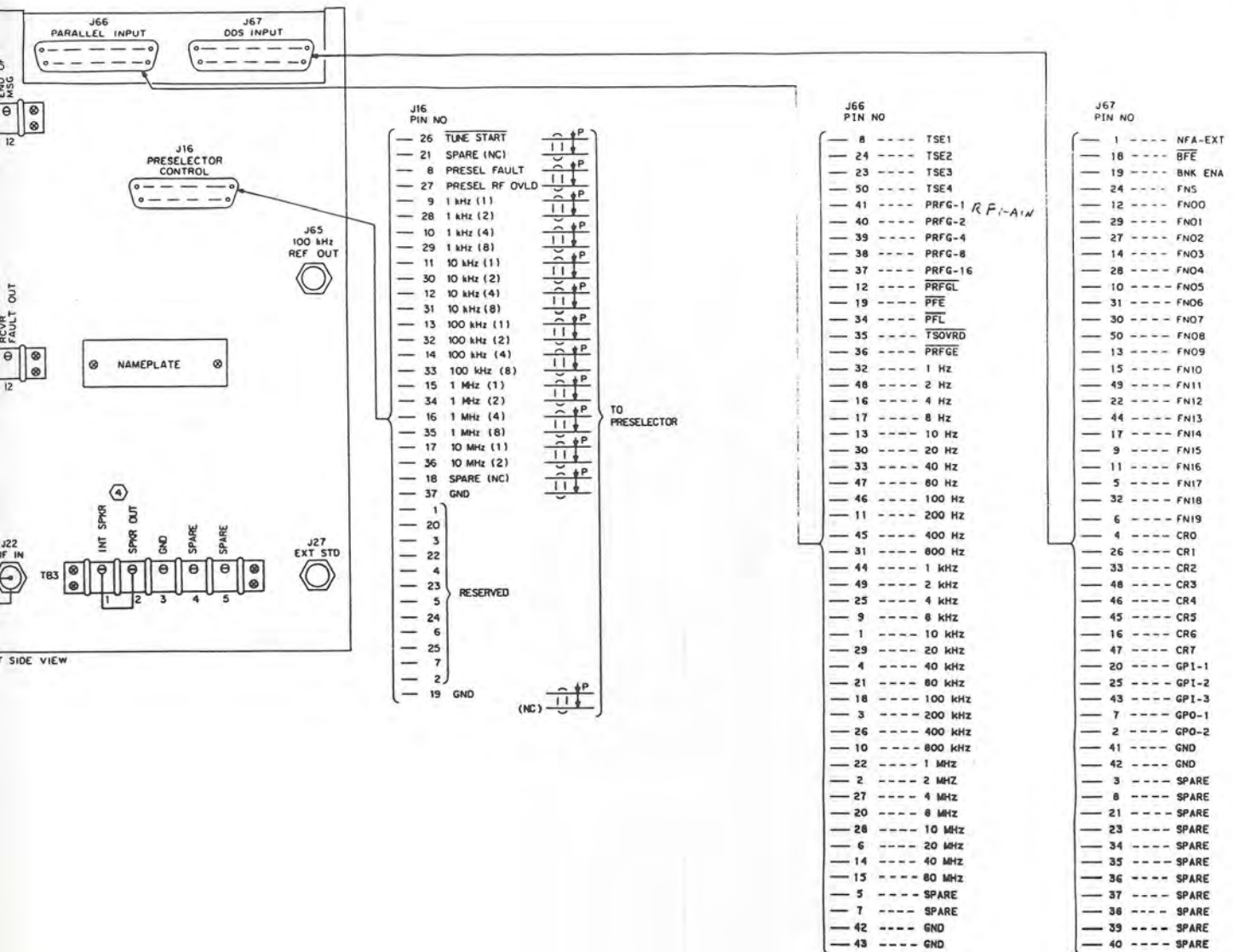
- ① NO 22 AWG TWISTED, SHIELDED PAIR CABLE IS RECOMMENDED FOR THESE CIRCUITS.
- ② THESE ADDRESS BITS ARE CONTROLLED BY THE ADDRESS SELECTOR THUMBWHEEL SWITCH ON THE RECEIVER CONTROL FRONT PANEL AND ARE BROUGHT OUT TO THE REMOTE CONTROL CONNECTOR FOR CONVENIENCE. NO STRAPPING IS REQUIRED ON THESE LINES.
- ③ THE RECEIVER ADDRESS LINES MUST BE STRAPPED TO CORRESPOND TO AN ADDRESS SELECTED ON THE RECEIVER CONTROL ADDRESS SWITCH.
- ④ SEE THE INSTALLATION SECTION FOR A DESCRIPTION OF SPEAKER OPERATION.
- ⑤ RECEIVER CONTROL NOT USED WITH HF-8054 RECEIVER (USED ONLY WITH HF-8054A RECEIVER).
- ⑥ IF PRESELECTION NOT USED, CONNECTED DIRECTLY TO ANTENNA.

J14 PIN NO	FUNCTION
1	PROTECTIVE GND
2	CONT BUS
14	CONT BUS RTN
15	CONT BUS SHLD
17	MON BUS SHLD
16	MON BUS RTN
3	MON BUS
4	SPARE
5	SPARE
6	SPARE
7	SIG GND
8	SPARE
9	ADRS BIT 1
10	ADRS BIT 2
11	ADRS BIT 3
12	ADRS BIT 4
13	SPARE
18	SPARE
19	SPARE
20	SPARE
21	GND
22	ADRS GND 1
23	GND
24	ADRS GND 2
25	GND



J14 PIN NO	FUNCTION
1	PROTECTIVE GND
2	CONT BUS
14	CONT BUS RTN
15	CONT BUS SHLD
17	MON BUS SHLD
16	MON BUS RTN
3	MON BUS
4	SPARE
5	SPARE
6	SPARE
7	SIG GND
8	DIVERSITY MA
9	ADRS BIT 1
10	ADRS BIT 2
11	ADRS BIT 3
12	ADRS BIT 4
13	ADRS BIT 5
18	SPARE
19	SPARE
20	SPARE
21	GND
22	ADRS GND 1
23	GND
24	ADRS GND 2
25	GND



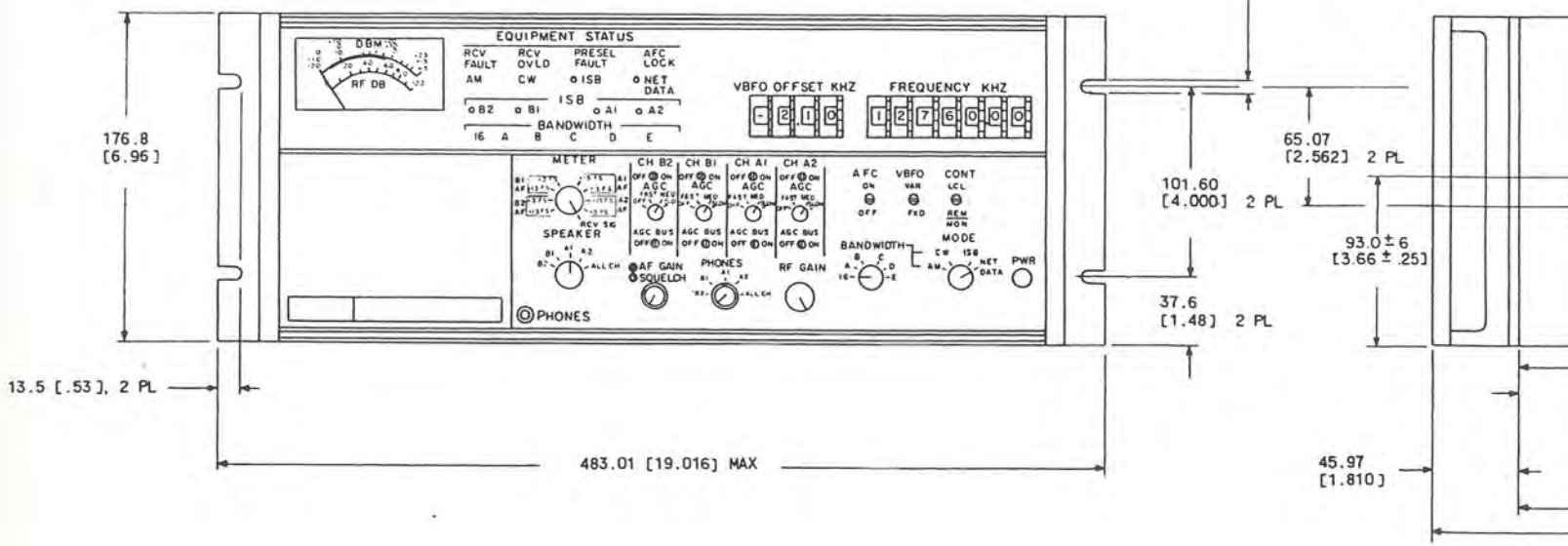
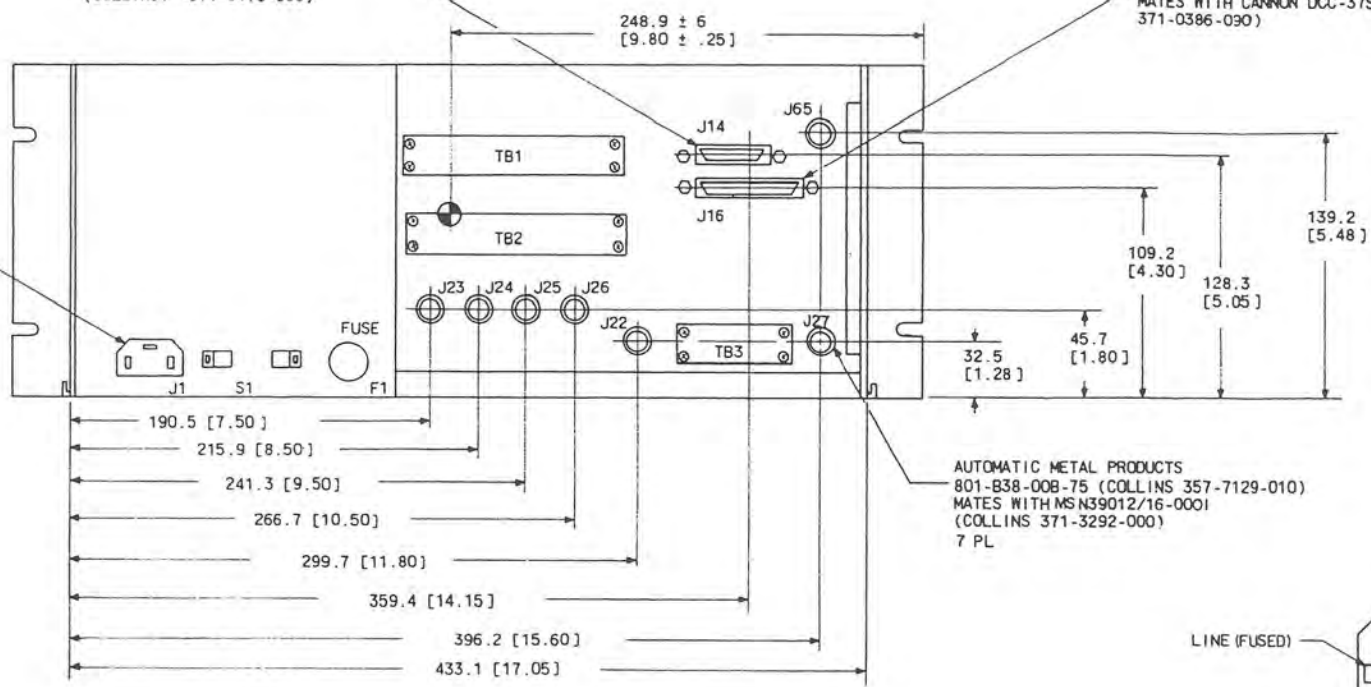


TPA-7798-015
 HF-8054A Receiver (622-3475-210),
 Typical Installation
 Figure 6A


CANNON DBMF-25S (371-0166-000)
 MATES WITH CANNON DBM-25P
 (COLLINS: 371-0170-000)

CANNON DCC-37PB8(COLLINS 371-0386-090)
 MATES WITH CANNON DCC-37SBB
 371-0386-090)

SEE DETAIL B



NOTES:

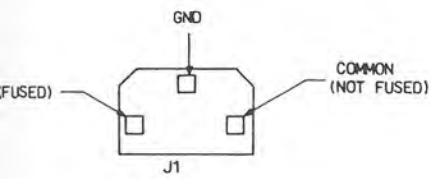
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETRES [INCHES]
2. WEIGHT: 21.8 kg [48LB] MAX
3. CENTER OF GRAVITY INDICATED BY 
4. MATING CONNECTORS ARE FOR REFERENCE ONLY. WEIGHT AND CENTER OF GRAVITY DOES NOT INCLUDE MATING CONNECTORS.
5. NO EXTERNAL COOLING AIR REQUIRED.
6. PRIMARY POWER REQUIREMENTS: 100/115/215/230 V AC \pm 10%, SINGLE PHASE 47-420 Hz; MAX POWER CONSUMPTION: 80 WATTS.

37PBB (COLLINS 371-0385-001)
CANNON DCC-37SBB (COLLINS 390)

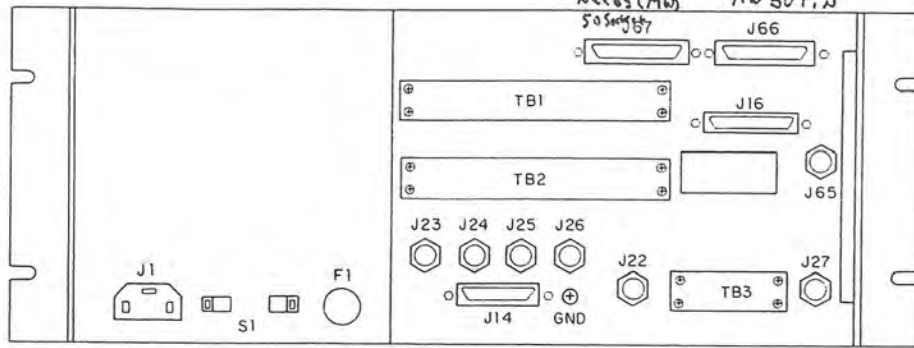
139.2 [5.48]

3 [0.5]

29-010)



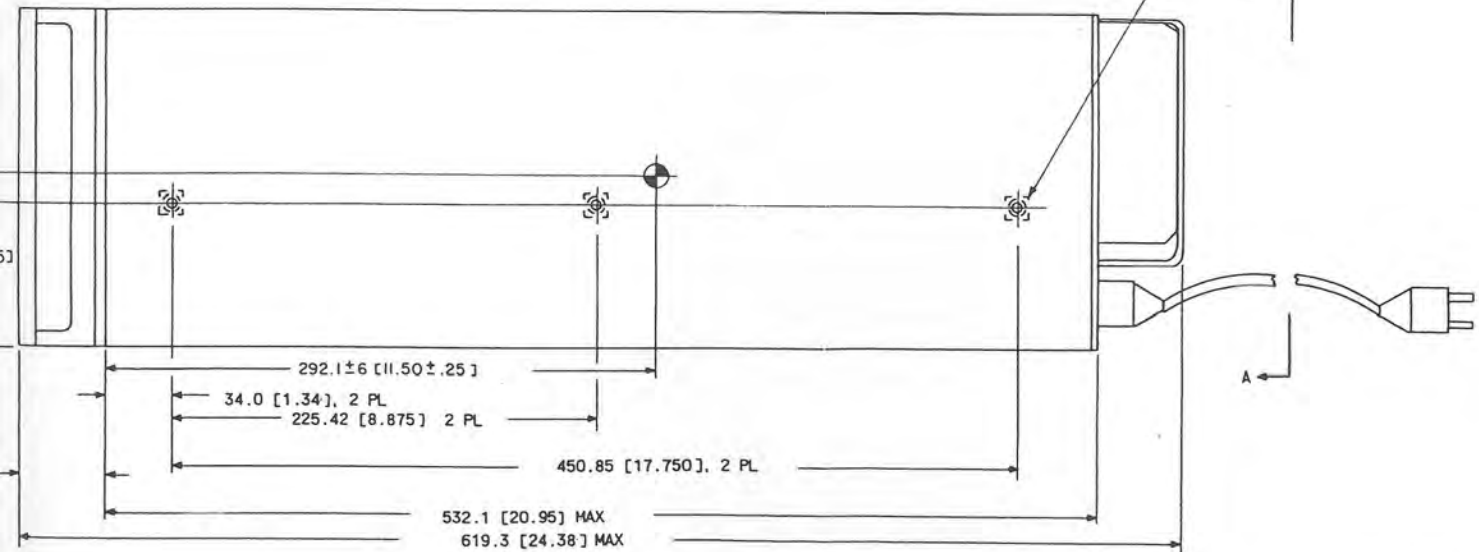
DETAIL B



VIEW A-A
622-3475-008 ONLY

[.190-32 UNC-2B]
3 PL SIDE SHOWN
3 PL OPP SIDE SHOWN

PL



646-6803
TPA-2851-014

HF-8054() Receiver, Outline
and Mounting Dimensions
Figure 7

OPERATION (523-0770703-002218)

Add the following two paragraphs after paragraph 4.3.7.5.

4.4 Remote Control Operation for HF-8054A Receiver (622-3475-210)

Control data from the remote control or processor is applied to the receiver at one of three inputs depending upon the type of data applied. Serial format data is connected to J14 as in other series HF-8054A receivers. Parallel format data in binary coded decimal is applied to J66/A31P1 PARALLEL INPUT on the rear panel. Parallel coded-frequency data used to directly control the direct digital synthesizer must be in the proper code and applied to J67/A31P2 DDS INPUT on the rear panel.

Input to J14 uses the ASCII on 8-bit format code as covered in the manual with changes as follows. Word 3, character 2, bit 1 becomes the serial parallel frequency select bit (0 = serial and 1 = parallel). Word 3, character 4, bits 1 through 8 are used for parallel rf gain enable, parallel bcd enable, serial tune start override, and general purpose inputs and outputs. In word 4, character 3, bits 1 through 8, the fault statuses have changed to reflect the new direct digital synthesizer faults. The serial bcd frequency inputs are converted to the parallel bcd frequency data by the parallel output card A12 and applied to the direct digital synthesizer. In the direct digital synthesizer, the parallel bcd frequency information is changed to the parallel coded-frequency data input required by the VFO/VCO module in DDS control interface A33.

4.5 Tune Start Enable Control

In the HF-8054A Receiver (622-3475-210), two separate tune start pulses are generated. These signals are then sent out to preselector HF-8064 by way of rear panel connector J16. Exactly when these tune start signals will be initiated by the receiver is covered in the theory section of the supplement.

THEORY (523-0770704-002218)**1. GENERAL**

Change the last sentence of the second paragraph to read as follows.

When the CONT switch is in the REM position, the HF-8054A Receiver is operationally controlled by the HF-8094 Receiver Control, a processor, or other compatible serial control applied to the J14 REMOTE connector. The HF-8054A Receiver is frequency controllable by compatible parallel controls applied to the J66/A31P1 PARALLEL INPUT connector, and the J67/A31P2 DDS INPUT connector.

2. FUNCTIONAL THEORY

The first and fourth paragraphs are not applicable. For the HF-8054A Receiver (622-3475-210), substitute the following paragraphs, the first for the first paragraph and the second for the fourth paragraph. Place figure 1A behind figure 1 and refer to figure 1A for the HF-8054A Receiver (622-3475-210).

The HF-8054A Receiver (622-3475-210) is frequency-controlled directly from the front panel. Bcd frequency signals from the front panel are applied to the bcd frequency bus for distribution throughout the receiver. In the DDS control interface, the bcd frequency signals are converted to the parallel coded-frequency data required by VFO/VCO module A33, and used to establish the frequency of the vfo output (79.3500 to 109.35 MHz) from the direct digital synthesizer. Control A10 uses the bcd frequency signals to control the front end filter selection.

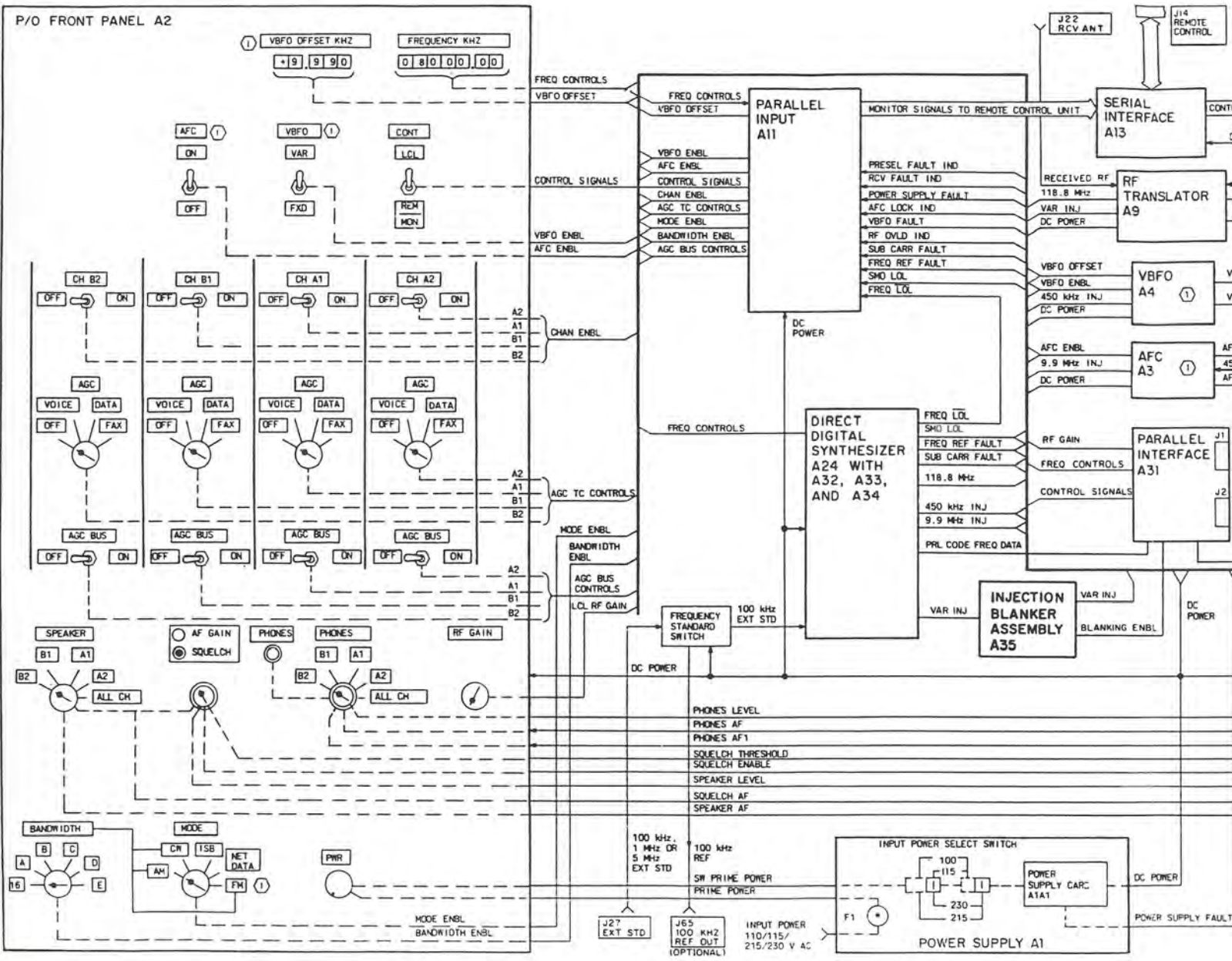
In the ISB mode, the 450-kHz if USB signal is supplied to the channel A1 if circuits and the 450-kHz if LSB signal is supplied to the channel B1 if circuits. The detected USB/LSB audio signals are supplied to the receive audio A25. Receive audio A25 provides separate phones, receive line audio outputs, and audio inputs to the speaker amplifier.

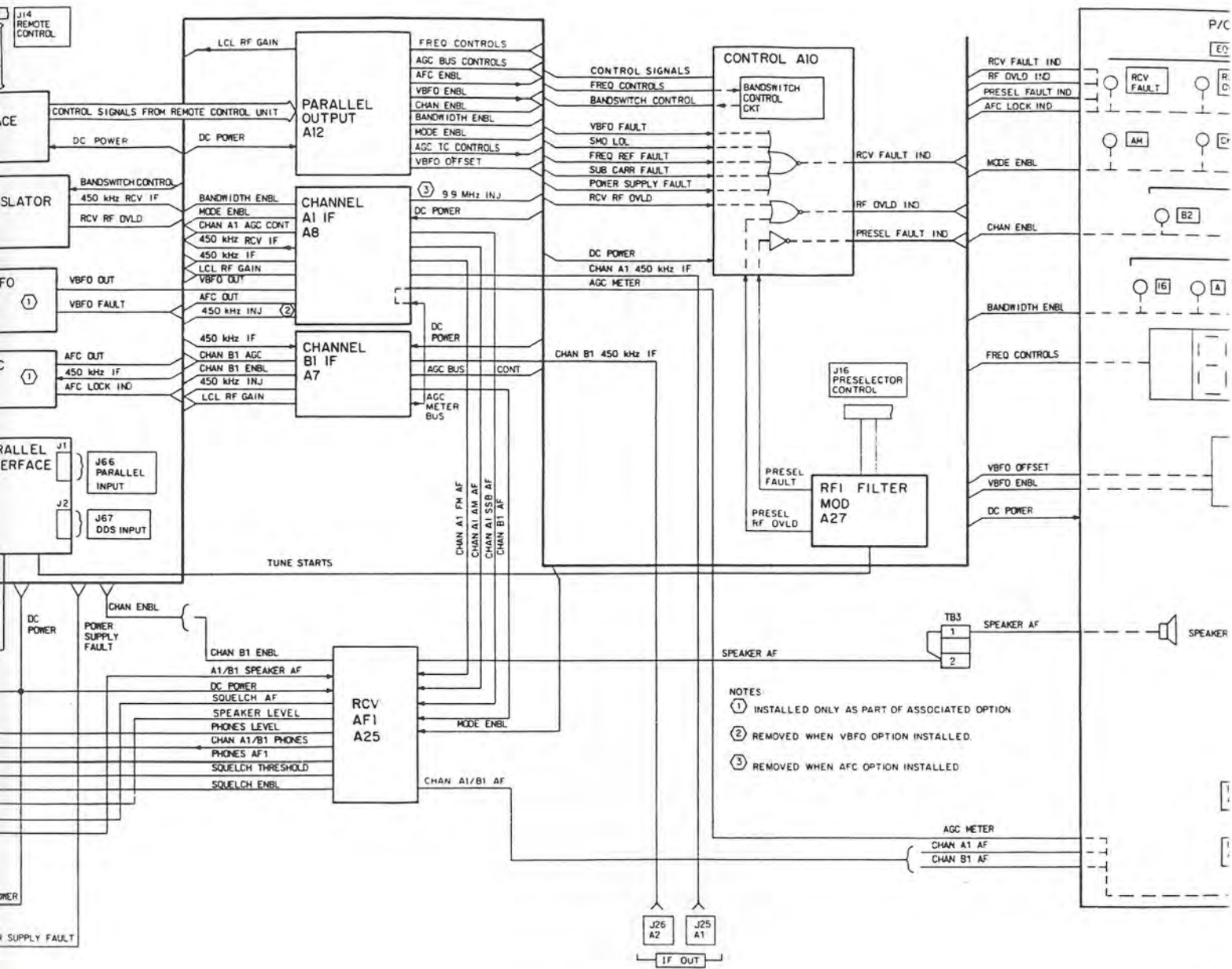
2.1 Receive Function (Refer to figure 2)

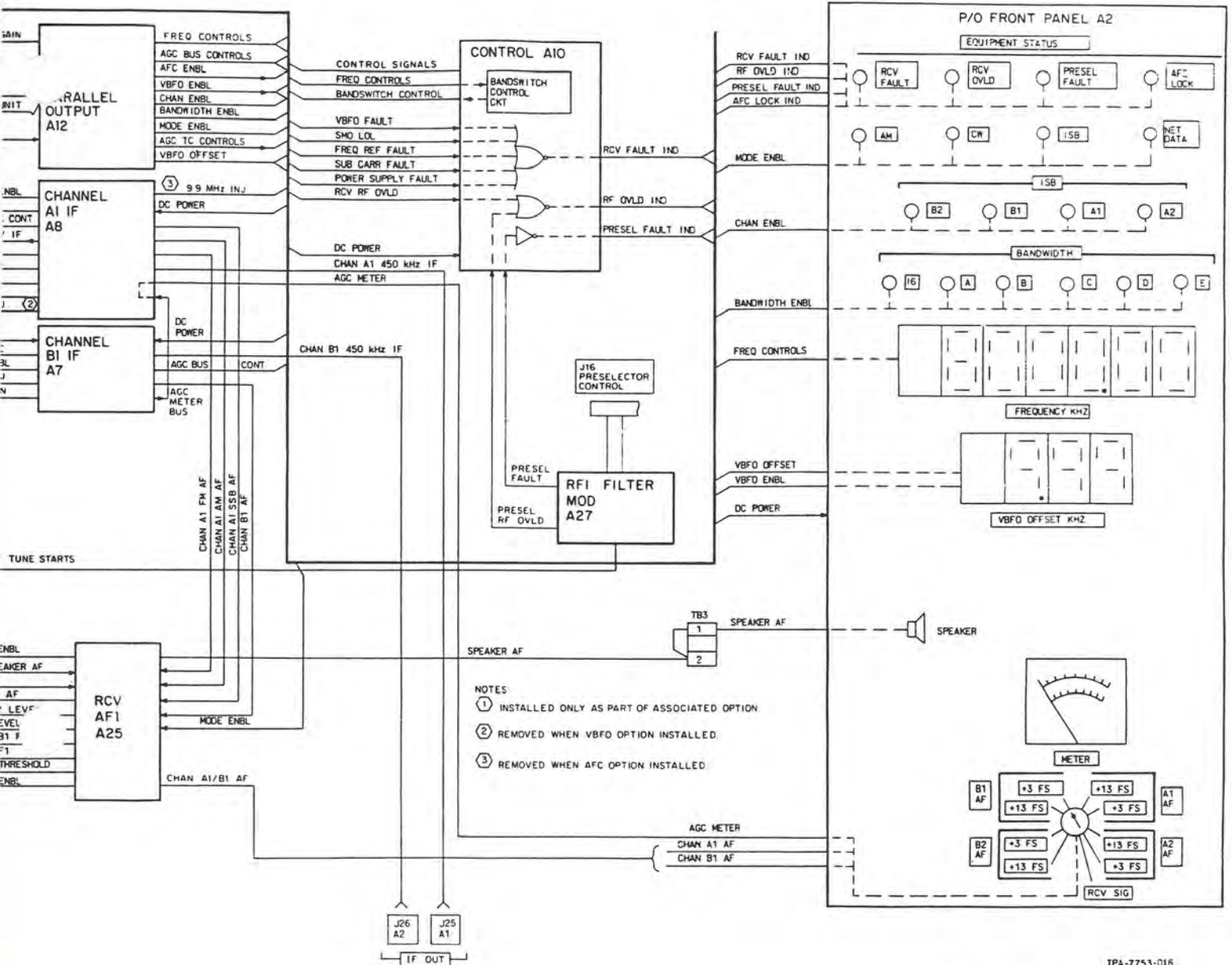
Place figure 2A behind figure 2, and refer to figure 2A in place of figure 2 for the HF-8054A Receiver (622-3475-210). Replace the second paragraph with the paragraph supplied below. The eighth and ninth paragraphs are not applicable. Change the second sentence of the third paragraph to read: "The 2.85-kHz USB if filter and selectable 16-kHz if filter are on channel A1 if A8, and the 2.85-kHz LSB if filter (ISB) is located on channel B1 if A7."

From the selected bandpass filter, the received rf signal is mixed with a 109.350 00- to 79.350 01-MHz variable injection signal to produce a 109.35-MHz if signal. The variable injection signal input is controlled by injection blanker A35. During a frequency change, the variable injection signal is gated off by the injection blanker and no receive function is performed until the frequency synthesizer A24 has completed the change to the new frequency. Then the injection blanker is ungated and the new variable injection is applied to the mixer. The resultant if frequency is filtered by a crystal filter and mixed with a 118.8-MHz fixed injection signal to produce a 9.45-MHz receive if output from rf translator A9.

P/O FRONT PANEL A2

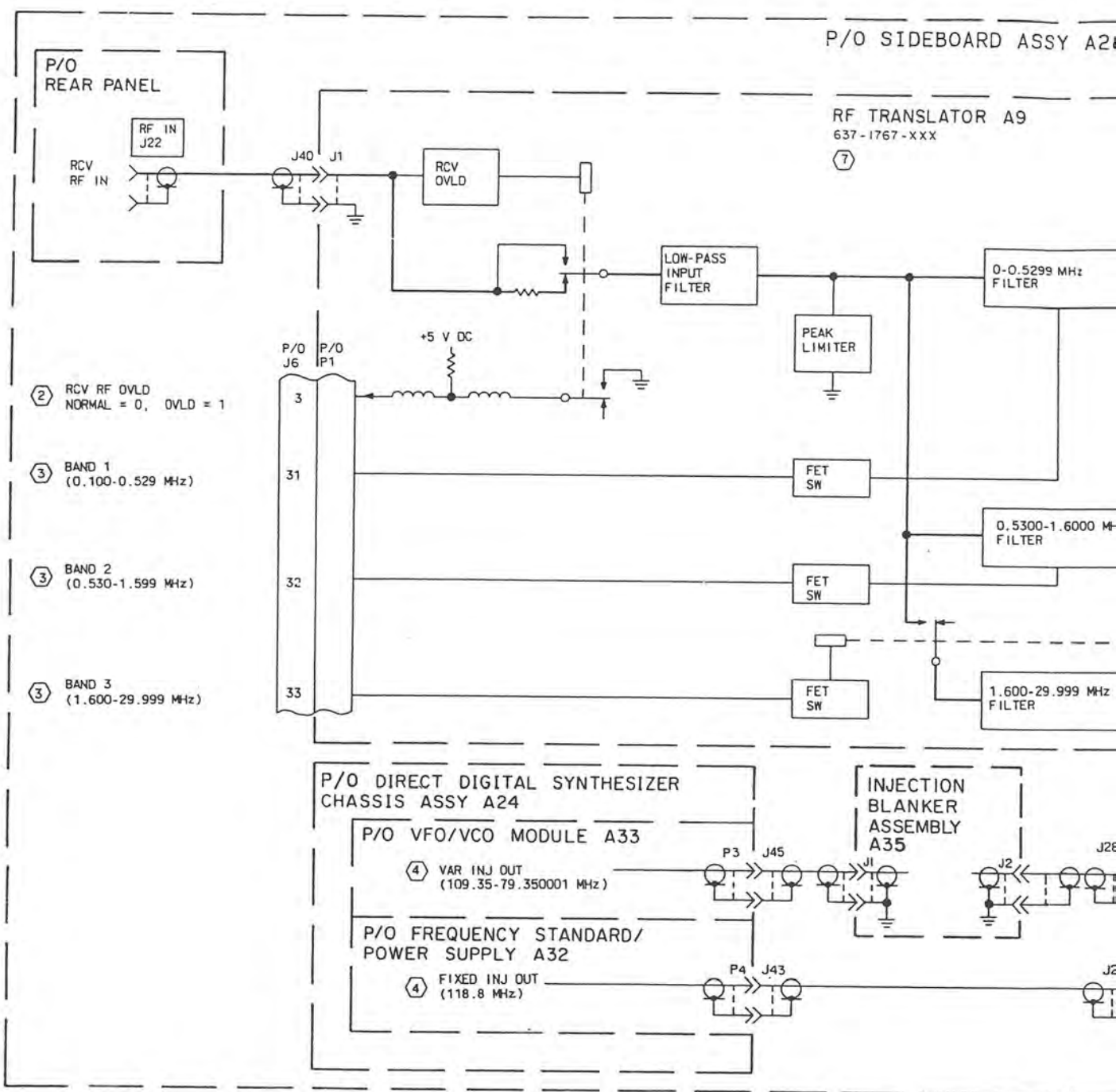






TPA-7753-016

HF-8054 Receiver (622-3475-210),
Block Diagram
Figure 1A

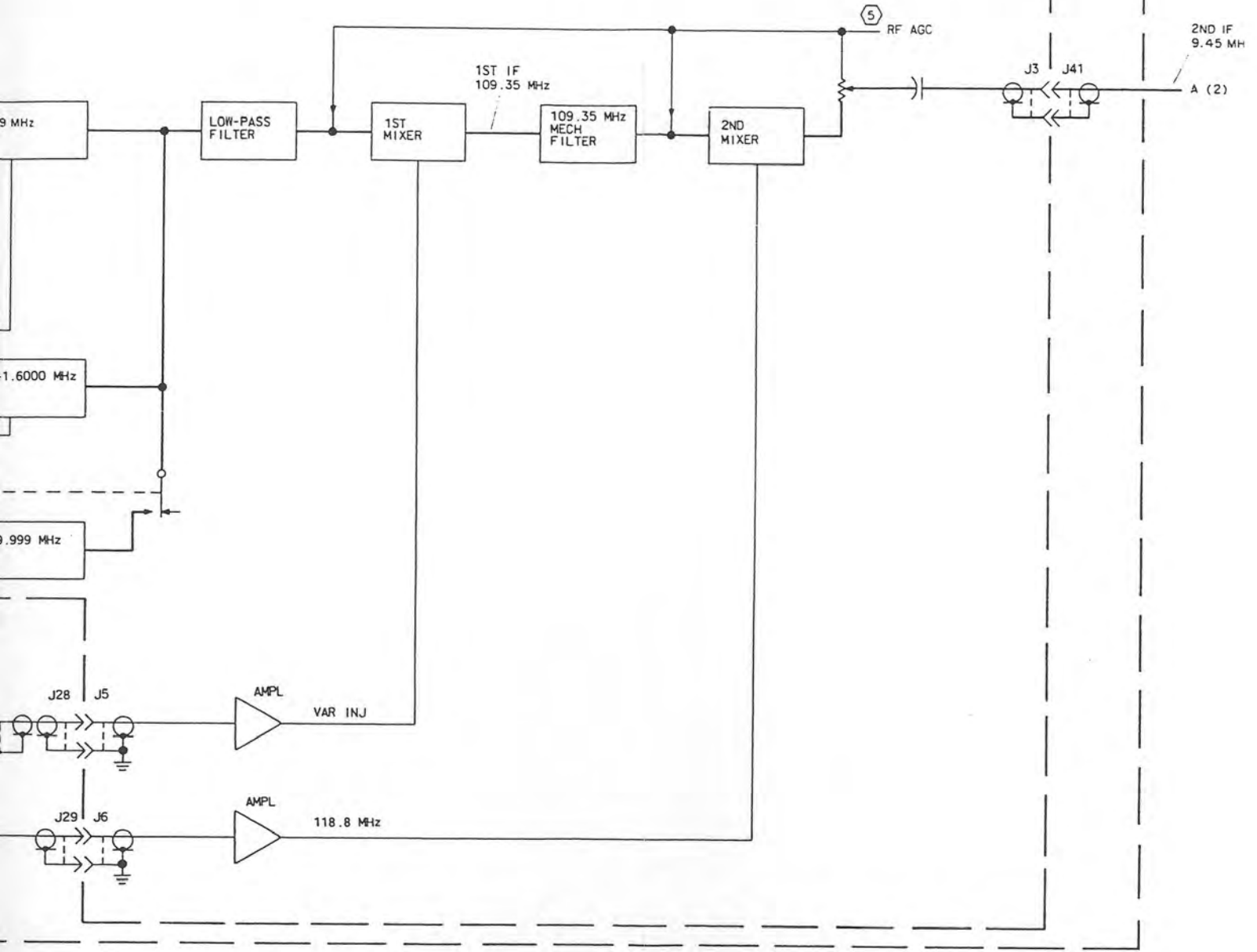


NOTES:

- (1) PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. FOR COMPLETE DESIGNATION, PREFIX WITH UNIT AND/OR ASSEMBLY DESIGNATION.
- (2) REFER TO MONITOR CONTROL FOR FAULT AND STATUS INDICATORS AND METERING CIRCUITS.
- (3) REFER TO MODE AND OPERATING CONTROLS, FREQUENCY OPERATING CONTROLS FOR BANDPASS FILTER AND FREQUENCY SELECTION.
- (4) REFER TO FREQUENCY CONTROL (SYNTHESIZER) FOR FREQUENCY GENERATION.
- (5) REFER TO MODE AND OPERATING CONTROLS, RF AND SQUELCH FOR AGC AND SQUELCH OPERATION.

- (6) REFER BAND
- (7) STAND 63 63
- (8)

SY A28



⑥ REFER TO MODE AND OPERATING CONTROLS, MODE AND BANDWIDTH FOR MODE, BANDWIDTH FILTER, AND RECEIVE AF SELECTION.

⑦ STANDARD BANDPASS FILTERING:
 637-1767-002 BROADBAND 109.35 MHz FILTER (± 6.10 kHz AT 0.5 dB POINTS).
 637-1767-003 NARROW BAND HIGH PERFORMANCE 109.35 MHz FILTER (± 7.50 kHz AT 3 dB POINTS).

⑧ INDICATES HARD-WIRED CONNECTIONS.
 INDICATES GROUP OF WIRES IN A RIBBON CABLE.

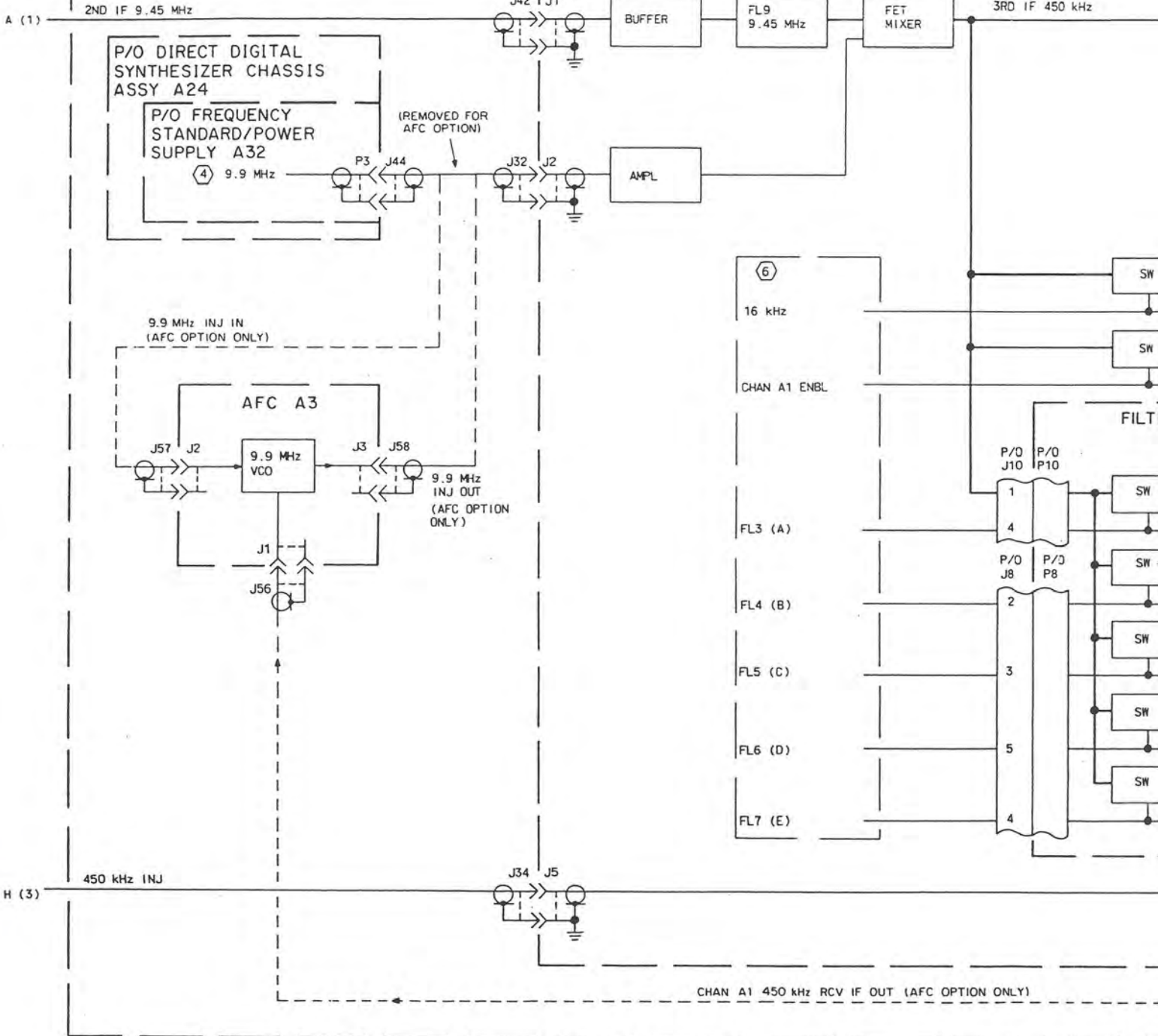
⑨ J12 AND J17 ARE SOLDERED INTO AND ARE PART OF SIDEBOARD ASSEMBLY A28 (THERE IS NO MATING CONNECTOR FOR J12 OR J17).

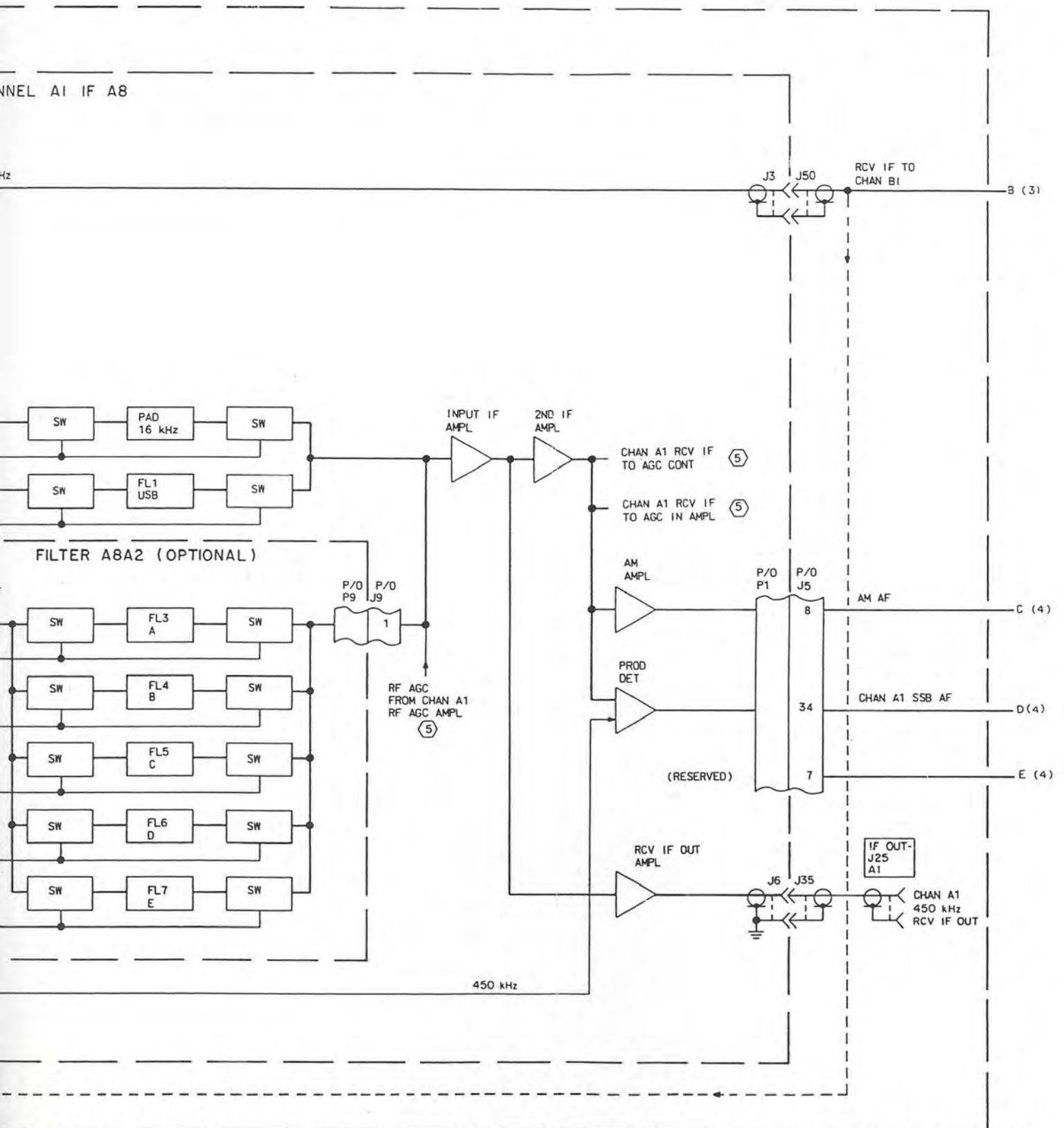
TPA-7764-045

HF-8054A Receiver (622-3475-210),
 Receive Function, Block Diagram
 Figure 2A (Sheet 1 of 4)

P/O SIDEBOARD ASSY A28

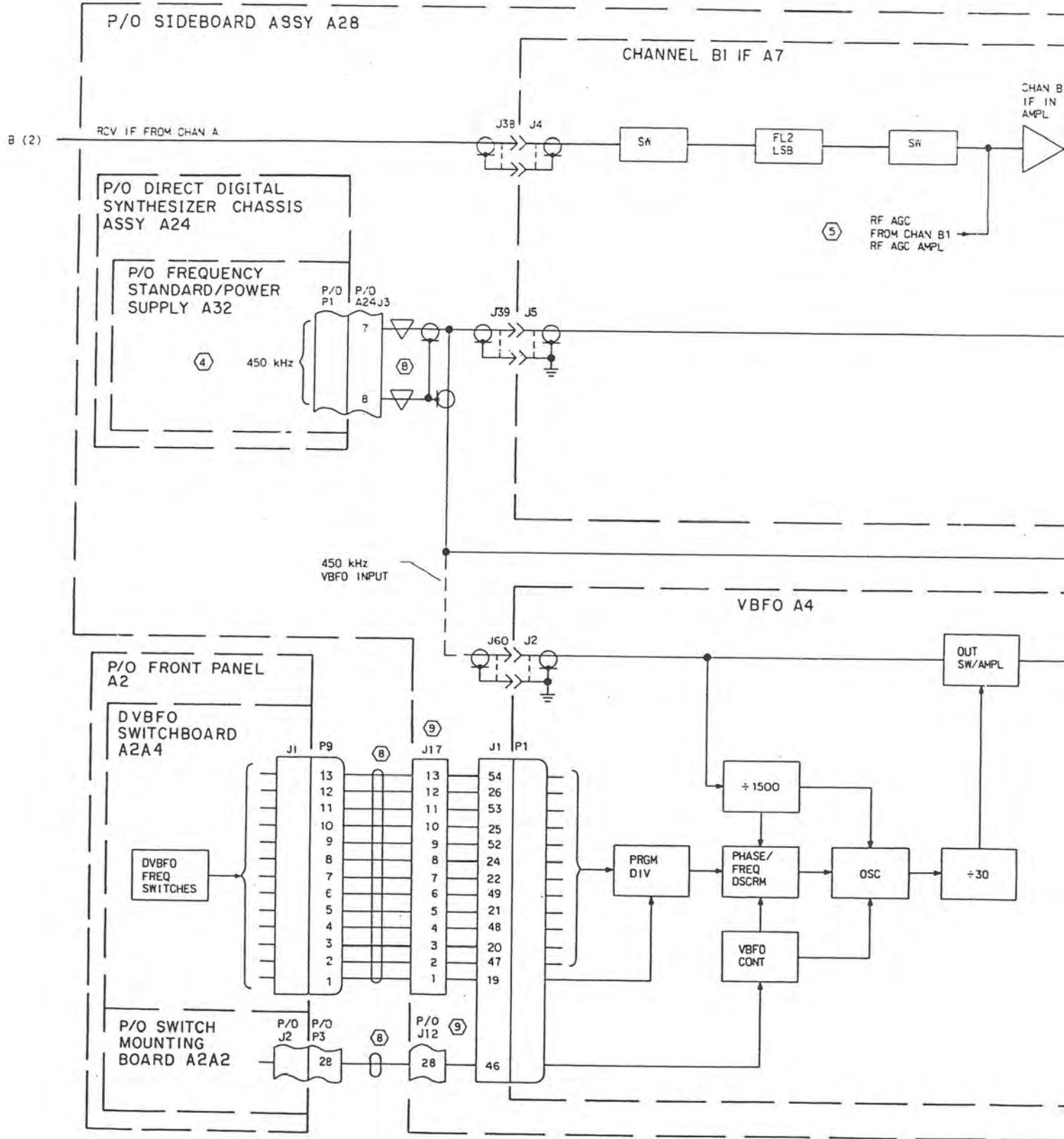
CHANNEL A1

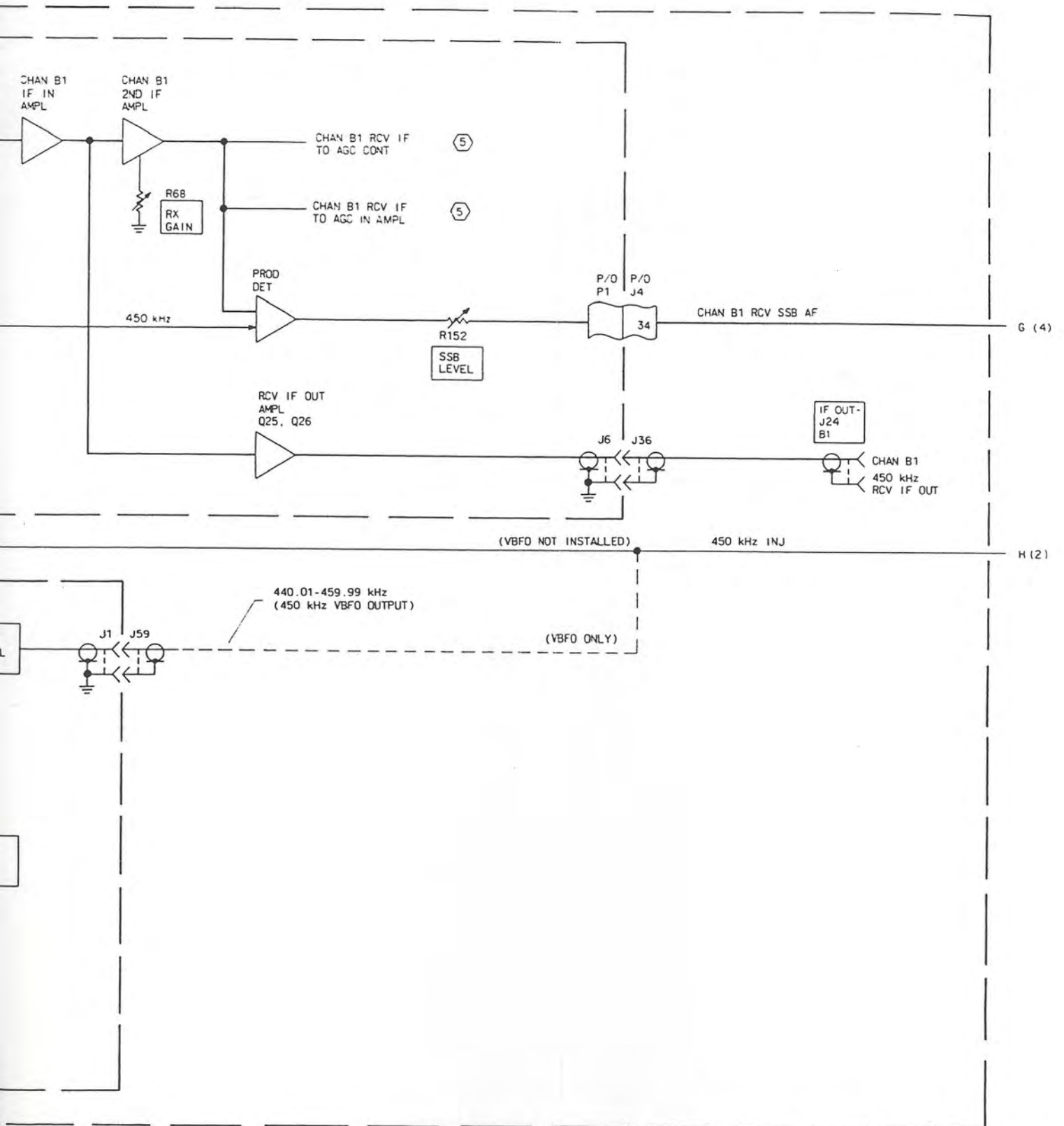




TPA-7764-045

HF-8054A Receiver (622-3475-210),
 Receive Function, Block Diagram
 Figure 2A (Sheet 2)

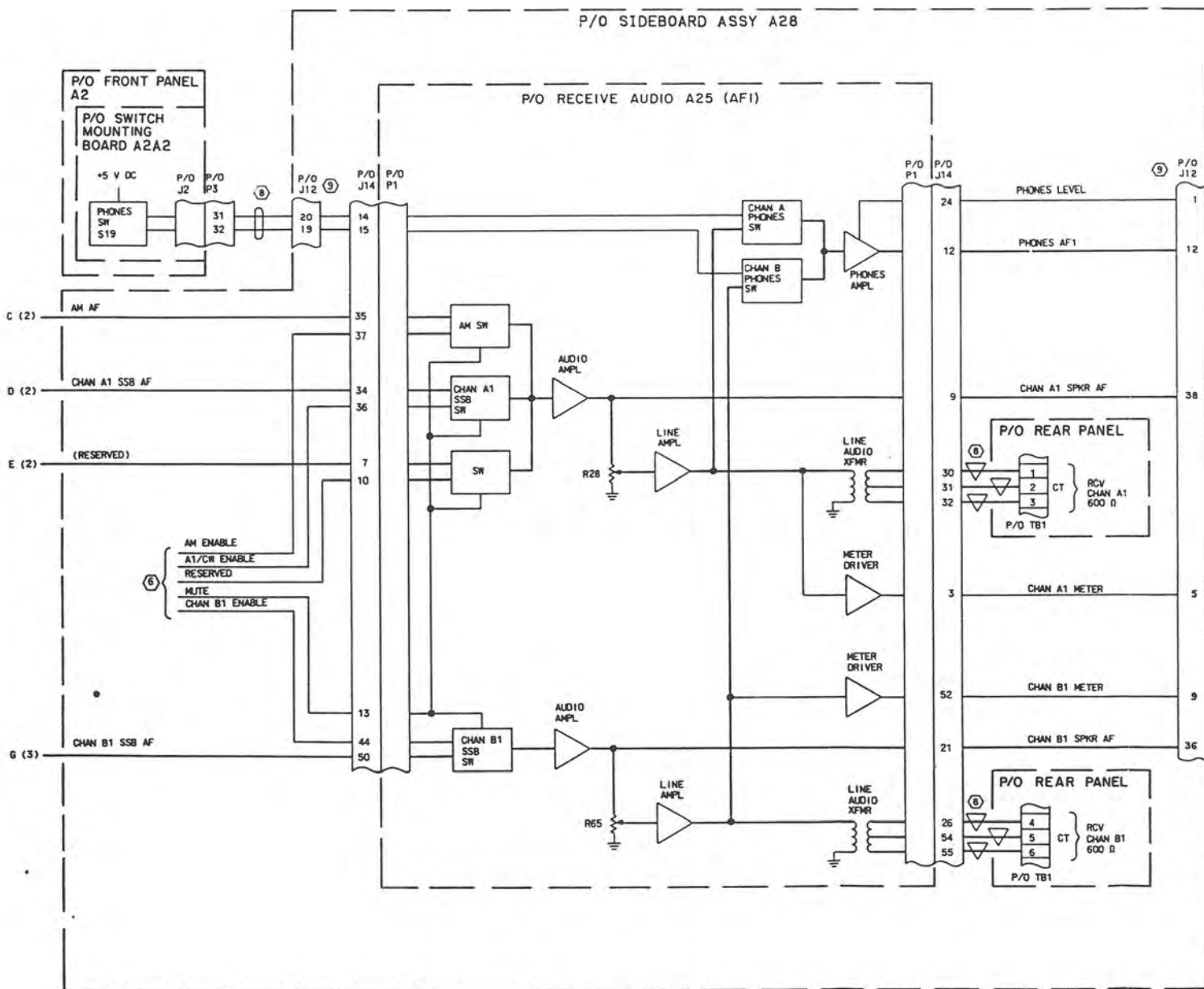


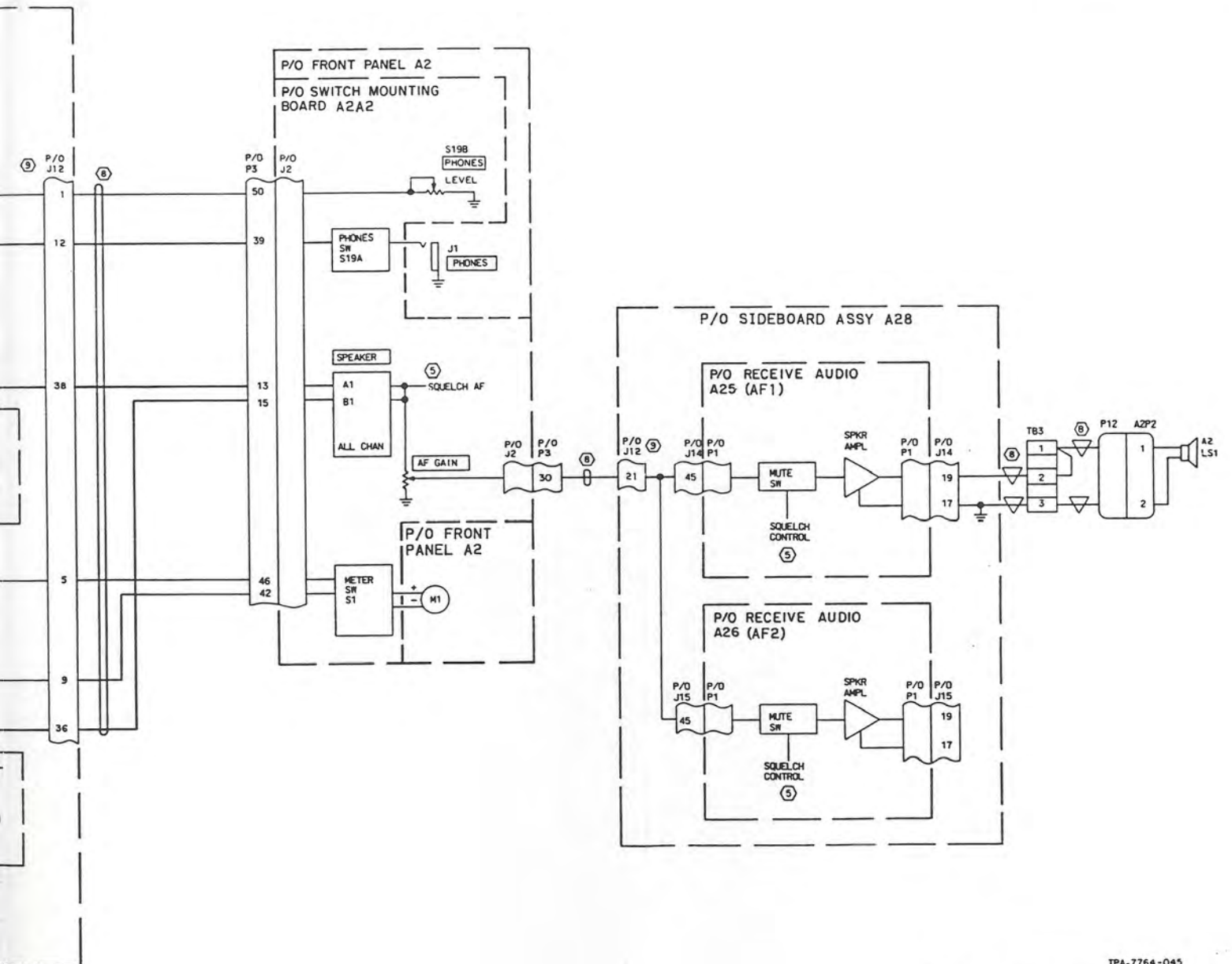


TPA-7764-045

HF-8054A Receiver (622-3475-210),
 Receive Function, Block Diagram
 Figure 2A (Sheet 3)

P/O SIDEBORD ASSY A28





TPA-7764-045

HF-8054A Receiver (622-3475-210),
Receive Function, Block Diagram
Figure 2A (Sheet 4)

2.2.1 Mode and Bandwidth (Refer to figure 3)

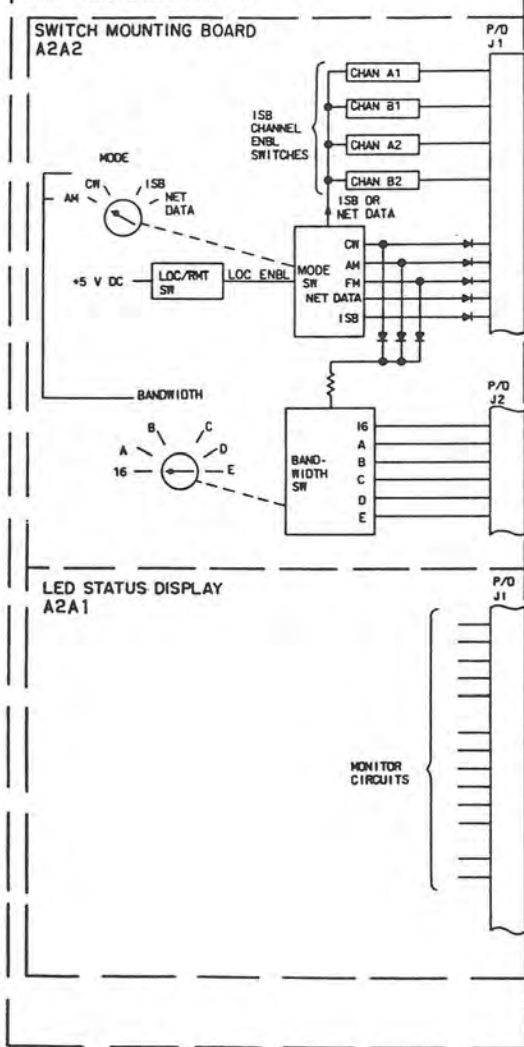
Place figure 3A behind figure 3 and figure 4A behind figure 4. Refer to figure 3A and 4A for HF-8054A Receiver (622-3475-210). Step d of the first paragraph is not applicable. Sentences three and four of paragraph ten are not applicable. Substitute the following paragraph for paragraph twelve.

When an external controlling device is used, the same mode and bandwidth operations apply, except the control signals are supplied as either serial data to serial interface A13 or parallel data to parallel interface A31. The serial data is converted to parallel data on parallel output card A12. The outputs of parallel output A12 are bussed as are the parallel outputs of the parallel interface A31 to the direct digital synthesizer A24 and the control A10. Signals applied to J67/A31P2 DDS INPUT are not applied anywhere except directly to direct digital synthesizer VFO/VCO module A33.

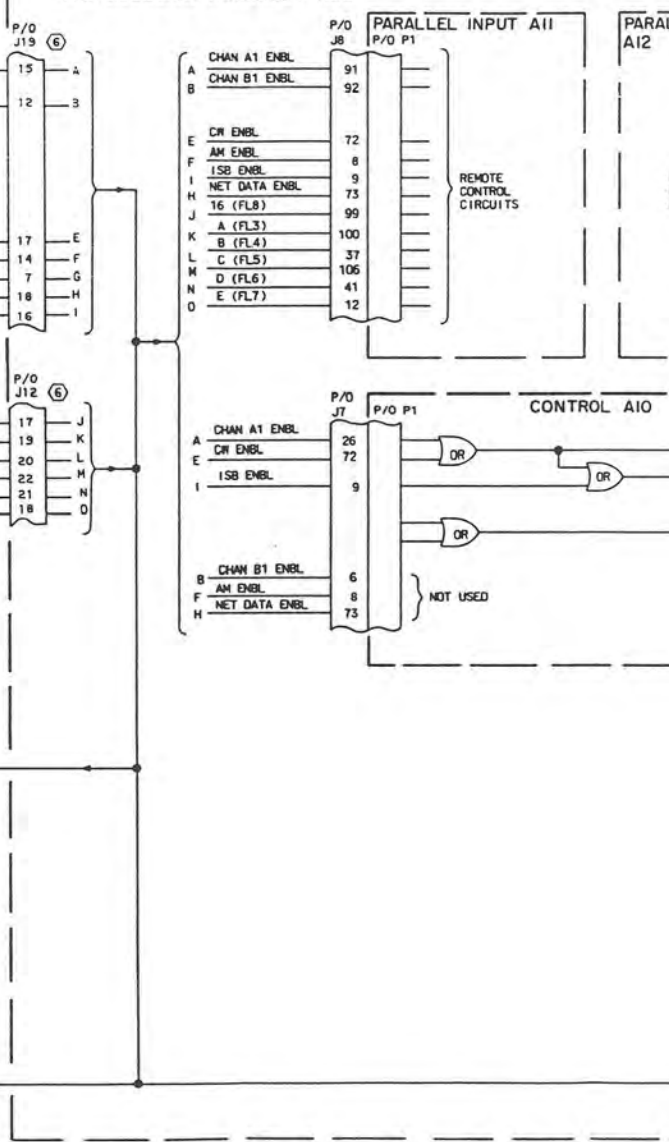
2.2.2 Audio (Refer to figure 5)

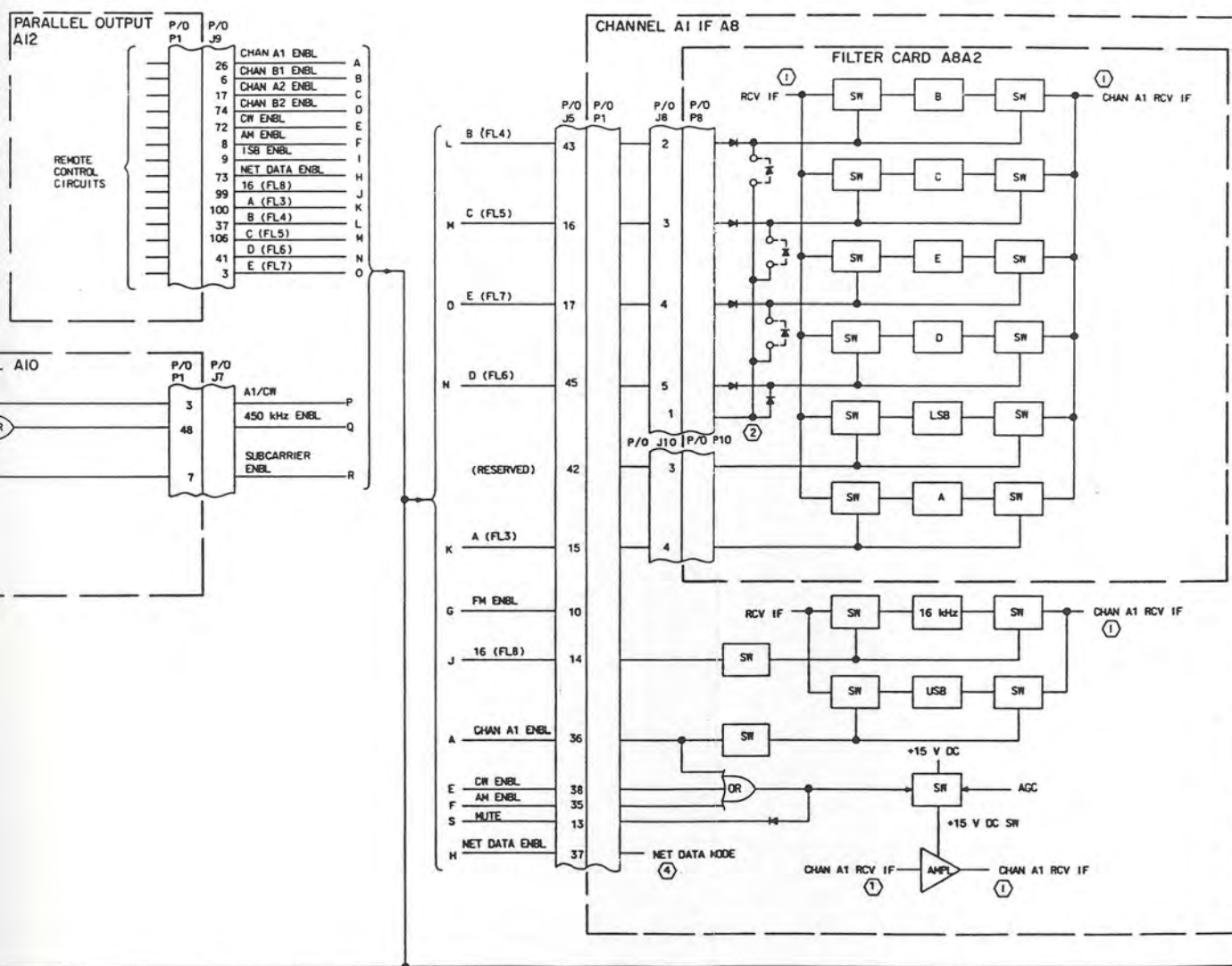
Place figure 5A behind figure 5 and refer to figure 5A for HF-8054A Receiver (622-3475-210). In the second paragraph, delete the reference to A26 in sentence 1 and the references to A2 and B2 in sentences 2 and 11. Sentences 7, 8, 9, and 10 are not applicable. In the third paragraph, delete the reference to A26 in sentence 1 and the references to A2 and B2 in sentences 2 and 11. Sentences 7, 8, 9, and 10 are not applicable. In the fifth paragraph, delete the reference to A26 in sentence 1; sentences 8, 9, 10, 11, 12, and 13 are not applicable.

FRONT PANEL ASSEMBLY A2



P/O SIDEBORD ASSEMBLY A28

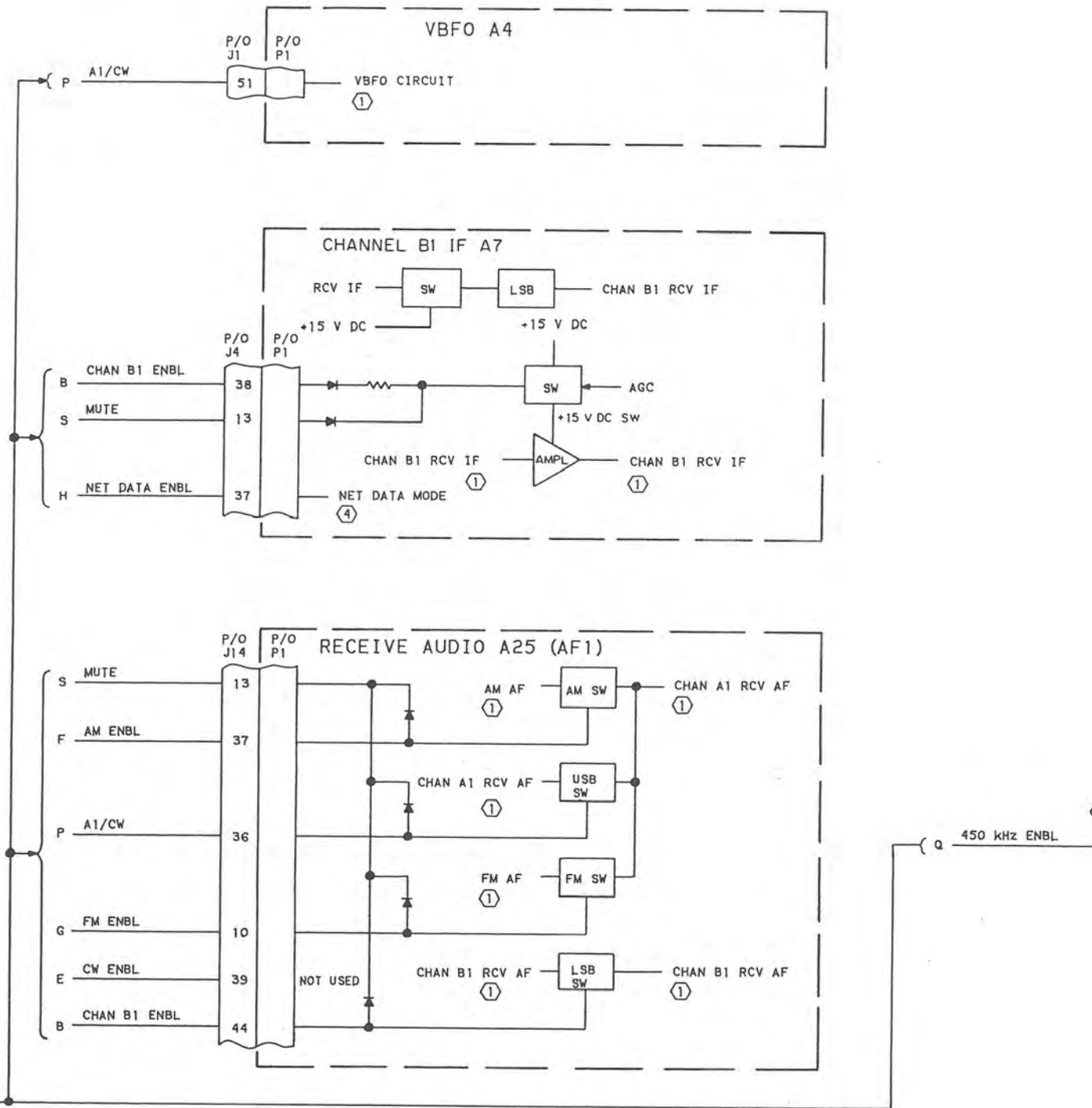


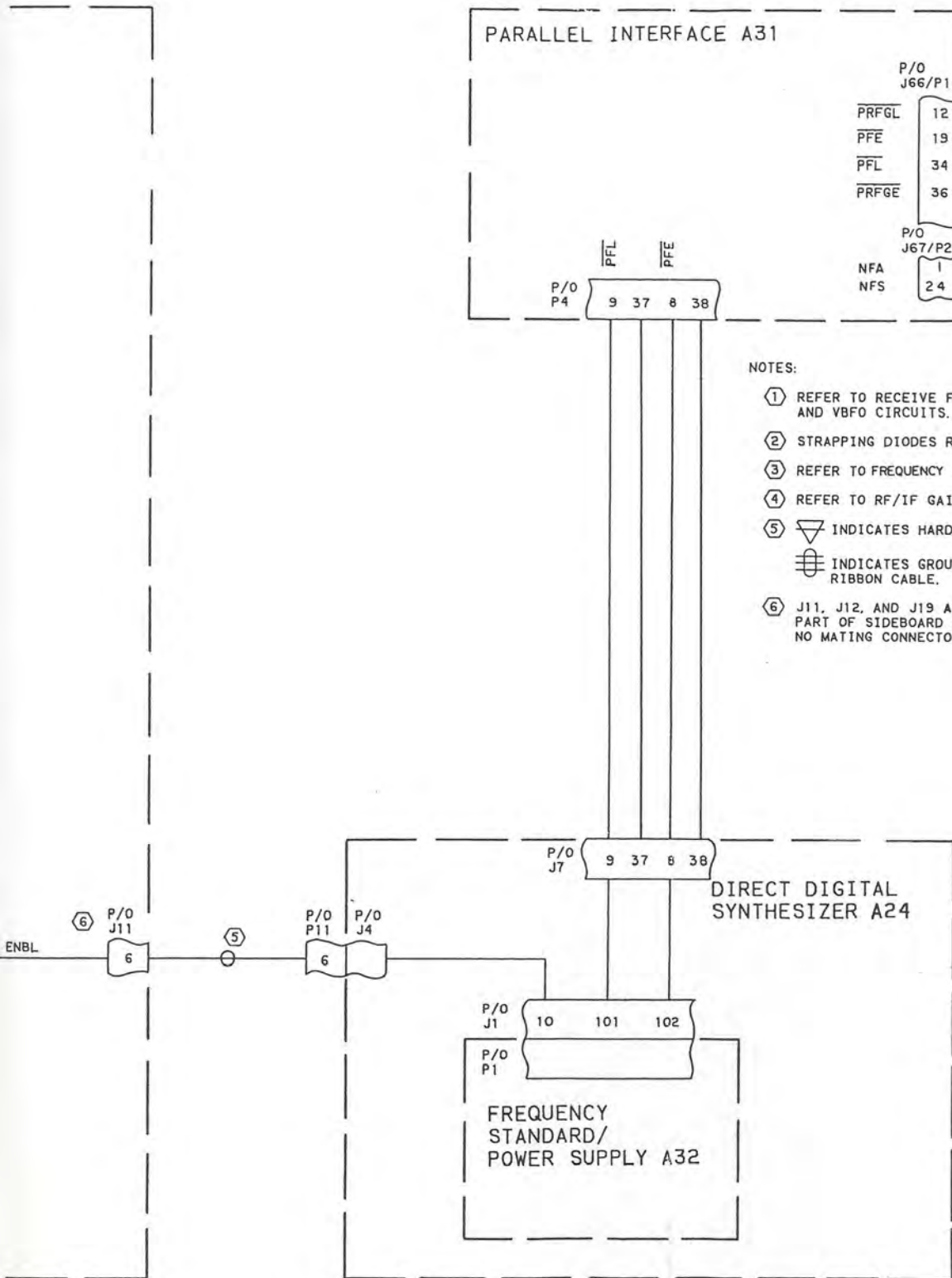


A (2)

HF-8054A Receiver (622-3475-210),
Mode and Bandwidth, Block Diagram
Figure 3A (Sheet 1 of 2)

P/O SIDEBORD ASSEMBLY A28





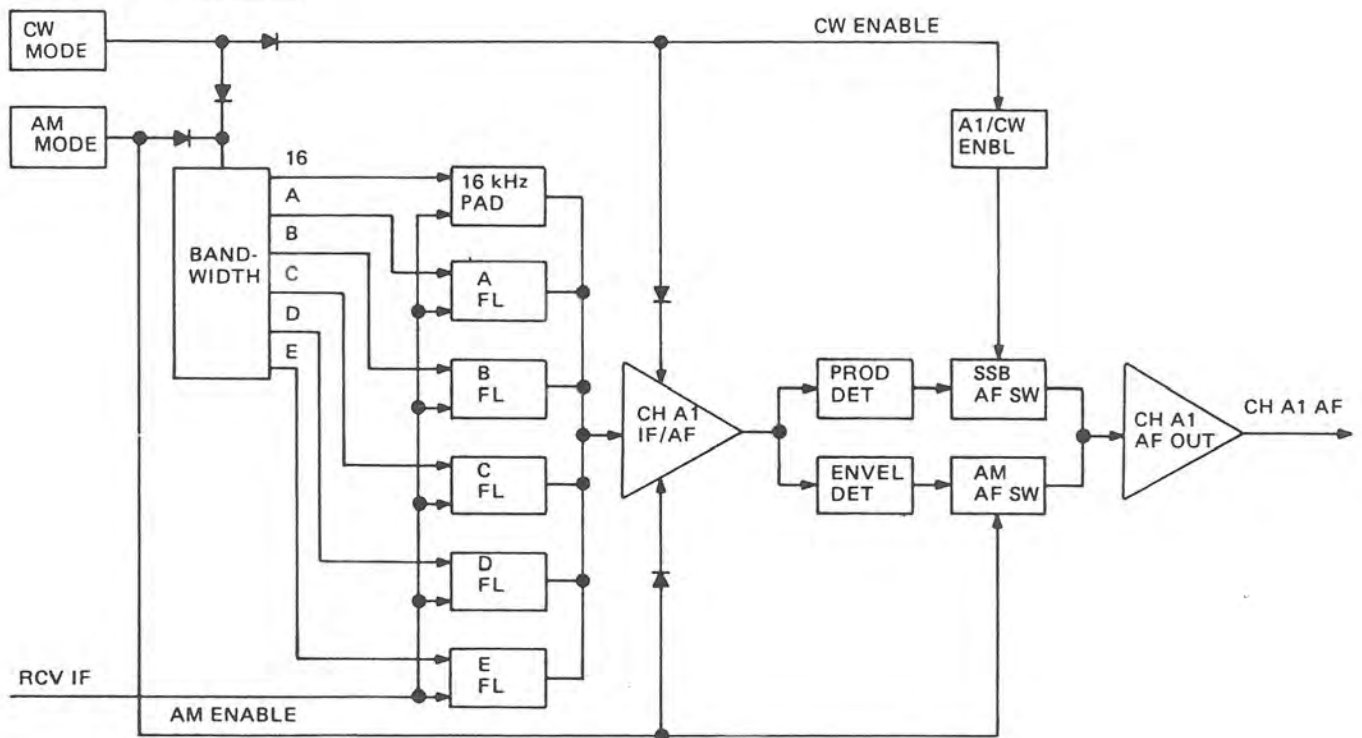
NOTES:

- ① REFER TO RECEIVE FUNCTION FOR RECEIVE IF, RECEIVE AF, AND VBFO CIRCUITS.
- ② STRAPPING DIODES RESERVED FOR FUTURE USE.
- ③ REFER TO FREQUENCY SYNTHESIZER FUNCTION.
- ④ REFER TO RF/IF GAIN FUNCTION FOR NET DATA MODE.
- ⑤ ▽ INDICATES HARD-WIRED CONNECTION.
- ⑥ ⊞ INDICATES GROUP OF WIRES IN A RIBBON CABLE.
- ⑥ J11, J12, AND J19 ARE SOLDERED INTO AND ARE PART OF SIDEBOARD ASSEMBLY A28 (THERE IS NO MATING CONNECTOR FOR J11, J12, AND J19).

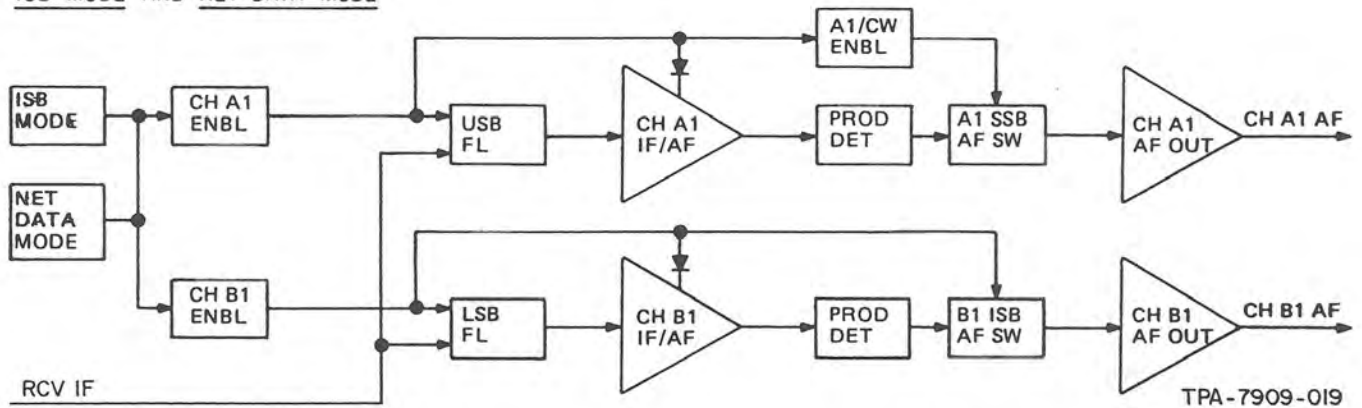
TPA-7763-025

HF-8054A Receiver (622-3475-210),
Mode and Bandwidth, Block Diagram
Figure 3A (Sheet 2)

CW MODE AND AM MODE





ISB MODE AND NET DATA MODE

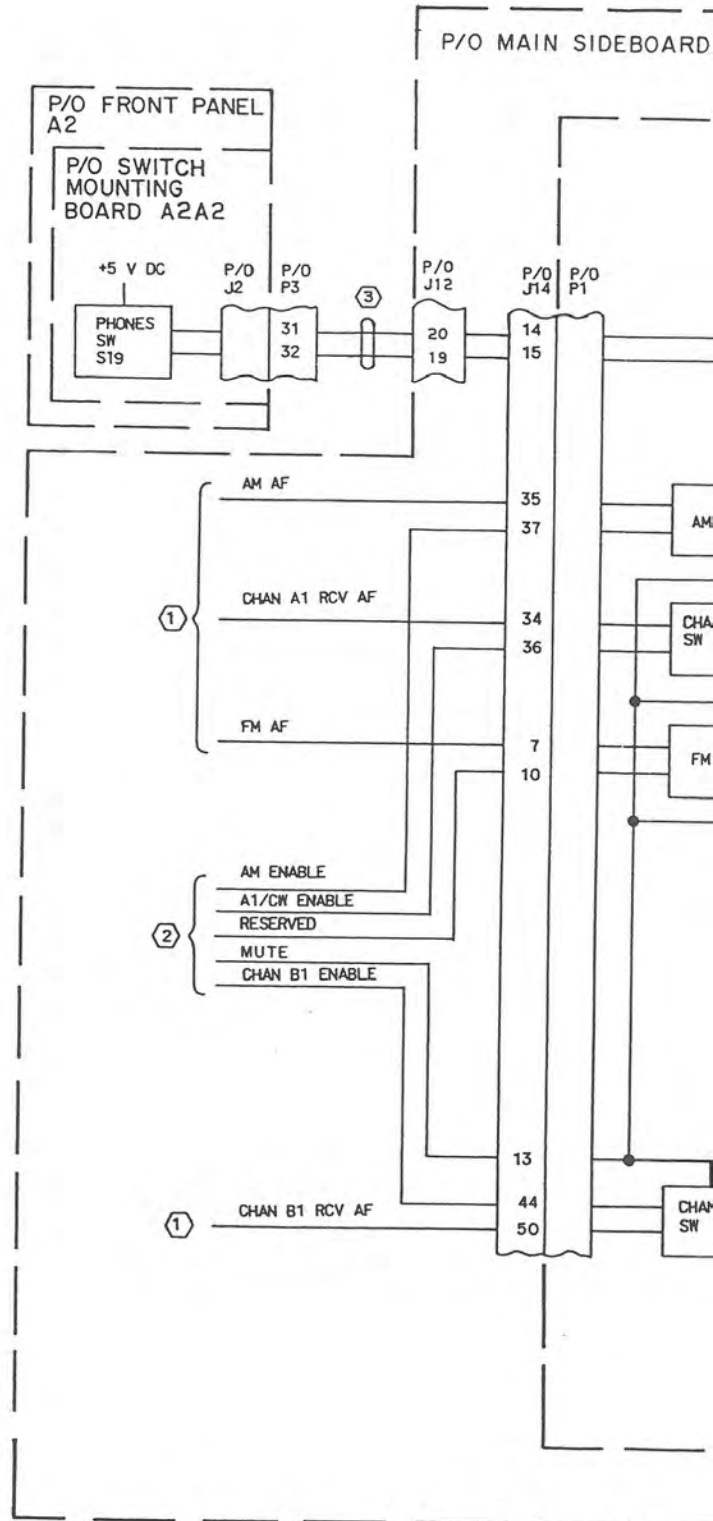


TPA-7909-019

HF-8054A Receiver (622-3475-210), Mode and Bandwidth Selection,
Simplified Diagram
Figure 4A

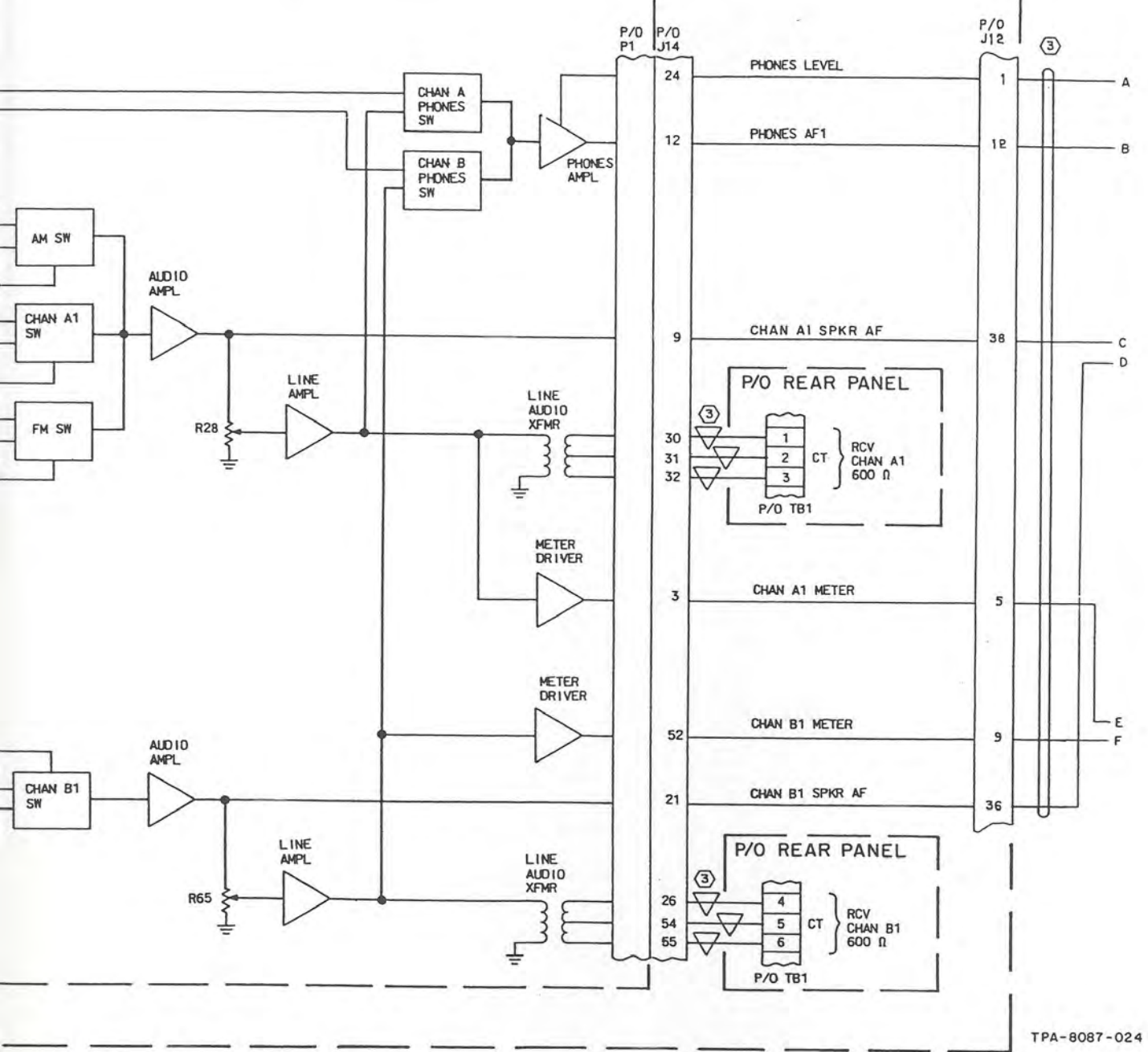
NOTES:

- ① TO RECEIVE FUNCTION.
- ② TO MODE AND BANDWIDTH FUNCTION.
- ③  INDICATES HARD-WIRED CONNECTION.
-  INDICATES GROUP OF WIRES IN A RIBBON CABLE.
- ④ J12 IS SOLDERED INTO AND IS PART OF SIDEBOARD ASSEMBLY A28 (THERE IS NO MATING CONNECTOR FOR J12).



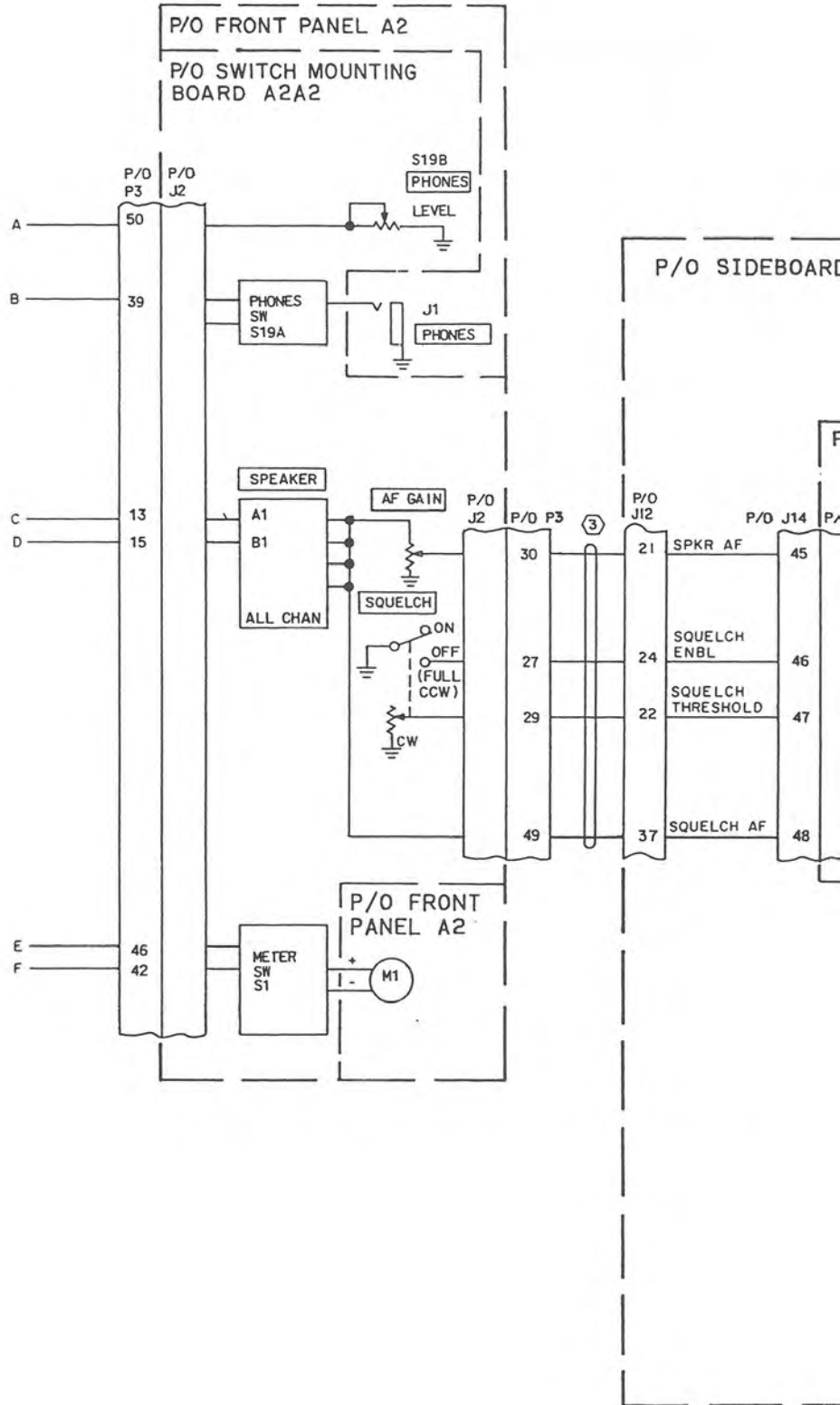
BOARD A28

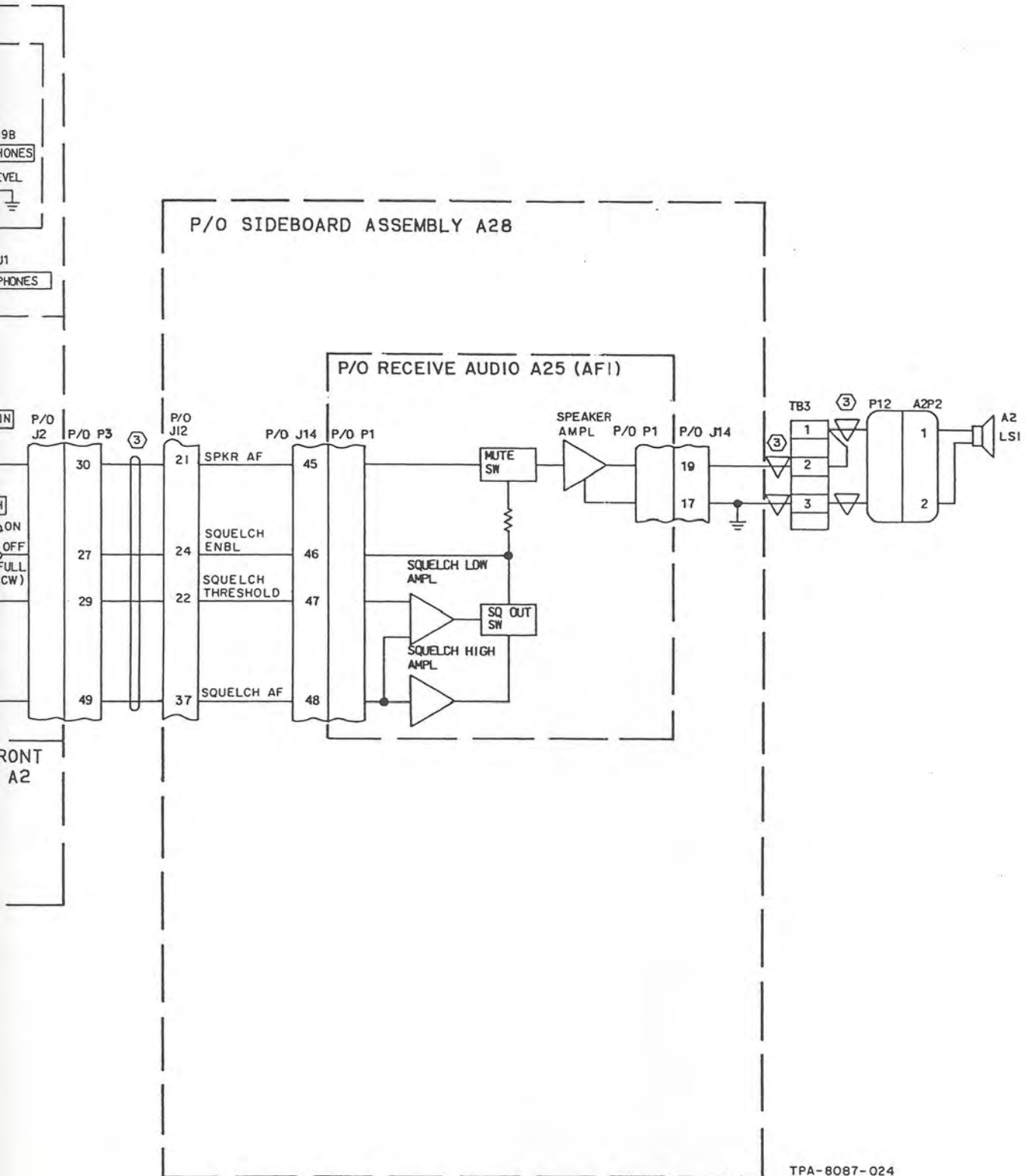
P/O RECEIVE AUDIO A25 (AF1)



TPA-8087-024

HF-8054A Receiver (622-3475-210),
 Audio Circuits, Block Diagram
 Figure 5A (Sheet 1 of 2)





TPA-8087-024

HF-8054A Receiver (622-3475-210),
 Audio Circuits, Block Diagram
 Figure 5A (Sheet 2)

2.2.3 IF/RF Gain Control (Refer to figure 6)

Place figure 6A behind figure 6 and refer to figure 6A for HF-8054A Receiver (622-3475-210). In the third paragraph, first sentence, delete reference to A2 and B2. In the seventh paragraph, second sentence, delete reference to channel A2 if A6 and channel B2 if A5. In table 3, the column for A2 and B2 are not applicable. Substitute the following paragraph for paragraph 6.

When the receiver is using remote control with AGC disabled, if/rf gain is controlled by the remote rf gain input. This control voltage has the same sensitivity as the AGC output voltage (50 mV/dB) and originates either in a d/a converter circuit in parallel output A12 for serial input, or the parallel interface A31 for parallel input. The inputs are 5 binary weighted signals (see remote control word format, figures 8 through 10) that provide a total gain control range of 93 dB in 3-dB steps.

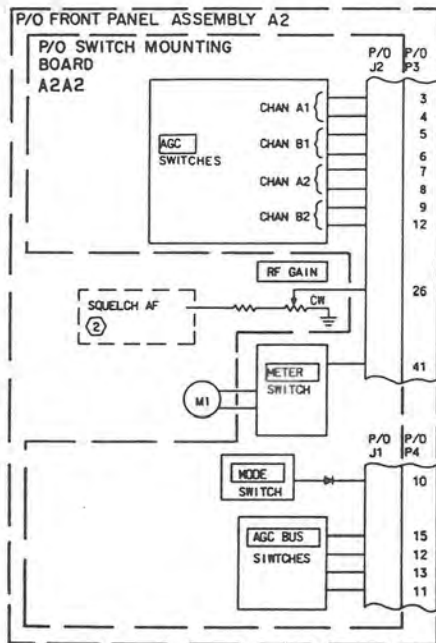
2.2.4 Frequency Control (Refer to figure 7)

Place figure 7A behind figure 7. Refer to figure 7A for HF-8054A Receiver (622-3475-210). Paragraphs 1, 2, 3, and 4 are not applicable. Add the following paragraphs for coverage of the HF-8054A Receiver (622-3475-210).

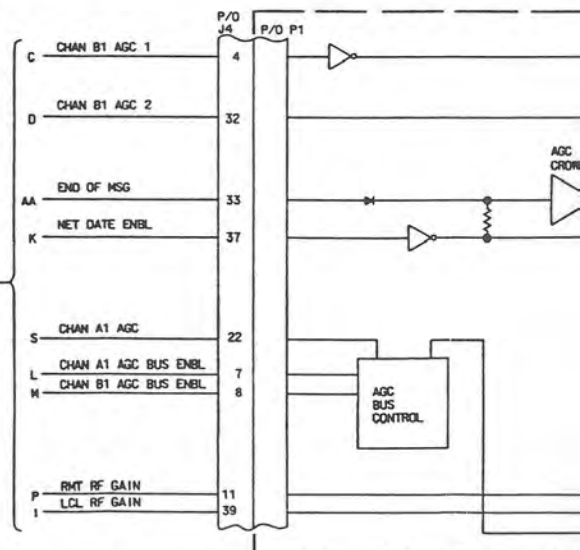
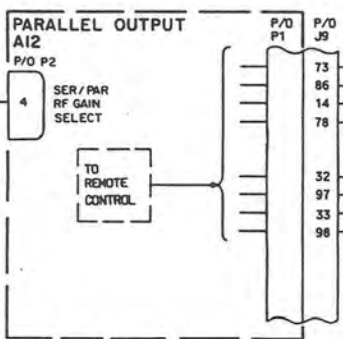
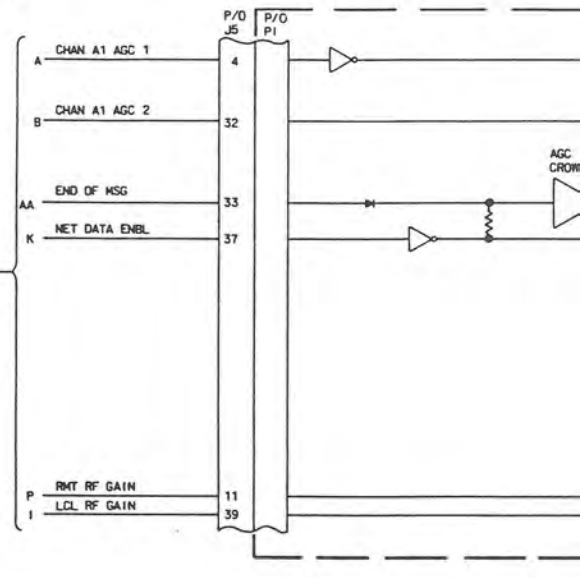
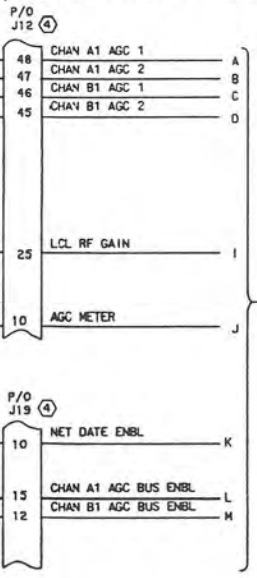
The receiver frequency is controlled by parallel coded-frequency inputs to VFO/VCO module A33 in direct digital synthesizer A24. These inputs come from either DDS control interface A33 or parallel interface A31. The signals from the parallel interface enter the receiver at J67/A31P2 DDS input and are supplied by a compatible processor. These signals control the frequency directly and provide the fastest rate of change.

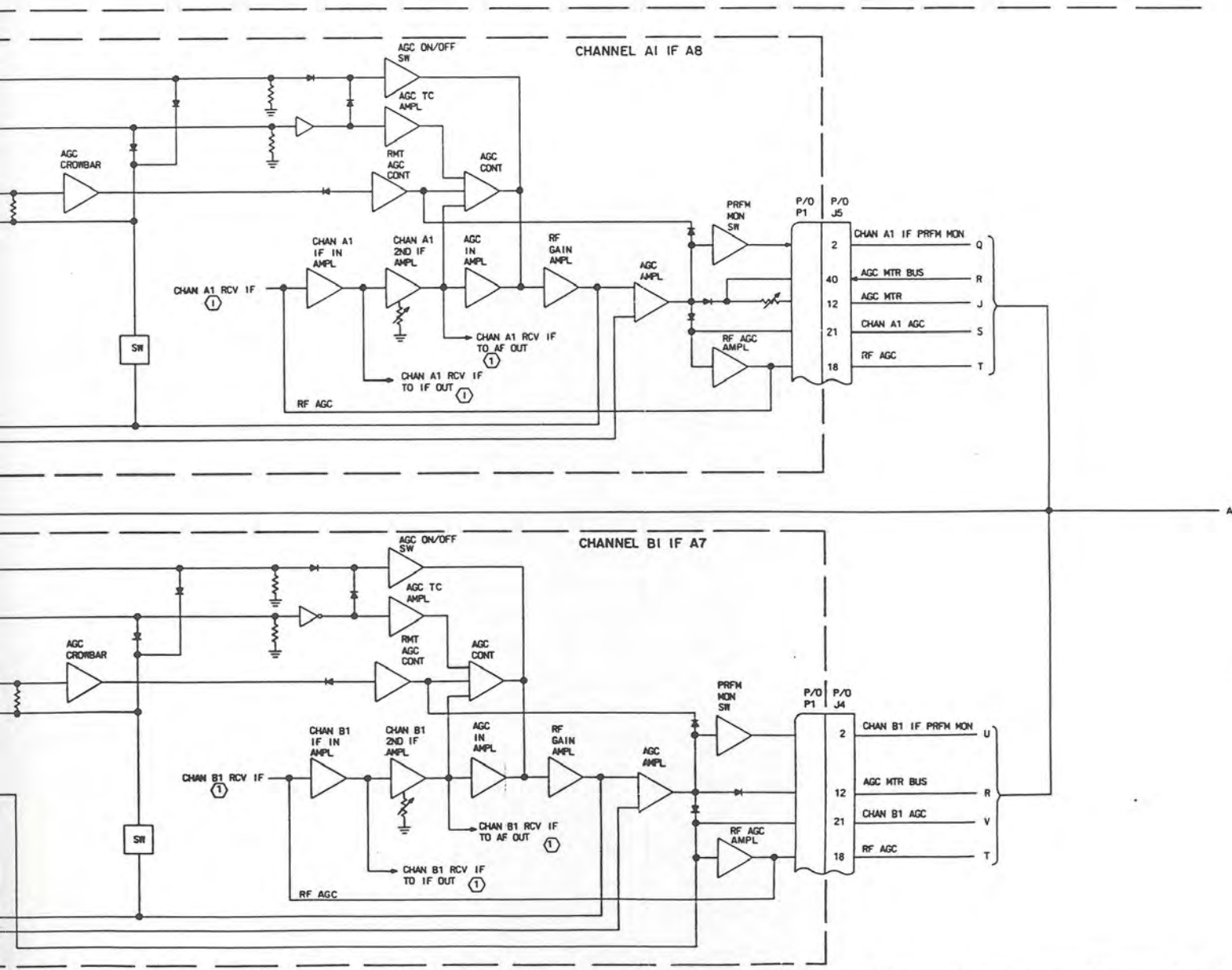
The output of the DDS control interface is derived from parallel bcd frequency signals from either the front-panel controls, parallel output card A12, or parallel interface A31. Parallel bcd frequency inputs in 10-Hz steps are supplied directly from thumbwheel switches on A2A3 through P2 and J11 to J7, J8 and P11 to the direct digital synthesizer. Frequency data in 1-Hz steps is supplied by the serial and parallel remote controls. The parallel output A12 data is the result of a serial-to-parallel conversion of signals applied to J14 REMOTE CONTROL on the rear panel and routed through serial interface A13. The parallel bcd frequency data from parallel interface A31 originate at J66/A31P1 PARALLEL INPUT and are latch-controlled on the A31.

All parallel bcd frequency inputs supplied to the direct digital synthesizer are also supplied through buffer/drivers in control A10 through rfi filters to preselector connector J16. Also, in control A10, the inputs are band-decoded and the resultant band signals are applied to rf translator module A9.



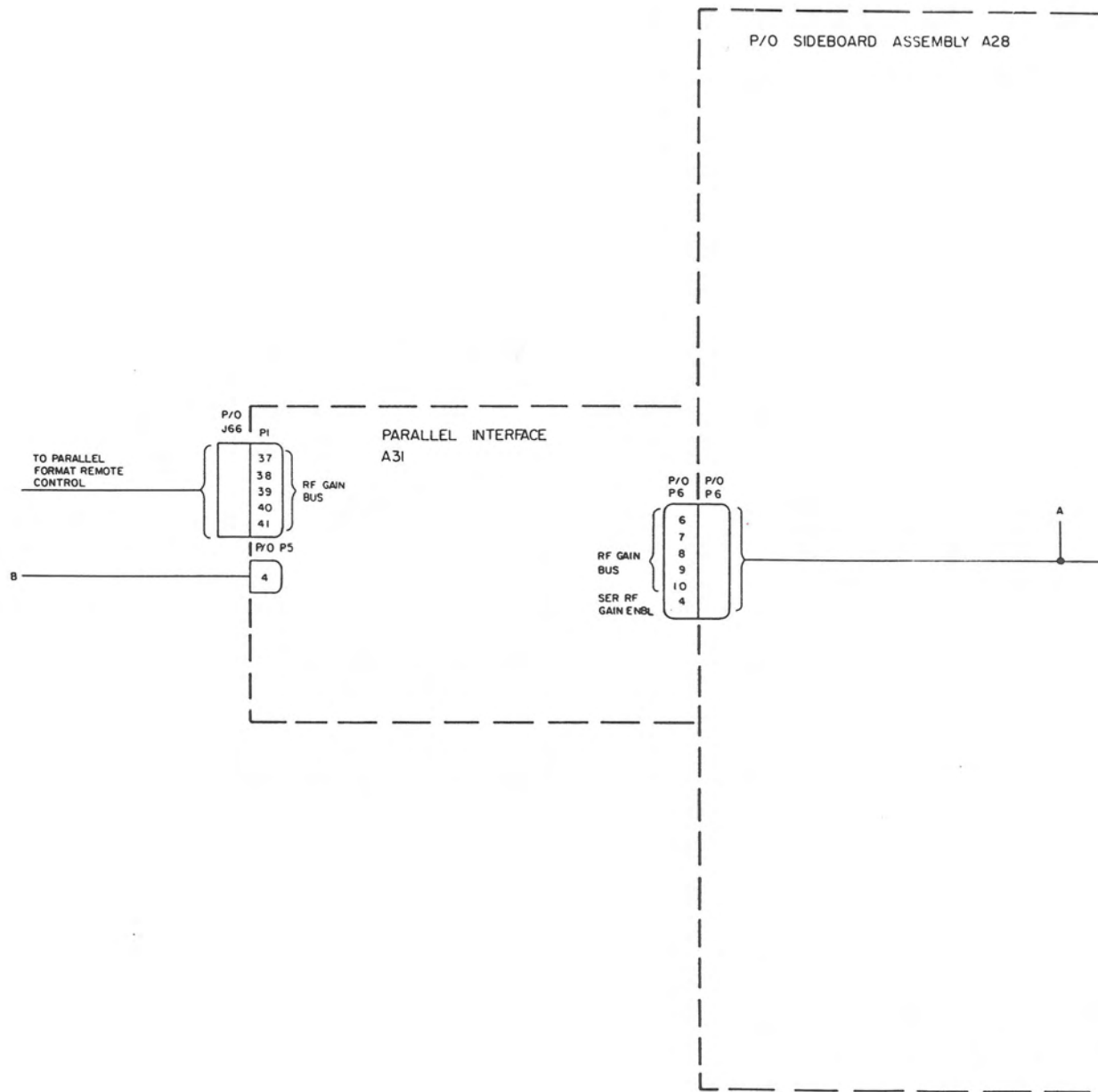
P/O SIDEBOARD ASSEMBLY A2B



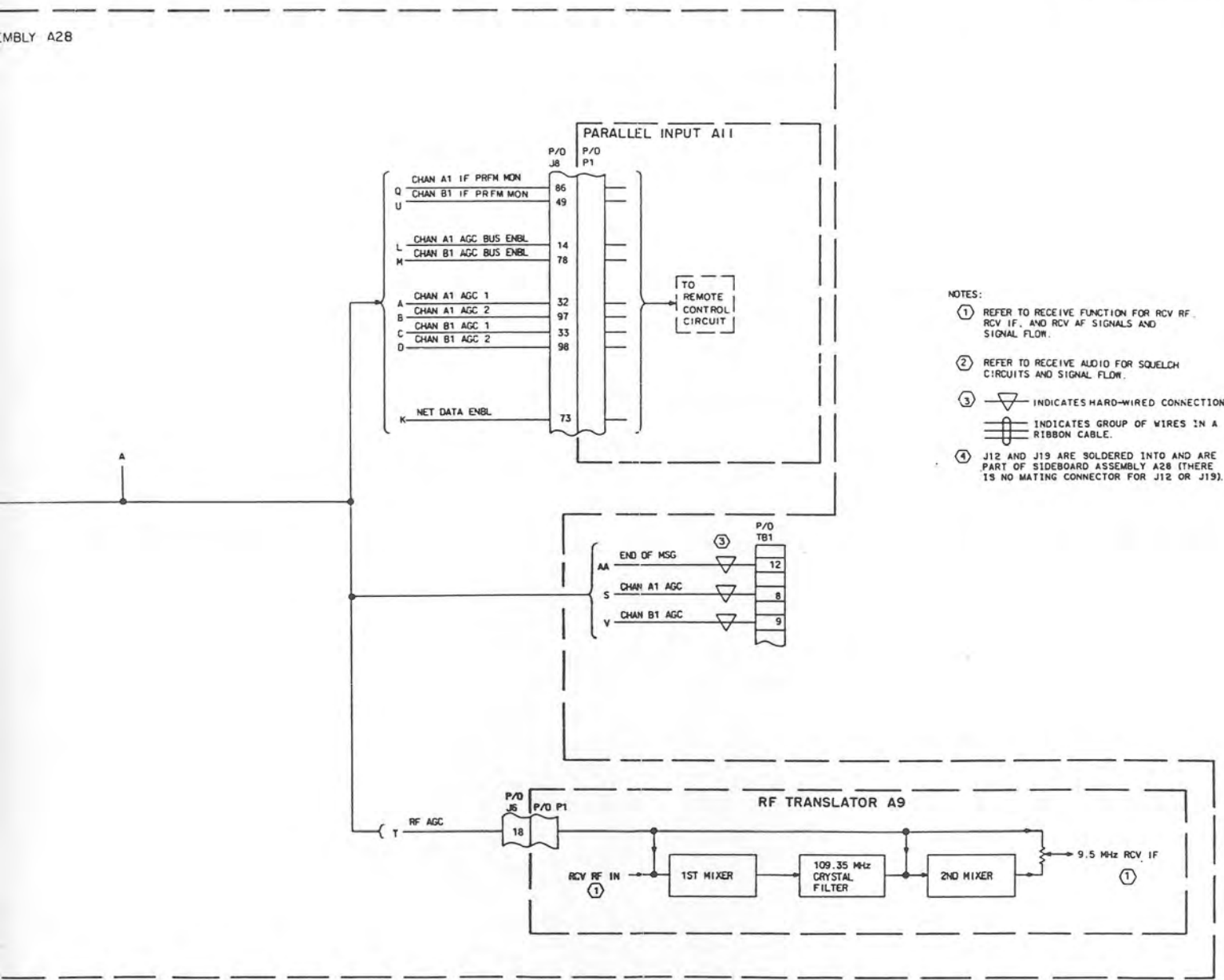


TPA-7765-025

HF-8054A Receiver (622-3475-210).
IF/RF Gain Control, Block Diagram
Figure 6A (Sheet 1 of 2)



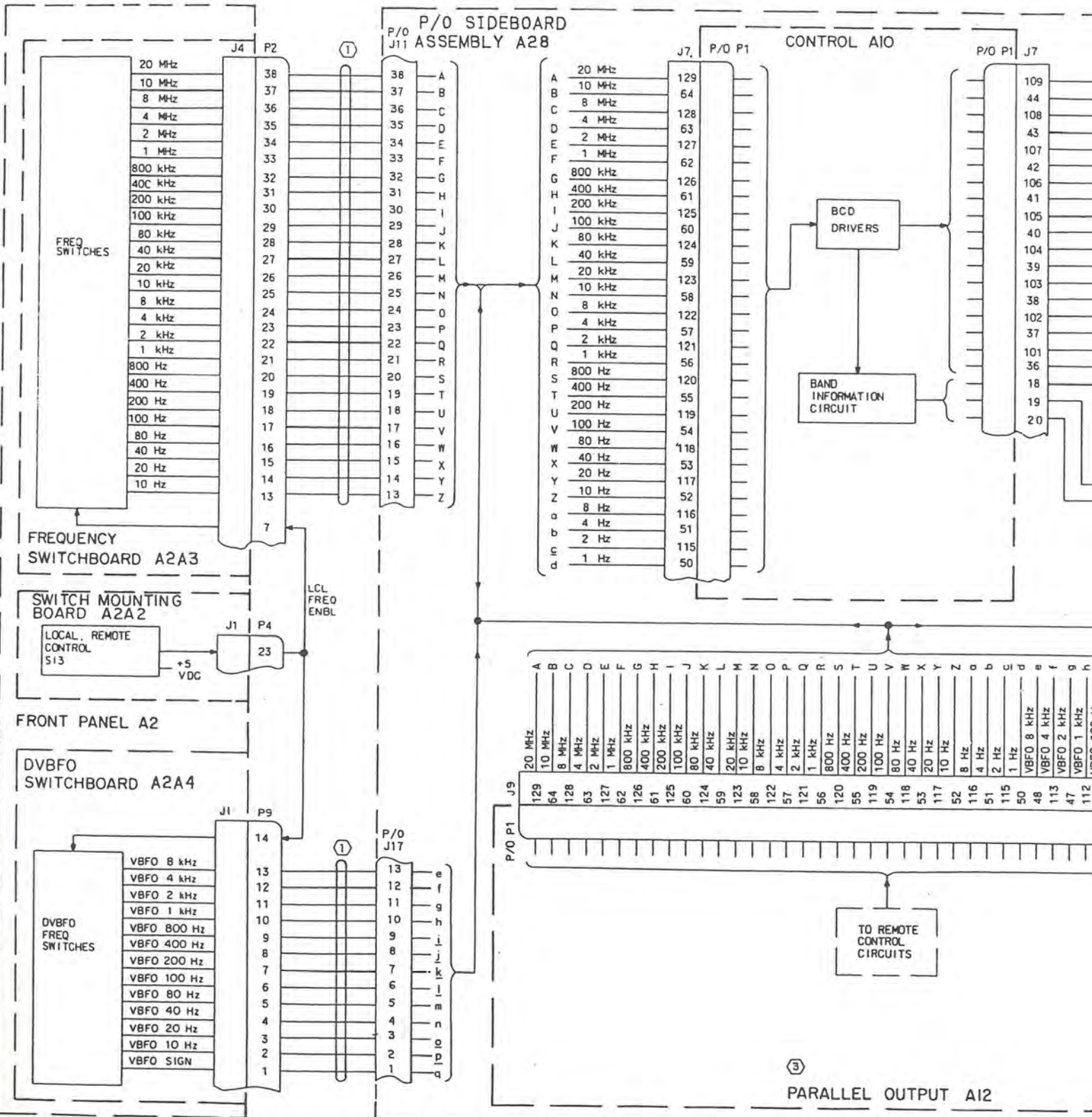
MBLY A28



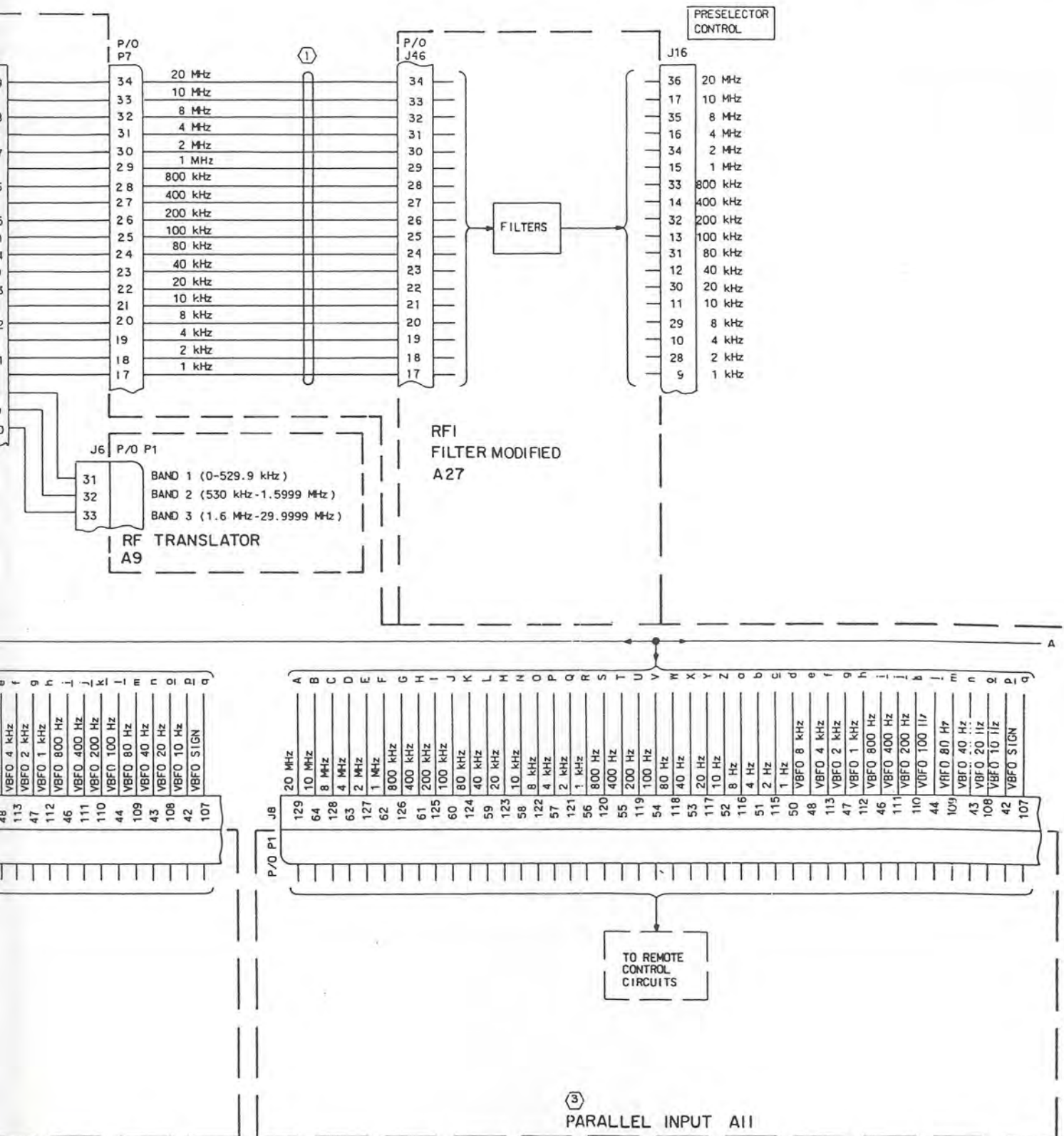
TPA-7765-025

HF-8054A Receiver (622-3475-210),
 IF/RF Gain Control, Block Diagram
 Figure 6A (Sheet 2)

P/O SIDEBOARD
ASSEMBLY A28



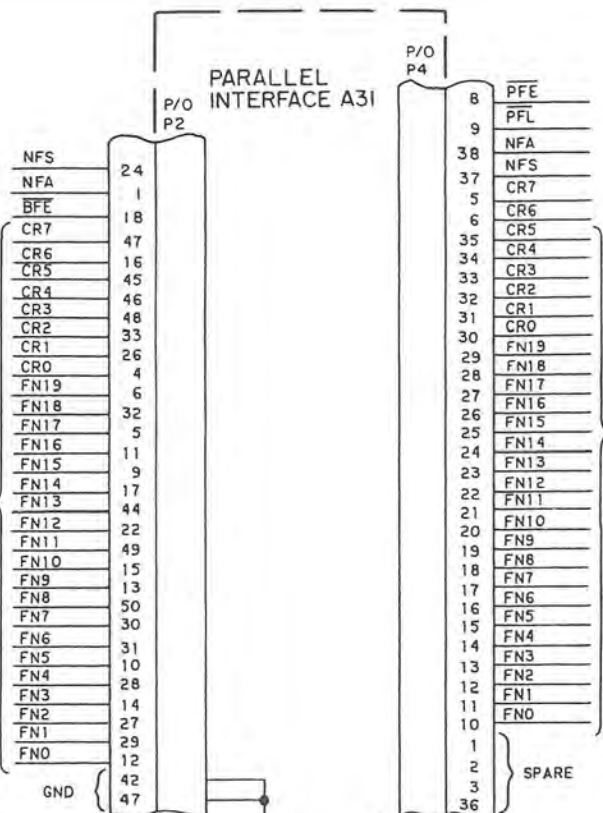
③
PARALLEL OUTPUT A12



TPA-7755 -034

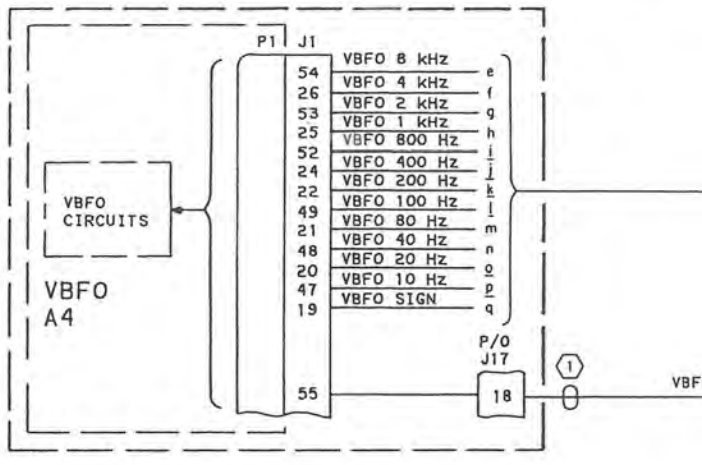
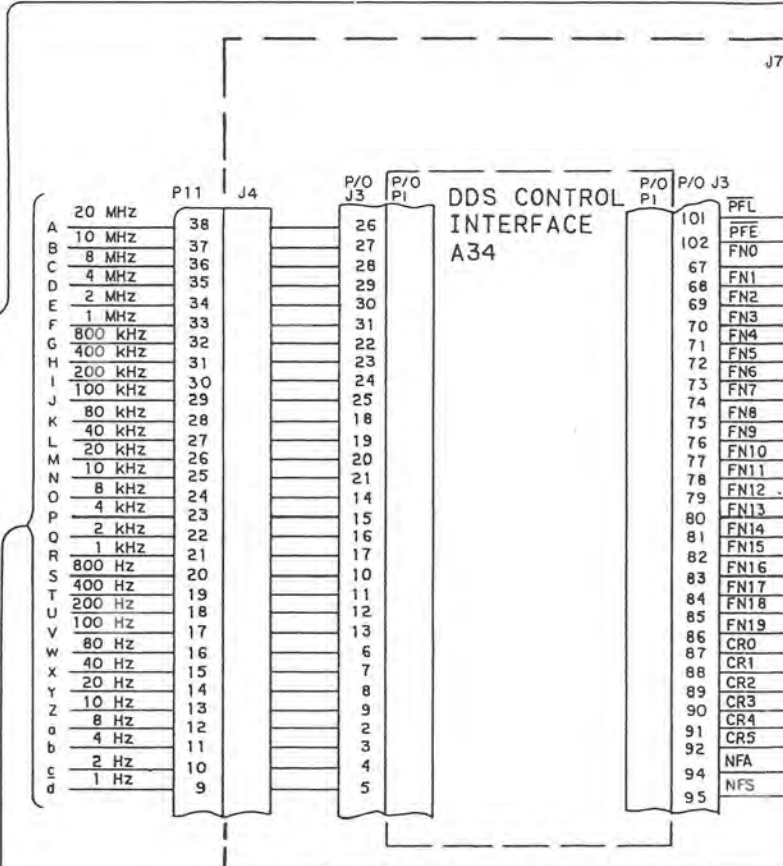
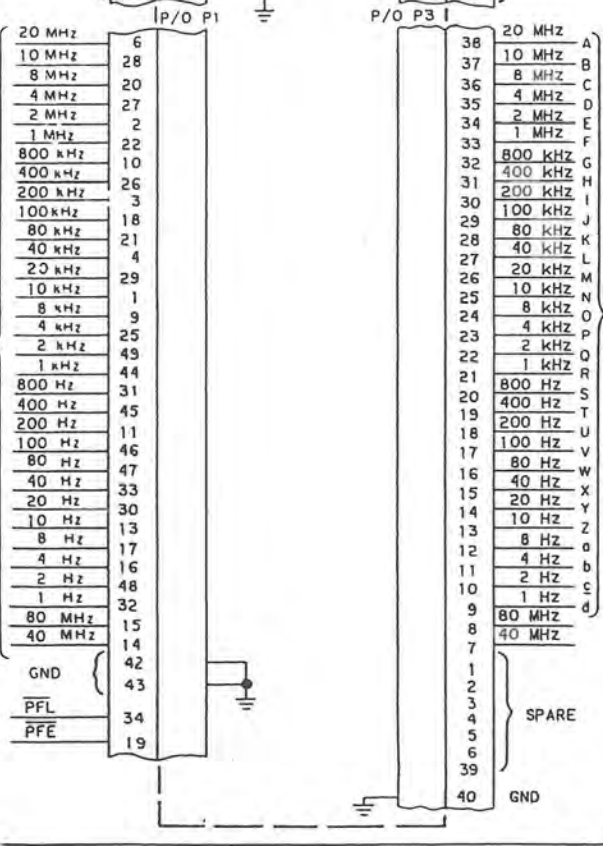
HF-8054A Receiver (622-3475-210),
 Frequency Control, Block Diagram
 Figure 7A (Sheet 1 of 3)

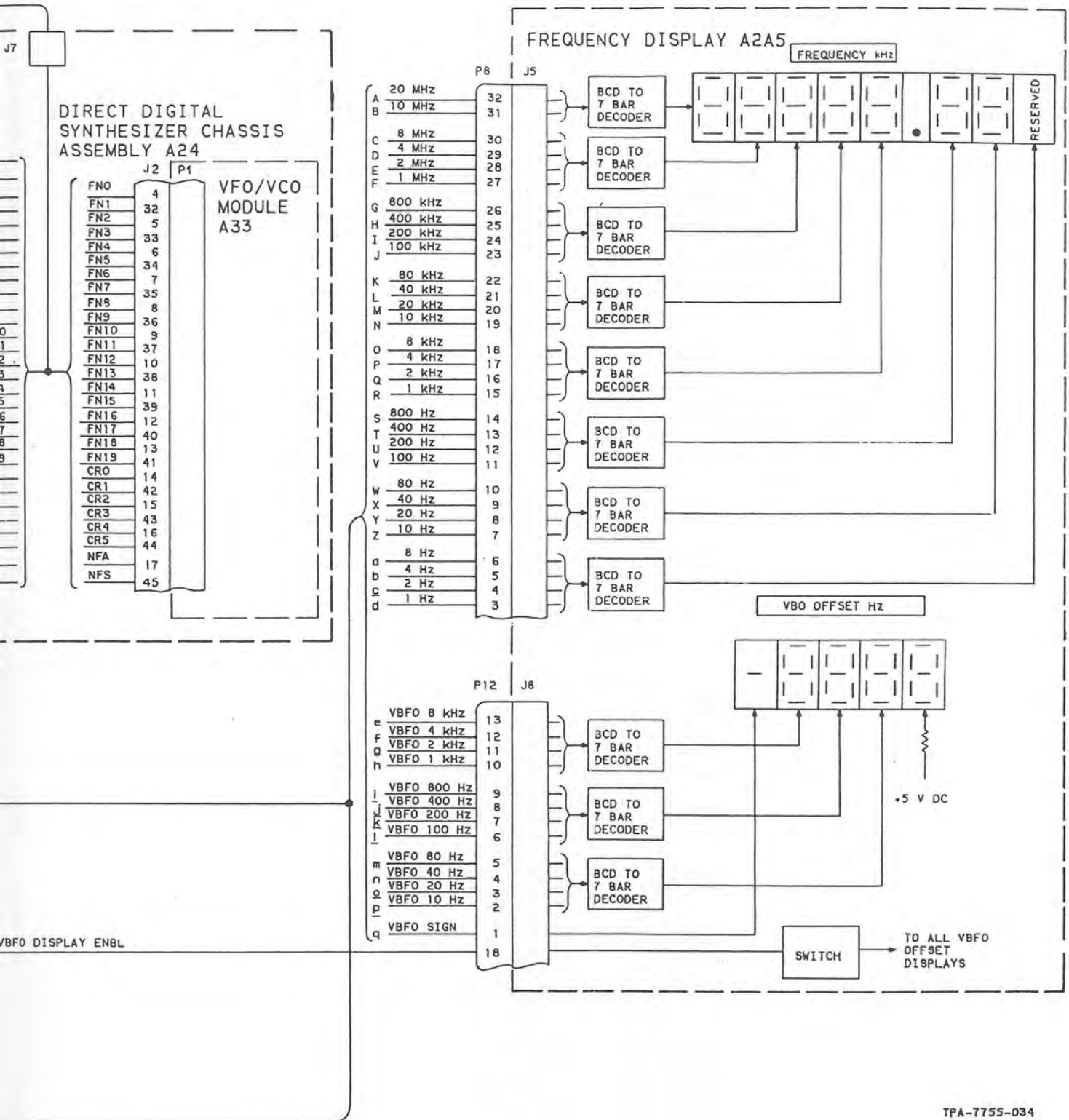
PARALLEL INTERFACE A31



TO PARALLEL
FORMAT
REMOTE
CONTROL
PROCESSOR

TO PARALLEL
FORMAT
REMOTE
CONTROL
DEVICE




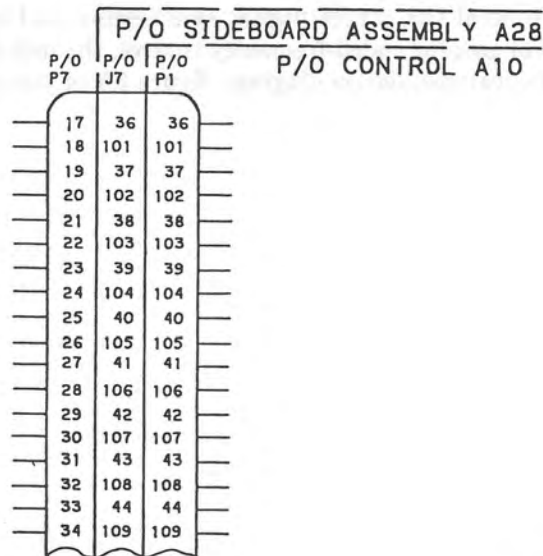


TPA-7755-034

HF-8054A Receiver (622-3475-210),
 Frequency Control, Block Diagram
 Figure 7A (Sheet 2)

NOTES:

- ①  INDICATES GROUP OF WIRES IN A RIBBON CABLE.
- ② DIAGRAM SHOWN FOR 1 HZ TUNING FOR 10 HZ TUNING A17 IS NOT USED AND SYNTH END DECADE IS A18. FOR 100 HZ TUNING A17 AND A18 ARE NOT USED AND SYNTH END DECADE IS A19.
- ③ DIAGRAM SHOWN FOR HF-8054A ASSEMBLIES A11, A12, AND A13 NOT INSTALLED IN HF-8054.
- ④ J11 AND J17 ARE SOLDERED INTO AND ARE PART OF SIDEBOARD ASSEMBLY A28 (THERE IS NO MATING CONNECTOR FOR J11 OR J17).
- ⑤ J46 IS SOLDERED INTO AND IS PART OF RFI FILTER A27 (THERE IS NO MATING CONNECTOR FOR J46).
- ⑥ P7 MATES WITH PINS ON ONE SIDE OF J7, A10P1 MATES WITH SOCKET ON OTHER SIDE OF J7 (OPPOSITE SIDES OF SIDEBOARD; EXAMPL SHOWN BELOW).



TPA-7755-034

HF-8054A Receiver (622-3475-210),
 Frequency Control, Block Diagram
 Figure 7A (Sheet 3)

2.3 Remote Control Operation (HF-8054A Receiver Only)

Replace the first paragraph with the following paragraph. Place figure 11A behind figure 11.

Remote control of the HF-8054A Receiver (622-3475-210) can be accomplished in three ways. A serial format control (such as HF-8094 Receiver Control unit) or processor can be used if connected to J14 REMOTE CONTROL on the rear panel. A parallel bcd format control or processor can be utilized for frequency control only, if connected to J66/A31P1 PARALLEL INPUT on the rear panel. A parallel coded-frequency format control or processor can be used for frequency control only, if connected to J67/A31P2 DDS INPUT on the rear panel (refer to figure 11A). Two or more types of controls/processors can be utilized simultaneously to control the receiver frequency. When serial format data is used, the receiver control interface requirements are similar to a serial data terminal in operation. Formatted messages from the control/processor control operation of the receiver, and messages from the receiver to the control/processor report operating status of the receiver. An RS-232C serial, asynchronous, input/output interface capability is required in the control/processor for remote control of the receiver. Parallel input data must either be compatible bcd format or parallel coded-frequency data format for use in the HF-8054A Receiver (622-3475-210).

2.3.1 General

Add the following paragraphs to the end of the text.

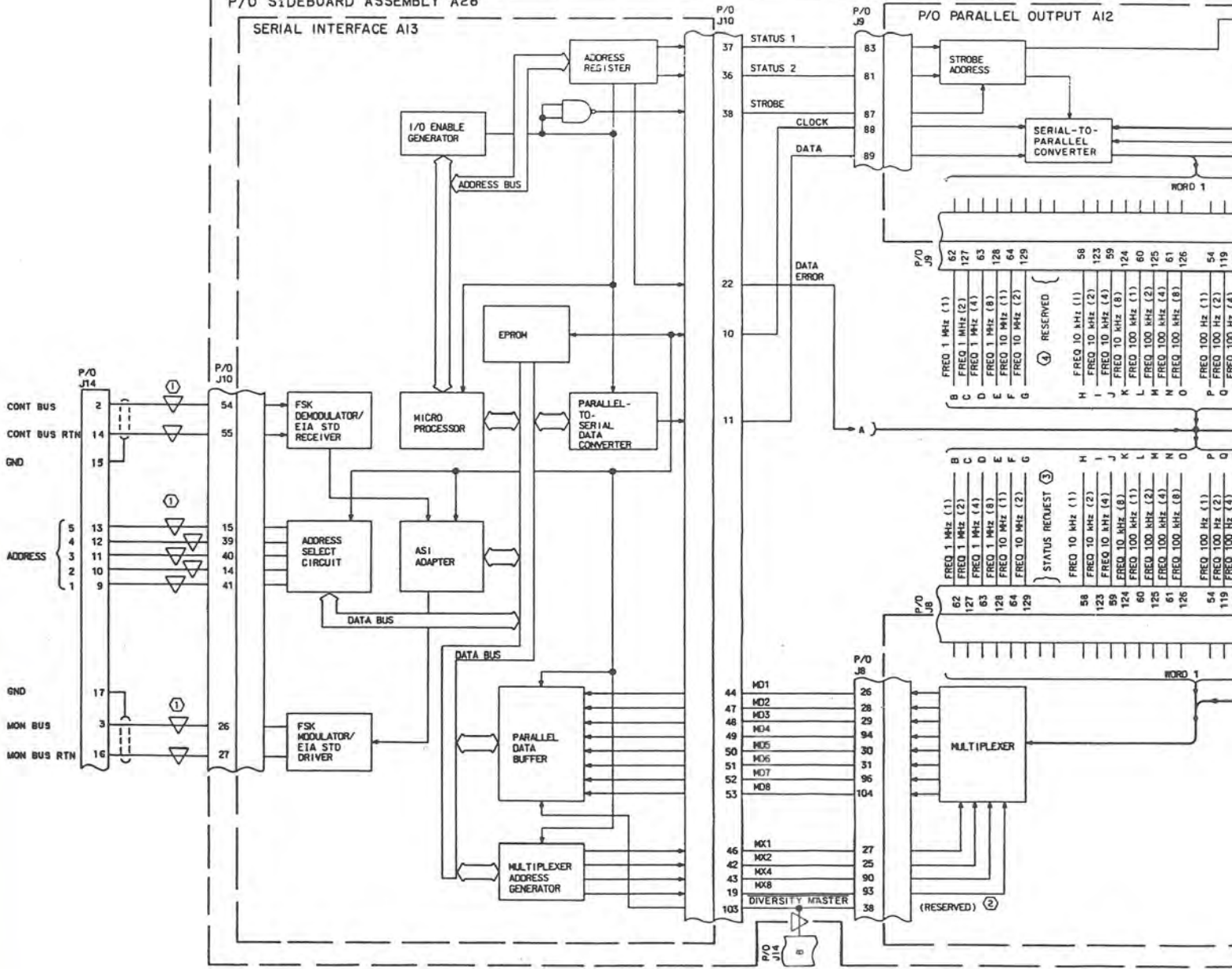
In addition to local front-panel thumbwheel frequency selection and RS-232 serial word frequency selection, the HF-8054A has the capability of parallel bcd frequency input and direct binary frequency input through the rear panel. The parallel bcd inputs control the standard bcd bus lines in the receiver.

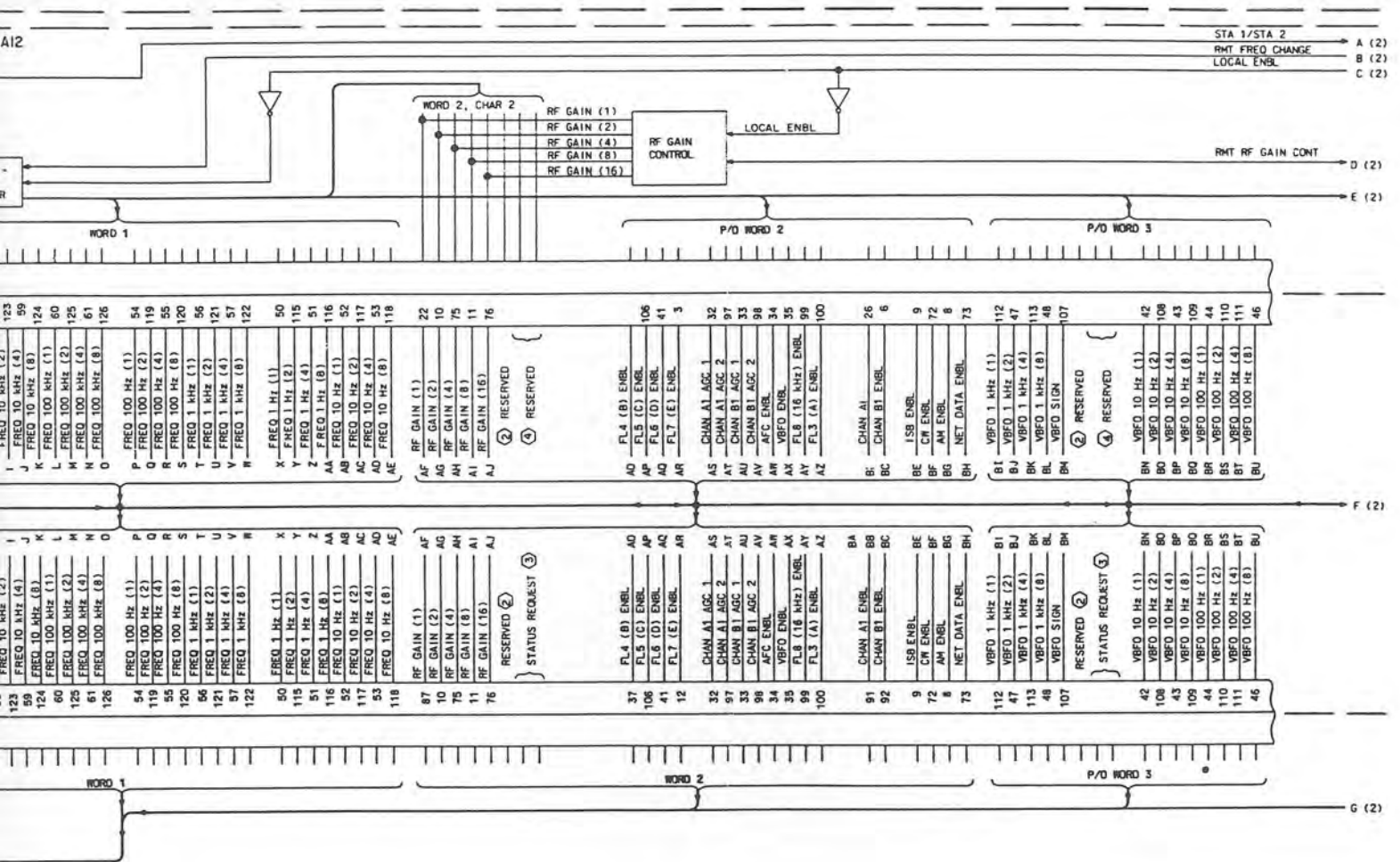
The parallel coded-frequency inputs control the direct digital synthesizer and ignore all other frequency information. To operate the parallel bcd or parallel coded-frequency control, the unit has to be in remote control. The connector pin out is shown in the typical installation diagram, figure 5A of the installation section.

P/O SIDEBORD ASSEMBLY A28

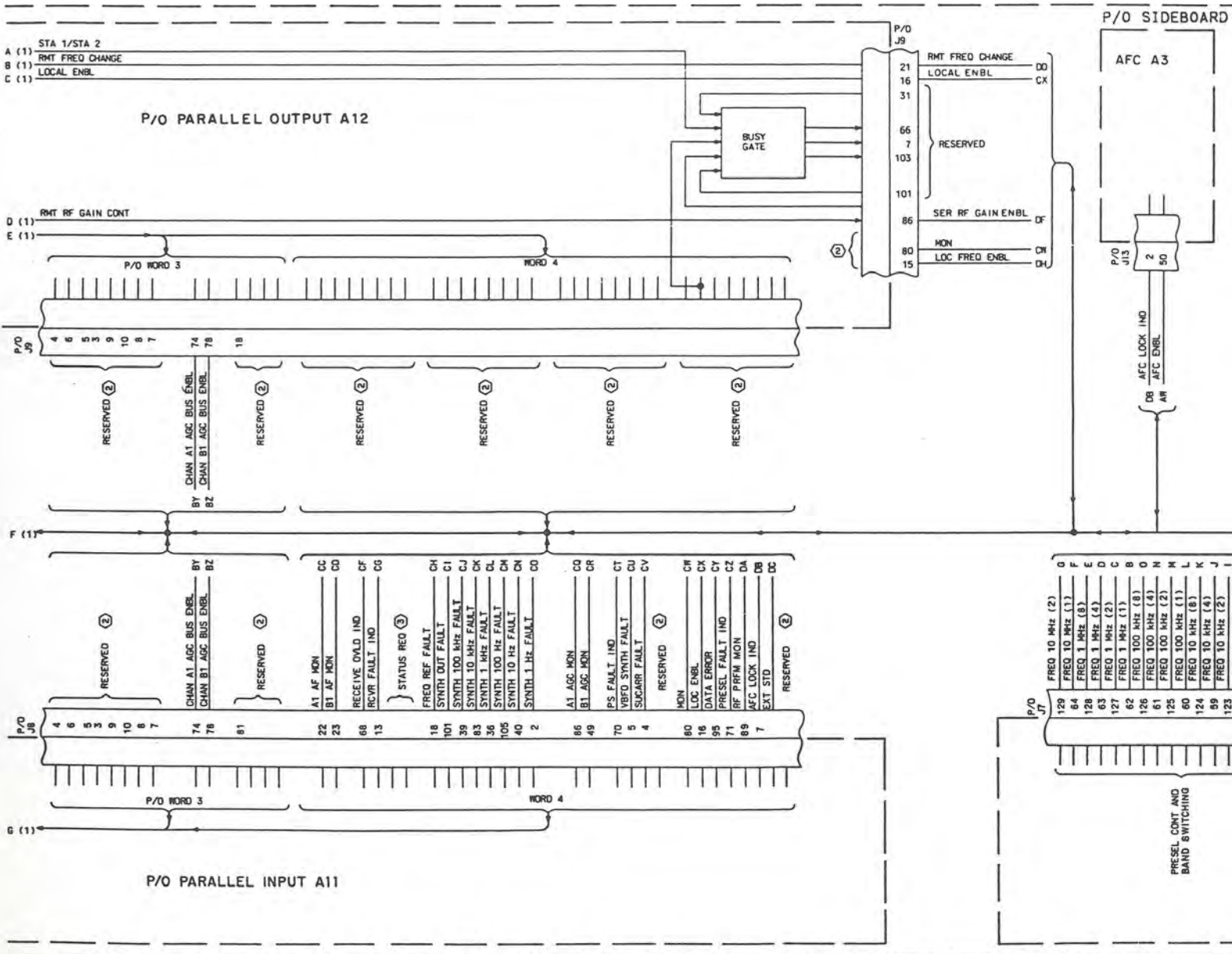
SERIAL INTERFACE A13

P/O PARALLEL OUTPUT A12

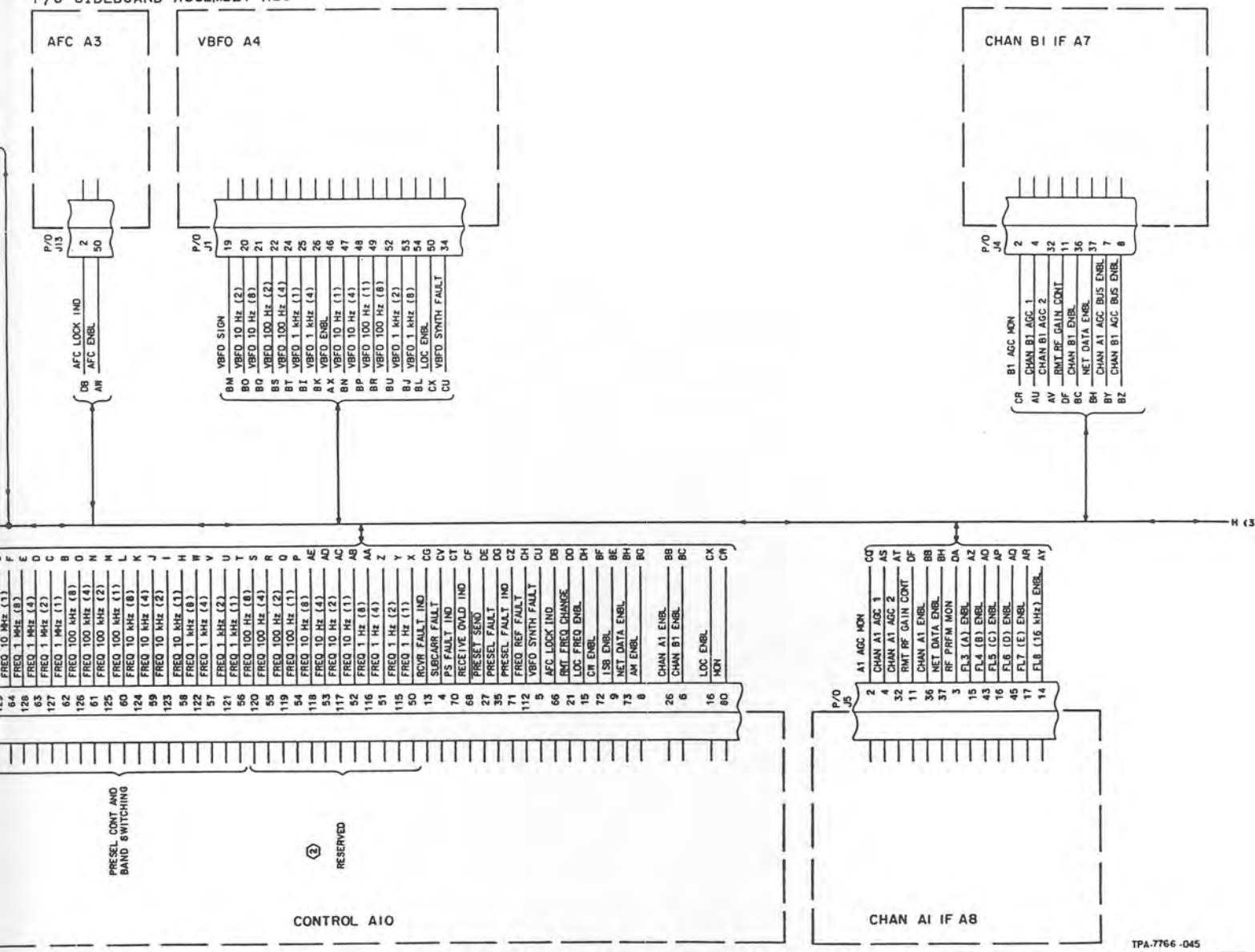




Remote Control, Block Diagram
Figure 11A (Sheet 1 of 4)

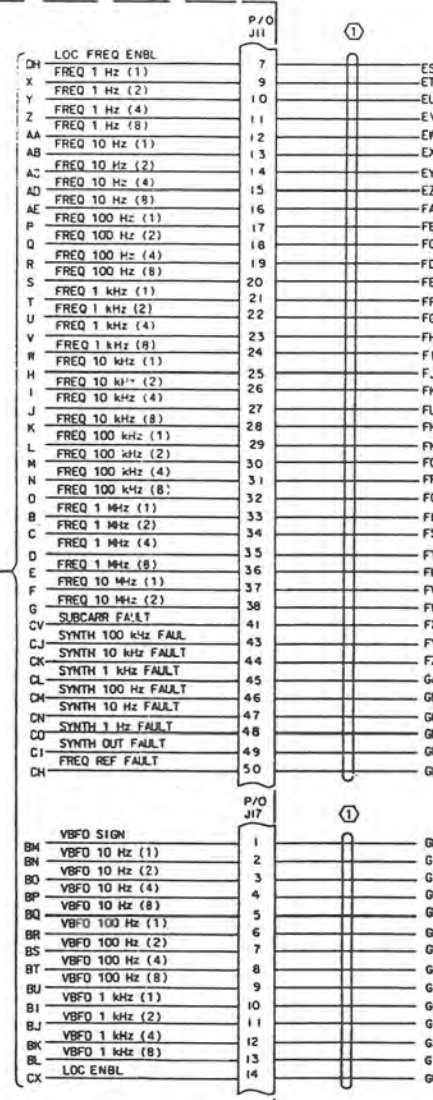
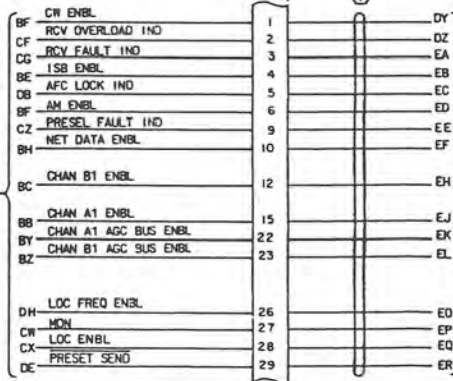
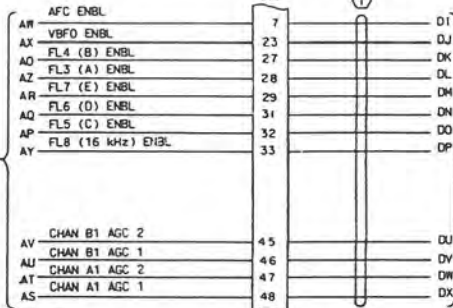
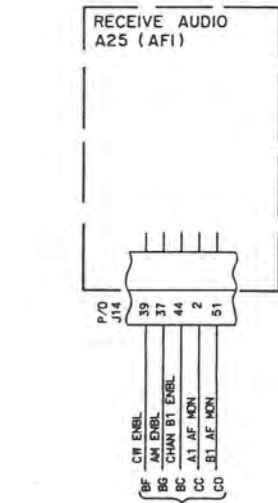


P/O SIDEBOARD ASSEMBLY A28

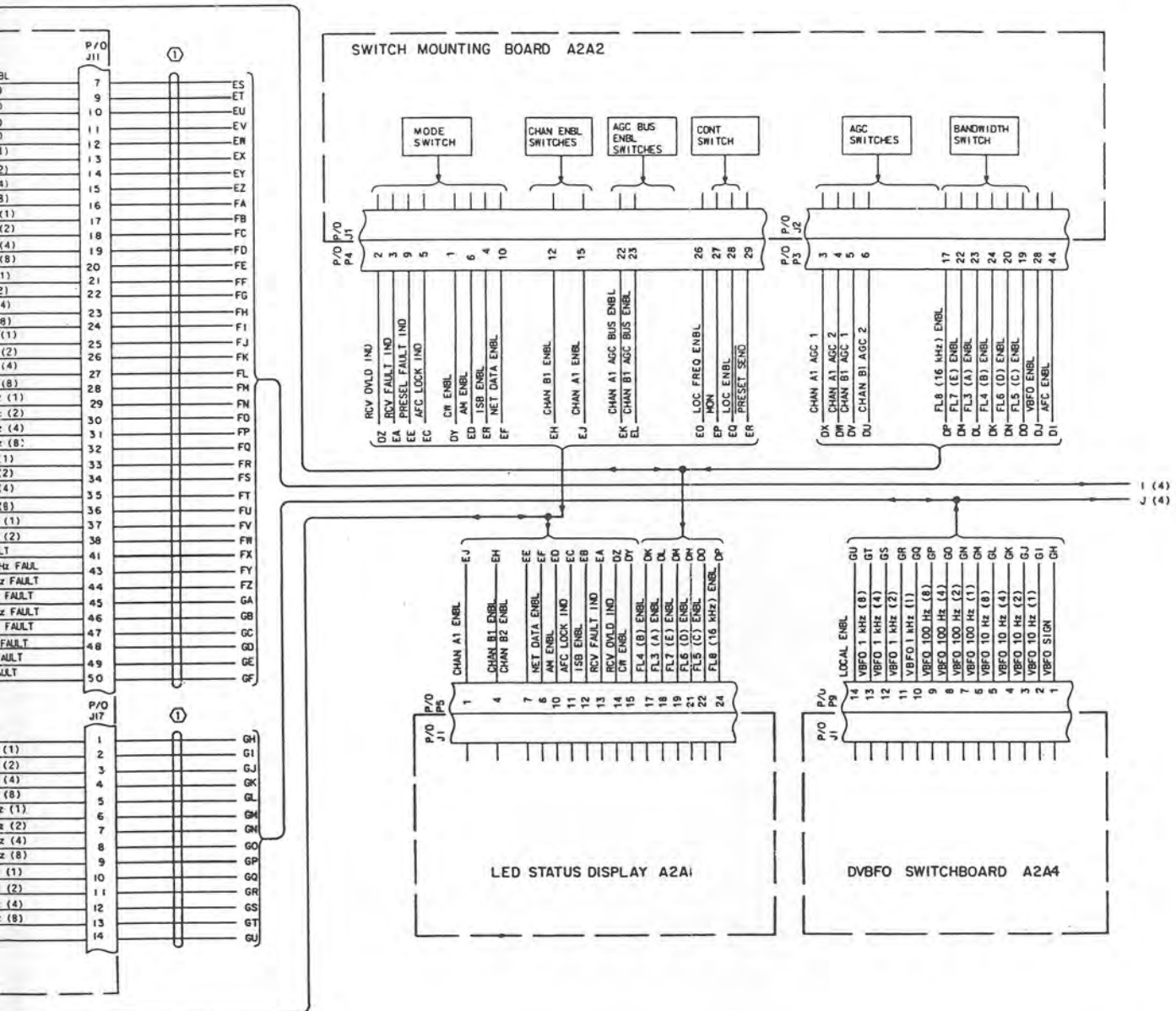


Remote Control, Block Diagram
Figure 11A (Sheet 2)

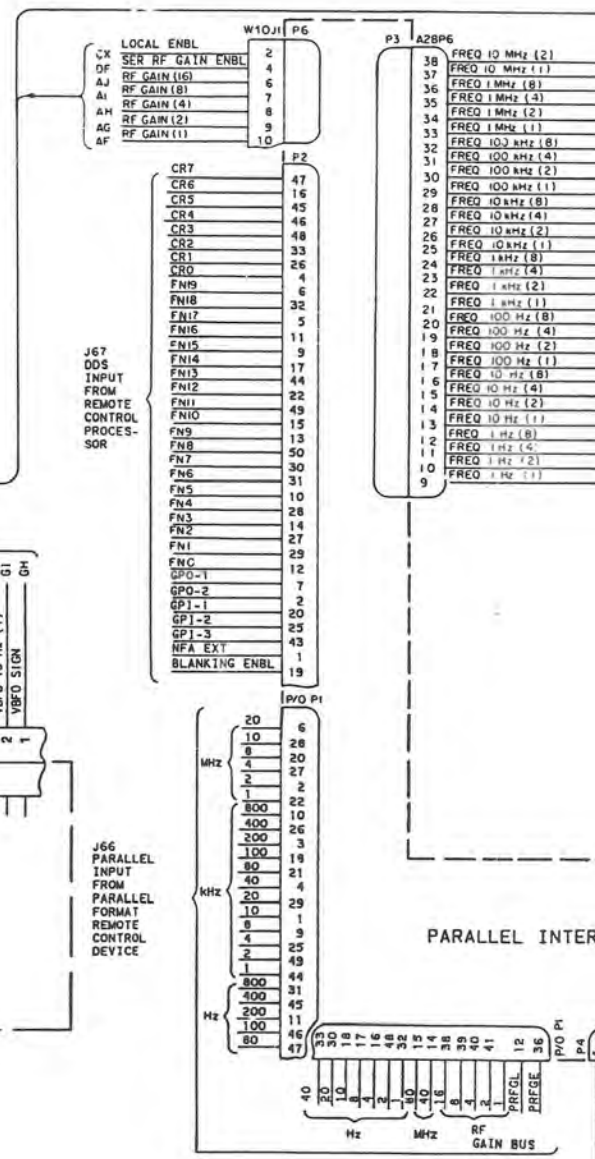
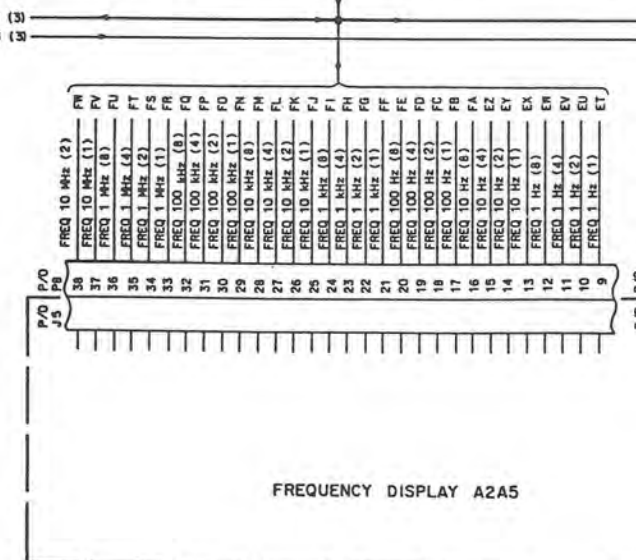
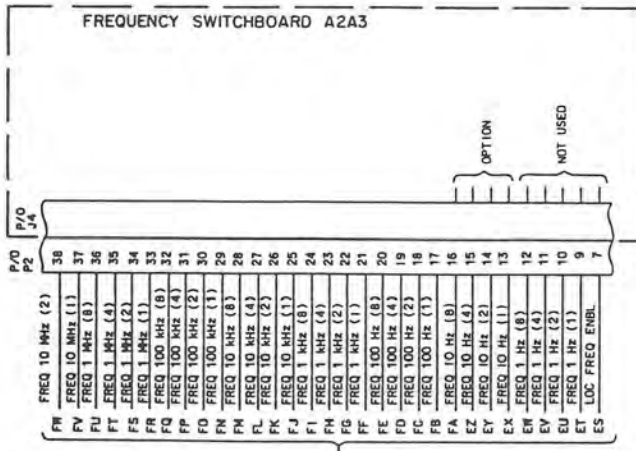
P/O SIDEBORD ASSEMBLY A28

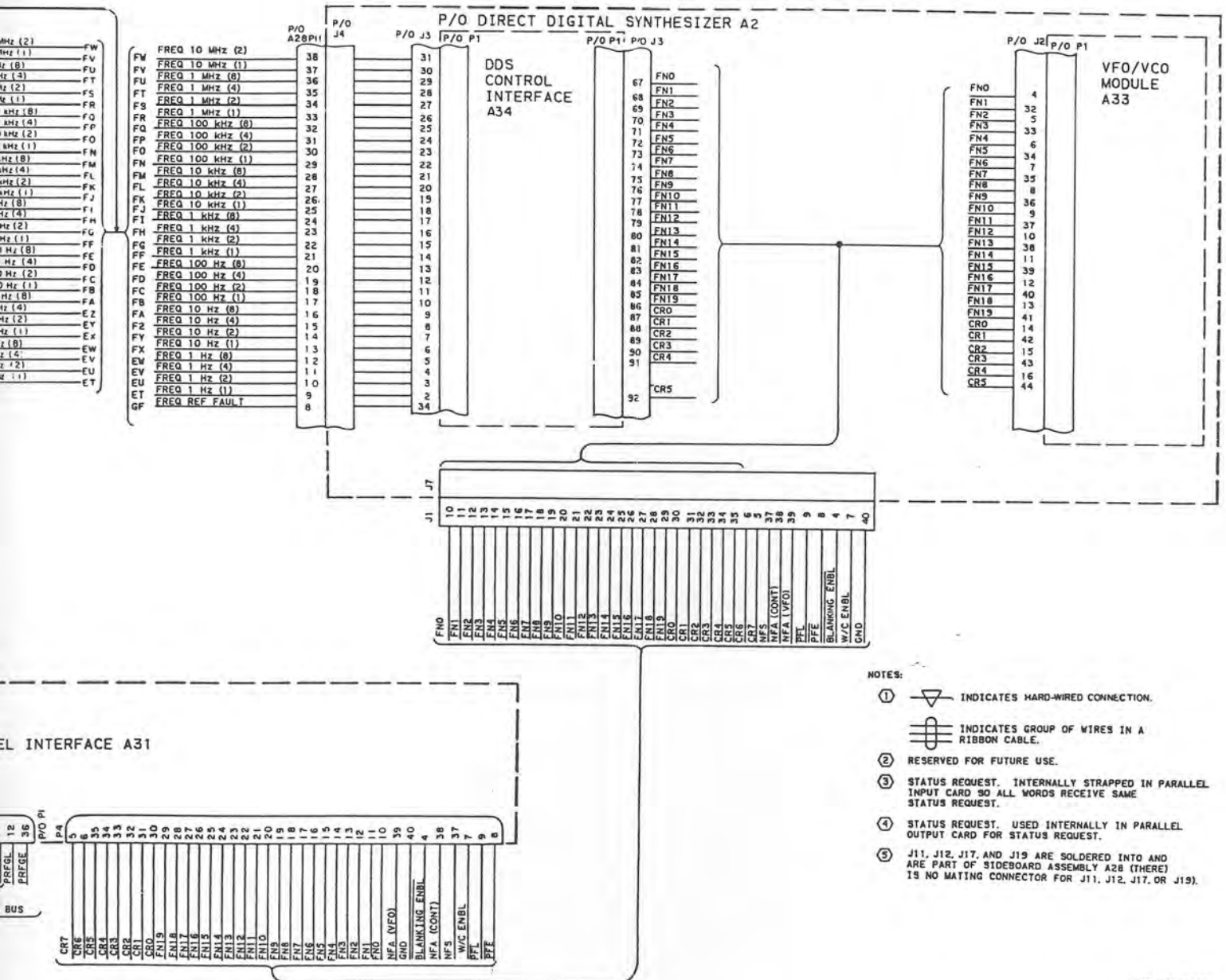


H (2)



Remote Control, Block Diagram
Figure 11A (Sheet 3)





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Remote Control, Block Diagram
Figure 11A (Sheet 4)

2.4 Frequency Synthesizer

Not applicable. Substitute paragraph heading and text with the following for the HF-8054A Receiver (622-3475-210). Substitute figure 12A for figure 12.

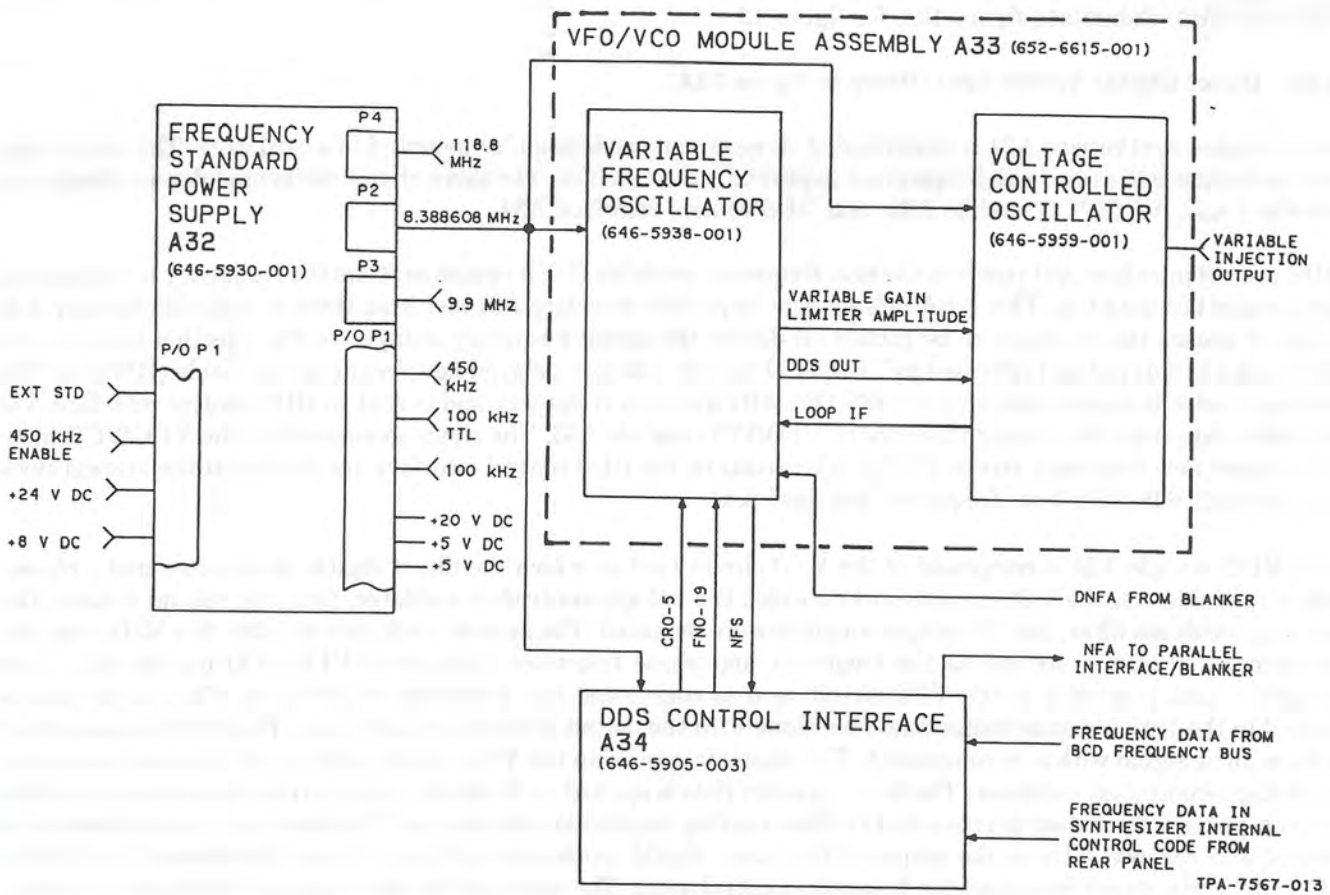
2.4A Direct Digital Synthesizer (Refer to figure 12A)

Direct digital synthesizer A24 is comprised of three circuit cards/modules mounted in a card cage. The direct digital synthesizer will provide all frequencies required by the receiver. The three circuit cards/modules are frequency standard A32, VFO/VCO module A33, and DDS control interface A34.

DDS control interface A34 receives the new frequency available (NFA) pulse anytime the frequency is changed on the parallel bcd data bus. This NFA pulse is sent to parallel interface A31 and from there to injection blanker A35 where it causes the rf output to be turned off during the actual frequency change. In the injection blanker, the NFA pulse is delayed and returned to VFO/VCO module A33 as a delayed new frequency available (DNFA). This returned pulse is synchronized with 8.388 608-MHz injection frequency and is sent to DDS control interface A34 to enable data from the control interface to VFO/VCO module A33. The signal generated by the VFO/VCO module is called new frequency strobe (NFS). All circuits on the DDS control interface are clocked at the system clock rate of 8.388 608 MHz from frequency standard A32.

VFO/VCO module A33 is comprised of the VFO circuit card on which the direct digital synthesizer and a phase-lock loop reside and the VCO circuit card on which the voltage-controlled oscillator, first and second mixers, the tracking bandpass filter, and the output amplifiers are mounted. The system clock rate of 8.388 608 MHz from the frequency standard is utilized as the frequency and phase reference throughout VFO/VCO module A33. The frequency data is applied to the VFO circuit card as coarse and fine frequency information. The coarse data is applied to the variable gain limiter amplifier along with the output of the phase-lock loop. These two signals react to form an ac signal with a dc component. This signal is applied to the VCO circuit card where it is used to control the voltage-controlled oscillator. The fine frequency data is applied to the direct digital synthesizer where the time varying phase information is converted to time varying amplitude information. The direct digital synthesizer is clocked at 8.388 608 MHz so the output of the direct digital synthesizer will be a signal of between 1.048 576 to 2.097 152 MHz, dependent upon the frequency control input. The output of the direct digital synthesizer and system clock is input to the first translator mixer on the VCO circuit card. The output of the first translator mixer will be from 9.437 184 to 10.485 760 MHz. This signal is fed to the second translator mixer along with the output of the voltage-controlled oscillator. The result of this heterodyning is a 69.206 016- to 99.614 72-MHz signal which is passed by the tracking bandpass filter to output amplifier and onto the vfo programmable divider. The signal is divided by 66 to 95 to result in a signal that is phase detected using a divided sample of the system clock. The output of this phase detector feeds into the variable gain limiter amplifier to correct the voltage-controlled oscillator. The voltage-controlled oscillator output is amplified and output at P3 as the variable injection out (79.350 010 to 109.35 MHz).

Frequency standard A32 contains the master crystal oscillator, external standard circuitry frequency multiplier, several frequency dividers, and the 8.388 608-MHz crystal controlled oscillator which is phase locked to master crystal. The master crystal oscillator is voltage controllable and oscillates at 39.6 MHz. This signal is then frequency divided to provide 9.9-MHz, 450-kHz, and 100-kHz signals. The 39.6 MHz is also tripled to obtain the 118.8-MHz fixed injection signal. The 100-kHz signal is utilized to phase lock the 8.388 608-MHz crystal oscillator to the master crystal. Switches and jumper provide the means to use an external frequency standard of 5 MHz, 1 MHz, or 100 kHz to control the master crystal oscillator. The outputs of the frequency standard are output to various circuits within the receiver.

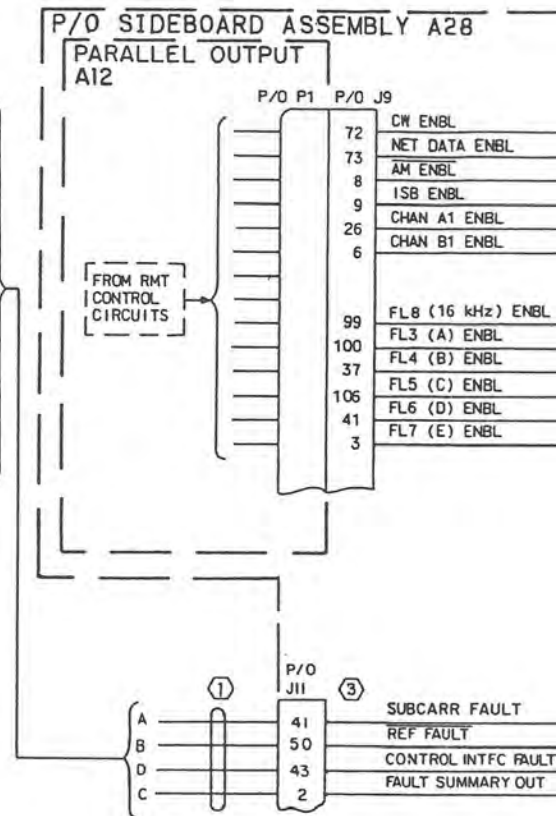
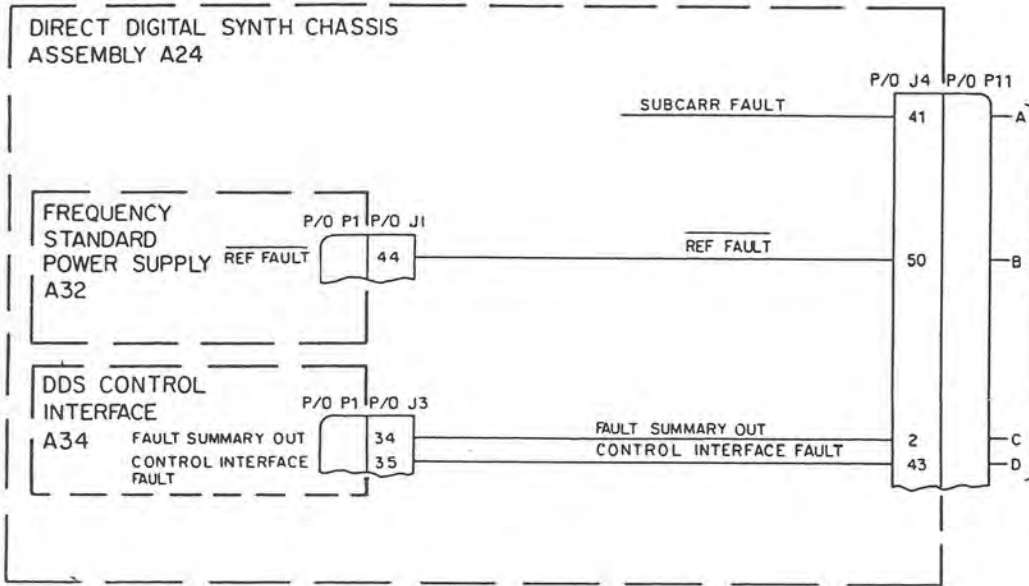


Direct Digital Synthesizer, Block Diagram
Figure 12A

2.5 Monitor Functions (Refer to figure 14)

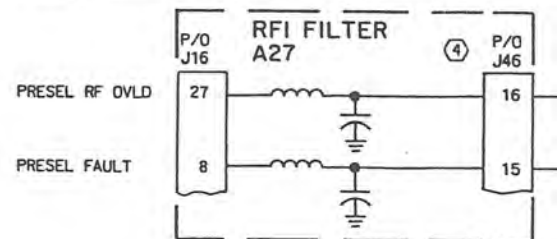
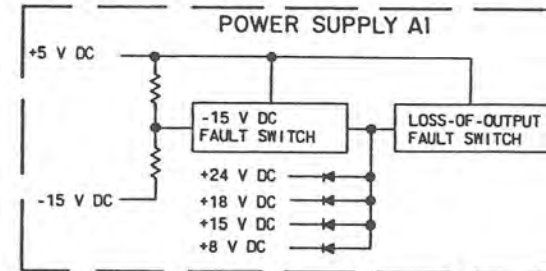
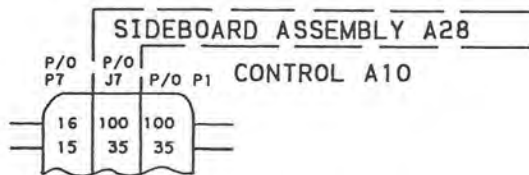
Change the first sentence in the paragraph to read as follows. Place figure 14A behind figure 14. Refer to figure 14A for HF-8054A Receiver (622-3475-210).

Local monitors in the receiver consist of LED's on LED status display A2A1, frequency display A2A3, the individual circuit cards of the direct digital synthesizer, and the front panel meter indications.



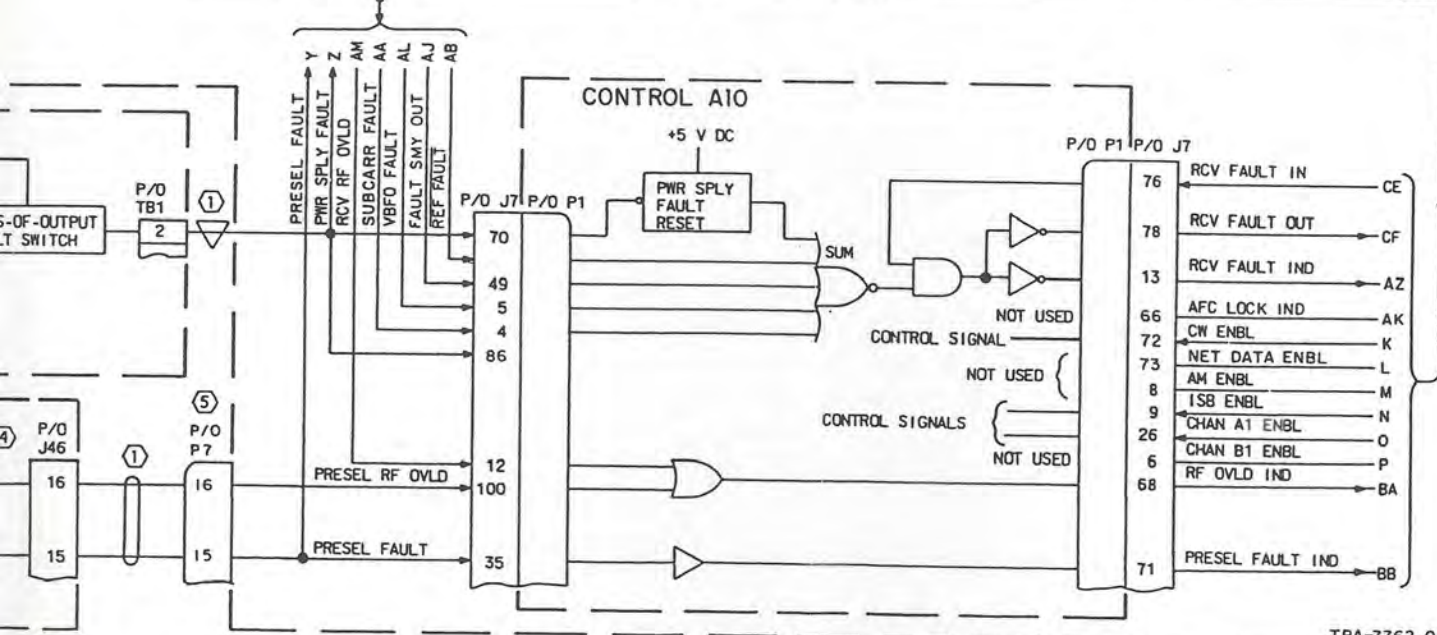
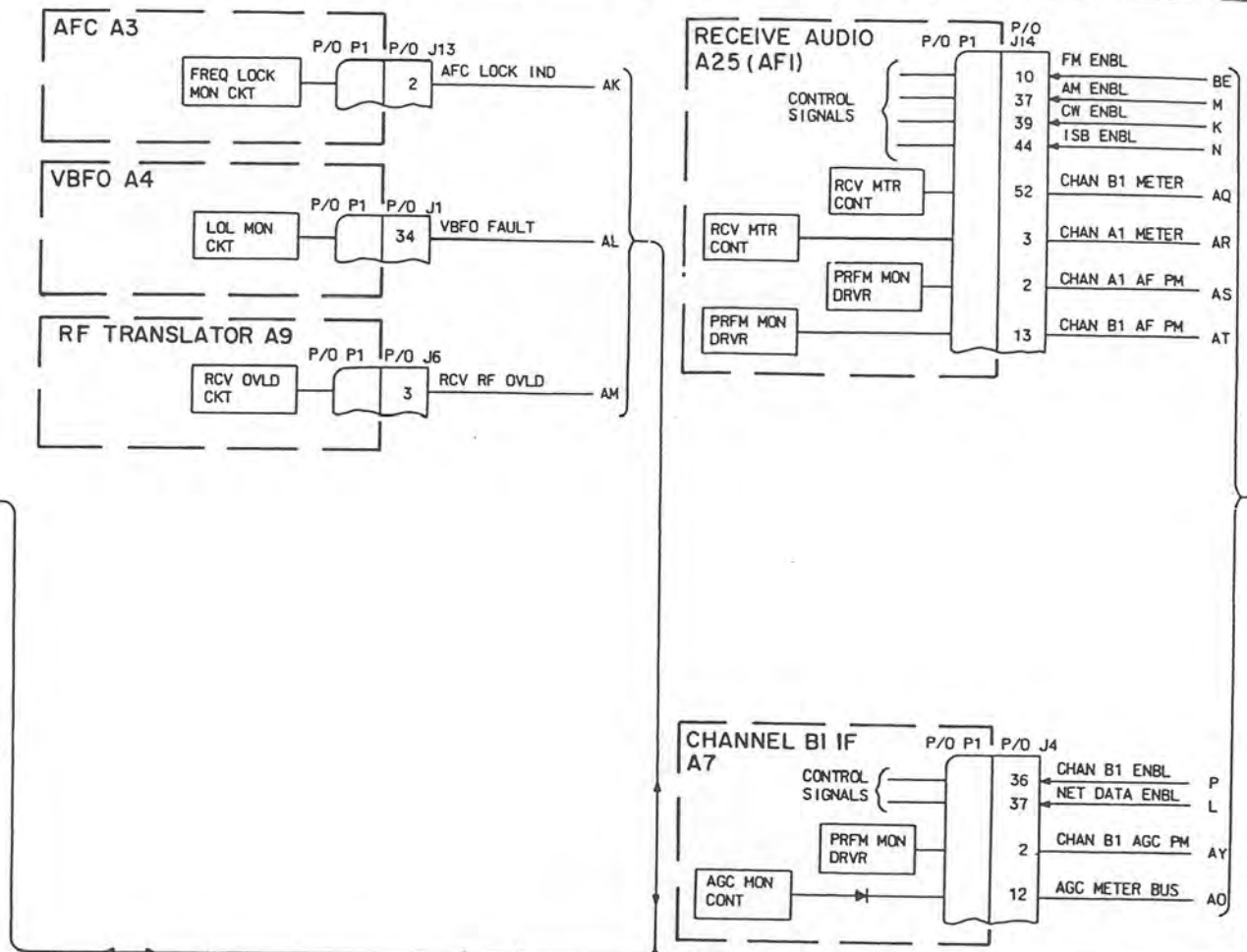
NOTES:

- ① INDICATES GROUP OF WIRES IN A RIBBON CABLE.
- INDICATES HARD-WIRED CONNECTION.
- ② RESERVED FOR FUTURE USE.
- ③ J11, J12, AND J19 ARE SOLDERED INTO AND ARE PART OF SIDEBOARD ASSEMBLY A28 (THERE IS NO MATING CONNECTOR FOR J11, J12, OR J19).
- ④ J46 IS SOLDERED INTO AND IS PART OF RFI FILTER A27 (THERE IS NO MATING CONNECTOR FOR J46).
- ⑤ P7 MATES WITH PINS ON ONE SIDE OF J7, A10P1 MATES WITH SOCKET ON OTHER SIDE OF J7 (OPPOSITE SIDES OF SIDEBOARD; EXAMPLE SHOWN BELOW).



28

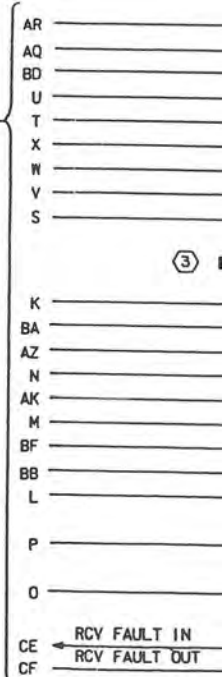
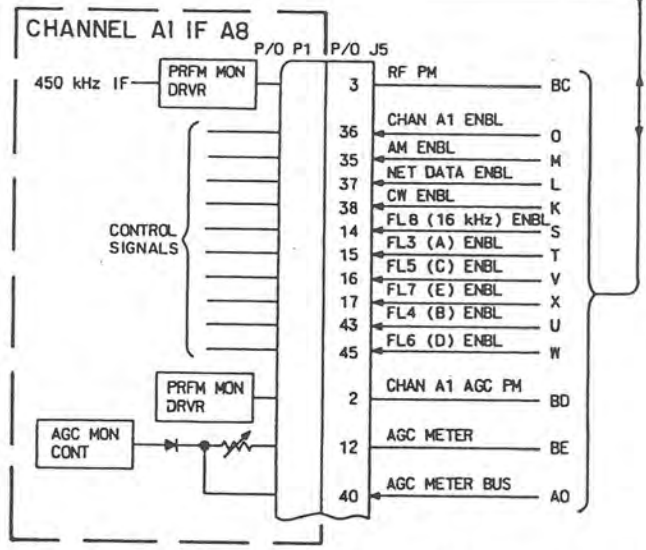
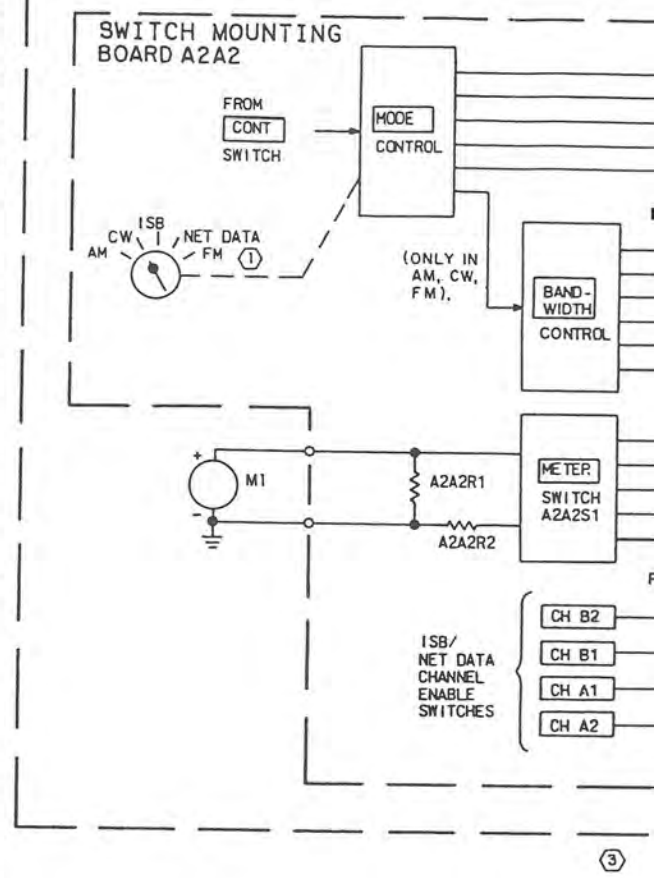
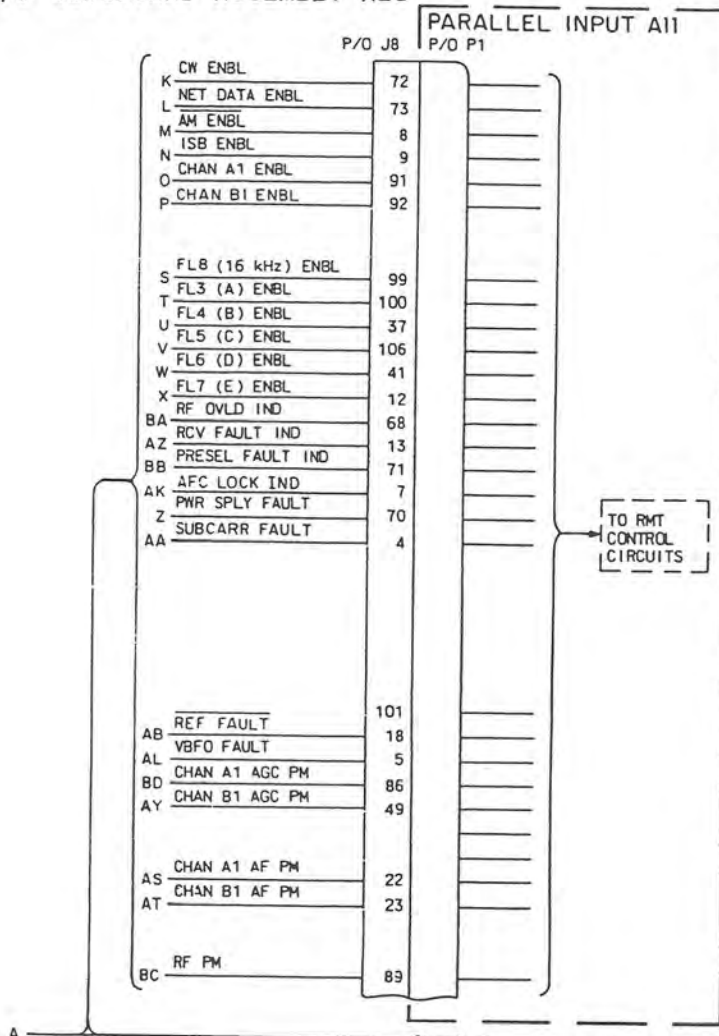
- TA ENBL K
- L
- M
- N
- O
- P
- 5 kHz) ENBL S
- ENBL T
- ENBL U
- ENBL V
- ENBL W
- ENBL X
- R FAULT AA
- LT AB
- INTFC FAULT AH
- SUMMARY OUT AJ

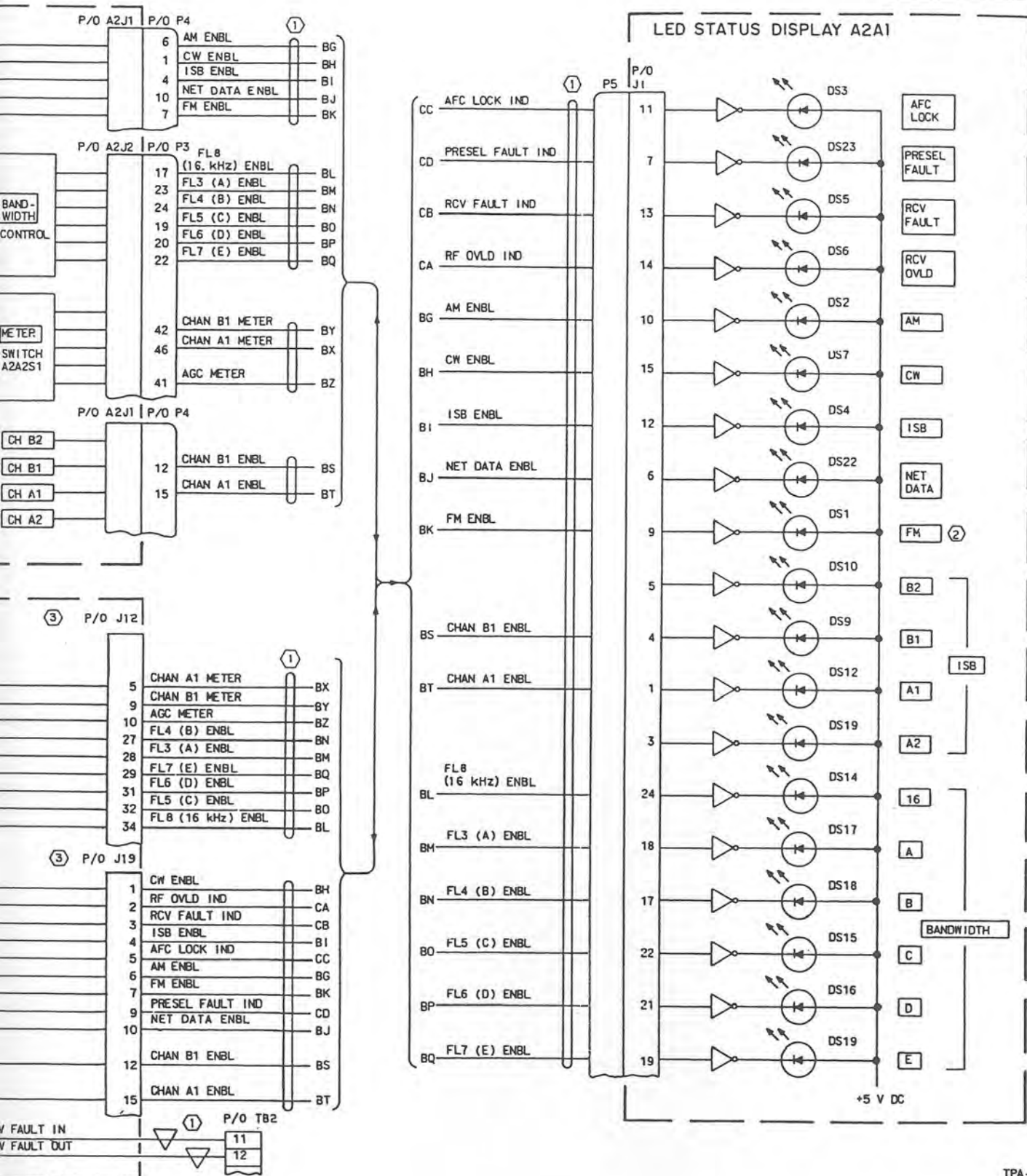


TPA-7762-024

HF-8054A Receiver (622-3475-210),
 Monitor Function, Block Diagram
 Figure 14A (Sheet 1 of 2)

P/O SIDEBORD ASSEMBLY A28





TPA-7762-024

HF-8054A Receiver (622-3475-210),
 Monitor Function, Block Diagram
 Figure 14A (Sheet 2)

2.5.1 Fault and Status Indicators

Paragraphs 3, 4, 5, and 6 are not applicable. Substitute the following paragraph for paragraphs 3, 4, 5, and 6.

Each card of the direct digital synthesizer contains a fault indicator particular to that card. DDS control interface A34 summarizes the faults from frequency standard/power supply A32, VFO/VCO module A33, and DDS control interface to produce an output to control A10 and parallel input A11. There are four fault outputs from the synthesizer: a summary fault from the DDS control interface, a DDS control interface fault, the VFO/VCO module fault, and a reference fault from the frequency standard/power supply. Each fault will light the LED status indicator on that particular card and due to control A10, the EXCITER FAULT (DS5). The fault will also cause the appropriate fault indication on the remote control after being passed through parallel input A11 and serial interface A13.

2.5.3 ISB Channel Enable Indicators

Steps c and d are not applicable.

2.5.6 Metering

In the first paragraph, the references to B2AF (+13FS and +3FS) and A2AF (+13FS and +3FS) are not applicable. Steps a and d are not applicable. In step e, second sentence, references to channel A2 and channel B2 are not applicable.

2.5.7 Remote Monitors Not Used Internally

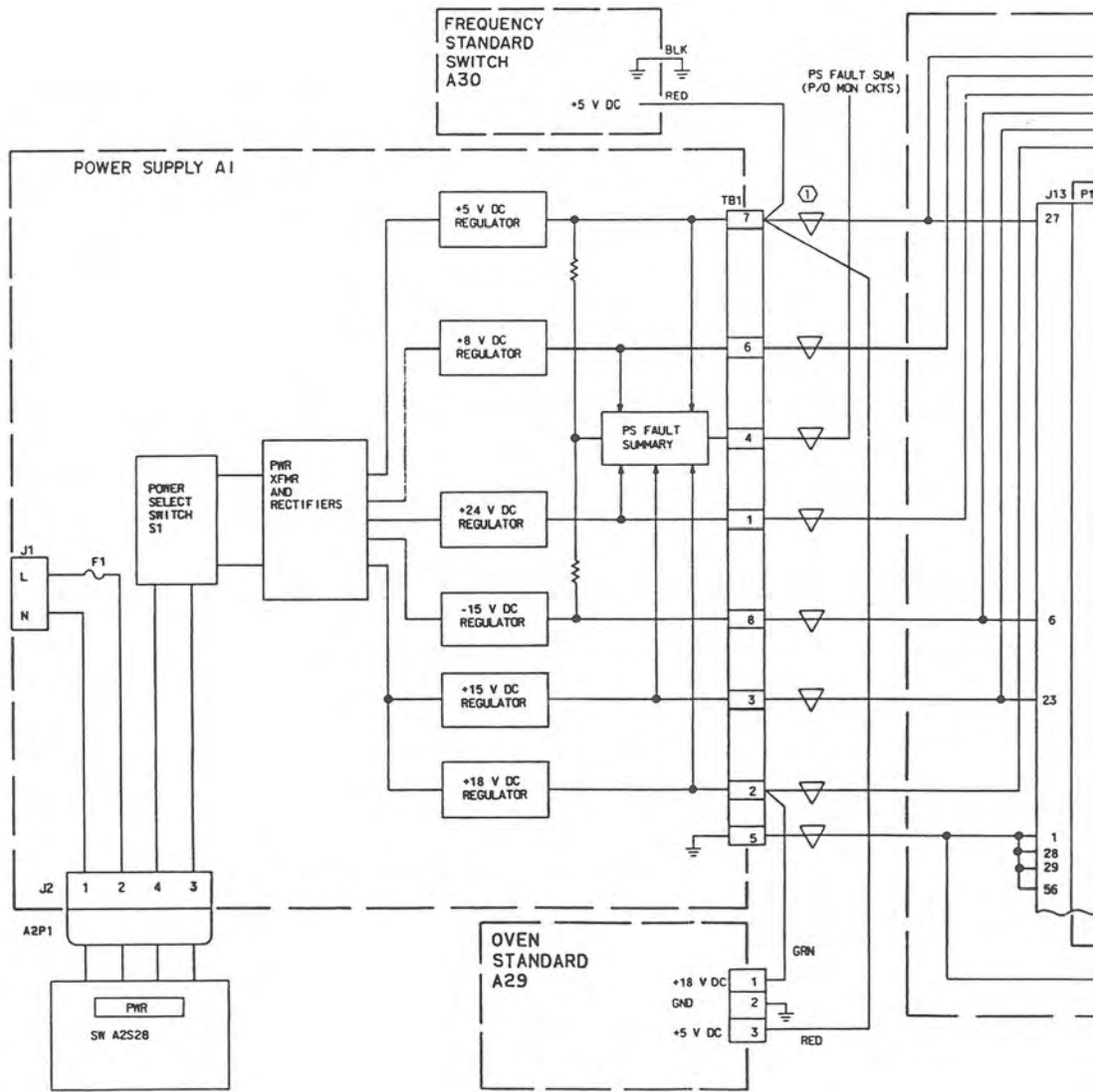
Steps a, b, c, d, e, f, i, j, m, and n are not applicable. Add the following step at the end.

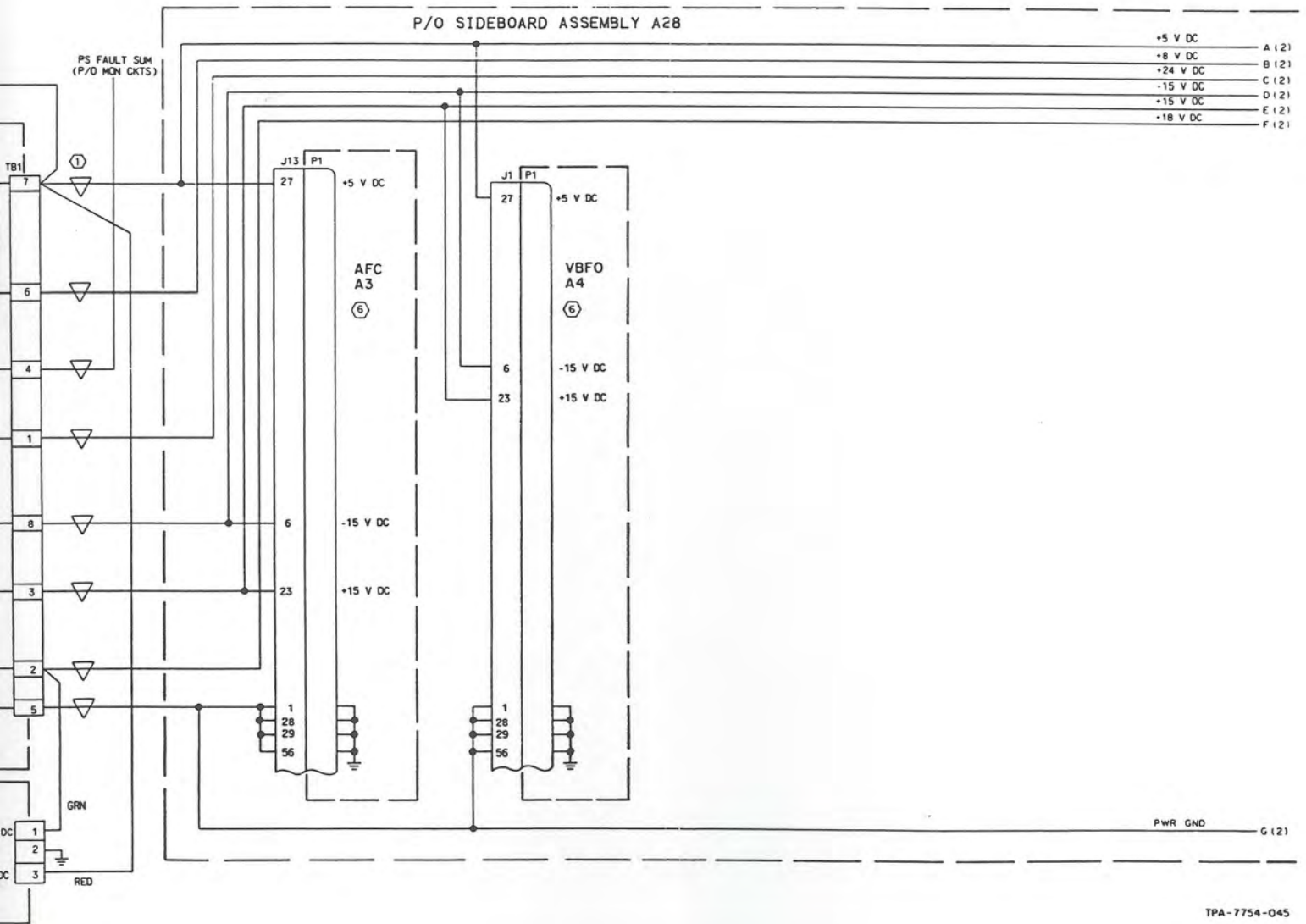
q. LOL signal is supplied by frequency standard/power supply A32 to the parallel input card.

2.6 Power Distribution (Refer to figure 15)

Paragraph 5 is not applicable. Add the following paragraph at the end of the paragraph. Place figure 15A behind figure 15.

In the direct digital synthesizer, the +8-volt dc input is regulated to +5 volts dc on DDS control interface A34. Refer to figure 15A. The +24-volt dc input is regulated to +20 volts dc and to +5 volts dc in frequency standard/power supply A32. The +20 volts dc is distributed from the A32 to VFO/VCO module A33 where it is regulated to +10 volts dc. The +8 volt dc is regulated to +5 volts dc on frequency standard/power supply A32.

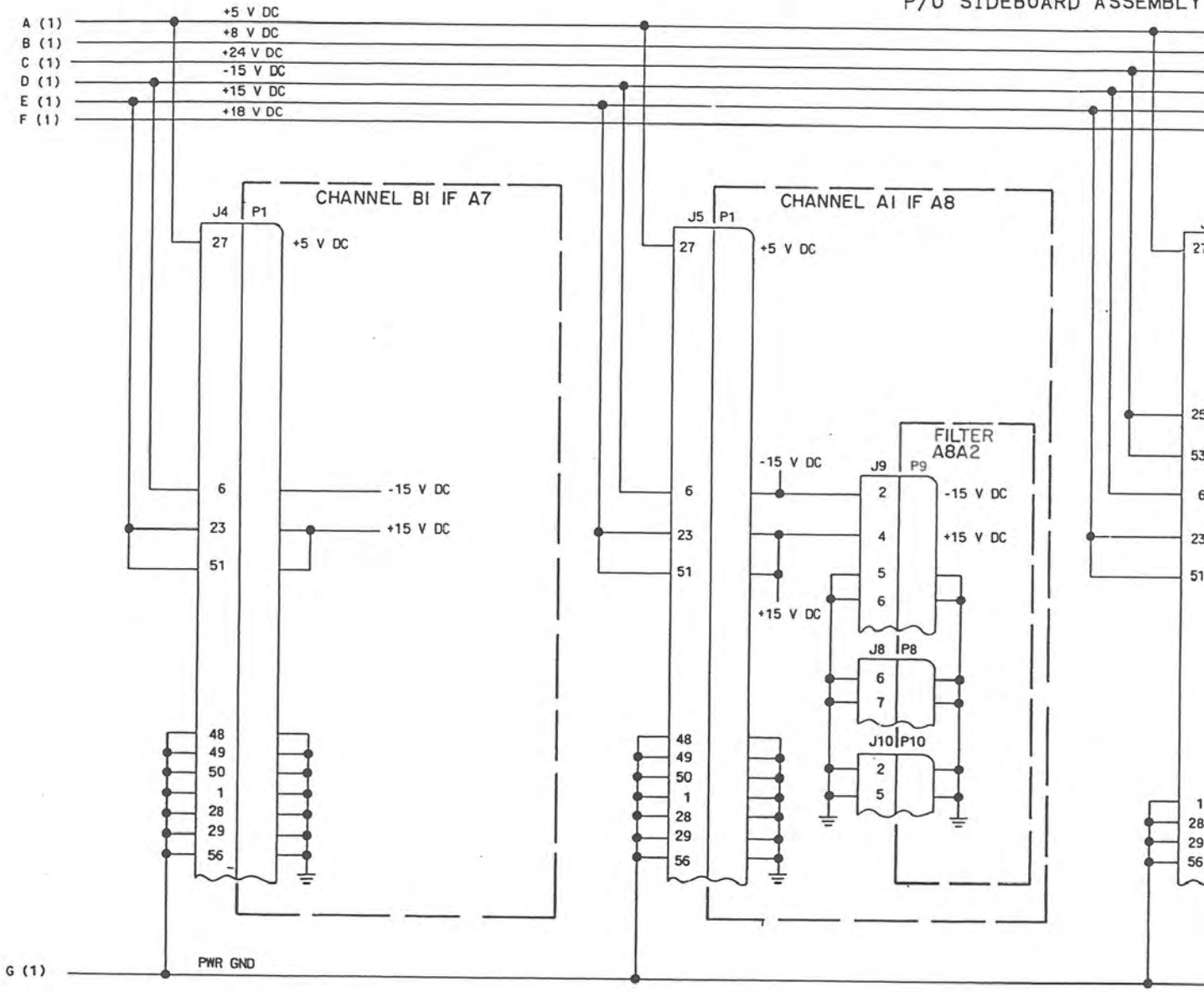




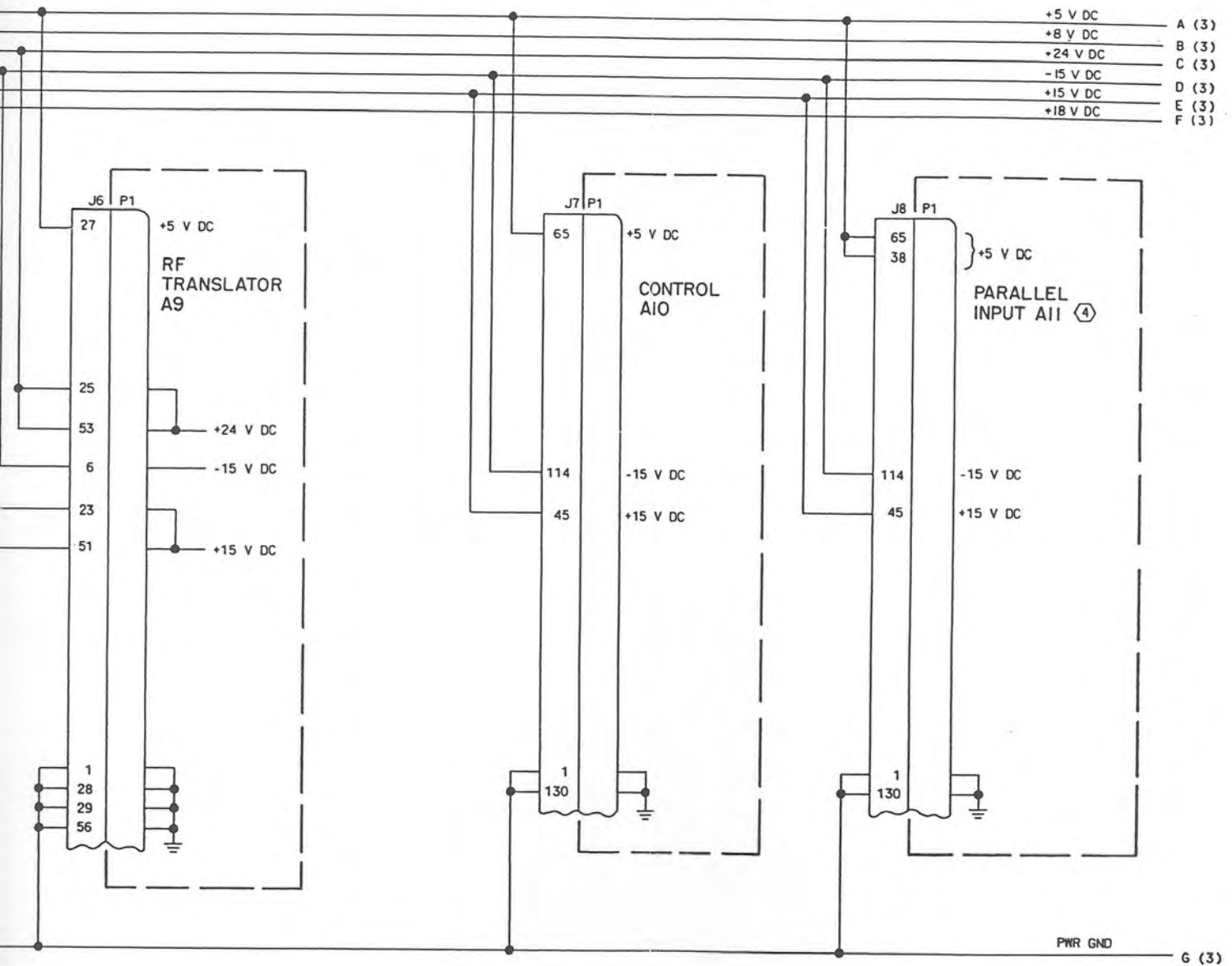
TPA-7754-045

HF-8054A Receiver (622-3475-210),
Power Distribution, Block Diagram
Figure 15A (Sheet 1 of 4)

P/O SIDEBOARD ASSEMBLY



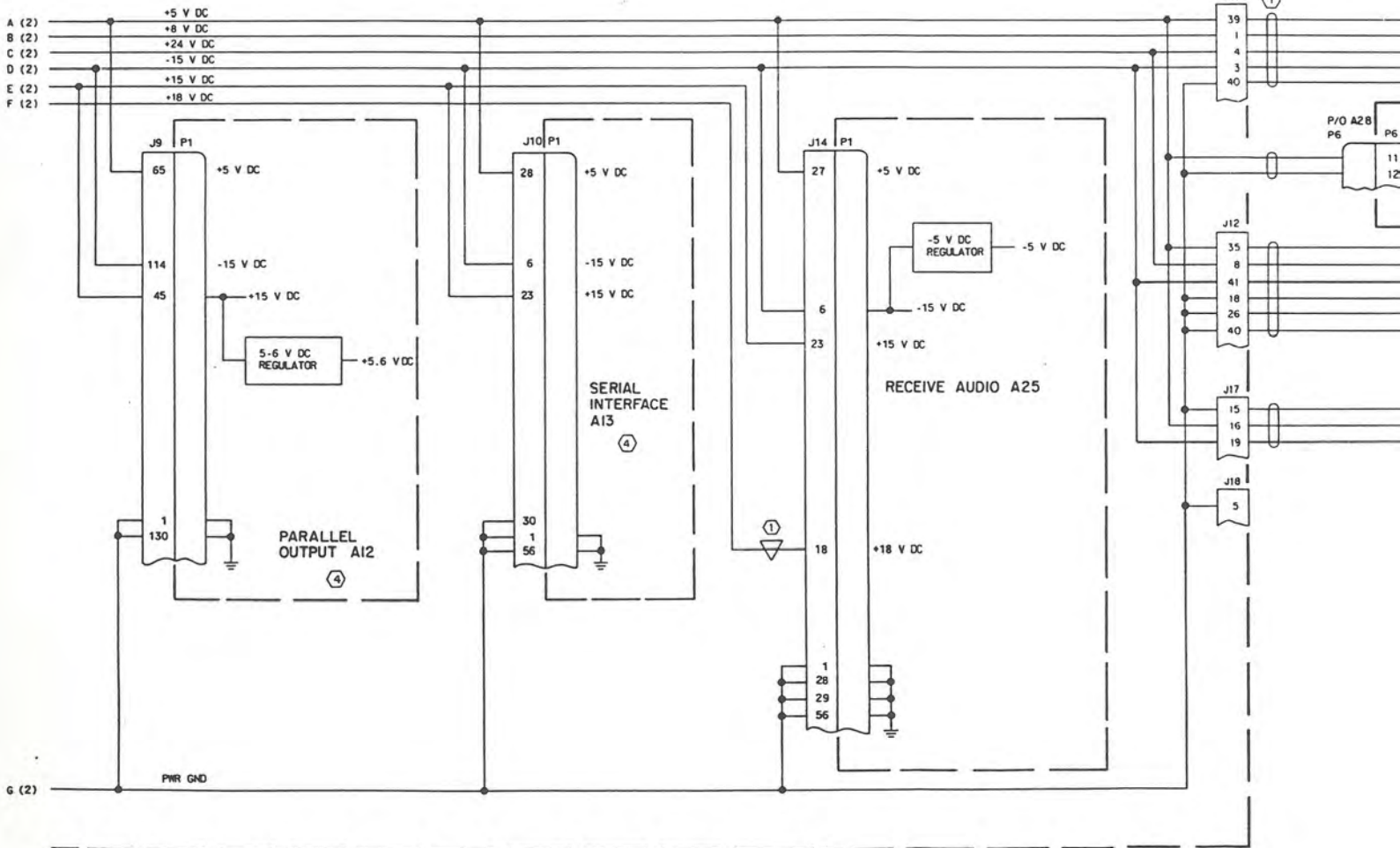
ASSEMBLY A28

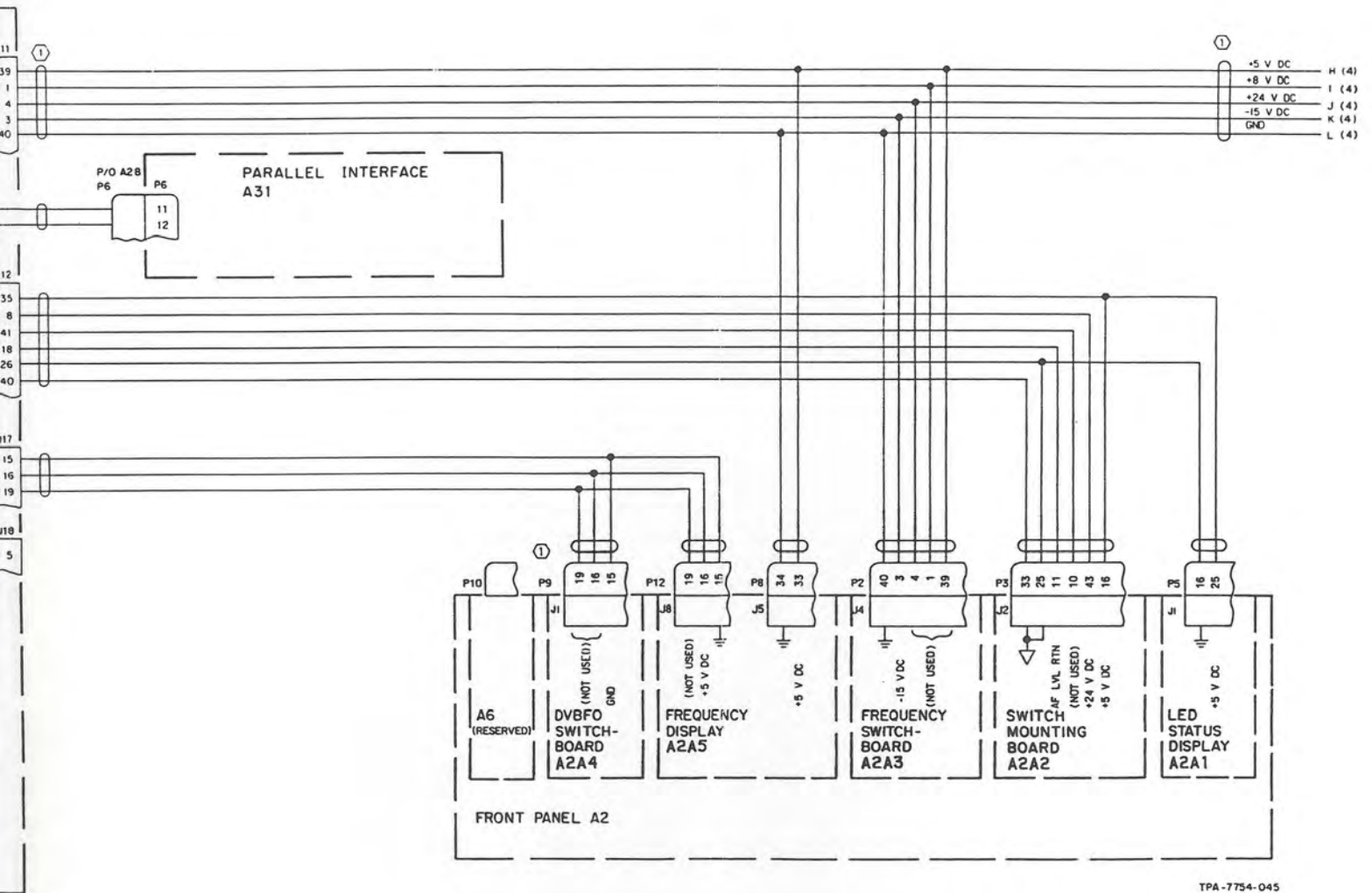


TPA-7754-045

HF-8054A Receiver (622-3475-210),
 Power Distribution, Block Diagram
 Figure 15A (Sheet 2)

P/O SIDEBORD ASSEMBLY A28

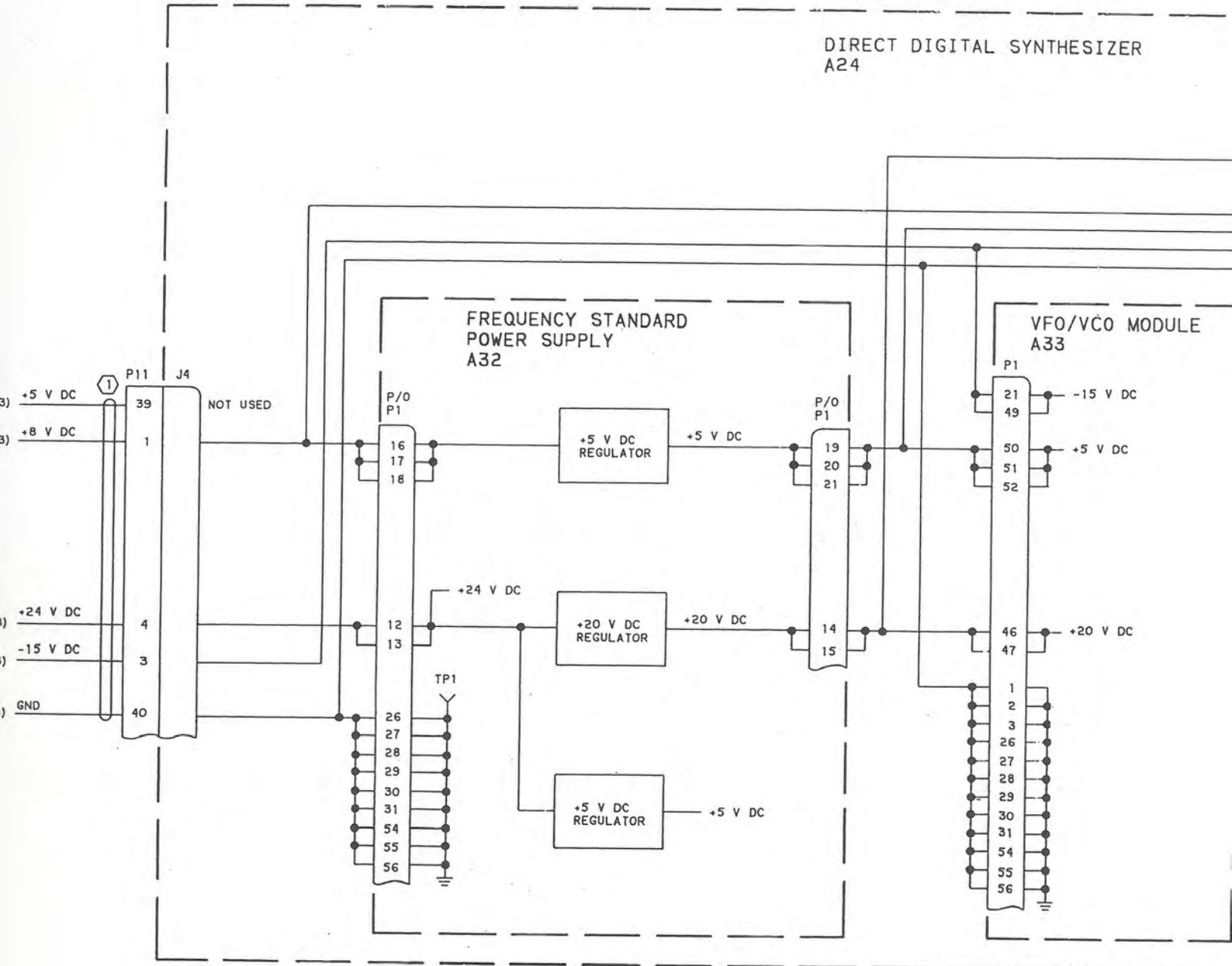


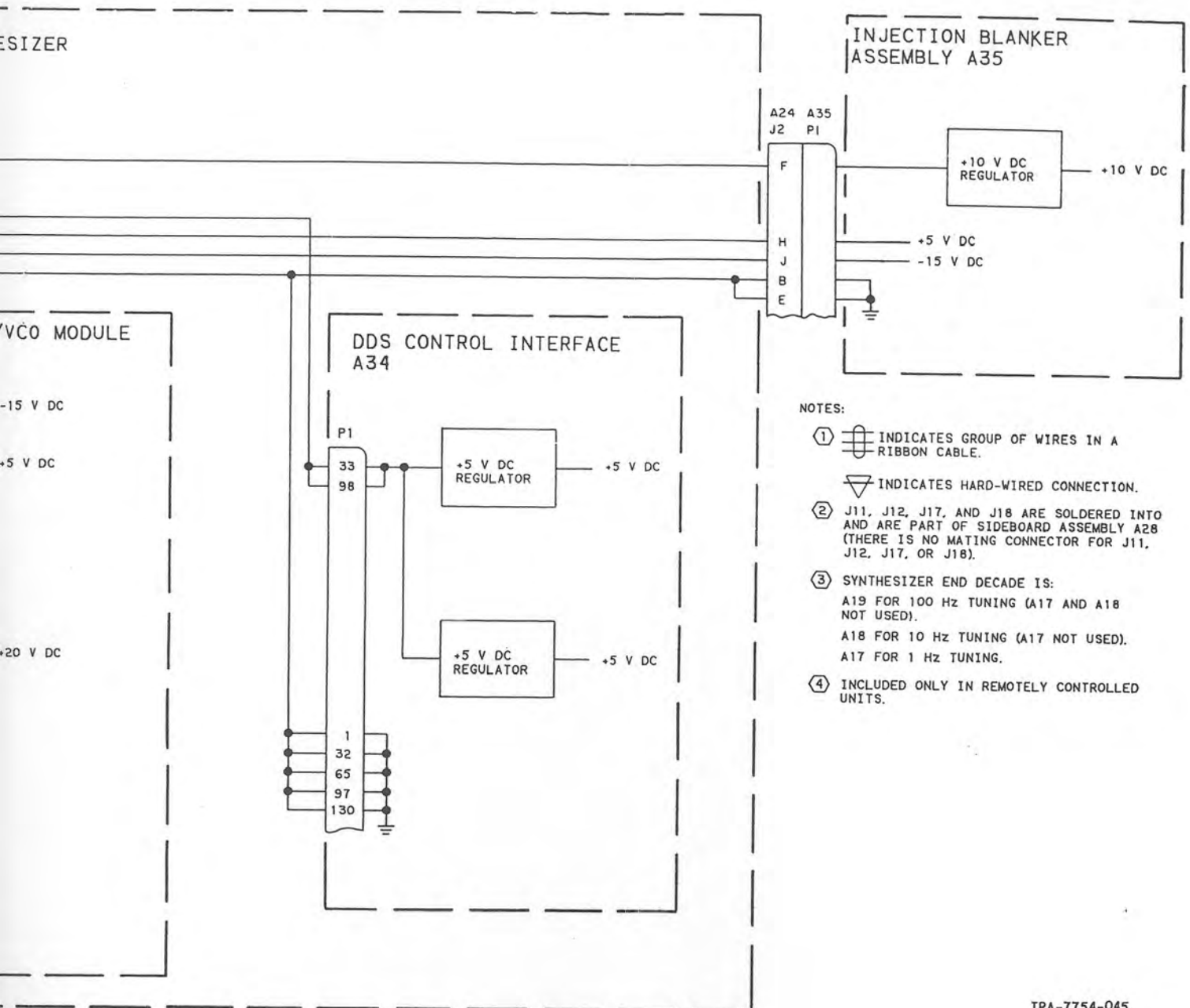


TPA-7754-045

HF-8054A Receiver (622-3475-210).
Power Distribution, Block Diagram
Figure 15A (Sheet 3)

DIRECT DIGITAL SYNTHESIZER
A24





TPA-7754-045

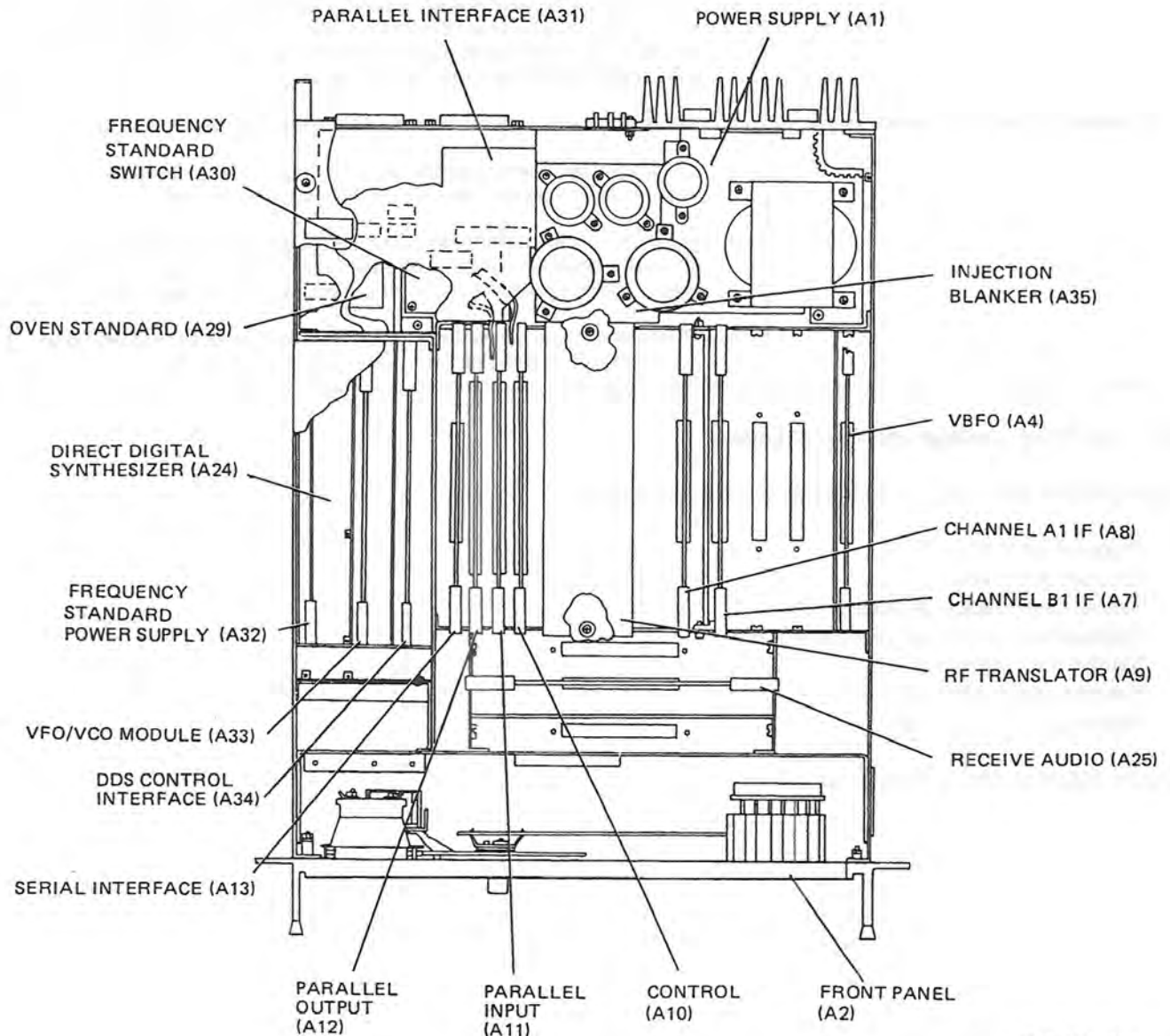
HF-8054A Receiver (622-3475-210),
 Power Distribution, Block Diagram
 Figure 15A (Sheet 4)

MAINTENANCE (523-0770705-002218)

1. GENERAL

Change the last sentence of the paragraph to read as follows, and place figure 1A behind figure 1.

Figure 1 shows the location of subassemblies in HF-8054() Receivers except for part number 622-3475-210, and figure 1A shows location of subassemblies in HF-8054A Receiver, part number 622-3475-210.



TPA-7811-019

HF-8054A Receiver (622-3475-210), Subassembly Location
Figure 1A

3.1 Fault Isolation

Replace the corresponding steps in table 2 with the following steps.

Table 2. Fault Isolation.

INDICATION	ISOLATION OF APPARENT FAILURE
RCV FAULT indicator lights	<ul style="list-style-type: none"> c. Remove top cover from receiver and direct digital synthesizer A24. d. Monitor fault lights on synthesizer cards. e. If DDS control interface and any other card both have fault lights lighted, replace the card other than DDS control interface. If fault condition is not corrected, replace DDS control interface. If DDS control interface LED is only light lighted, replace the DDS control interface.
No speaker receive audio (speaker output)	<ul style="list-style-type: none"> a. Check SPKR switch position (channel B1 operates only in ISB mode). c. Check headphone audio, same channel, or front panel meter indication for audio. If audio is present here, replace A25 receive audio card. d. Set METER switch to RCV SIG position; check that receive signal is indicated. If signal is indicated, replace receive audio card A25. If no signal is present, replace injection blanker A35. If fault remains, replace channel A1 if card A8. e. If audio outputs are normal for channel A1 but not channel B1, replace receive audio card A25. If fault remains, replace channel B1 if card A7.

3.2 Test Point, Voltage and Signal Levels

Listings of the following cards in table 3 are not applicable.

- Channel B2 if A5
- Channel A2 if A6
- Synthesizer voltage regulator A14
- Synthesizer subcarrier generator A15
- Synthesizer reference A16
- Receive audio AF2 A26
- Synthesizer output A23

Add the following test points to table 3.

3.3 Testing/Troubleshooting Procedures

Place figure 2A behind figure 2. Refer to figure 2A when testing or troubleshooting an HF-8054A Receiver (622-3475-210). Make the following changes to table 4 and table 5.

Table 4. HF-8054() Receiver, Minimum Performance Test Procedures.

TEST	PROCEDURE	NORMAL INDICATION	IF INDICATION IS ABNORMAL
2. Initial checks	c. Measure dc voltages between the following points and ground: Synthesizer voltage regulator A14: A24J1-8.	Not applicable.	
4. Control inputs	Steps j, k, l, m, r, s, t, and u are not applicable.		
7. Channel enable switches	a. Front panel controls set as follows: PWR to on CONT to LCL MODE to ISB CH A1 enable to ON CH B1 enable to ON FREQUENCY kHz to 2000.00 VBFO to FXD All AGC to FAST or FAX RF GAIN to full cw Steps e and g are not applicable.		
9. Receive performance	Steps p through ac are not applicable.		
10. AGC	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
12. SQUELCH/AF GAIN control	Section on channel A2/B2 is not applicable.		
13. PHONES check	Section on A2/B2 is not applicable.		
14. SPEAKER	a. Front panel controls set as follows: PWR to on CONT to LCL MODE to ISB BANDWIDTH to any CH A1 enable to ON CH B1 enable to ON VBFO to FXD All AGC to FAST RF GAIN to full cw SQUELCH to off (full cw) Steps i through n are not applicable.		

Table 3. Test Point, Voltage, and Signal Levels.

CARD/MODULE	TEST POINT	FUNCTION	SIGNAL, DESCRIPTION
DDS Control interface A34	TP1	Clock summary fault	Fault = 0 V dc No fault = +5 V dc
	TP2	Processor fault out	Fault = 0 V dc No fault = +5 V dc
	TP3	Output loop fault	Fault = 0 V dc No fault = +5 V dc
	TP4	8-MHz fault	Fault = 0 V dc No fault = +5 V dc
	TP5	Fault summary	Fault = +5 V dc No fault = 0 V dc
	TP6	+5 V dc	+5 V dc
	TP7	Halt	+5 V dc
	TP8	Memory ready	+5 V dc
	TP9	IRQ	+5 V dc
	TP10	NMI	+5 V dc
	TP11	RAME	+5 V dc
Frequency standard/power supply A32	TP1	Ground	Ground
	TP2	LOL	Fault = +5 V dc No fault = 0 V
	TP3	+5 V dc	+5 V dc
	TP4	+20 V dc	+20 V dc
	TP5	+5 V dc	+5 V dc
Injection blanker A35	TP1		Disabled — approx 0.5 to 1 V dc. Enabled — triangular waveform with 300-400 μ s dead time between pulse, approx 5 V amplitude.
	TP2		Disabled — approx 0.8 V dc. Enabled — inverted TP1 signal with amplitude approx 0.8 V dc.
	TP3		Disabled — approx 0.8 V dc. Enabled — inverted TP2 signal.

Table 5. HF-8054() Receiver, Detailed Performance Test Procedures (Cont).

TEST	PROCEDURE	NORMAL INDICATION	IF INDICATION IS ABNORMAL
18. External standard test	e. Strap frequency standard/power supply A32 of direct digital synthesizer for external standard 100-kHz input. g. i. Strap frequency standard/power supply A32 for external standard 1-MHz input. m. Strap frequency standard/power supply A32 for external standard 5-MHz input.		Check direct digital synthesizer A24.
20. Frequency standard test	g. k. r. Initiate PILOT CARR to ON from parallel input device. s. Initiate PEAK CLIP to ON from parallel input device. t. Initiate MODE to AM from parallel input device. u. Initiate a frequency change with processor. v. Repeat step g over entire frequency spectrum. w. Turn off power to exciter and frequency counter. Turn off power to remote control, parallel input device, processor, and receiver.	Unit under test indicator lights. Unit under test PEAK CLIP indicator lights. Unit under test AM indicator lights, ISB MODE indicators extinguish. Frequency counter should reflect new frequency. Same as step g.	Check frequency standard switch A30 and direct digital synthesizer A24. Check direct digital synthesizer A24. Check control A10, parallel interface A31. Same as step p. Same as step p. Check parallel interface A35, control A10, direct digital synthesizer A27. Same as step g.

Table 5. HF-8054() Receiver, Detailed Performance Test Procedures.

TEST	PROCEDURE	NORMAL INDICATION	IF INDICATION IS ABNORMAL
2. Initial checks	c. Measure dc voltages between the following points and ground: Synthesizer voltage regulator A14: A24J1-8.	Not applicable.	
3. Sensitivity	Section on channel A2 is not applicable. Section on channel B2 is not applicable. d.		Check rf translator A9, channel A1 if A8, and injection blanker A35.
4. Gain	e. Section on channel A2 is not applicable. Section on channel B2 is not applicable.		Check channel A1 if A8, receive audio A25, rf translator A9, and injection blanker A35.
5. In-band intermodulation	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
8. Audio distortion	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
9. AGC characteristics	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
10. Cross sideband rejection	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
11. AGC voltage input/output	Section on channel A2 is not applicable. Section on channel B2 is not applicable.		
14. Bandwidth	Steps q through aa are not applicable.		
15. Frequency accuracy	d.		Check direct digital synthesizer A24.
17. Oven standard test	Not applicable.		

4.1.3 CHAN A2 RCV LINE ADJ (A26R28)

Not applicable.

4.1.4 CHAN B2 RCV LINE ADJ (A26R65)

Not applicable.

4.2.3 Channel A2 Receive Audio Meter Adjustment (A26R43)

Not applicable.

4.2.4 Channel B2 Receive Audio Meter Adjustment (A26R80)

Not applicable.

5.1 Assembly

Add the following text at the end of first paragraph. Add paragraph 5.1.8 between paragraph 5.1.7 and 5.2.

The circuit card/modules of the direct digital synthesizer may be removed by removing the top cover of the direct digital synthesizer and extracting the circuit card/modules as any other plug-in circuit card.

5.1.8 Parallel Interface A31

Remove unit top cover.

- b. Remove two attaching screws and associated hardware.
- c. Disconnect jacks from P3, P4, P5, P6, P7, and P8. Be sure to properly label jacks (jacks are keyed to facilitate replacement).
- d. Carefully remove circuit card from receiver.

5.2 Assembly

Add paragraph 5.2.6 after paragraph 5.2.5.

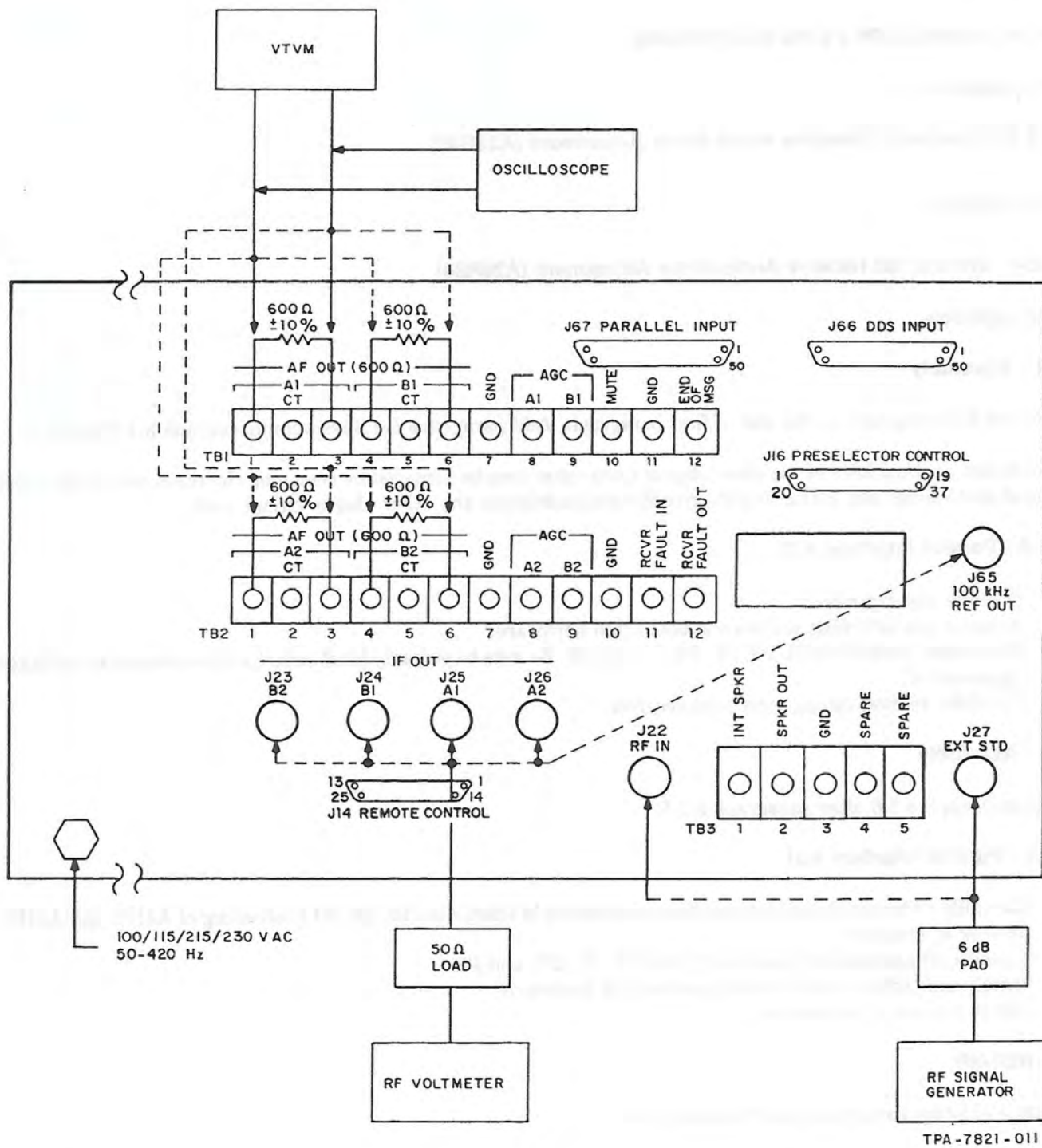
5.2.6 Parallel Interface A31

- a. Carefully slide circuit card into position in retaining bracket ensuring proper positioning of A31P1 and A31P2 on rear of receiver.
- b. Connect all appropriate jacks to P3, P4, P5, P6, P7, and P8.
- c. Install and tighten two attaching screws and hardware.
- d. Install top cover on receiver.

6. REPAIR

Replace existing paragraph with following text.

Repair of the HF-8054() Receiver consists of replacing subassemblies and chassis-mounted components. Use standard shop practices to replace chassis-mounted components. For circuit card repair, refer to the Circuit Card Repair Instructions (523-0772831) of the HF-80 Exciters, Receivers, and Controls Depot Maintenance instruction book (523-0772963).



HF-8054A Receiver (622-3475-210), Test Setup Diagram
Figure 2A

8 Reference Designation Prefixes

Add the following reference designators, part numbers, and figure references to the existing list.

<u>PREFIX</u>	<u>UNIT PART NUMBER</u>	<u>FIG-ITEM</u>
A11	642-3135-002	1A-20
A12	642-3137-002	1A-19
A24	652-6615-001	1A-45
A27	659-2053-002	1A-89
A28	634-8224-003	1A-49
A31	646-6329-001	1A-43A
A32	646-5930-001	1A-45D
A33	652-1015-002	1A-45C
A34	646-5905-003	1A-45B
A35	652-6861-001	1A-44A

1.9 Configuration Identifiers

Add the following configuration identifiers, part numbers, and figure references to the existing list.

<u>CI/REV LETTER</u>	<u>UNIT PART NUMBER</u>	<u>FIG-ITEM</u>
AH	622-3475-210	1A-
	634-8224-003	1A-49
B	652-7263-001	4A-

2. GROUP ASSEMBLY PARTS LIST

Add Figure 1A and associated Group Assembly Parts List for HF-8054A Receiver, 622-3475-210.

Add Figure 4A and associated Group Assembly Parts List for DDS Chassis Assembly, 652-7263-001.

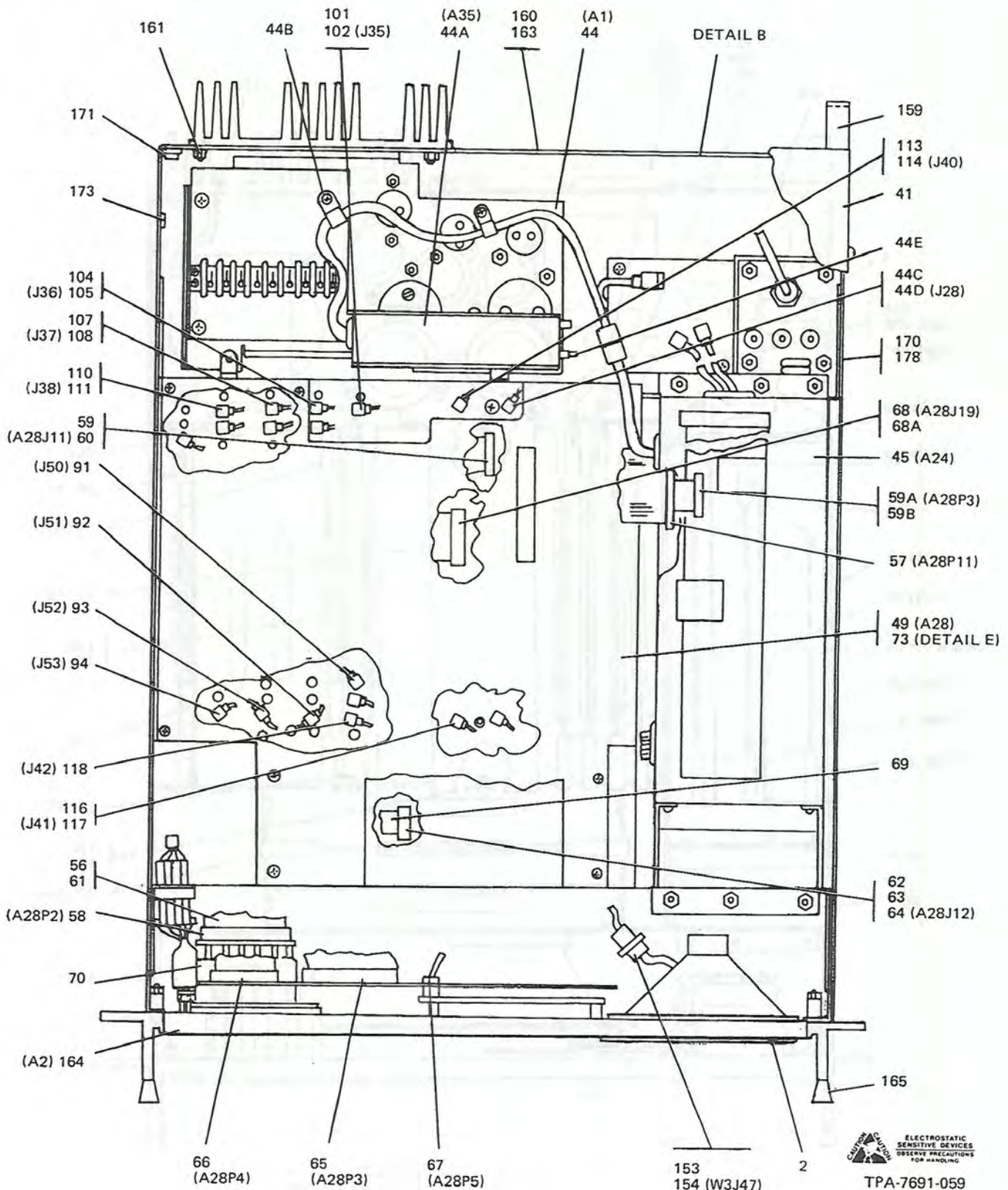
PARTS LIST (523-0770706-002218)

Differences in parts list for HF-8054A Receiver, part number 622-3475-210, from those presently listed for the existing statuses are described below.

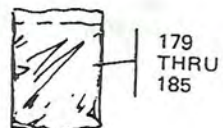
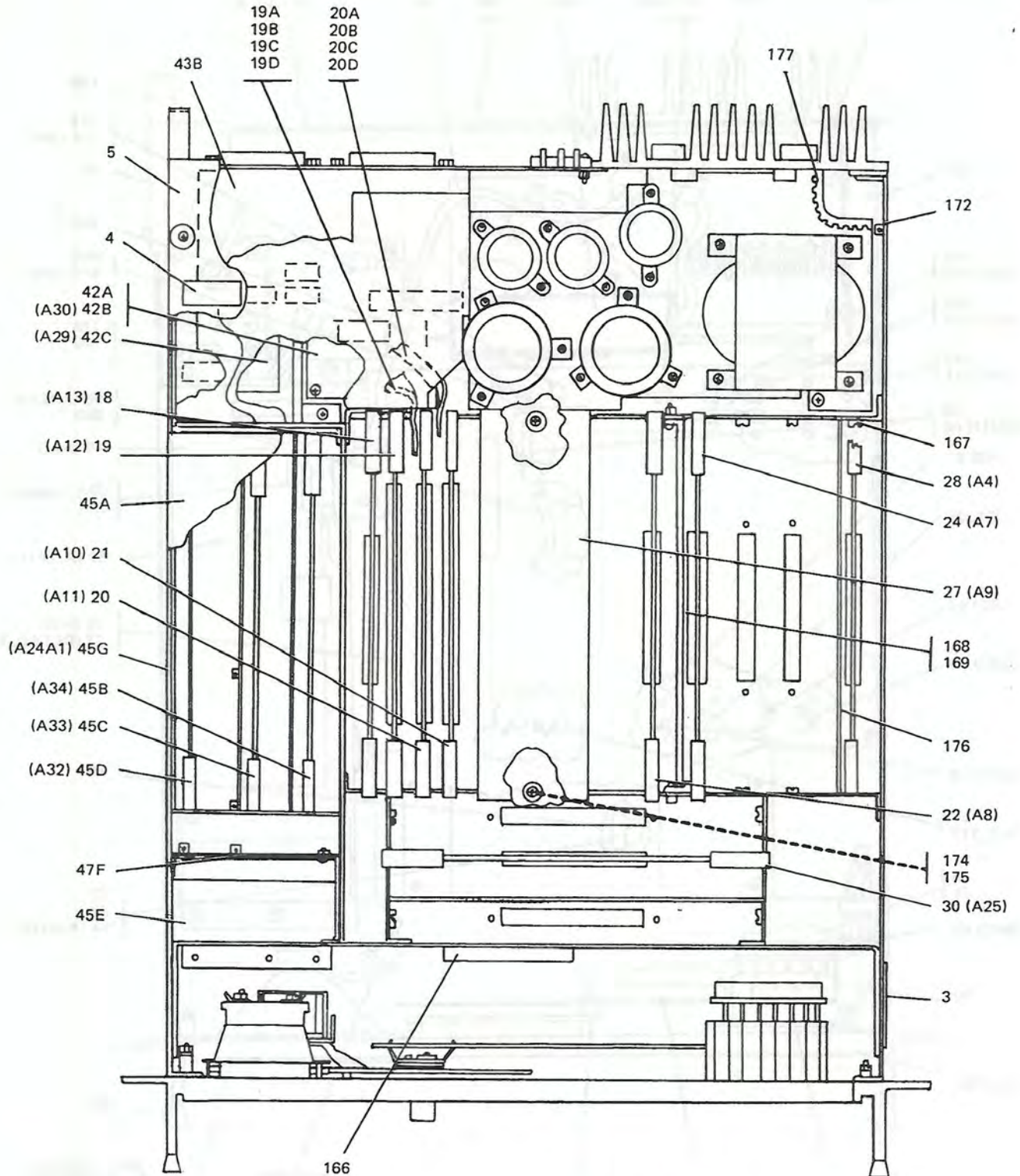
1.7 Manufacturer's Code, Name, and Address

Correct the name and address for manufacturer's code 13499 and add the remaining manufacturer's codes, names, and addresses.

<u>MFR CODE</u>	<u>MANUFACTURER'S NAME AND ADDRESS</u>
02660	Bunker Ramo-Eltra Corp Amphenol Div 2801 S 25th Ave Broadview, IL 60153
13499	Rockwell International Corporation Defense Electronics Operations Collins Defense Communications Division 350 Collins Road NE Cedar Rapids, IA 52498
53387	Minnesota Mining and Mfg Co Electronic Products Div 3M Center St. Paul, MN 55101
55943	Transcon Mfg Co Amrad Div 349 Bonham St P O Box 876 Paris, TX 75460
57863	North American Specialties Corp 120-12 28th Ave Flushing, NY 11354
80205	National Aerospace Standard
81483	International Rectifier 9220 Sunset Blvd P O Box 2321 Terminal Annex Los Angeles, CA 90454



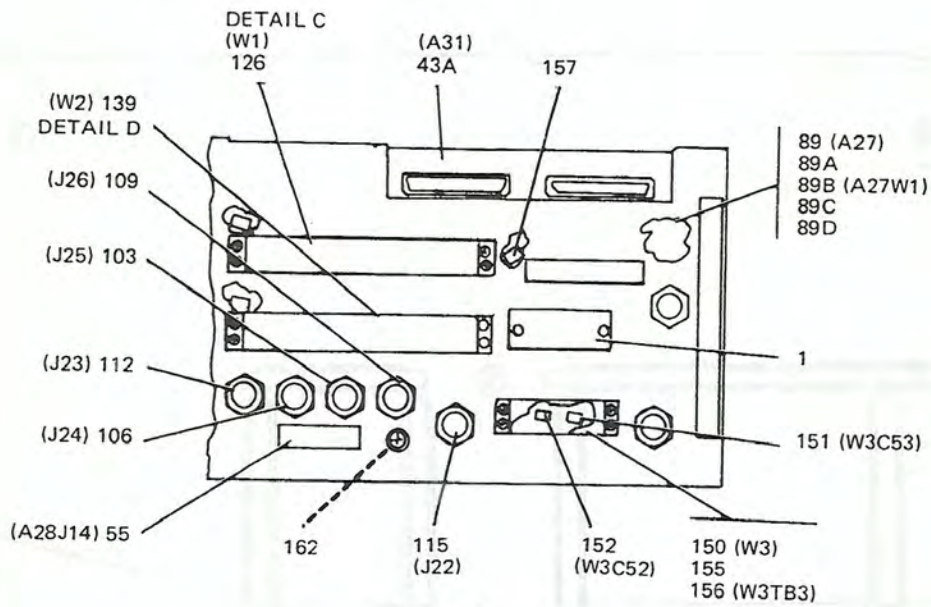
HF-8054A Receiver (622-3475-210)
Figure 1A (Sheet 2)



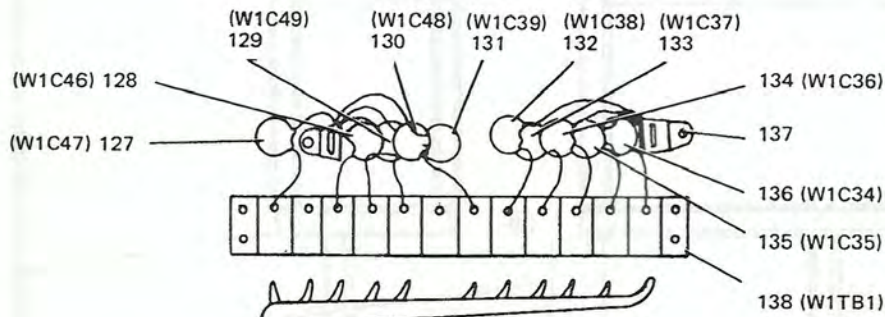
CAUTION
ELECTROSTATIC SENSITIVE DEVICES
OBSERVE PRECAUTIONS FOR HANDLING

TPA-7691-059

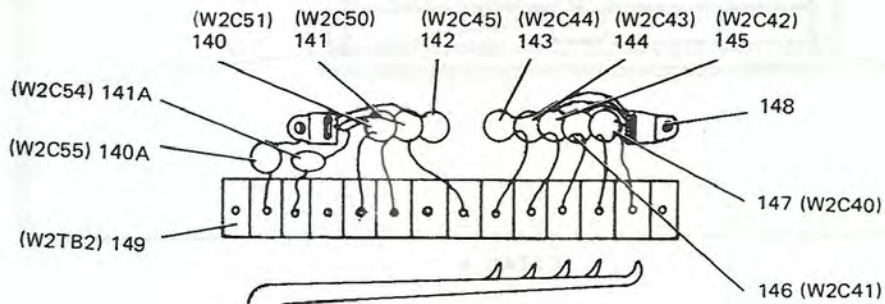
HF-8054A Receiver (622-3475-210)
Figure 1A (Sheet 1 of 5)



DETAIL B



DETAIL C

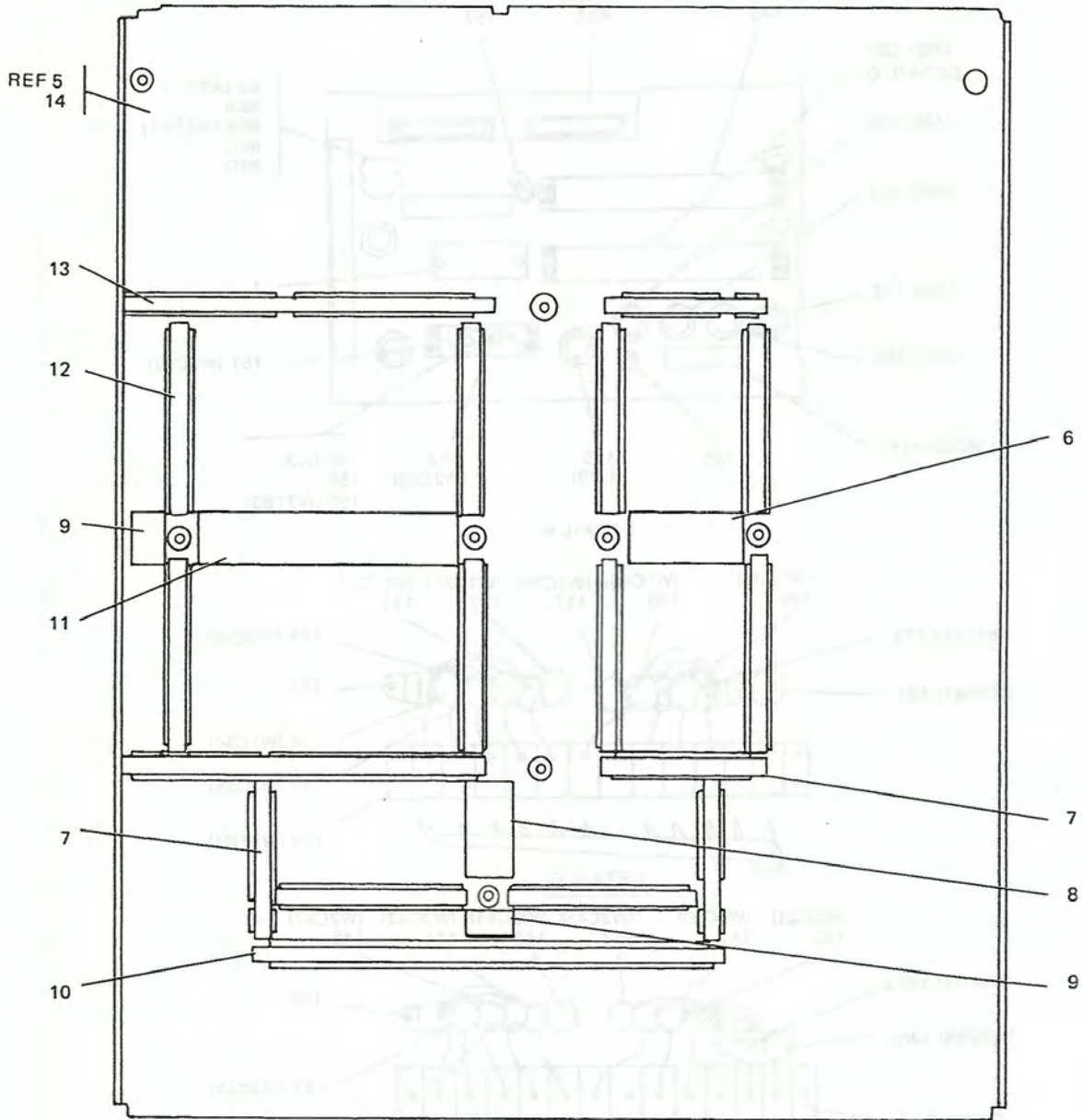


DETAIL D



TPA-7691-059

HF-8051A Receiver (622-3475-210)
Figure 1A (Sheet 4)



DETAIL A

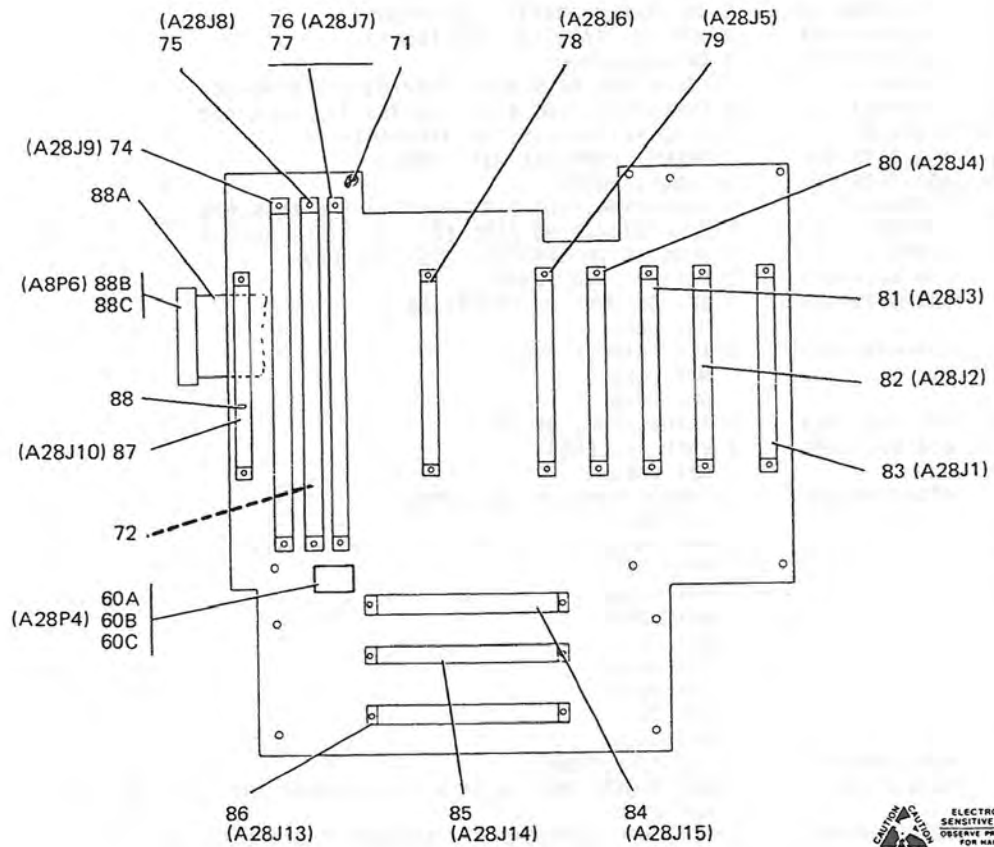
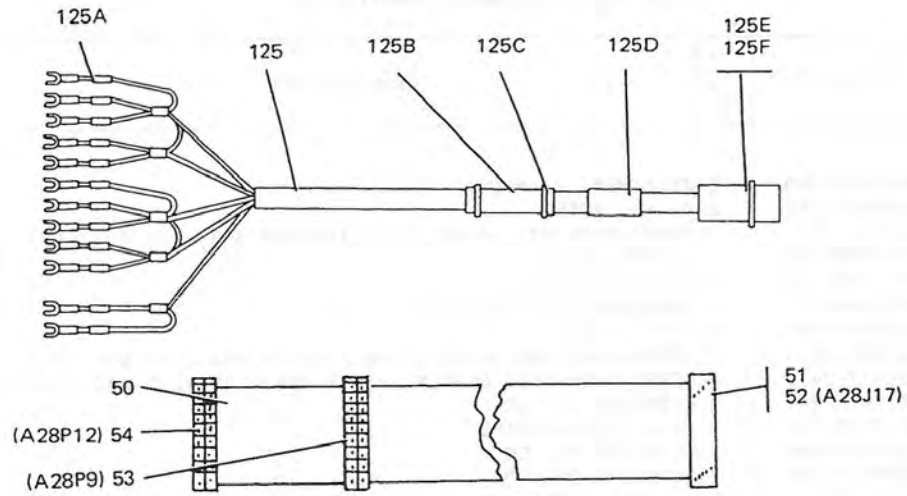


TPA-7691-059

HF-8054A Receiver (622-3475-210)
Figure 1A (Sheet 3)

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	INDENT	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-	622-3475-210	1	RECEIVER, HF-8054A	1	
1	642-0023-000	2	PLATE, IDENT	1	
	MS51957-11	2	SCREW,MACH STL, 4-40 X 1/8 (96906) 343-0131-000 (AP)	2	
2	634-8194-001	2	INSERT, IDENT	1	
3	637-9295-001	2	LABEL, FEATURE	1	
4	280-1368-350	2	LABEL,PRESSURE (12998)	1	
5	634-8181-001	2	COVER, TOP	1	
	MS51957-28	2	SCREW,MACH SST, 6-32 X 3/8 (96906) 343-0169-000 (AP)	7	
	MS51957-30	2	SCREW,MACH SST, 6-32 X 1/2 (96906) 343-0171-000 (AP)	2	
6	635-9679-002	3	CUSHION, CKT CD	1	
7	635-9677-003	3	GASKET, SHIELDING	4	
8	635-9679-005	3	CUSHION, CKT CD	1	
9	635-9679-004	3	CUSHION, CKT CD	2	
10	635-9677-008	3	GASKET, SHIELDING	1	
11	635-9679-006	3	CUSHION, CKT CD	1	
12	635-9677-001	3	GASKET, SHIELDING	10	
13	635-9677-002	3	GASKET, SHIELDING	2	
14	634-8180-001	3	COVER, TOP-PRSD	1	
15			NOT USED		
16			NOT USED		
17			NOT USED		
18	638-6896-001	2	INTERFACE, SERIAL A13 (ESDS)	1	
19	642-3137-002	2	OUTPUT, PARALLEL A12 (ESDS)	1	
19A	652-7408-001	2	CABLE,RIBBON	1	
19B	499568-1	3	CONNECTOR,PLUG ELEC (00779) 372-2648-020	1	
19C	499568-1	3	CONNECTOR,PLUG ELEC (00779) 372-2648-020	1	
19D	86286-1	3	PLUG,KEYING (00779) 372-2641-010	1	
20	642-3135-002	2	INPUT, PARALLEL A11 (ESDS)	1	
20A	652-7408-001	2	CABLE,RIBBON	1	
20B	499568-1	3	CONNECTOR,PLUG ELEC (00779) 372-2648-020	1	
20C	499568-1	3	CONNECTOR,PLUG ELEC (00779) 372-2648-020	1	
20D	86286-1	3	PLUG,KEYING (00779) 372-2641-010	1	
21	638-6629-001	2	CONTROL A10 (ESDS)	1	
22	638-6871-001	2	IF, CHANNEL A1 (ESDS) A8	1	
23			NOT USED		
24	638-6975-001	2	IF, CHANNEL B1 A7	1	
25			NOT USED		
26			NOT USED		
27	637-1767-003	2	TRANSLATOR, RF A9	1	
28	638-6067-002	2	VBFO A4 (ESDS)	1	
29			NOT USED		
30	635-0748-002	2	AUDIO, RECEIVE A25 (ESDS)	1	
31			NOT USED		
32			NOT USED		
33			NOT USED		
34			NOT USED		
35			NOT USED		
36			NOT USED		
37			NOT USED		
38			NOT USED		
39			NOT USED		
40			NOT USED		
41	634-8179-001	2	COVER, BOTTOM	1	
	MS51957-28	2	SCREW,MACH SST, 6-32 X 3/8 (96906) 343-0169-000 (AP)	6	
42			NOT USED		
42A	652-1966-001	2	KIT,OVEN OSCILLATOR / FREQUENCY STANDARD SWITCH	1	
42B	646-6558-001	3	SWITCH, FREQUENCY STANDARD A30	1	
42C	637-9135-001	3	OSCILLATOR, OVEN A29	1	
	NAS671C6	3	NUT,PLAIN,HEXAGON CRES, 0.138-32 (80205)	3	
			313-0045-000 (AP)		
	MS35338-98	3	WASHER,SPRING CD PL BRZ, 0.141 ID X 0.250 OD (96906)	3	
			310-0096-000 (AP)		



TPA-7691-059

DETAIL E

HF-8054A Receiver (622-3475-210)
Figure 1A (Sheet 5)

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	QUANTITY	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-	MS51957-28	3	SCREW,MACHINE CRES, 0.138-32 X 0.375IN (96906) 343-0169-000 (AP)	1	
	MS51959-28	3	SCREW,MACHINE CRES, 6-32 X 3/8 (96906) 342-0062-000 (AP)	2	
43			NOT USED		
43A	646-6329-001	2	INTERFACE,PARALLEL (ESDS) A31	1	
	MS51957-15	2	SCREW,MACH STL, 4-40 X 3/8 (96906) 343-0135-000 (AP)	2	
	M24308/26-1	2	SCREW,ASMBLD CLIP (81349) 371-0062-000 (AP)	2	
	CRES 0.125IDX0.2	2	WASHER,FLAT CRES, 0.125 ID X 0.281 OD (79807)	2	
	8100		310-6340-000 (AP)		
	MS35338-135	2	WASHER,LOCK SST, 0.115 ID X 0.209 OD (96906) 310-0279-000 (AP)	2	
43B	652-7372-001	2	SUPPORT,CIRCUIT CARD	1	
	MS51957-28	2	SCREW,MACHINE CRES, 0.138-32 X 0.375IN (96906) 343-0169-000 (AP)	2	
44	635-9649-001	2	POWER SUPPLY A1	1	
44A	652-6861-001	2	BLANKER ASSEMBLY, INJECTION A35	1	
44B	610-0005	2	CLAMP,LOOP (55943) 150-1542-000	2	
	MS51958-63	2	SCREW,MACHINE CRES, 0.190-32 X 0.500IN (96906) 343-0228-000 (AP)	1	
	MS51957-31	2	SCREW,MACHINE CRES, 0.138-32 X 0.625IN (96906) 343-0173-000 (AP)	1	
	CRES-.147IDX.312	2	WASHER,FLAT CRES, 0.147 ID X 0.312 OD (79807)	1	
	ODX.032TH		310-0046-000 (AP)		
44C	652-7398-001	2	CABLE,RF	1	
	623-1379-001	2	ADAPTER,CONN (AP)	1	
44D	52-312-9040	3	CONNECTOR,RCPT ELEC (98291) 357-7207-220 J28	1	
44E	M39012-55-3006	3	CONNECTOR,PLUG ELEC (81349) 357-7499-020	1	
45	652-6615-001	2	SYNTHESIZER,DIRECT DIGITAL (ESDS) A24	1	
	P313-0045-000	2	NUT,PLAIN,HEX SST, 6-32 (77250) 313-0045-000 (AP)	6	
	310-0071-000	2	WASHER,LOCK SST, 0.151 ID X 0.239 OD (79807) (AP)	6	
	310-0046-000	2	WASHER,FLAT SST, 0.147 ID X 0.312 OD (79807) (AP)	6	
	MS51957-28	2	SCREW,MACH SST, 6-32 X 3/8 (96906) 343-0169-000 (AP)	3	
	MS51957-30	2	SCREW,MACHINE CRES, 0.138-32 X 0.500IN (96906) 343-0171-000 (AP)	3	
	623-1379-001	2	BUSHING, COAX (AP)	6	
45A	651-4502-001	3	COVER,TOP	1	
	MS51957-3	3	SCREW,MACH CD PL STL, 2-56 X 1/4 (96906) 343-0124-000 (AP)	4	
	MS35338-134	3	WASHER,LOCK SST, 0.088 ID X 0.172 OD (96906) 310-0275-000 (AP)	4	
45B	646-5905-003	3	INTERFACE,DDS CONTROL(ESDS) A34	1	
45C	652-1015-002	3	VFO/VCO MODULE (ESDS) A33	1	
45D	646-5930-001	3	FREQUENCY STANDARD/ POWER SUPPLY (ESDS) A32	1	
45E	651-4506-001	3	BRACKET,EXTENDER	1	
	NAS671C6	3	NUT,PLAIN,HEXAGON CRES, 0.138-32 (80205) 313-0045-000 (AP)	4	
	CRES-.145IDX.236	3	WASHER,LOCK CRES, 0.145 ID X 0.236 OD (79807)	4	
	OD		310-0071-000 (AP)		
	CRES-.147IDX.312	3	WASHER,FLAT CRES, 0.147 ID X 0.312 OD (79807)	4	
	ODX.032TH		310-0046-000 (AP)		
	MS51957-28	3	SCREW,MACHINE CRES, 0.138-32 X 0.375IN (96906) 343-0169-000 (AP)	4	
45F	280-2745-040	3	LABEL,WARNING (12998)	1	
45G	652-7263-001	3	CHASSIS ASSEMBLY, DDS A24A1 (SEE FIG 4A)	1	
46			NOT USED		
47			NOT USED		
48			NOT USED		
49	634-8224-003	2	SIDEBBOARD A28	1	
	M24308-26-1	2	SCREW ASSY (81349) 371-0062-000 (AP)	3	
	MS51957-13	2	SCREW,MACH STL, 4-40 X 1/4 (96906) 343-0133-000 (AP)	16	
	MS35338-135	2	WASHER,LOCK SST, 0.115 ID X 0.209 OD (96906) 310-0279-000 (AP)	16	

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	IN- DENT	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-	310-6340-000		2 WASHER,FLAT SST, 0.125 ID X 0.281 OD (79807) (AP)	8	
	540-9039-003		2 POST, HEX .112-40X.44 (AP)	8	
50	647-7201-001		3 CABLE, DISPLAY-VBFO	1	
51	88089-4		4 CONNECTOR,RCPT ELEC (00779) 372-2653-140	1	
52	499440-3		4 CONNECTOR,RCPT ELEC (00779) 372-2653-130 A28J17	1	
53	88377-4		4 CONNECTOR,RCPT ELEC (00779) 372-2648-040 A28P9	1	
54	88377-4		4 CONNECTOR,RCPT ELEC (00779) 372-2648-040 A28P12	1	
55	DBM25S		3 CONNECTOR,RCPT ELEC (71468) 371-0221-000 A28J14	1	
56	634-8210-002		3 CABLE,SPECIAL PURPOSE	1	
57	88379-8		4 CONNECTOR,RCPT ELEC (00779) 372-2648-080 A28P11	1	
58	88379-7		4 CONNECTOR,RCPT ELEC (00779) 372-2648-070 A28P2	1	
59	1-88203-1		4 CONNECTOR,RCPT ELEC (00779) 372-2653-100	1	
59A	1-499566-0		4 CONNECTOR,PLUG ELEC (00779) 372-2648-070 A28P3	1	
59B	86286-1		4 PLUG,KEYING (00779) 372-2641-010	1	
60	499442-5		4 CONNECTOR,RCPT ELEC (00779) 372-2653-090 A28J11	1	
60A	88203-1		4 COVER,CONNECTOR ELEC (00779) 372-2653-020	1	
60B	499442-1		4 HOUSING,CONNECTOR ELEC (00779) 372-2653-010 A28P4	1	
60C	GTS-810-2807-S-1		4 CABLE,SP,ELECTRICAL (17217) 424-0862-010	AR	
	0				
61	3365-50		4 CABLE,SP,ELEC (75037) 424-0307-030	AR	
62	634-8228-001		3 CABLE, SPECIAL PURPOSE	1	
63	1-88203-1		4 CONNECTOR,RCPT ELEC (00779) 372-2653-100	1	
64	499442-5		4 CONNECTOR,RCPT ELEC (00779) 372-2653-090 A28J12	1	
65	88379-8		4 CONNECTOR,RCPT ELEC (00779) 372-2648-080 A28P3	1	
66	3399-6026		4 CONNECTOR,PLUG ELEC (53387) 372-2634-060 A28P4	1	
67	88377-5		4 CONNECTOR,RCPT ELEC (00779) 372-2648-050 A28P5	1	
68	499442-4		4 HOUSING,CONNECTOR ELEC (00779) 372-2653-070 A28J19	1	
68A	88203-7		4 COVER,CONNECTOR ELEC (00779) 372-2653-080	1	
69	3365-50		4 CABLE,SP,ELEC (75037) 424-0307-030	AR	
70	3365-34		4 CABLE,SP,ELEC (75037) 424-0307-010	AR	
71	MS25036-101		3 TERMINAL,LUG (96906) 304-0127-000	7	
72	MS25036-144		3 TERMINAL,LUG (96906) 304-1251-000	1	
73	638-6627-002		3 CIRCUIT BOARD, SIDEBOARD	1	
74	BS1020F65PAF		4 CONNECTOR,RCPT ELEC (55616) 372-2274-050 A28J9	1	
75	BS1020F65PAF		4 CONNECTOR,RCPT ELEC (55616) 372-2274-050 A28J8	1	
76	637-9314-001		4 CONNECTOR,MODIFIED A28J7	1	
77	BW1020F65PAF		5 CONNECTOR,RCPT ELEC (55616) 372-2274-040	1	
78	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J6	1	
79	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J5	1	
80	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J4	1	
81	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J3	1	
82	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J2	1	
83	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J1	1	
84	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J15	1	
85	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J14	1	
86	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J13	1	
87	BS1225F28PFF		4 CONNECTOR,RCPT ELEC (17235) 372-7515-010 A28J10	1	
88	97096900		4 CONNECTOR,RCPT ELEC (17235) 372-7600-280	13	
88A	652-2223-001		3 CABLE ASSEMBLY, RIBBON-NO 4	1	
88B	499568-4		4 CONNECTOR,PLUG ELEC (00779) 372-2648-040 A28P6	1	
88C	86286-1		4 PLUG,KEYING (00779) 372-2641-010	1	
89	659-2053-002		2 FILTER,RFI-MODIFIED A27	1	
	M24308-26-1		2 SCREW ASSY (81349) 371-0062-000 (AP)	1	
	MS51957-3		2 SCREW,MACH CD PL STL, 2-56 X 1/4 (96906)	4	
			343-0124-000 (AP)		
	MS35338-134		2 WASHER,LOCK SST, 0.088 ID X 0.172 OD (96906)	2	
			310-0275-000 (AP)		
	540-9006-003		2 POST, ELEC-MECH (AP)	2	
89A	637-2712-003		3 FILTER,RFI (SEE FIG 6)	1	
89B	652-2222-001		3 CABLE ASSEMBLY A27W1	1	
89C	499568-1		4 CONNECTOR,PLUG ELEC (00779) 372-2648-020	1	
89D	86286-1		4 PLUG,KEYING (00779) 372-2641-010	1	
90	642-2454-001		2 CABLE, COAX-RF	1	

GROUP ASSEMBLY PARTS LIST

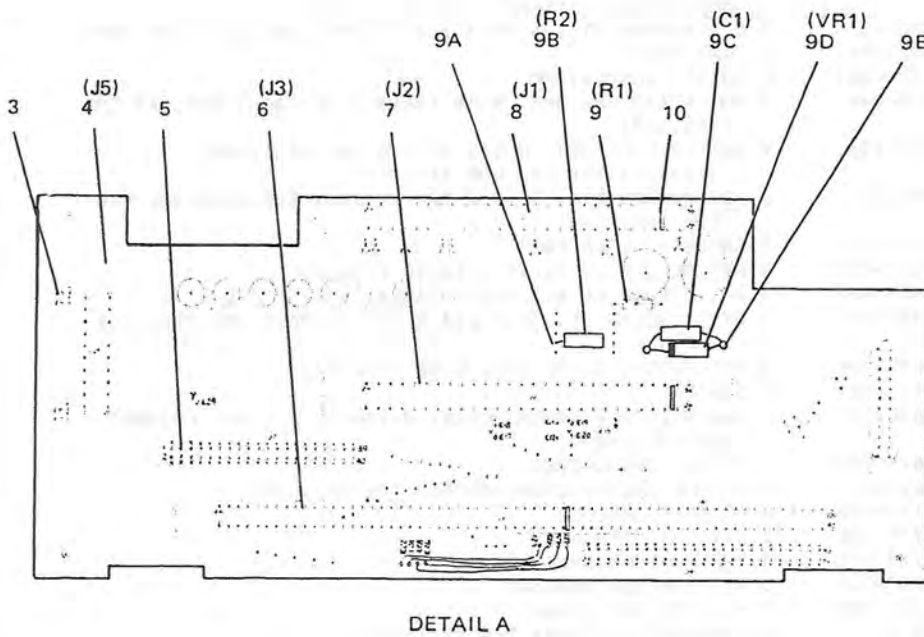
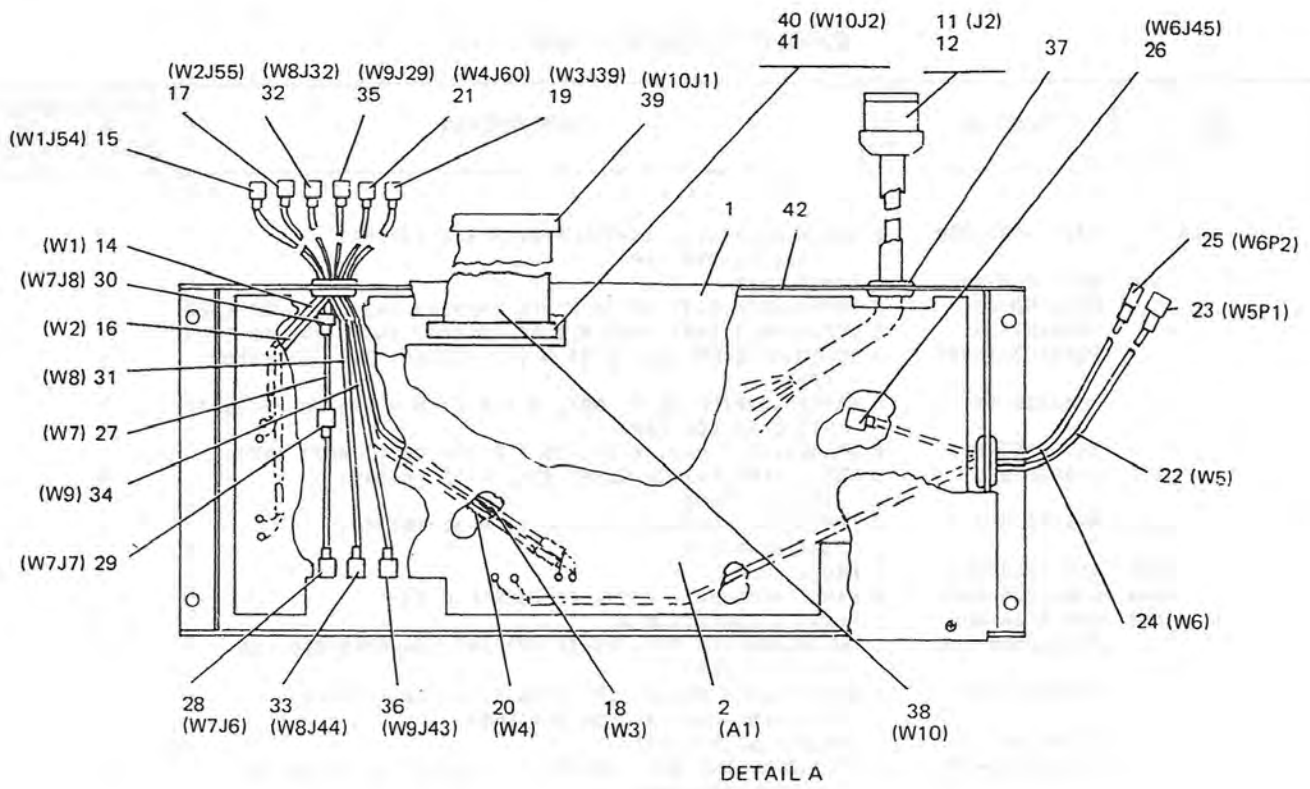
FIG-ITEM	PART NO	IDENT	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-	623-1379-001		2 BUSHING, COAX (AP)		4
91	51-330-3188		3 CONNECTOR,RCPT ELEC (98291) 357-7374-010 J50		1
92	51-071-0019		3 CONNECTOR,TEE (98291) 357-7533-010 J51		1
93	51-330-3188		3 CONNECTOR,RCPT ELEC (98291) 357-7374-010 J52		1
94	51-071-0019		3 CONNECTOR,TEE (98291) 357-7533-010 J53		1
95			NOT USED		
96			NOT USED		
97			NOT USED		
98			NOT USED		
99			NOT USED		
100			NOT USED		
101	637-1525-003		2 CABLE, COAX		1
	646-7008-001		2 SPRING, GND (AP)		2
	623-1379-001		2 BUSHING, COAX (AP)		1
102	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J35		1
103	801-B3800B75		3 CONNECTOR,RCPT ELEC (94375) 357-7129-010 J25		1
104	637-1525-003		2 CABLE, COAX		1
	623-1379-001		2 BUSHING, COAX (AP)		1
105	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J36		1
106	801-B3800B75		3 CONNECTOR,RCPT ELEC (94375) 357-7129-010 J24		1
107	637-1525-003		2 CABLE, COAX		1
	623-1379-001		2 BUSHING, COAX (AP)		1
108	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J37		1
109	801-B3800B75		3 CONNECTOR,RCPT ELEC (94375) 357-7129-010 J26		1
110	637-1525-003		2 CABLE, COAX		1
	623-1379-001		2 BUSHING, COAX (AP)		1
111	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J38		1
112	801-B3800B75		3 CONNECTOR,RCPT ELEC (94375) 357-7129-010 J23		1
113	637-1525-002		2 CABLE, COAX		1
	623-1379-001		2 BUSHING, COAX (AP)		1
114	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J40		1
115	801-B3800B75		3 CONNECTOR,RCPT ELEC (94375) 357-7129-010 J22		1
116	637-1526-002		2 CABLE, COAX		1
	623-1379-001		2 BUSHING, COAX (AP)		2
117	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J41		1
118	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 J42		1
119			NOT USED		
120			NOT USED		
121			NOT USED		
122			NOT USED		
123			NOT USED		
124			NOT USED		
125	652-7204-001		2 CABLE, INTERFACE - RECEIVER TERMINAL BOARD		1
125A	34080		3 TERMINAL,LUG (00779) 304-0414-000		12
125B	652-7217-014		3 MARKER,IDENT		1
125C	MS3367-5-9		3 CLAMP LOOP (96906) 435-0002-090		2
125D	651-7856-082		3 MARKER,IDENT		1
125E	MS3121F14-19S		3 CONNECTOR,PLUG ELEC (96906) 359-0062-230		1
125F	M39029/32-259		3 CONTACT,SOCKET (81349) 359-0032-020		19
126	634-8226-002		2 HARNESS,WIRING W1		1
	P313-0045-000		2 NUT,PLAIN,HEX SST, 6-32 (77250) 313-0045-000 (AP)		4
	310-0071-000		2 WASHER,LOCK SST, 0.151 ID X 0.239 OD (79807) (AP)		4
	MS51957-30		2 SCREW,MACH SST, 6-32 X 1/2 (96906) 343-0171-000 (AP)		4
127	CK63AW103M		3 CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C47		1
128	CK63AW103M		3 CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C46		1
129	CK63AW103M		3 CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C49		1
130	CK63AW103M		3 CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C48		1
131	CK63AW103M		3 CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C39		1

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	IN-DE-NT	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-132	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C38	1	
133	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C37	1	
134	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C36	1	
135	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C35	1	
136	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W1C34	1	
137	403	3	TERMINAL,LUG (79963) 304-1089-000	2	
138	353-18-12-001	3	TERMINAL STRIP (71785) 367-0020-000 W1TB1	1	
139	634-8227-002	2	HARNESS,WIRING W2	1	
	P313-0045-000	2	NUT,PLAIN,HEX SST, 6-32 (77250) 313-0045-000 (AP)	4	
	310-0071-000	2	WASHER,LOCK SST, 0.151 ID X 0.239 OD (79807) (AP)	4	
	MS51957-30	2	SCREW,MACH SST, 6-32 X 1/2 (96906) 343-0171-000 (AP)	4	
	642-2455-001	2	GUARD, CABLE (AP)	1	
	630-2189-001	2	GUARD, CABLE (AP)	1	
	115-0260-003	2	SPACER (74970) 150-1012-030 (AP)	4	
140	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C51	1	
140A	CK63AW103M	3	CAPACITOR,FIXED CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C55	1	
141	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C50	1	
141A	CK63AW103M	3	CAPACITOR,FIXED CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C54	1	
142	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C45	1	
143	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C44	1	
144	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C43	1	
145	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C42	1	
146	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C41	1	
147	CK63AW103M	3	CAPACITOR,FXD CER DIEI, 10000PF, 20%, 500V (81349) 913-1188-000 W2C40	1	
148	403	3	TERMINAL,LUG (79963) 304-1089-000	2	
149	353-18-12-001	3	TERMINAL STRIP (71785) 367-0020-000 W2TB2	1	
150	634-8225-001	2	CABLE ASSY, SPEAKER W3	1	
	P313-0045-000	2	NUT,PLAIN,HEX SST, 6-32 (77250) 313-0045-000 (AP)	4	
	310-0071-000	2	WASHER,LOCK SST, 0.151 ID X 0.239 OD (79807) (AP)	4	
	MS51957-30	2	SCREW,MACH SST, 6-32 X 1/2 (96906) 343-0171-000 (AP)	4	
151	805-014X5V0103Z	3	CAPACITOR,FXD CER DIEI, 0.01UF, P80%M20%, 100V (12294) 913-3680-000 W3C53	1	
152	805-014X5V0103Z	3	CAPACITOR,FXD CER DIEI, 0.01UF, P80%M20%, 100V (12294) 913-3680-000 W3C52	1	
153	60617-1	3	SOCKET CONTACT (00779) 372-5884-060	2	
154	1-480318-0	3	HOUSING,SOCKET (00779) 372-5884-330 W3J47	1	
155	600J	3	JUMPER,BARRIER (75382) 367-0854-000	1	
156	353-18-05-001	3	TERMINAL STRIP (71785) 367-0013-000 W3TB3	1	
157	403	2	TERMINAL,LUG (79963) 304-1089-000	5	
	NAS671C6	2	NUT,PLAIN,HEXAGON CRES, 0.138-32 (80205) 313-0045-000 (AP)	4	
	CRES-.145IDX.236 OD	2	WASHER,LOCK CRES, 0.145 ID X 0.236 OD (79807) 310-0071-000 (AP)	4	
	MS51957-27	2	SCREW,MACHINE CRES, 0.138-32 X 0.312IN (96906) 343-0168-000 (AP)	4	
158			NOT USED		
159	637-9121-001	2	SUPPORT, RADIO	1	

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	IDENT	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
1A-	P325-0051-000		2 SCREW,MACH STL, 10-32UNF-2A X 1/2 (77250) 325-0051-000 (AP)	2	
160	652-7268-001		2 PANEL,REAR	1	
	MS51958-61		2 SCREW,MACH SST, 10-32 X 3/8 (96906) 343-0226-000 (AP)	2	
	MS51957-29		2 SCREW,MACH SST, 6-32 X 7/16 (96906) 343-0170-000 (AP)	7	
	P343-0311-000		2 SCREW,MACH NP BRS, 8-32 X 1/2 (77250) 343-0311-000 (AP)	1	
	MS35338-99		2 WASHER,SPRING CD PL BRZ, 0.168 ID X 0.293 OD (96906) 310-0098-000 (AP)	1	
	310-0057-000		2 WASHER,FLAT BRS, 0.172 ID X 0.375 OD (79807) (AP)	1	
161	M45938/5-6		3 NUT,SLFLKG,CLINCH CD PL STL, 6-32 (81349) 333-0842-000	9	
162	M45938/5-7		3 NUT,SLFLKG,CLINCH CD PL STL, 8-32 (81349) 333-0844-000	1	
163	652-7268-002		3 PANEL,REAR	1	
164	634-8200-005		2 PANEL ASSEMBLY, FRONT A2 (SEE FIG 2)	1	
165	635-9616-001		2 FLANGE, CHASSIS MTG	2	
	P334-0268-000		2 NUT,PLAIN,HEX SST, 10-32 (77250) 334-0268-000 (AP FOR 164,165)	4	
	MS35338-138		2 WASHER,LOCK SST, 0.194 ID X 0.334 OD (96906) 310-0284-000 (AP FOR 164,165)	4	
	541-6106-002		2 SPACER, SLEEVE (AP)	4	
	P312-0116-000		2 STUD,CONT THD STL, 10-32 X 1 (77250) 312-0116-000 (AP FOR 164,165)	4	
166	280-2745-020		2 LABEL,PRESS SENS (12998)	1	
167	23071-4		2 CARD GUIDE,PC (18677) 150-0810-040	26	
	MS51957-13		2 SCREW,MACH STL, 4-40 X 1/4 (96906) 343-0133-000 (AP)	16	
168	646-7013-001		2 PARTITION	1	
169	646-7014-001		2 SHEET, INSULATING	2	
	MS35649-244		2 NUT,PLAIN,HEX SST, 4-40 (96906) 313-0043-000 (AP FOR 168,169)	4	
	MS35338-135		2 WASHER,LOCK SST, 0.115 ID X 0.209 OD (96906) 310-0279-000 (AP FOR 168,169)	4	
	MS51957-13		2 SCREW,MACH STL, 4-40 X 1/4 (96906) 343-0133-000 (AP FOR 168,169)	4	
170	634-8177-001		2 CHASSIS, ELEC EQPT	1	
171	333-1455-050		3 NUT,SLFLKG CD PL STL, 10-32 (27687)	10	
172	68NA7-68-62		3 NUT,SLFLKG,PL AL, 6-32 (72962) 333-5620-000	4	
	MS20470AD3-4		3 RIVET,SOLID AL, 3/32 DIA X 1/4 (96906) 305-1155-000 (AP)	8	
173	333-1455-030		3 NUT,SLFLKG CD PL STL, 6-32 (27687)	4	
174	634-8177-013		3 SPACER	2	
175	MS21209C0615		3 INSERT,SCREW THREAD CRES, 0.138-32 X 0.207 (96906) 012-2111-000	11	
176	638-4566-001		3 PLATE, INSULATING	3	
177	MS21266-1N		3 GROMMET,PLSTC CHAN (96906) 150-0173-000	AR	
178	634-8177-002		3 CHASSIS, WELDED	1	
179	637-1769-001		2 KIT, MAINTENANCE	1	
180	637-1777-001		3 INSTRUCTION SHEET	1	
181	024-0057-000		3 KEY,SCH SCR (08664)	1	
182	024-0058-000		3 KEY,SCH SCR (08664)	1	
183	AGC250-1		3 FUSE,CRTG (71400) 264-0721-000	5	
184	AGC250-2		3 FUSE,CRTG (71400) 264-0723-000	5	
185	MS25237-327-15		3 LAMP,INCAND (96906) 262-1106-000	2	



TPA-7726-019

DDS Chassis Assembly A21A1
Figure 4A

GROUP ASSEMBLY PARTS LIST

FIG-ITEM	PART NO	QUANTITY	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
4A-	652-7263-001	1	1 CHASSIS ASSEMBLY, DDS A24A1 (SEE FIG 1-45G FOR NHA)	REF	
1	651-4499-001		2 COVER, DDS BOTTOM	1	
	MS51957-3		2 SCREW,MACH CD PL STL, 2-56 X 1/4 (96906)	6	
			343-0124-000 (AP)		
	MS35338-134		2 WASHER,LOCK SST, 0.088 ID X 0.172 OD (96906)	6	
			310-0275-000 (AP)		
2	646-6259-002		2 SIDEBBOARD, DDS A24A1A1	1	
	MS51957-15		2 SCREW,MACH STL, 4-40 X 3/8 (96906) 343-0135-000 (AP)	8	
	MS35338-135		2 WASHER,LOCK SST, 0.115 ID X 0.209 OD (96906)	8	
			310-0279-000 (AP)		
3	NA1104-026		3 CONTACT,ELECTRICAL (57863) 372-2601-026	17	
4	BS1225F10PFF		3 CONNECTOR,RCPT ELEC (55616) 372-7515-090 A24A1A1J5	1	
5	NA1104-046		3 CONTACT,ELECTRICAL (57863) 372-2601-046	90	
6	BS1020F65PAF010		3 CONNECTOR,RCPT ELEC (55616) 372-2274-050 A24A1A1J3	1	
7	BS1225F28PFF		3 CONNECTOR,RCPT ELEC (55616) 372-7515-010 A24A1A1J2	1	
8	BS1225F28PFF		3 CONNECTOR,RCPT ELEC (55616) 372-7515-010 A24A1A1J1	1	
9	RCR07G102KS		3 RESISTOR,FIXED CMPSN, 1K, 10%, 1/4W (81349)	1	
			745-0749-000 A24A1A1R1		
9A	NA1104-027		3 CONTACT,ELECTRICAL (57863) 372-2601-027	1	
9B	RCR32G331KS		3 RESISTOR,FIXED CMPSN, 330 OHMS, 10%, 1W (81349)	1	
			745-3331-000 A24A1A1R2		
9C	M39003/01-2257		3 CAPACITOR,FIXED ELCTLT, 33UF, 10%, 10V (81349)	1	
			184-9086-170 A24A1A1C1		
9D	1N756A		3 SEMICOND DEVICE (81483) 353-2720-000 A24A1A1VR1	1	
9E	012-3401-000599W		3 TERMINAL,FEEDTHRU (98291) 306-1851-000	2	
	HT				
10	5000-1710		3 CONNECTOR,RCPT ELEC (55616) 372-7600-280	3	
11	126-1082		2 CONNECTOR,RCPT ELEC (02660) 372-1539-000 A24A1J2	1	
12	126-1063		2 COVER,CONNECTOR (02660) 372-1159-000	1	
13			NOT USED		
14	637-1529-001		2 CABLE ASSY,COAXIAL RF A24A1W1	1	
15	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W1J54	1	
16	637-1529-001		2 CABLE ASSY,COAXIAL RF A24A1W2	1	
17	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W2J55	1	
18	637-1529-002		2 CABLE, RF A24A1W3	1	
19	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W3J39	1	
20	637-1529-003		2 CABLE, RF A24A1W4	1	
21	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W4J60	1	
22	652-7514-001		2 CABLE, RF A24A1W5	1	
23	M39012-73-0003		3 CONNECTOR,PLUG ELEC (81349) 357-9600-000 A24A1W5P1	1	
24	652-7398-001		2 CABLE, RF A24A1W6	1	
	623-1379-001		2 ADAPTER,CONN (AP)	1	
25	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W6P2	1	
26	M39012-55-3006		3 CONNECTOR,PLUG ELEC (81349) 357-7499-020 A24A1W6J45	1	
27	651-4504-001		2 CABLE, RF A24A1W7	1	
	623-1379-001		2 ADAPTER,CONN (AP)	3	
28	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W7J6	1	
29	51-071-0019		3 CONNECTOR,TEE (98291) 357-7533-010 A24A1W7J7	1	
30	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W7J8	1	
31	637-1526-005		2 CABLE, RF A24A1W8	1	
	623-1379-001		2 ADAPTER,CONN (AP)	1	
32	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W8J32	1	
33	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W8J44	1	
34	637-1526-003		2 CABLE ASSY,COAXIAL RF A24A1W9	1	
	623-1379-001		2 ADAPTER,CONN (AP)	1	
35	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W9J29	1	
36	52-312-9040		3 CONNECTOR,RCPT ELEC (98291) 357-7207-220 A24A1W9J43	1	
37	7-50-60		2 GROMMET,RBR (77969) 201-0088-000	3	
38	652-7365-001		2 CABLE, RIBBON A24A1W10	1	
39	1-499566-0		3 CONNECTOR,PLUG ELEC (00779) 372-2648-070 A24A1W10J1	1	
40	1-499566-0		3 CONNECTOR,PLUG ELEC (00779) 372-2648-070 A24A1W10J2	1	
41	86286-1		3 PLUG,KEYING (00779) 372-2641-010	1	
42	651-4497-001		2 CHASSIS	1	

DIAGRAMS (523-0770707-002218)

List of Illustrations — Replace list of illustrations with the following:

Figure	Page
1 Chassis, Main Sideboard and Ribbon Cabling Diagram.....	
1A HF-8054A Receiver (622-3475-210) Chassis, Main Sideboard and Ribbon Cabling, Schematic Diagram	
2 Front Panel Assembly A2 (634-8200-XXX), Schematic Diagram.....	
3 Synthesizer Chassis A2A4A1 (638-6973-001), Schematic Diagram	
3A Direct Digital Synthesizer Chassis A24 (652-6615-001), Schematic Diagram	
4 HF-8054() Receiver, Cabling, Connector Layout and Pin Numbering	
4A HF-8054A Receiver (622-3475-210), Cabling, Connector Layout and Pin Numbering	
5 Switch Mounting Board A2A2, Layout and Pin Numbering.....	
6 Remove Control Word Format and Pin Assignments	

2. CONFIGURATION EFFECTIVITY

Add the following entries to the list of units subassemblies.

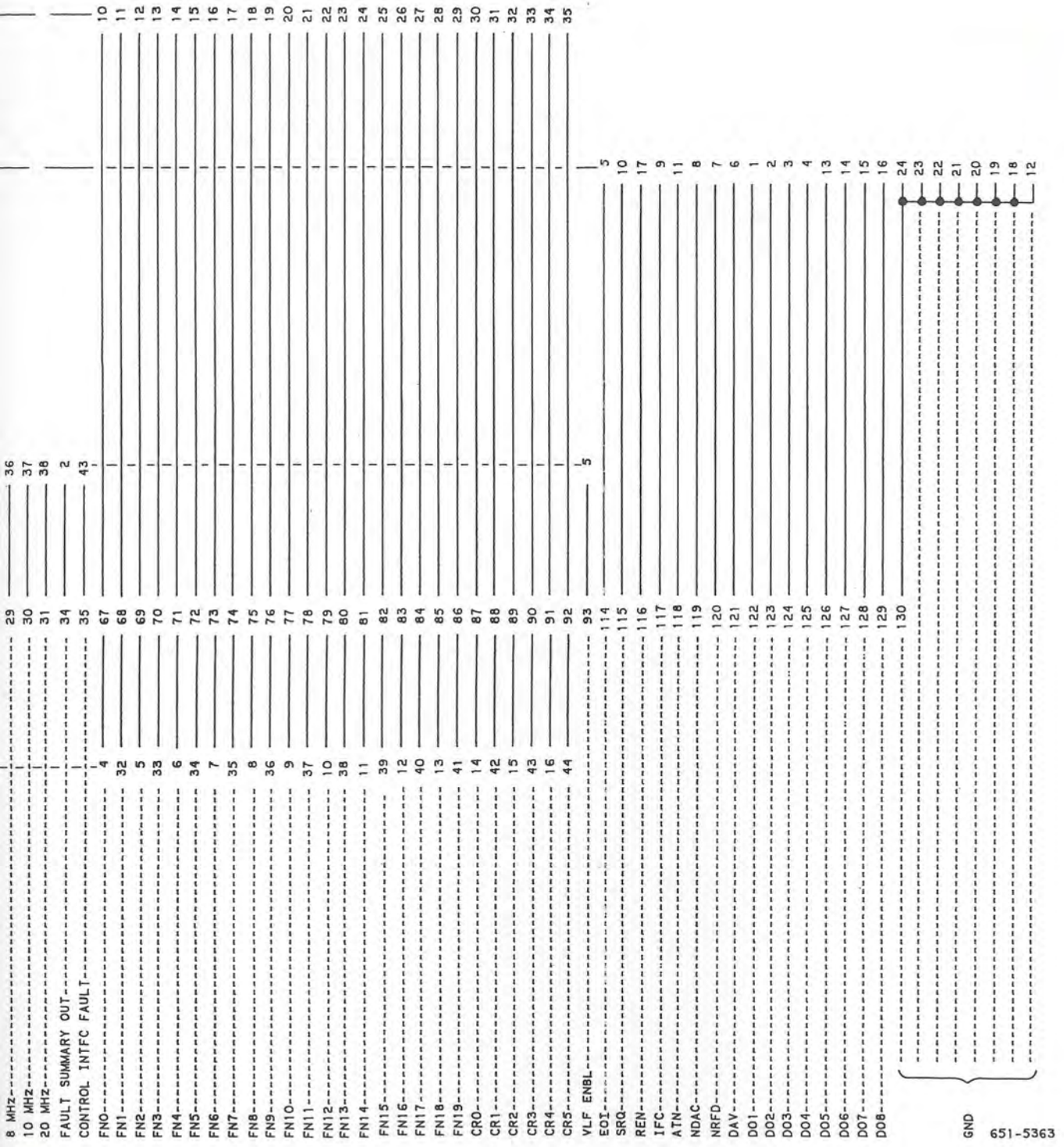
<u>UNIT/SUBASSEMBLY</u>	<u>PART NUMBER</u>	<u>LATEST EFFECTIVITY</u>
HF-8054A Receiver	622-3475-210	AH
RFI Filter Modified	659-2053-002	B
Sideboard Assembly A28	634-8224-003	F
Direct Digital Synthesizer	652-6615-001	A
DS Sideboard A24A1 (P/O A24)	646-6259-001	E
RF Cable Assembly (P/O A24)	652-7398-001	—
Ribbon Cable Assembly (P/O A24)	652-7514-001	—

Place figures 1A, 3A, and 4A behind the appropriate figures. Replace figure 6 with figure 6 provided.

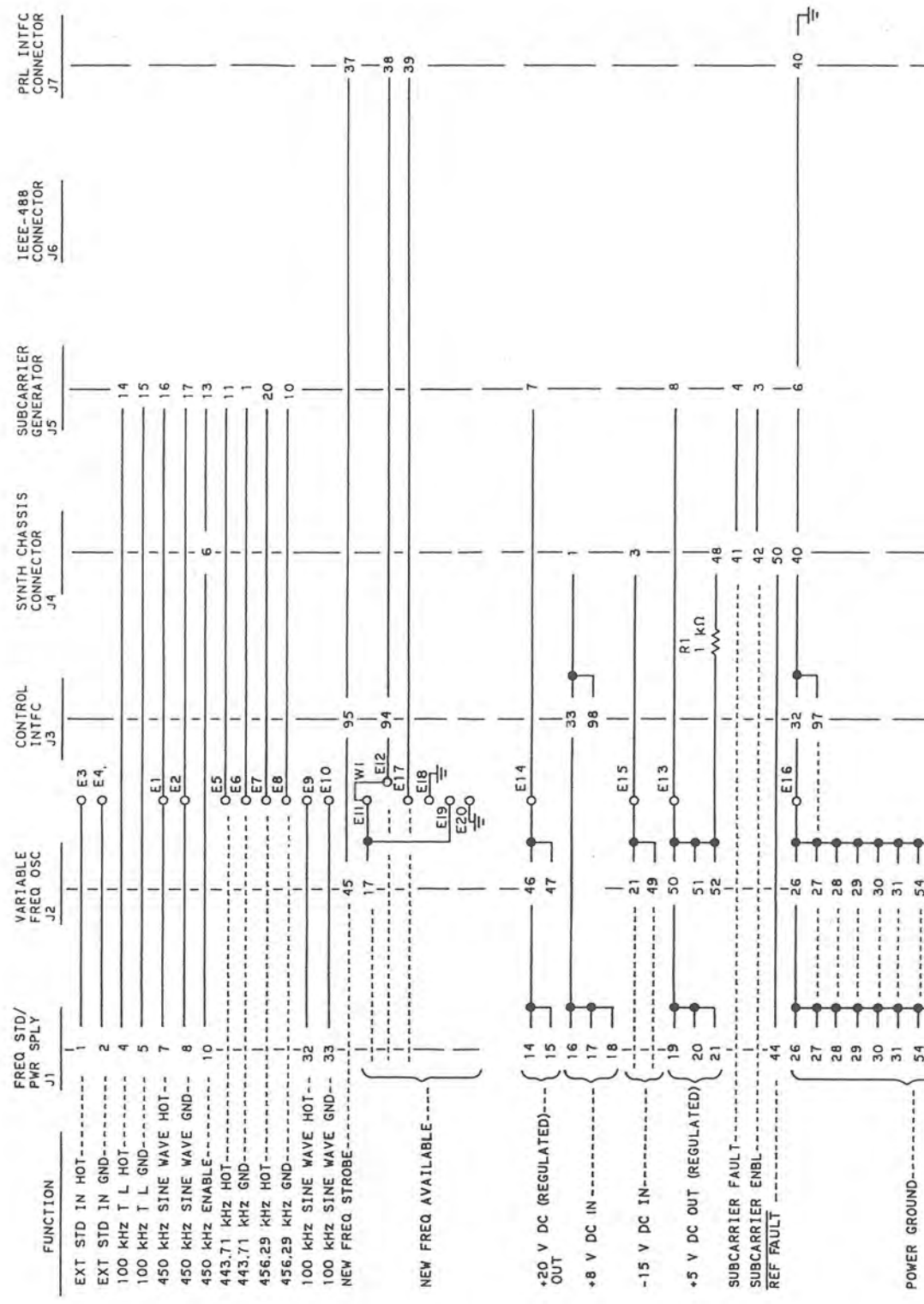
Illustration Not Available

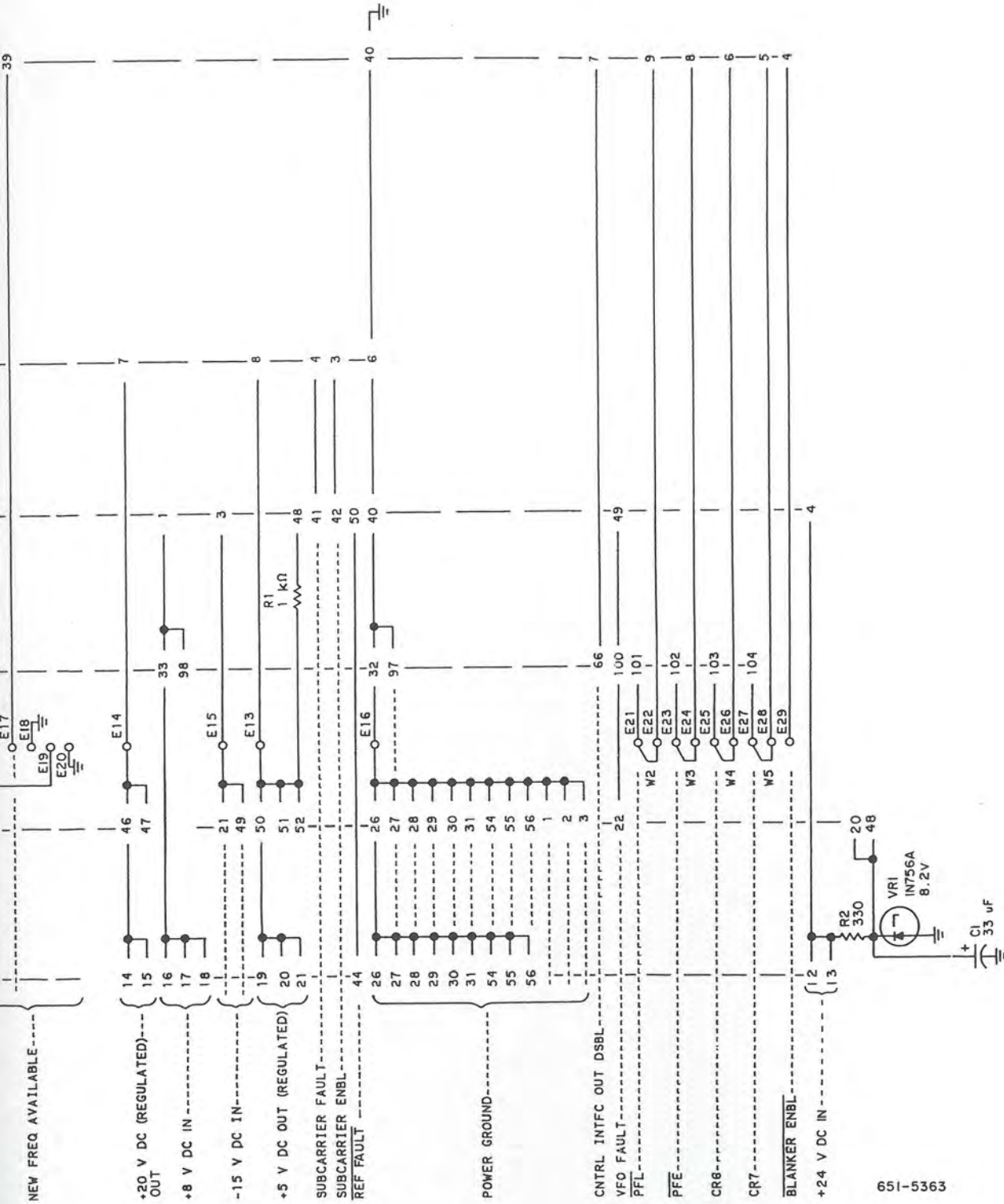
HF-8054A Receiver (622-3475-210) Chassis, Main Sideboard and Ribbon
Cabling, Schematic Diagram
Figure 1A

FUNCTION	FREQ STD/ PWR SPLY J1	VARIABLE FREQ OSC J2	CONTROL INTFC J3	SYNTH CHASSIS CONNECTOR J4	SUBCARRIER GENERATOR J5	IEEE-488 CONNECTOR J6	PRL INTFC CONNECTOR J7
REFERENCE FAULT	46		99				
1 HZ			2	9			
2 HZ			3	10			
4 HZ			4	11			
8 HZ			5	12			
10 HZ			6	13			
20 HZ			7	14			
40 HZ			8	15			
80 HZ			9	16			
100 HZ			10	17			
200 HZ			11	18			
400 HZ			12	19			
800 HZ			13	20			
1 KHZ			14	21			
2 KHZ			15	22			
4 KHZ			16	23			
8 KHZ			17	24			
10 KHZ			18	25			
20 KHZ			19	26			
40 KHZ			20	27			
80 KHZ			21	28			
100 KHZ			22	29			
200 KHZ			23	30			
400 KHZ			24	31			
800 KHZ			25	32			
1 MHZ			26	33			
2 MHZ			27	34			
4 MHZ			28	35			
8 MHZ			29	36			
10 MHZ			30	37			
20 MHZ			31	38			
FAULT SUMMARY OUT			34	2			
CONTROL INTFC FAULT			35	43			
FNO	4		67	1			10
FN1	32		68	1			11
FN2	5		69	1			12
FN3	33		70	1			13
FN4	6		71	1			14
FN5	34		72	1			15
FN6	7		73	1			16
FN7	35		74	1			17
FN8	8		75	1			18



Direct Digital Synthesizer Chassis A24
 (652-6615-001), Schematic Diagram
 Figure 3A (Sheet 1 of 2)

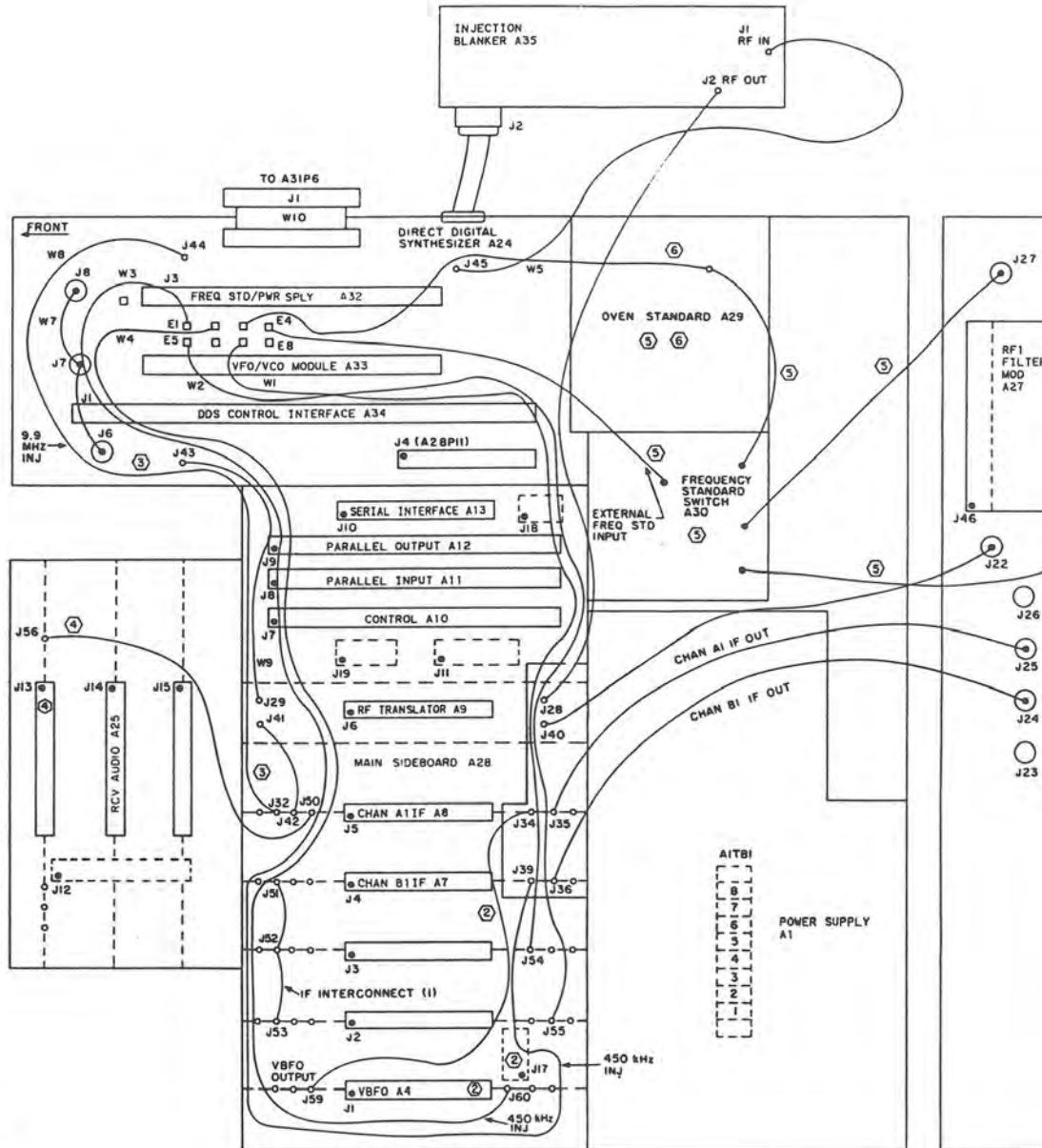
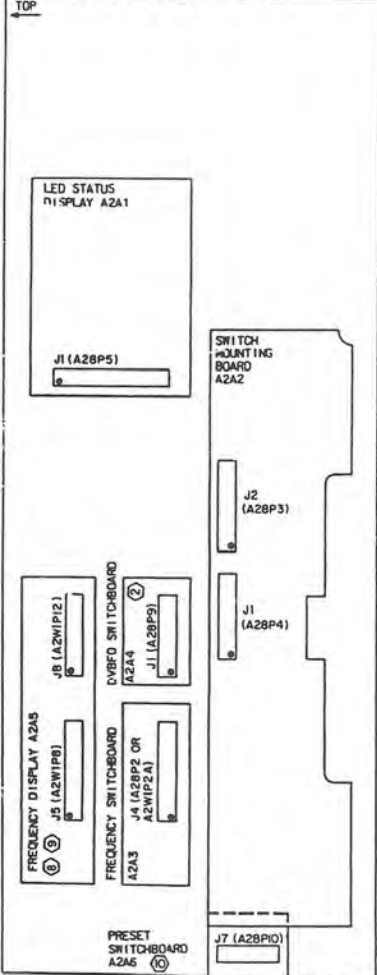




651-5363

Direct Digital Synthesizer Chassis A24
(652-6615-001), Schematic Diagram
Figure 3A (Sheet 2)

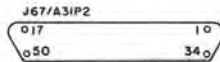
FRONT PANEL ASSEMBLY A2 (INSIDE VIEW)



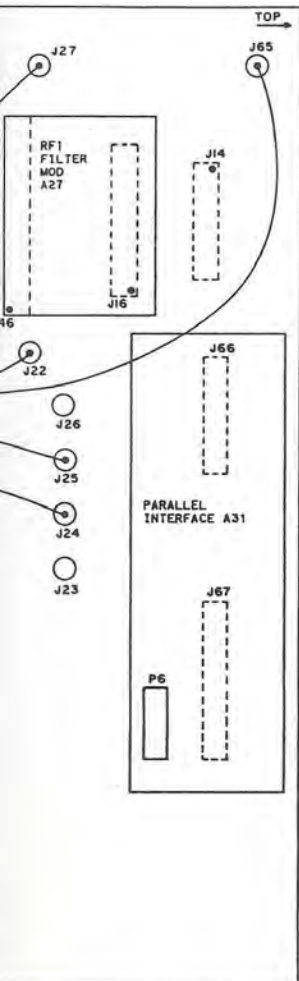
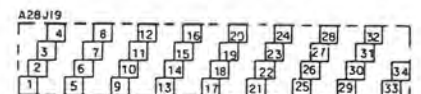
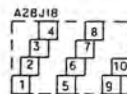
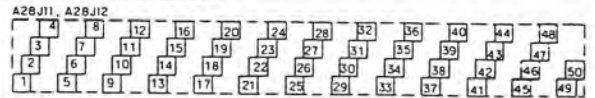
ALL CONNECTORS NUMBERED AS VIEWED FROM CHASSIS (TOP VIEW)

A28J7, J8, AND J9 PIN NUMBERING	A27P7 PIN NUMBERING (OVER A28J7)	129 130
66 67	2 4 32 34	
1 2	93 94 108 109	
	28 29 43 44	
	1 3 31 33	64 65

A28J1, J2, J3, J4, J5, J6, AND J10 PIN NUMBERING	55 56
1 2	27 28



PIN CONFIGURATION OF P1 (372-1538-000).
CONNECTOR VIEWED FROM MATING SIDE.
651-5364

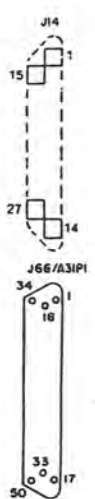
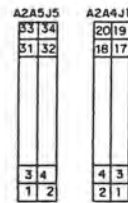
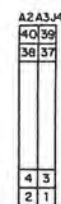
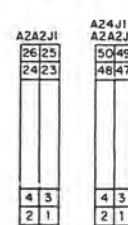


CHASSIS INTERCONNECTS

INTERCONNECT	HF-8054A		HF-8054A(-210)	
	STANDARD	OPTIONS	STANDARD	OPTIONS
SUBMINIAX COAXIAL INTERCONNECTS				
J22 TO J40	X		(10)	
J23 TO J38	X			
J24 TO J36	X		X	
J25 TO J35	X		X	
J26 TO J37	X		X	
J27 TO EXT STD SW (EXT STD IN)		(5)	X	
J27 TO A24E3		(7)	X	
A24E3 TO OVEN STD P1		(6)		
A24E3 TO EXT STD SW J1 (SW STD IN)		(5)	X	
OVEN STD P1 TO EXT STD SW (OVEN STD IN)		(5)		
J28 TO J45	X		X	
J29 TO J43	X		X	
J32 TO J44	X	(3)	X	
J32 TO J58		(4)		
J34 TO A24E1	X	(1)		
J34 TO J59		(2)		
J39 TO A24E1	X		X	
J41 TO J42	X		X	
J44 TO J57		(4)		
J50 TO J51, J52, J53	X	(5)	X	
J50 TO J51, J52, J53, J56		(4)		
J54 TO A24E7	X		X	
J55 TO A24E5	X		X	
J60 TO A24E1		(2)	X	
J65 TO EXT STD SW (100 kHz OUT)		(5)	X	
RIBBON CABLE INTERCONNECTS				
J12, J19 TO P3, P4, P5	X		X	
P2, TO P11, J11	X		X	
P7 TO J46	X		X	
J17 TO P9		(2)		
P2 TO P8		(8)(9)	X	
P9 TO P12		(9)	X	(9)
W10J1 TO A3IP6			X	

NOTES:

- 1) REMOVED FOR DVBF0 OPTION.
- 2) ADDED FOR DVBF0 OPTION.
- AFX OPTION
- 3) REMOVED FOR AFX OPTION.
- 4) ADDED FOR AFX OPTION.
- FREQUENCY STANDARD SWITCH KIT (AC-8015)
- 5) ADDED FOR FREQUENCY STANDARD SWITCH OPTION.
- OVEN STANDARD KIT (AC-8012)
- 6) ADDED FOR OVEN STANDARD OPTION.
- EXTERNAL STANDARD KIT (AC-8013)
- 7) ADDED FOR EXTERNAL STANDARD OPTION.
- FREQUENCY DISPLAY KIT (AC-8014)
- 8) ADDED FOR FREQUENCY DISPLAY OPTION.
- VBFD DISPLAY OPTION
- 9) ADDED FOR VBFD/FREQUENCY DISPLAY OPTION.
- 10) ON PART NUMBER 622-3475-210 THE RECEIVE RF GOES THROUGH INJECTION BLANKER ASS.



TPA-7615-015

HF-8054A Receiver (622-3475-210),
Cabling, Connector Layout
and Pin Numbering
Figure 4A