COMMON SYSTEMS RECORDED ANNOUNCEMENT FRAME (CSRAF)

▶SD-97725-01 AND SD-97725-02◀

OPERATING PROCEDURES

1. GENERAL

1.01 This section describes the method of operation of the Common Systems Recorded Announcement Frame (CSRAF) (Fig. 1). ▶The CSRAF can be arranged to provide four basic types of recorded announcements:

- Variable Message Length (VML) announcement
- Modular Message (MM) announcement
- Phased Message (PM) announcement
- Message Synthesis Service (MSS).◀

The operations of this section include start-up, shutdown, recording ▶(for VML, MM, and PM only),◀ and monitoring procedures.

▶***Note 1:*** The MSS version of the CSRAF is provided with fully duplicated announcement systems. These duplicated systems are arranged on the same frame and are identical in all respects. Therefore, for the purpose of simplification and explanation, methods of operation for MSS version will be provided for a single system but may be used for either.◀

1.02 This section is reissued to provide information for the message synthesis service (MSS) version of the CSRAF and to generally update this section.

1.03 ▶Operating procedures pertaining to a particular version of the CSRAF are specified by using VML for variable message length, MM for modular message, PM for phased message, and MSS for message synthesis service.◀

2. APPARATUS

2.01 KS-14510-L1 volt-ohm-milliammeter (VOM), equipped with KS-14510 L2 leads.

▶***Note:*** Provide either 2.02 or 2.03.◀

2.02 52-type head telephone set.

2.03 G3DR-61 hand telephone set.

▶FOR VML, MM, AND PM ONLY◀

2.04 W1 patch cord, one P3E slate cord, 4 feet long, equipped with two 310 plugs (3P7E cord).

2.05 W2 patch cord (ED-97753-30).

▶FOR MSS ONLY

2.06 W1 test cord, 3 feet long, equipped with a 347 plug at one end and a phone tip at the other end. (Furnished with frame.)

2.07 KS-19725, L2 audio monitoring circuit.◀

3. METHOD OF OPERATION

3.01 ***Start-up:*** To start up the CSRAF (Fig. 1), proceed as follows.

▶FOR VML, MM AND PM ONLY◀

(1) Ensure that the CONTROL OFF keys on all control units on the frame are depressed.

(2) Check that the MOTOR OFF key (Fig. 2) on the storage module is depressed.

(3) The PWR OFF and OFF NOR lamps on the storage module should be lighted.

(4) Depress the −48V NOR key on the storage module. The PWR OFF lamp on the storage module extinguishes. The PWR OFF and OFF NOR lamps on all the control units on the frame light.

(5) Using a VOM, check the voltages at the TEST POINTS on the storage module. The voltages should be as marked.

(6) Depress the MOTOR NOR key. The motor starts and the drum rotates.

(7) Depress CONTROL NOR keys on all control units.

(8) If the frame is equipped with variable message length (VML) channels, perform the memory reset procedures in 3.03.

(9) The frame is now in operation.

▶FOR MSS ONLY

(1) Check that the −48, MOTOR and AMPL switches on the storage module Fig. 3 are off. (Lamps lighted.)

(2) Check that the AUD ALARM switch on the storage module is off. (Lamp not lighted.)

(3) Depress the −48 switch on the storage module. The −48 lamp on the storage module extinguishes.

(4) Using a VOM, check the voltages at the TEST POINTS on the storage module. The voltages should be as marked.

(5) Depress the MOTOR switch on the storage module. The MOTOR lamp on the storage module extinguishes. The motor starts and the drum rotates.

(6) Depress the AMPL switch on the storage module. The AMPL lamp on the storage module extinguishes.

(7) The announcement system is now in operation.

(8) If other announcement system is to be started-up, repeat Steps 1 through 7 for other announcement system.◀

3.02 ***Shutdown:*** To shut down the CSRAF (Fig. 1), proceed as follows.

Note: If the drum storage unit will be turned off for 8 hours or more, the wiper and headbars should be backed-off so that the heads and wiper are not in contact with the drum. See Section 201-520-801 for procedures.

▶FOR VML, MM, AND PM ONLY◀

(1) Notify the traffic department and receive approval for shutdown of the frame.

(2) Depress the CONTROL OFF key on all control units.

(3) Depress the MOTOR OFF key (Fig. 2) on the storage module.

(4) Depress the −48V OFF key on the storage module. The CSRAF is now out of service.

Note: Step (4) must always be performed whenever Steps (2) and (3) have been performed.

Caution: All voltage is not removed from the frame.

▶FOR MSS ONLY

(1) Notify proper supervisory personnel and receive approval for shutdown of the frame.

(2) Depress the AMPL switch on the storage module Fig. 3. The AMPL lamp on the storage module lighted.

(3) Depress the MOTOR switch on the storage module. The MOTOR lamp on the storage module lighted. Motor stops.

(4) Depress the −48 switch on the storage module. The −48 lamp on the storage module lighted. The CSRAF is now out of service.

Note: Step (4) must always be performed whenever Steps (2) and (3) have been performed.

Caution: All voltage is not removed from the frame.

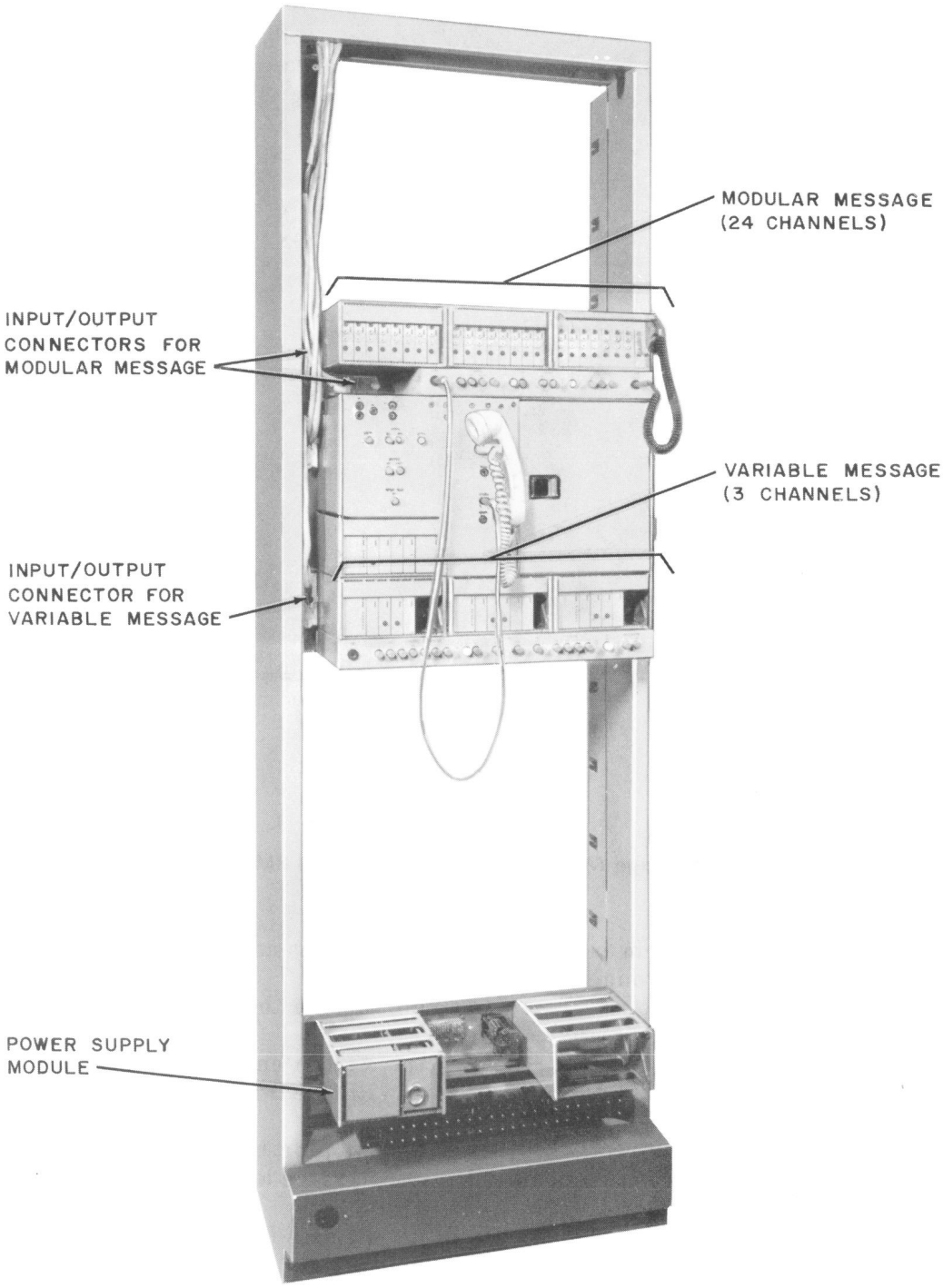

Fig. 1—Typical Common Systems Recorded Announcement Frame

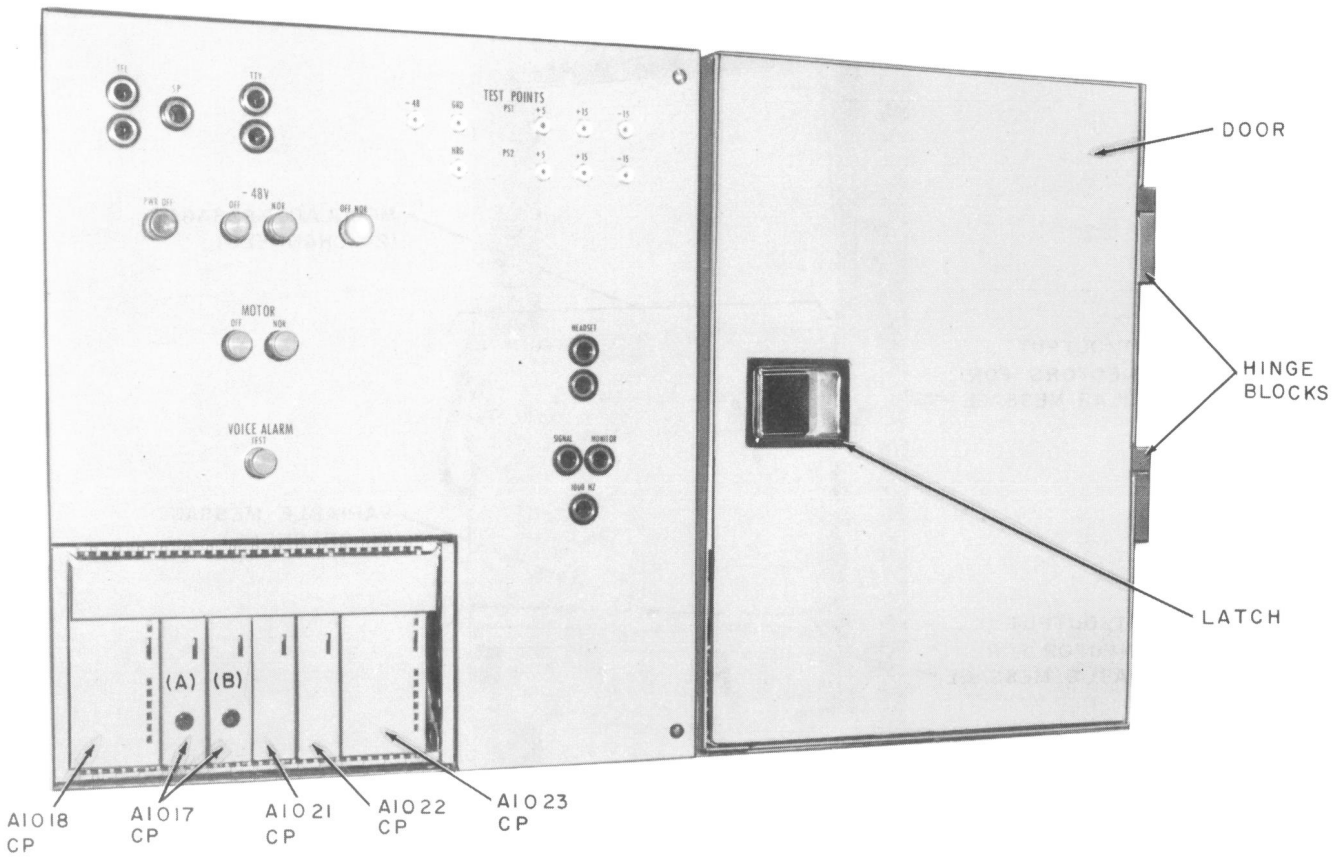

Fig. 2—Storage Module (For VML, MM, and PM Only)

(5) If other announcement system is to be shutdown, repeat Steps 1 through 4 for other announcement system.◀

3.03 *Memory Reset Procedure*

▶FOR VML ONLY◀

(1) Request that no operations be made at the dedicated telephone while resetting memory.

(2) Connect the headset or handset into HEADSET jack (Fig. 2) on the storage module.

(3) Insert one plug of the W1 patch cord into SIGNAL jack on the storage module and the other plug into the TMS jack on the appropriate VML control unit.

(4) At the control unit of the channel to be reset, depress the CHANNEL TEST key.

(5) Depress and hold RECORD MEM key.

(6) Monitor the recording.

(7) At the end of the message, release the RECORD MEM key ***immediately.***

(8) Monitor the recording to insure correct message length.

(9) Depress CHANNEL NOR key.

(10) Remove patch cord and headset or handset.

(11) ▶The frame is now in operation.◀

3.04 *Recording—General*

▶***Note:*** Omit information for all type recording procedures for the MSS version. For MSS, no recording facilities have been provided.

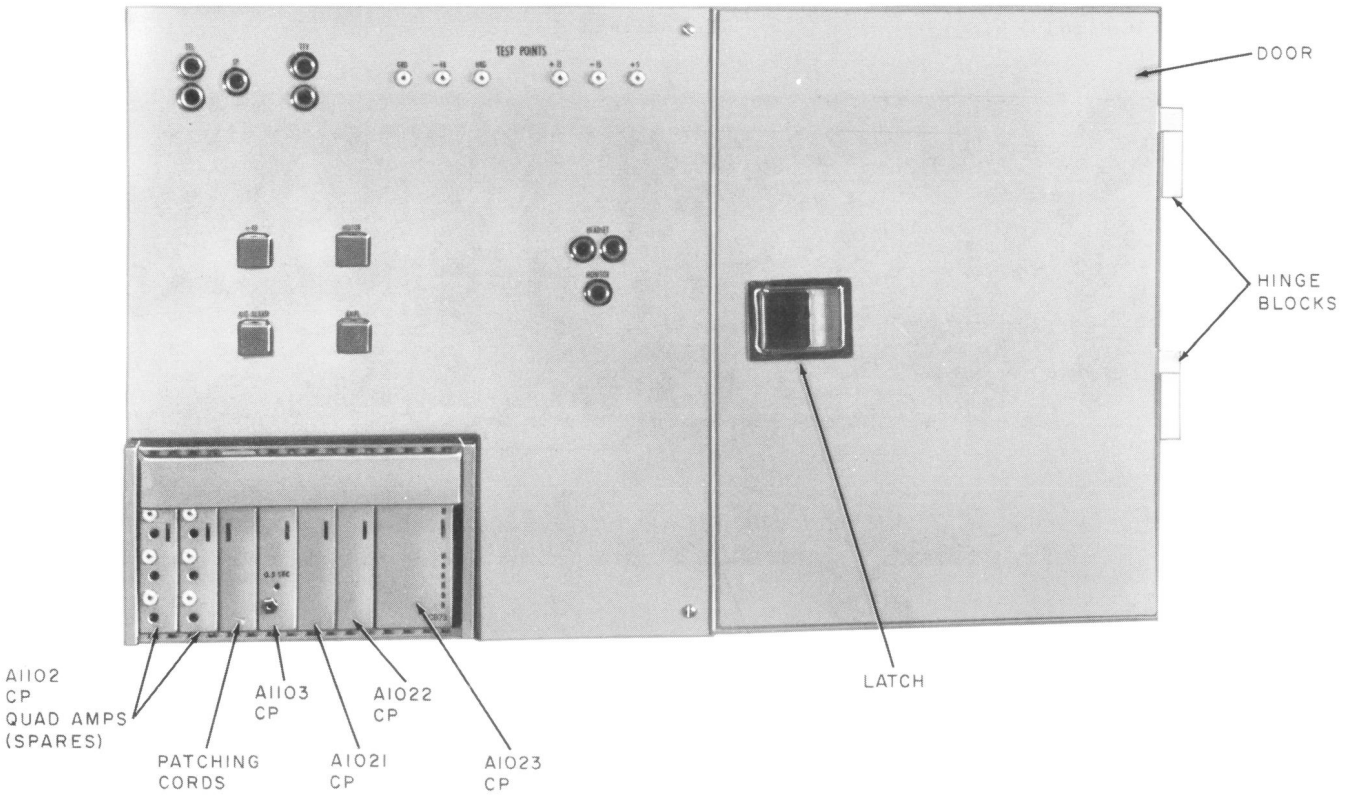

Fig. 3—Storage Module (For MSS Only)

The MSS version of the CSRAF uses a prerecorded magnetic drum and therefore no recording procedures are required.◀

▶FOR VML, MM, AND PM ONLY◀

(a) Recording should not be made or changed until the channel has been released by the Traffic Department.

(b) Request that no operations be made at the frame during the recording procedure at the dedicated telephone.

(c) Request that no operations be made at the dedicated telephone during the recording procedure at the frame.

(d) Remove all channels from the test mode prior to recording by depressing the CHANNEL NOR keys on all VML and modular message control units, the PHASE NOR keys on the phased message control units, and the RL key on the dedicated telephone.

(e) If the LED on the front panel of the A1017 clock circuit pack in the "A" position in the storage module (Fig. 2) is on, operations are being performed at the dedicated telephone which will affect the recording procedure. Do ***not*** access any channel.

3.05 ***Remote Recording:*** Recordings can be made on the CSRAF from a remote location with a dedicated telephone (CALL DIRECTOR®) (Fig. 4).

▶***Note:*** Omit information for all type recording procedures for MSS version. For MSS, no recording facilities have been provided. The MSS version of the CSRAF uses a prerecorded magnetic drum and therefore no procedures are required.◀

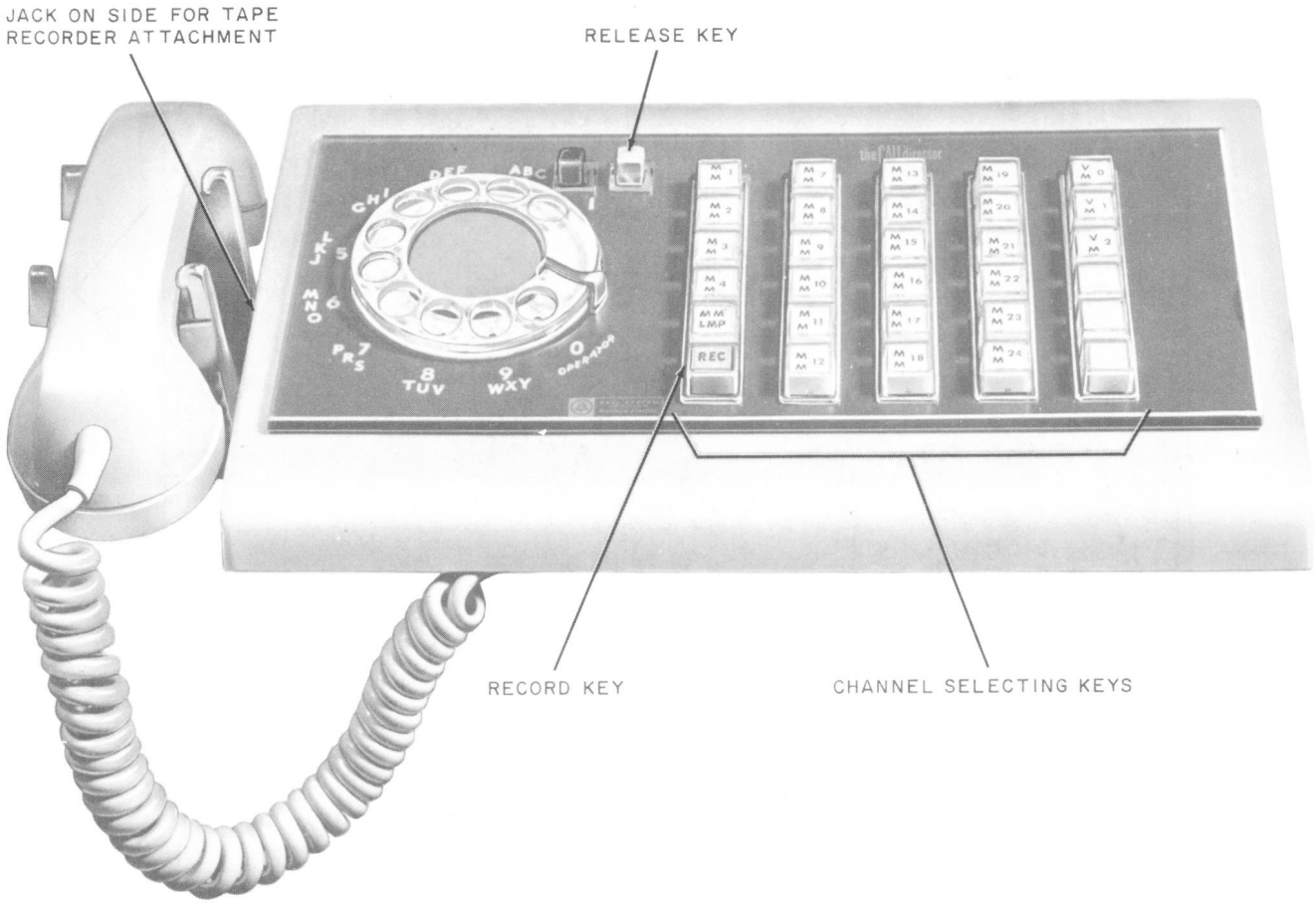

Fig. 4—The 637EA13—Call Director Dedicated Telephone

▶FOR VML, MM, AND PM ONLY◀

(a) To make a VML recording from the dedicated telephone, proceed as follows.

(1) Request that no operations be made at the frame during the recording procedure.

Note: If the lamp under the REC key is on, operations are being performed at the frame (local) which will affect the recording procedure. The interfacing circuit has the option to provide this feature.

(2) Lift the handset of the dedicated telephone.

(3) Select the channel to be recorded by depressing the proper channel selection key on the dedicated telephone.

Note: The interfacing circuit has the option to light the lamp under the REC key. If this option is provided, the recording should not be made until the lamp is on.

(4) Monitor the existing message on the selected channel for verification of correct channel selection.

(5) Operate and hold the REC key. The selected channel lamp will light within 4 seconds. ***Start*** recording new message immediately after channel lamp lights.

Note: The length of the message that can be recorded will depend upon the message capacity of the channel, 16, 32, or 48 seconds.

(6) After completing the recording, release the REC key ***immediately.***

Note: The recorded message must be monitored at least once [Step (7)]; otherwise, an alarm will be given to the interfacing circuit.

(7) When channel lamp extinguishes, the frame automatically switches to the playback mode. Monitor the recorded message for verification. If recording is invalid, repeat the recording procedure.

(8) When the recorded message is acceptable, depress the RLS (release) key and place the handset on hook.

(b) To make a modular message recording from the dedicated telephone, proceed as follows.

(1) Request that no operations be made at the frame during the recording procedure.

(2) Lift the handset of the dedicated telephone (Fig. 4).

(3) Select the channel to be recorded by depressing the proper channel selection key (MM channel number) on the dedicated telephone.

(4) Monitor the existing message on the selected channel for verification of correct channel selection.

(5) Depress and hold the REC key. The MM LMP lamp will flash every 1.33 seconds. Record an identical message three times consecutively, starting each recording with each of three consecutive lamp flashes. Release the record key immediately after the last message.

(6) Monitor at the handset for message verification and repeat recording procedure if necessary.

(7) Depress the RLS key and place the handset on hook.

(c) To make a phased message recording from the dedicated telephone, proceed as follows.

(1) Request that no operations be made at the frame while making the recording.

Note: If the lamp under the REC key is on, operations are being performed at the frame which will affect the recording procedure. The interfacing circuit has the option to provide this feature.

(2) Lift the handset of the dedicated telephone (Fig. 4).

(3) Select the channel to be recorded by depressing the proper channel selection key (PM channel number) on the dedicated telephone.

Note: The interfacing circuit has the option to light the lamp under the REC key. If this option is provided, the recording should not be made until the lamp is on.

(4) Monitor the existing message on the selected channel for verification of correct channel selection.

(5) Operate and hold the REC key. The selected channel lamp will light within 4 seconds. ***Start*** recording new message immediately after channel lamp lights.

Note: After 12 seconds, the selected channel lamp will extinguish. If the message length exceeds 12 seconds, repeat the recording and adjust the message length to within the channel capacity.

(6) After the recording interval, the selected channel lamp will extinguish. ***Immediately*** release the REC key, and the channel will automatically switch to the playback mode.

Note: The recording must be monitored at least ***twice*** [Step (7)] before changing settings; otherwise, an alarm will be given to the interfacing circuit.

(7) Monitor the recording. If the recording is invalid, repeat the recording process.

(8) When the recorded message is acceptable, depress the RLS key and place the handset on hook.

(d) To record any of the three types of recordings at the dedicated telephone using a prerecorded message, proceed as follows.

(1) Position the tape on the recording device to start at the beginning of the message.

(2) Perform Steps (1) through (4) in 3.05(a), (b), or (c), whichever is applicable.

(3) Using an appropriate patch cord, connect the recording device to the jack on the dedicated telephone. Place the handset of the dedicated telephone on hook.

(4) Perform the recording procedure in 3.05(a), (b), or (c) and start the recorded message at the beginning of the record mode.

(5) When the recording is completed, disconnect the recording device and monitor the recording with the handset.

(6) When the recording is acceptable, depress the RLS key and place the handset on hook.

3.06 ***Local Recording:*** Recordings can be made on the CSRAF at the frame location.

Note: Omit information for all type recording procedures for MSS version. For MSS, no recording facilities have been provided. The MSS version of the CSRAF uses a prerecorded drum and therefore no procedures are required.

FOR VML, MM, AND PM ONLY

(a) To make a modular message recording at the frame, proceed as follows.

(1) Request that no operations be made at the dedicated telephone while making the recording.

(2) Connect the headset or handset into HEADSET jack (Fig. 2) on the storage module.

(3) Insert one plug of the W1 patch cord into SIGNAL jack on storage module and the other plug into TMS jack on the appropriate modular message control unit (Fig. 5).

(4) Insert one plug of the W2 patch cord into the CHANNEL ACCESS jack on the appropriate modular message control unit. Insert the other end of the W2 patch cord into the appropriate A1019 amp-log-alarm circuit pack corresponding to the channel to be recorded.

(5) Depress the CHANNEL TEST key on the modular message control unit.

(6) Monitor the message on the selected channel for verification of the correct channel selection.

(7) When ready to record, depress and hold the CHANNEL REC key on the control unit. REC lamp will flash every 1.33 seconds. Record an identical message three times consecutively, starting each recording with each of three consecutive lamp flashes. Release the CHANNEL REC key ***immediately*** after last message.

(8) Monitor the recording on the headset or handset for verification and repeat the recording procedure if necessary.

(9) Depress the CHANNEL NOR key.

(10) If other channels are to be recorded, select the proper circuit pack, move the plug of the W2 cord to the selected circuit pack, and repeat Steps (5) through (9).

(11) When recording is completed, remove all patch cords and the headset or handset.

(b) To make a VML recording at the frame, proceed as follows.

(1) Request that no operations be made at the dedicated telephone while the recording is being made.

(2) Connect the plug of the headset or handset to HEADSET jack on the storage module (Fig. 2).

(3) Insert one plug of the W1 patch cord into the SIGNAL jack on the storage module and the other plug into the TMS jack of the VML control unit (Fig. 6).

(4) Depress CHANNEL TEST key on control unit corresponding to the desired channel to be recorded.

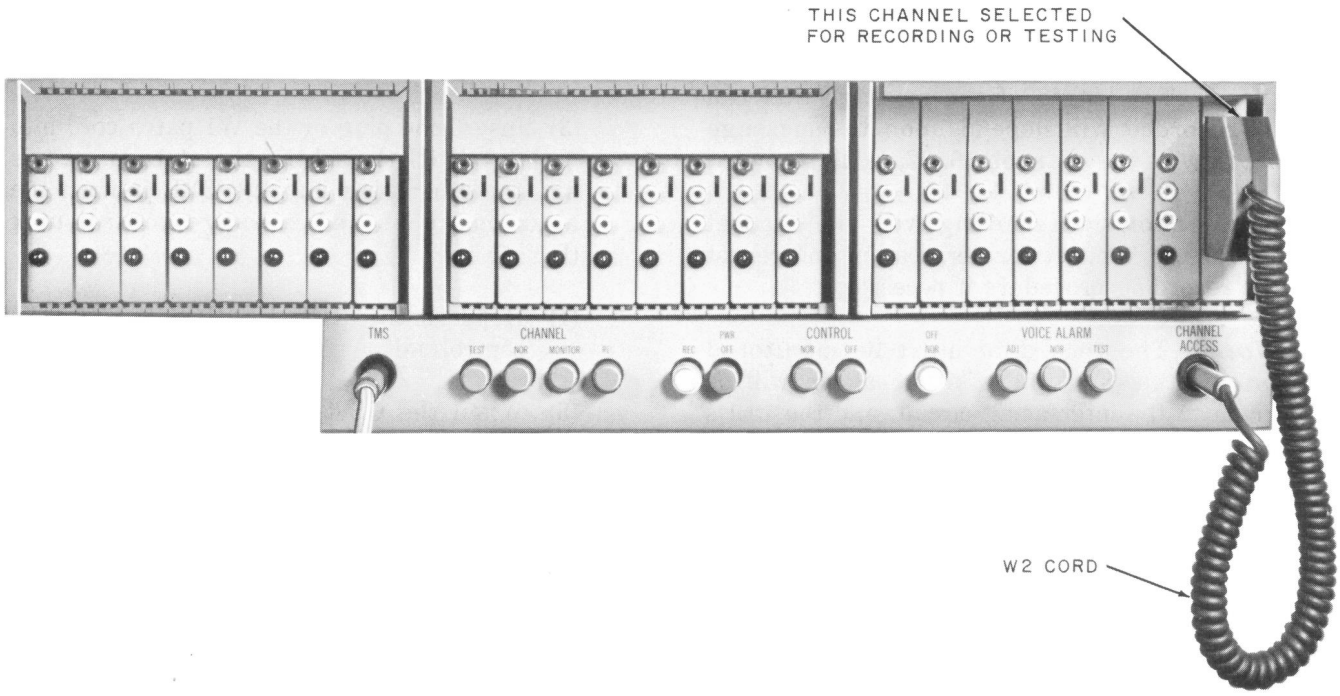

Fig. 5—Modular Message Channel Module and Control Unit

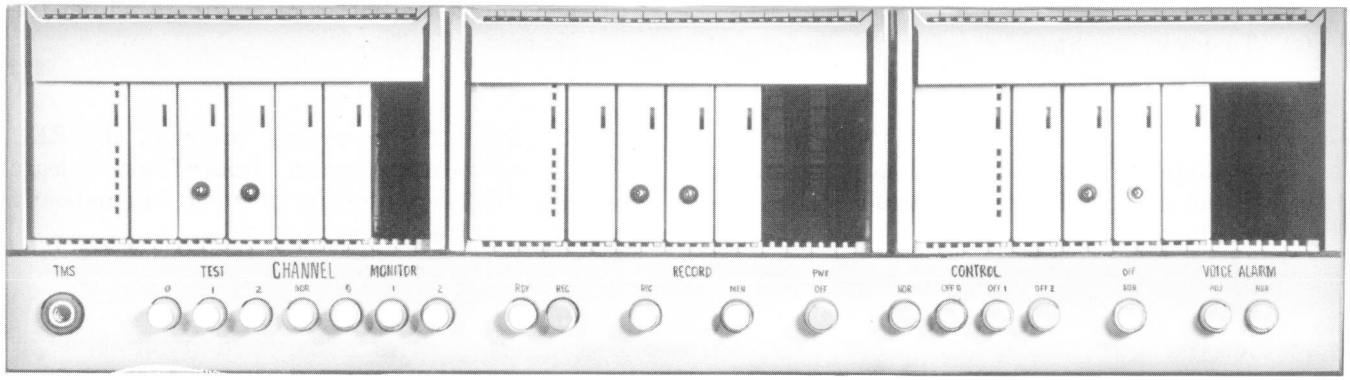

Fig. 6—Variable Message Length Channel Module and Control Unit

Note: The interfacing circuit has the option to light the RDY lamp on the control unit. If this option is provided, the recording shall not be made until the lamp is on.

(5) Monitor the message on the selected channel for verification of the correct channel selection.

(6) Depress and hold the RECORD REC key on the control unit and within 4 seconds the REC lamp will light, indicating the channel is in the record mode. ***Start*** recording immediately after lamp lights.

(7) After completing the recording, release the RECORD REC key. REC (red) lamp

extinguishes within 4 seconds, and the channel automatically goes into the playback mode.

Note: The length of the message that can be recorded will depend upon the message capacity of the channel, 16, 32, or 48 seconds.

(8) Monitor the recording with the headset or the handset for verification and repeat the recording procedure if necessary.

Note: The recording must be monitored ***once*** [Step (8)]; otherwise, an alarm will be given to the interfacing circuit, and the LEDs will light on the front panels of the A1020 switching alarm and A1014 alarm logic circuit packs.

(9) Check the memory reset (3.03).

(10) When the recorded message is acceptable, depress the CHANNEL NOR key on the VML control unit.

(11) When the recording is completed, remove the patch cord and headset or handset.

(c) To make a phased message recording at the frame, proceed as follows.

(1) Request that no operations be made at the dedicated telephone while making the recording.

(2) Connect the plug of the headset or handset into the HEADSET jack on the storage module (Fig. 2).

(3) Insert one plug of the W1 patch cord into the SIGNAL jack on the storage module and the other plug into the TMS jack on the appropriate phased message control unit (Fig. 7).

(4) Depress the REQ OS ROS key on the control unit.

(5) When the OS lamp on the control unit lights, depress the PHASE RREC key.

(6) Monitor the message on the selected channel for verification of the correct channel selection.

(7) Depress and hold the REC key, and the REC lamp lights. ***Start*** recording ***immediately*** after REC lamp lights.

Note: After 12 seconds, the REC lamp will extinguish. If the message length exceeds 12 seconds, repeat the recording procedure and adjust the message length to within the channel capacity.

(8) After the recording interval, the REC lamp will extinguish. ***Immediately*** release the REC key, and the channel automatically goes into the playback mode.

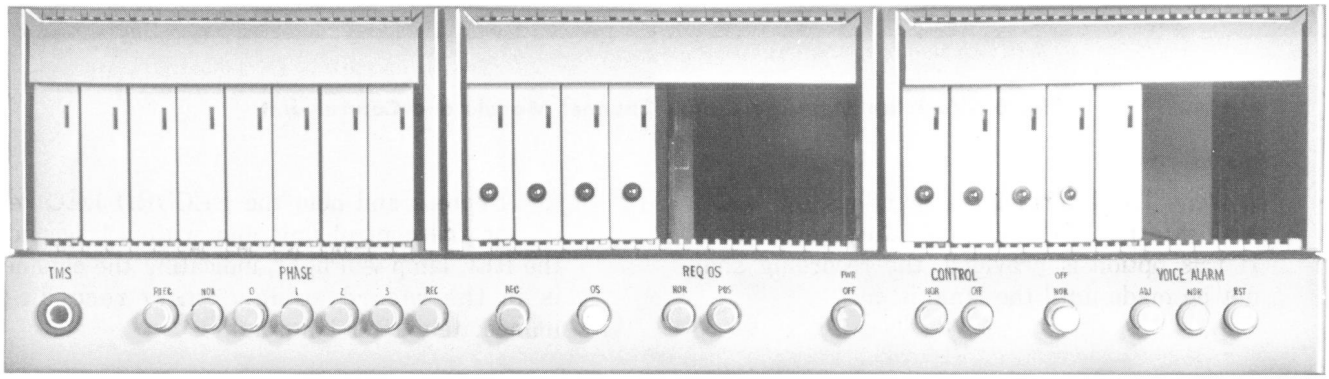

Fig. 7—Phased Message Channel Module and Control Unit

Note: The recording must be monitored ***twice*** [Step (9)]; otherwise, an alarm will be given to the interfacing circuit, and the LEDs will light on the front panels of the A1020 switching alarm and A1014 alarm logic circuit packs.

(9) Monitor the recording and if the recording is invalid, repeat Steps (7) and (8).

(10) Depress the PHASE NOR key.

(11) Depress the REQ OS NOR key.

(12) Remove the headset or handset and patch cord when recording is completed.

(d) To record any of the three types of recordings at the frame using a prerecorded message, proceed as follows.

(1) Position the tape on the recording device to start at the beginning of the message.

(2) Perform Steps (1) through (5) in 3.05(a), Steps (1) through (6) in 3.05(b), or Steps (1) through (6) in 3.05(c), whichever is applicable.

(3) Using an appropriate patch cord, connect the recording device to the HEADSET jack of the storage module.

(4) Perform the recording procedure in 3.05(a), (b), or (c) and start the recorded message at the beginning of the record mode.

(5) When recording is completed, disconnect the recording device and monitor the recording with the headset or handset.

(6) When the recording is acceptable, return the channel to normal and remove the patch cord and headset or handset.

3.07 ***Remote Monitoring:*** To monitor a recording from the remote location (dedicated phone), proceed as follows.

Note: For MSS no remote monitoring facilities have been provided, but arrangements may be provided by the user system for monitoring the message in its entirety.

FOR VML, MM, AND PM ONLY

(1) Lift the handset of the dedicated telephone (Fig. 4).

(2) Select the channel to be monitored by depressing the proper channel selection key on the dedicated telephone.

(3) Monitor the selected channel.

(4) When monitoring is completed, depress the RLS key and place the handset on hook.

3.08 ***Local Monitoring:*** To monitor a recording at the frame, proceed as follows.

FOR VML, MM, AND PM ONLY

(1) Connect the headset or handset into HEADSET jack (Fig. 2) on the storage module.

(2) Insert one plug of the W1 patch cord into SIGNAL jack on the storage module and the other plug into the TMS jack on the control unit of the channel to be monitored.

(3) If the channel to be monitored is a modular message, insert one plug of the W2 patch cord into the CHANNEL ACCESS jack on the appropriate modular message control unit. Insert the other end of the W2 patch cord into the appropriate A1019 amp-log-alarm circuit pack corresponding to the channel to be monitored.

(4) If the recording to be monitored is a phased message, depress the appropriate PHASE_ key on the control unit.

(5) If the recording is a modular message or a variable message length, depress the CHANNEL MONITOR key on the control unit.

(6) Monitor the selected channel.

(7) When monitoring is completed, depress the CHANNEL NOR key if monitoring a modular message or a variable message length message. Depress the PHASE NOR key if monitoring a phased message.

(8) Remove the headset or handset and W1 patch cord. If monitoring a modular message, also remove the W2 cord.

▶FOR MSS ONLY
(Using Audio Monitor Circuit)

(1) Connect the audio monitor circuit into HEADSET jack on the storage module (Fig. 8).

(2) Connect a W1 test cord from MONITOR jack of storage module to J1 jack of audio monitor circuit.

(3) Connect red lead (P1) of audio monitor circuit to test point of A1102 quad amplifier of channel module of announcement track to be monitored (Fig. 10 and Table A).

(4) Monitor the selected announcement trunk using the headset provided with the audio monitor circuit.

Note 1: If other announcement tracks are to be monitored, connect red lead of audio monitor circuit to test point associated with that channel.

Note 2: If announcement tracks are to be compared for equal loudness, perform Steps 5 through 8.

(5) Connect green lead (P2) of audio monitor circuit to announcement track that is to be compared to the track that the red lead (P1) is connected.

(6) Monitor the announcement track. The track that the red lead (P1) is connected to will be heard.

(7) Depress and hold S1 switch on the audio monitor circuit to hear the announcement track the green lead is connected to.

(8) Release S1 switch. The announcement track connected to the red lead (P1) is heard.

(9) When monitoring is completed, disconnect the red and green test leads from test points on quad amplifier.

(10) Disconnect W1 test cord.

(11) Disconnect audio monitoring circuit from HEADSET jack.

(Using Headset or Handset)

(1) Connect headset or handset into HEADSET jack on the storage module (Fig. 9).

(2) Connect a W1 test cord from MONITOR jack of storage module to test point of A1102 quad amplifier of channel module of announcement track to be monitored (Fig. 10 and Table A).

(3) Monitor the selected announcement track.

Note: If other announcement tracks are to be monitored, connect W1 test cord to test point associated with that announcement track.

(4) When monitoring is completed, disconnect W1 cord.

(5) Disconnect headset or handset from HEADSET jack.◀

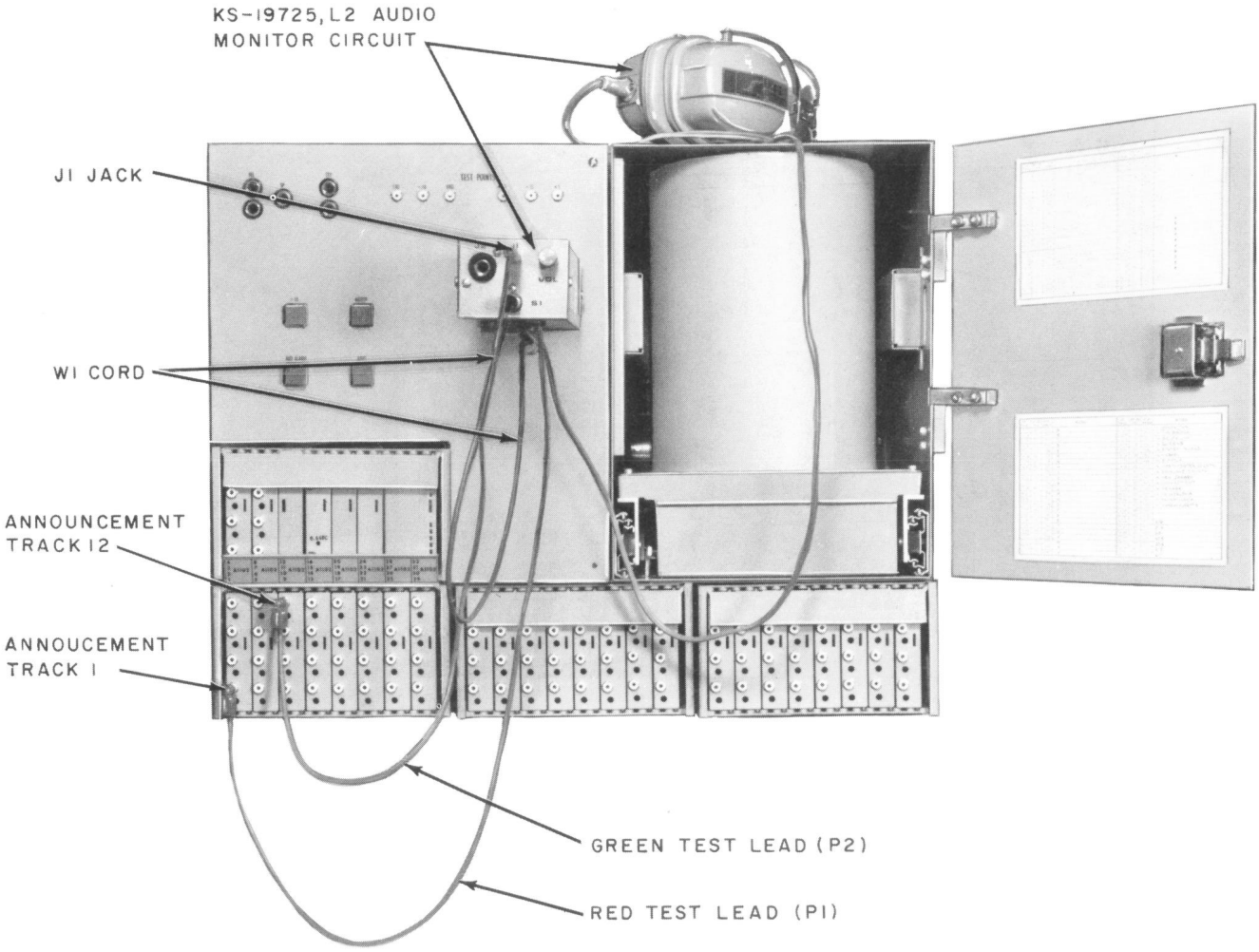

Fig. 8—Message Synthesis Service Announcement Machine Arranged For Local Monitoring and Adjusting With Audio Monitoring Circuit

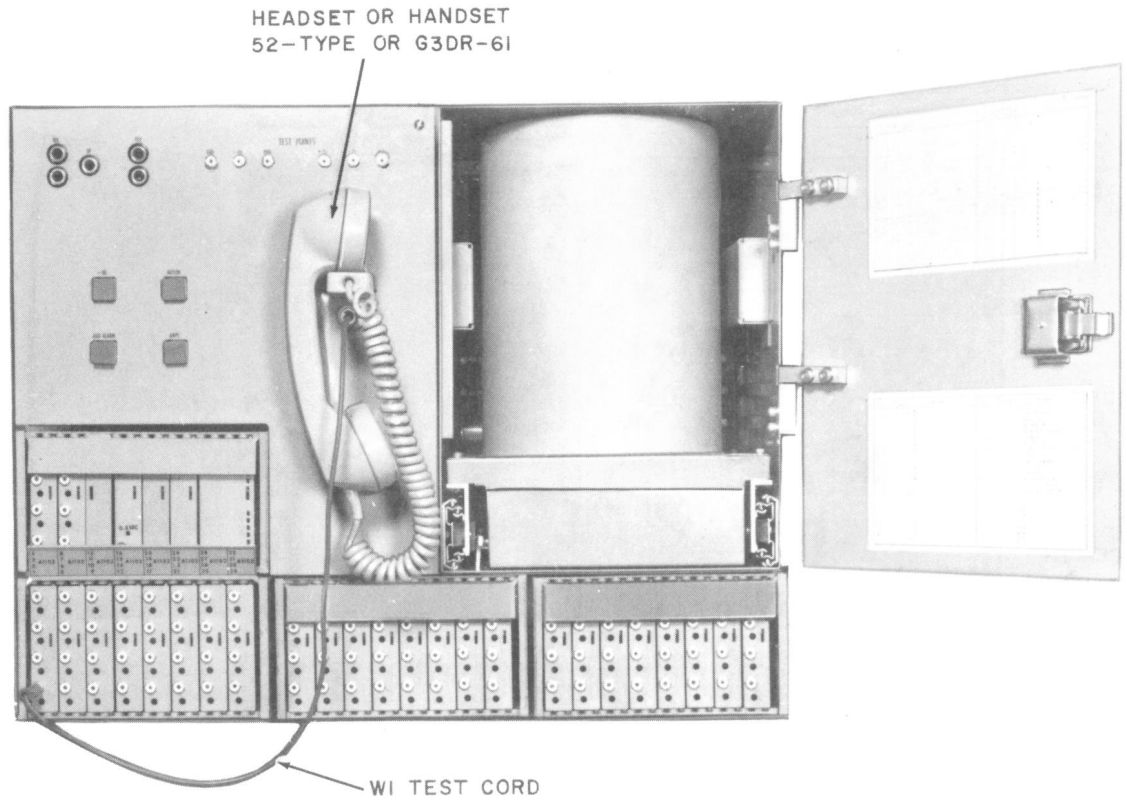

Fig. 9—Message Synthesis Service Announcement Machine Arranged For Local Monitoring With Handset

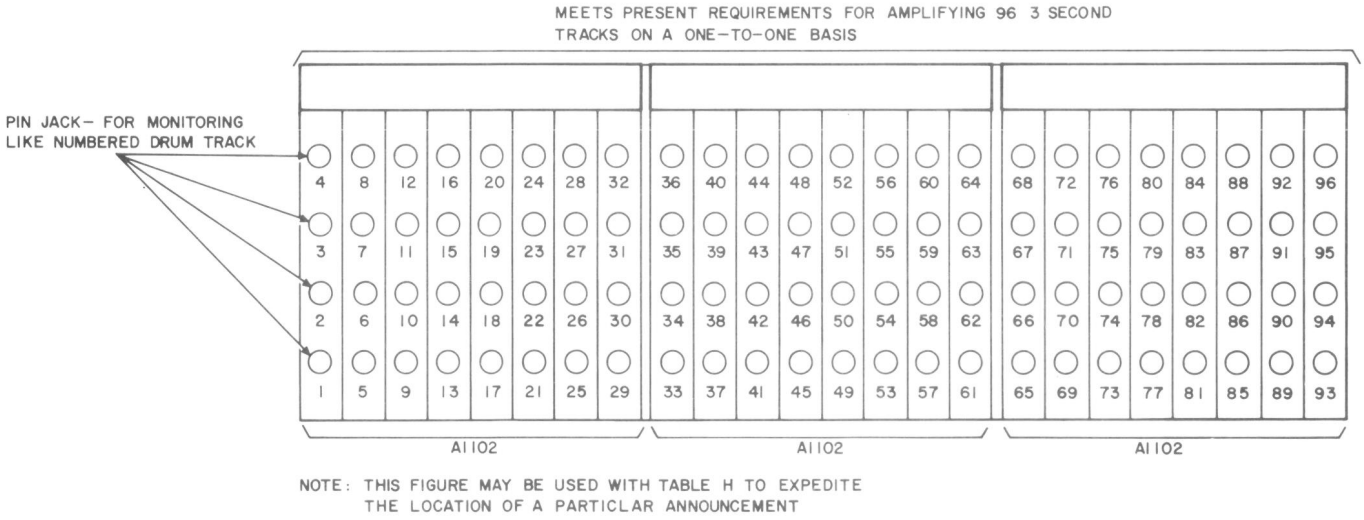

Fig. 10—Location and Identification of Message Synthesis Service Channel Module Circuit Cards and Channel (Track) Assignment

▶TABLE A◀

REPRODUCER ANNOUNCEMENT TRACK, HEAD AMPLIFIER PLUG CONNECTIONS, TRUNK AND MESSAGE ASSIGNMENT FOR GROUPS 0 AND 1 OF EITHER MACHINE OF FRAME

J27 PIN NO.	AMP AND HEAD	OCTAL NUMBER	MESSAGE
1,13	1	640	THE NUMBER YOU HAVE REACHED
2,14	2	641	HAS BEEN CHANGED
3,15	3	642	THE NEW NUMBER (PAUSE) IS
4,16	4	643	TO A NONPUBLISHED NUMBER
5,17	5	644	FOR INCOMING CALLS
6,18	6	645	IN AREA CODE
7,19	7	646	HAS BEEN DISCONNECTED
8,20	8	647	TO A NON-LISTED NUMBER
9,21	9	650	TEMPORARILY
10,22	10	651	AT THE CUSTOMER'S REQUEST
11,23	11	652	IS BEING CHANGED
12,24	12	653	THE NEW NUMBER
49,61	13	654	IS NOT YET CONNECTED
50,62	14	655	
51,63	15	656	CALLS ARE BEING TAKEN BY
52,64	16	657	IS NOT IN SERVICE
53,65	17	660	IS A WORKING NUMBER
54,66	18	661	PLEASE CHECK THE NUMBER
55,67	19	662	AND DIAL AGAIN
56,68	20	663	IF YOU NEED ASSISTANCE
57,69	21	664	PLEASE MAKE A NOTE OF IT
58,70	22	665	YOU MAY STAY ON THE LINE
59,71	23	666	AND AN OPERATOR WILL ANSWER
60,72	24	667	THOUSAND ↓

J28 PIN NO.	AMP AND HEAD	OCTAL NUMBER	MESSAGE
1,13	25	670	HUNDRED ↓
2,14	26	671	OH –
3,15	27	672	ONE –
4,16	28	673	TWO –
5,17	29	674	THREE –
6,18	30	675	FOUR –
7,19	31	676	FIVE –
8,20	32	677	SIX –
9,21	33	700	SEVEN –
10,22	34	701	EIGHT –
11,23	35	702	NINE –
12,24	36	703	OH ↓
49,61	37	704	ONE ↓
50,62	38	705	TWO ↓
51,63	39	706	THREE ↓
52,64	40	707	FOUR ↓
53,65	41	710	FIVE ↓
54,66	42	711	SIX ↓
55,67	43	712	SEVEN ↓
56,68	44	713	EIGHT ↓
57,69	45	714	NINE ↓
58,70	46	715	(REORDER TONE)
59,71	47	716	AREA CODE
60,72	48	717	WILL YOU DIAL IT AGAIN PLEASE

J29 PIN NO.	AMP AND HEAD	OCTAL NUMBER	MESSAGE
1,13	49	720	A
2,14	50	721	B
3,15	51	722	C
4,16	52	723	D
5,17	53	724	E
6,18	54	725	F
7,19	55	726	G
8,20	56	727	H
9,21	57	730	I
10,22	58	731	J
11,23	59	732	K
12,24	60	733	L
49,61	61	734	M
50,62	62	735	N
51,63	63	736	O
52,64	64	737	P
53,65	65	740	R
54,66	66	741	S
55,67	67	742	T
56,68	68	743	U
57,69	69	744	V
58,70	70	745	W
59,71	71	746	X
60,72	72	747	Y

J30 PIN NO.	AMP AND HEAD	OCTAL NUMBER	MESSAGE
1,13	73	750	IN MANHATTAN
2,14	74	751	IN THE BRONX
3,15	75	752	IN BROOKLYN
4,16	76	753	IN QUEENS
5,17	77	754	IN STATEN ISLAND
6,18	78	755	IN NASSAU
7,19	79	756	IN SUFFOLK
8,20	80	757	IN WESTCHESTER COUNTY
9,21	81	760	IN ROCKLAND COUNTY
10,22	82	761	IN NEW JERSEY
11,23	83	762	IN CONNECTICUT
12,24	84	763	IN NEWARK
49,61	85	764	IN PHILADELPHIA
50,62	86	765	IN PENNSYLVANIA
51,63	87	766	IN MASSACHUSETTS
52,64	88	767	
53,65	89	770	
54,66	90	771	516
55,67	91	772	914
56,68	92	773	201
57,69	93	774	609
58,70	94	775	203
59,71	95	776	215
60,72	96	777	617