MODEL 213400 MULTI-CHANNEL DIGITAL ANNOUNCER

OPERATING PROCEDURES

1. GENERAL

1.01   Once properly set-up and on line, the Model 213400 Multi-Channel Digital Announcer will operate automatically with the reception of external start commands. Each channel can be independently accessed with a separate start command, and each channel will independently output its recorded message and control signals to the user equipment connected to its interface. However, the announcer must first be properly set up and the messages recorded.

1.02   This section provides the operating procedures for powering up the equipment, recording the message, presetting selectable options, and placing the announcer on line.

1.03   References.

60-213405-005   Multi-Channel Digital Announcer Firmware Kit

756-0224-100   Model 213400 Multi-Channel Digital Announcer, Equipment Description

756-0224-200   Model 213400 Multi-Channel Digital Announcer, Installation

756-0224-400   Model 213400 Multi-Channel Digital Announcer, Maintenance

2. CONTROLS AND INDICATORS

2.01   Model 213400 Multi-Channel Digital Announcer front and rear panel controls and indicators are illustrated in figures 1 and 2. (The Control Processor Chassis is shown installed above the Multi-Channel Chassis.) These controls and indicators are described in table 1.

3. EQUIPMENT TURN-ON

3.01   After installation, the digital announcer is turned on as described in the Power Up Procedure given in Chart 1.

4. MESSAGE RECORDING

RECORDING WITH HANDSET OR HEADSET

4.01   The procedure for recording with a handset or headset is given in Chart 2.

RECORDING FROM A CASSETTE RECORDER

4.02   The digital announcer is also capable of recording a pre-taped message from the earphone or monitor jack of a cassette recorder. This is especially useful when the ambient noise level at the announcer location is too high to permit a satisfactory recording with a handset. A quality cassette recorder with good speed stability and adequate output should be used. If possible, operate the cassette recorder on internal batteries to avoid the possibility of introducing 60 Hz noise

4.03   An adapter assembly, consisting of a cord with a cassette recorder mini-plug on one end and a modular plug on the other end, can be used (available from Cook Electric Division).

NOTE: This adapter assembly does not normally provide monitoring capabilities.
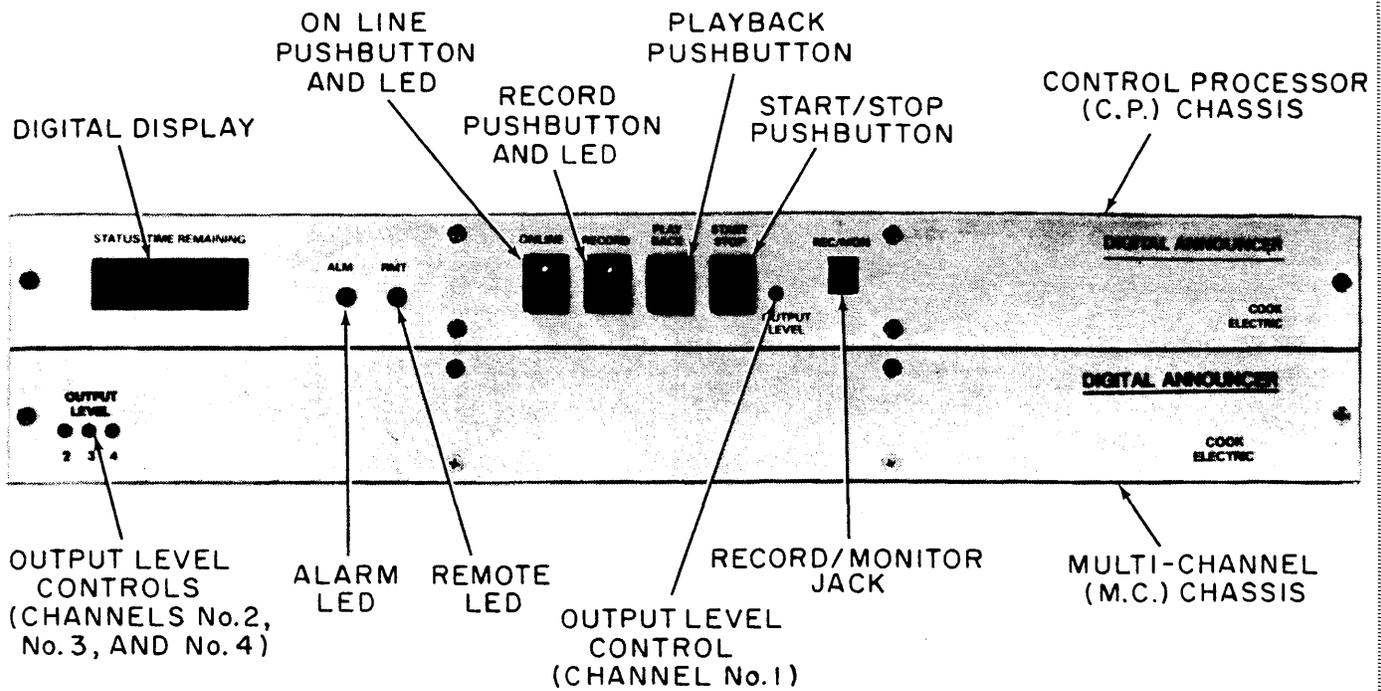
ON LINE
PUSHBUTTON
AND LED

PLAYBACK
PUSHBUTTON

RECORD
PUSHBUTTON
AND LED

START/STOP
PUSHBUTTON

CONTROL PROCESSOR
(C.P.) CHASSIS

DIGITAL DISPLAY

OUTPUT LEVEL
CONTROLS
(CHANNELS No. 2,
No. 3, AND No. 4)

ALARM
LED

REMOTE
LED

OUTPUT LEVEL
CONTROL
(CHANNEL No. 1)

RECORD/MONITOR
JACK

MULTI-CHANNEL
(M.C.) CHASSIS

Fig. 1 – Front Panel Controls and Indicators

S6 SELECTOR SWITCH
(SAMPLING FREQUENCY, START MODE,
AND CHANNEL No. 1 SIT CODE)

J2 (POWER INPUT AND
CHANNEL No. 1
SIGNAL INTERFACE)

C.P. CHASSIS
POWER
ON-OFF SWITCH

CONTROL PROCESSOR
(C.P.) CHASSIS

RIBBON CABLE
CONNECTOR

BACK UP BATTERY
ON-OFF SWITCH

MULTI-CHANNEL
(M.C.) CHASSIS

RIBBON CABLE
CONNECTOR

J2M (POWER INPUT AND CHANNELS
No. 2, No. 3, AND No. 4 SIGNAL INTERFACES)

S2 AND S3 SELECTOR SWITCHES
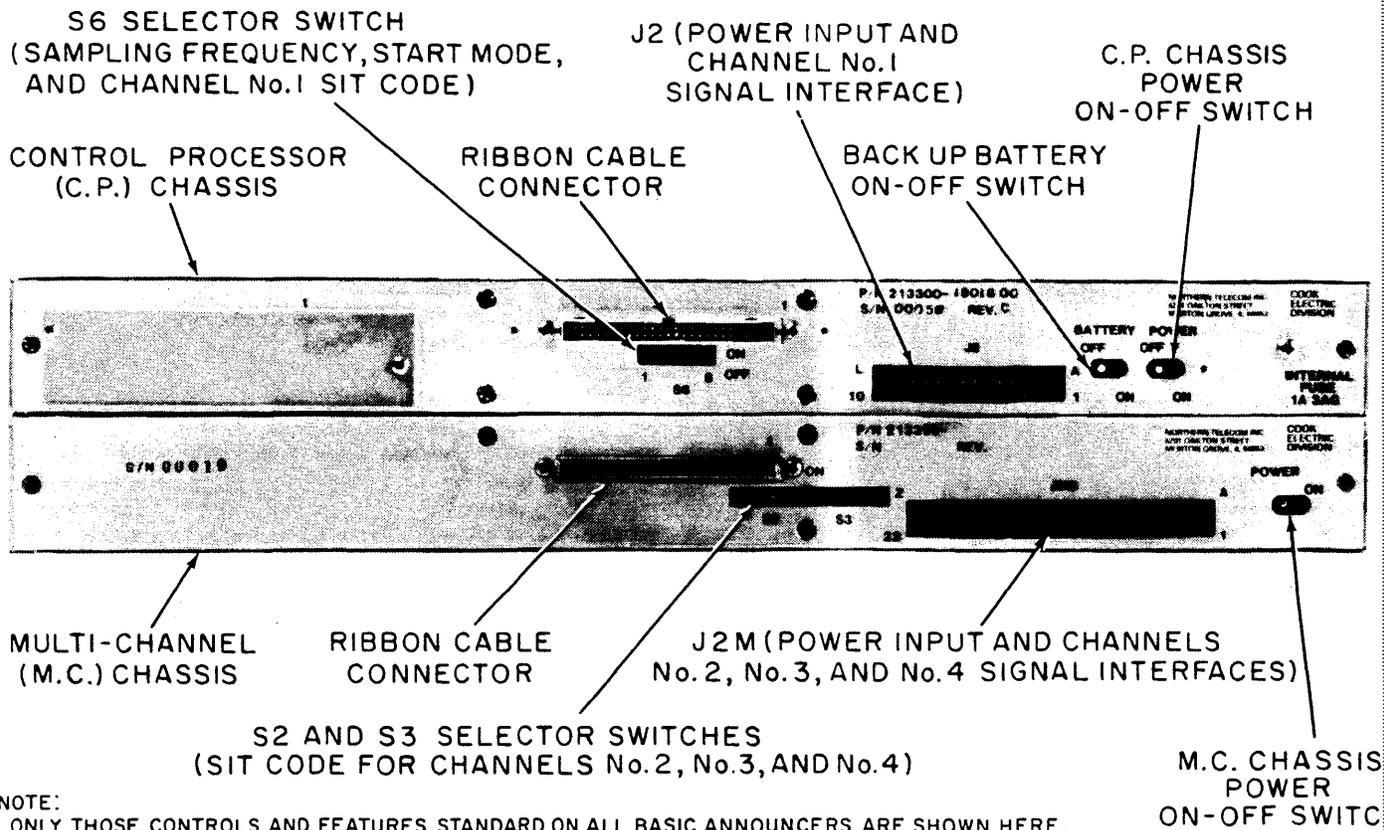(SIT CODE FOR CHANNELS No. 2, No. 3, AND No. 4)

M.C. CHASSIS
POWER
ON-OFF SWITC

NOTE:
ONLY THOSE CONTROLS AND FEATURES STANDARD ON ALL BASIC ANNOUNCERS ARE SHOWN HERE.
COOK ELECTRIC DIVISION MAY BE CONTACTED FOR APPLICABLE LITERATURE COVERING VARIOUS
OPTIONAL FEATURES NOT SHOWN IN THIS FIGURE.

Fig. 2 – Rear Panel Controls

Table 1. Controls and Indicators

NAME	USE AND COMMENTS
CONTROL PROCESSOR CHASSIS	
FRONT PANEL	
STATUS/TIME REMAINING Digital Display	Multi-purpose digital display ● For recording, shows channel number selected to be recorded, shows time (in seconds) available for recording the displayed channel number, and counts down the seconds for timing message while recording. ● For playback, shows channel number selected for playback, shows actual time (in seconds) of the message recorded in the displayed channel number, and counts down to zero during playback. ● Displays "SEL" to indicate that announcer is waiting for a mode selection to be made. ● Indicates that announcer is in use, showing the channel number(s) accessed by an external Start command at that time. ● Displays peg count readout by channel number. ● Shows alarm modes, as follows: AL-0 POWER ALARM - Indicates interruptions of -48 Vdc power. Always shows status during power-up procedure. Indicates temporary power interruption if memory is not protected by Battery Backup option. If announcer has Battery Backup option, will not indicate power interruption unless outage is long enough for batteries to become completely discharged. AL-1 MEMORY ALARM - Indicates trouble in basic Dynamic RAM circuit used for storage of voice messages. AL-2 VOICE ALARM - Indicates, by channel number, a silent (-15 dBm or greater) portion of a message that extends to 10 seconds or more. AL-3 NO RECORDING ALARM - Indicates attempt to place announcer ON LINE without having recorded into any channel.
ALARM Indicator (Red LED)	Indicator lights only when announcer is in Alarm mode. (Type of alarm will be indicated on digital display.)
REMOTE Indicator (Red LED)	On models equipped with Remote Record option, indicator lights when announcer is accessed from a remote location for checking playback or changing a recorded message.

Table 1. Controls and Indicators (contd)

NAME	USE AND COMMENTS
ON LINE Pushbutton and Indicator (Red LED)	Used to place announcer ON LINE. Indicator lights to indicate announcer is ON LINE.
RECORD Pushbutton and Indicator (Red LED)	Used to place announcer in RECORD mode and to select channel number to be recorded. Indicator lights to indicate announcer is in RECORD mode.
PLAYBACK Pushbutton	Used to place announcer in PLAYBACK mode and select channel number to be played back.
START/STOP Pushbutton	Used in the Power Up procedure, to start and stop recording and playback process, and to clear certain alarm modes and readouts.
OUTPUT LEVEL Control	Used to adjust the volume of Channel No. 1 recorded message output.
RECORD/MONITOR Jack	Modular jack, used for connection of handset or headset for recording and playback monitoring, or for connecting a cassette recorder (using an adapter plug) for recording a pre-taped message.
REAR PANEL	
POWER Switch	On-off switch for -48 Vdc battery supply power to the Control Processor Chassis.
BATTERY Switch	On-off switch for internal four-battery supply used to protect the message memory from loss in the event of an interruption of the external -48 Vdc supply. Only on models equipped with Battery Back-up of Message option.
J2	Power input for Control Processor Chassis and signal interface for Channel No. 1. Uses an edge connector installed on plated contacts of the circuit board. External side of edge connector provides two 10-pin rows of wire-wrap pins for connecting power and Channel No. 1 signal I/O to external equipment.
S6	DIP switch provides selection of SIT (Special Information Tone) code outputs for Channel No. 1, selection of sampling frequency for digital encoding and decoding, and selection of start mode. (SIT available at 32 kHz rate only.)
Case Ground Connector	Used for grounding the Control Processor Chassis to common ground in office installations.
MULTI-CHANNEL CHASSIS	
FRONT PANEL	
OUTPUT LEVEL 2, 3, 4 Controls	Used to adjust the volume of Channels No. 2, No. 3, and No. 4 recorded message outputs.

Table 1. Controls and Indicators (contd)

NAME	USE AND COMMENTS
REAR PANEL	
POWER Switch	On-Off switch for -48 Vdc battery supply power to the Multi-Channel Chassis.
J2M	Power input for Multi-Channel Chassis and signal interface for Channels No. 2, No. 3, and No. 4. Uses an edge connector installed on plated contacts of the circuit board. External side of edge connector provides two 22-pin rows of wire-wrap pins for connecting power and Channels No. 2, No. 3, and No. 4 signal I/O to external equipment.
S2	DIP switch provides selection of SIT (Special Information Tone) code outputs for Channels No. 2 and No. 3. (SIT available at 32 kHz rate only.)
S3	DIP switch provides selection of SIT (Special Information Tone) code outputs for Channel No. 4, and SIT Enable switches for Channels No. 2, No. 3, and No. 4. (SIT available at 32 kHz rate only.)
Case Ground Connector	Used for grounding the Multi-Channel Chassis case to common ground in office installations.

Chart 1. Power Up Procedure

IMPORTANT: The following Power Up procedure refers to multi-channel digital announcer models having the Battery Backup option, and therefore equipped with a BATTERY switch on the Central Processor (C.P.) Chassis. For models without this option and switch, follow the same procedure, but omit any instructions relative to operation of the BATTERY switch.

STEP	ACTION	COMMENTS
1	Remove safety bracket covering POWER and BATTERY switches on C.P. Chassis rear panel.	Announcer should be installed per Section 756-0224-200. As received from factory, the POWER and BATTERY switches on the C.P. Chassis rear panel are held in the OFF position by a protective safety bracket. The POWER switch on the Multi-Channel (M.C.) Chassis should also be in the OFF position. Check that these switches are OFF before connecting -48 V to either chassis. DO NOT move BATTERY switch to ON until after step 4 has been performed.
2	First, move M.C. Chassis POWER switch to ON. Then, move C.P. Chassis POWER switch to ON.	ALM LED (Light Emitting Diode) lights, indicating alarm mode. (This LED will light at any alarm mode.) Digital display shows AL-0, indicating an initial power up condition. (This alarm indication will also be displayed after any power interruption which causes a loss of message memory.)

Chart 1. Power Up Procedure (contd)

STEP	ACTION	COMMENTS
3	Press START/STOP pushbutton.	The AL-O alarm is cleared. (ALM LED goes off.) Announcer enters a memory check mode. If the minimum amount of memory is not installed or is inoperative, digital display will show AL-1, indicating a memory error. If memory is operational, digital display will show the maximum amount of recording time available (in seconds).
4	Press START/STOP pushbutton.	Unit is placed off-line. Digital display will show "SEL".
5	Move C.P. Chassis BATTERY switch to ON.	Message memory will now be protected against loss of power. NOTE: On models without Battery Backup of Memory option, BATTERY switch is omitted, and a power interruption will result in a loss of message memory, requiring re-recording the messages.

Chart 2. Recording with Handset or Headset

| IMPORTANT: The total length of the four messages to be recorded into the announcer's four channels must not be longer than the maximum recording time (in seconds) provided by the announcer. It is recommended that the messages be written, read aloud, and carefully timed before recording to assure that message length will fit into recording time provided. If recording time runs out while recording, the announcer will automatically switch into Select ("SEL") mode. |||

STEP	ACTION	COMMENTS
1	Plug standard handset or operator's headset into REC/MON (Record/Monitor) jack on C.P. Chassis front panel.	Digital announcer must be powered up and in Select ("SEL") mode as outlined in Chart 1, Power Up Procedure. Handset or headset must be equipped with a modular plug to match the modular jack on the panel. (If not, adapter assemblies are easily fabricated.) The digital announcer is equipped with an interlock that will not allow the unit to enter Record mode unless the handset or headset is properly plugged into the REC/MON jack.
2	Press RECORD pushbutton	The announcer goes into Record mode and the RECORD indicator lights. The digital display alternately flashes the first channel number ("CH-1") and the maximum length of time (in seconds) provided by the announcer for recording all four channels.

Chart 2. Recording with Handset or Headset (contd)

STEP	ACTION	COMMENTS
3	Press START/STOP pushbutton to start recording the Channel No. 1 message.	The digital display will begin seconds countdown, and the unit will begin recording on Channel No. 1. Speak the message into the handset or headset transmitter. Use a normal speaking voice.
4	If desired, press RECORD pushbutton to "pause" while recording. If pause is not desired, immediately go to step 6.	During "pause", unit will stop recording, and digital display will stop seconds countdown, but will continue to flash on and off with the remaining recording time available.
5	To end "pause" and resume recording, again press RECORD pushbutton.	Digital display resumes seconds countdown, and unit resumes recording on the same channel. Resume recording the message.
6	Press START/STOP pushbutton to stop recording on Channel No. 1.	At the end of the Channel No. 1 message, stop recording. Unit stops recording and automatically switches to the next channel (Channel No. 2), with the digital display alternately flashing the new channel number ("CH-2") and the remaining recording time available.
7	Press START/STOP pushbutton to start recording the Channel No. 2 message.	The digital display will begin seconds countdown from where it left off, and the unit will begin recording on Channel No. 2. Speak the Channel No. 2 message into the handset or headset transmitter. (A "pause" while recording is possible by following instructions in steps 4 and 5.)
8	Press START/STOP pushbutton to stop recording on Channel No. 2.	At the end of the Channel No. 2 message, stop recording. Unit stops recording and automatically switches to the next channel (Channel No. 3), with the digital display alternately flashing the new channel number ("CH-3") and the remaining recording time available.
9	Repeating steps 7 and 8 to start and stop recording, record messages on Channels No. 3 and No. 4.	While recording messages on Channels No. 3 and No. 4, unit operates in a similar manner as indicated in steps 7 and 8. After Channel No. 3 is recorded, unit automatically switches to Channel No. 4. After Channel No. 4 is recorded, unit switches out of Record mode (RECORD indicator goes out), and switches to Select mode ("SEL" on digital display).

NOTE 1: With announcer in Select ("SEL") mode, successively pressing or holding down the RECORD pushbutton selects Record mode and indexes channel selection through Channels No. 1, No. 2, No. 3, and No. 4 in order, finally switching unit back to Select mode.

Chart 2. Recording with Handset or Headset (contd)

NOTE 2: All four channels may be recorded in order as given in the previous procedure, or if desired, a channel may be skipped and the next channel recorded. To skip a channel, press the RECORD pushbutton while the channel number to be skipped is shown on the digital display. The display will switch to the next channel number in sequence. (When a channel is skipped and not recorded, that channel number during "playback" will show a message length of zero seconds, and during "on line" mode, the skipped channel will be in a Busy state, preventing access by C.O. equipment.) To later record a skipped channel, refer to Chart 6, Re-recording a Channel.

4.04   An adapter assembly, consisting of a handset equipped with a mini-jack and a modular cord (RJ-11 type) can be used and is available by ordering Cook Electric Part No. 213360. This adapter provides a monitor function through the receiver of the handset. The transmitter is desabled when a mini-plug is inserted.

4.05   The procedure for recording a pre-taped message from a cassette recorder is given in Chart 3.

5.   PLAYBACK OF DIGITAL ANNOUNCER

5.01   After messages have been recorded, playback can be monitored and checked, following the procedure in Chart 4.

6.   PLACING DIGITAL ANNOUNCER ON LINE

6.01   After messages have been recorded and checked, digital announcer is put on line, following the procedure in Chart 5.

RE-RECORDING A CHANNEL

7.01   When a recorded channel must be re-recorded, the channel to be changed can be re-recorded without affecting the message in the next higher channel only if the length of the new message (in seconds) does not exceed the length (in seconds) originally recorded in that channel. If the new message is to be longer than the original, when recorded it will run into the memory currently occupied by the next higher channel and erase the higher channel message, which must then also be re-recorded.

7.02   For instance, if all four channels are recorded, Channel No. 2 can be re-recorded without affecting Channel No. 3 only if the new Channel No. 2 message will fit into the memory used by the original Channel No. 2 message. If the new Channel No. 2 message is longer than the original message, the new longer message will run into the memory area currently occupied by Channel No. 3 and erase the No. 3 message, which must be re-recorded. If the re-recorded Channel

No. 3 message runs into Channel No. 4 memory, Channel No. 4 message must also be re-recorded.

7.03   If a channel has been skipped and contains no message, but the higher channels are all recorded, the skipped channel can later be recorded only by also re-recording the higher channels, since upon starting to record the skipped channel, the new message will immediately run into the memory area occupied by the next higher channel message, erasing it.

7.04   Procedures for re-recording a channel are given in Chart 6, Re-recording a Channel.

8.   SPECIAL FUNCTIONS

BATTERY SWITCH

8.01   On models equipped with the Battery Backup of Message option, the BATTERY switch on the back panel of the C.P. Chassis is used to switch the backup battery ON, protecting the announcer from loss of message in the event of a power failure. (As shipped from the factory the BATTERY switch is in the OFF position, covered by a protective safety bracket to keep switch position from being changed inadvertently

8.02   When powering up the announcer, the BATTERY switch MUST be kept in the OFF position until after the main POWER switches on the back panels of both the C.P. Chassis and the M.C. Chassis have been switched to "ON" and both chassis are powered as outlined in Chart 1.

8.03   Make sure both chassis are powered up before switching BATTERY switch on.

NOTE: On models without Battery Backup option, BATTERY switch is not included

Chart 3.   Recording from a Cassette Recorder

STEP	ACTION	COMMENTS
1	Record messages for all four channels on cassette recorder.	Before performing the following procedure, refer to paragraphs 4.02 through 4.04 in this section. Digital announcer must be powered up and in Select ("SEL") mode, as outlined in Chart 1, Power Up Procedures. Record cassette at maximum level that will not introduce audio distortion. Play back cassette recorder to check for good sound. *Carefully* time the messages recorded on the cassette to make sure that the total length of all messages will not exceed the maximum recording time (in seconds) provided by the digital announcer.
2	During cassette playback, adjust cassette recorder output to a fairly low listening level.	Cassette output, for best recording results on digital announcer, should be -5 dBm max; -10 dBm preferred.
3	Interconnect cassette recorder's earphone (or monitor) jack and digital announcer's REC/MON jack. OR Using a handset equipped with the mini-jack, interconnect cassette recorder's earphone or monitor jack and the handset jack.	Use Cook Electric Cassette Adapter Plug Part No. 213284, or equivalent. The digital announcer is equipped with an interlock that will not allow the unit to enter Record mode unless the cassette recorder is properly plugged into the REC/MON jack. Use Cook Electric Cassette Adapter Handset part No. 213360, or equivalent.
4	Rewind cassette recorder just to the beginning of the pretaped message that is to be recorded in Channel No. 1 or the digital announcer.	
5	Press RECORD pushbutton on digital announcer.	The digital announcer goes into Record mode, and the RECORD indicator (LED) lights. Channel No. 1 is selected, with the digital display alternately flashing "CH-1" and the maximum length of time (in seconds) provided by the announcer for recording all four channels. NOTE: While in the record mode, and if Cassette Adapter Handset (part No. 213360) is used, the recording can be monitored through the handset. This will enable the setting of reasonable recording levels before making the actual recording.
6	Start cassette recorder in playback, and immediately press START/STOP pushbutton on digital announcer to start recording on Channel No. 1.	The digital display will begin seconds countdown, and the taped message will be recorded in Channel No. 1. While recording. closely check the timing of the taped message being recorded.

Chart 3. Recording from a Cassette Recorder (contd)

STEP	ACTION	COMMENTS
7	Press START/STOP pushbutton to stop recording on Channel No. 1.	When enough time for recording the taped message on Channel No. 1 has elapsed, stop recording. The digital announcer stops recording on Channel No. 1 and automatically switches to Channel No. 2, with digital display alternately flashing "CH-2" and the remaining recording time available.
8	Stop cassette recorder, and re-wind just to the beginning of the pre-taped message to be recorded in Channel No. 2.	
9	Start cassette recorder in play-back, and immediately press START/STOP pushbutton on digital announcer to start re-cording on Channel No. 2.	The digital display will begin seconds countdown from where it left off, and the taped message will be recorded in Channel No. 2. While recording, closely check the timing of the taped message being recorded.
10	Press START/STOP pushbutton to stop recording on Channel No. 2.	When enough time for recording the taped message on Channel No. 2 has elapsed, stop recording. The digital announcer stops recording on Channel No. 2 and automatically switches to Channel No. 3, with digital display alternately flashing "CH-3" and the remaining recording time available.
11	Repeating steps 8, 9, and 10 to start and stop recording, record pre-taped messages on Channels No. 3 and No. 4.	After Channel No. 3 is recorded, unit automatically switches to Channel No. 4. After Channel No. 4 is recorded, unit switches out of Record mode (RECORD LED goes out), and switches to Select ("SEL") mode. If recording time runs out while recording, the digital announcer will automatically switch to Select ("SEL") mode.

NOTE 1: After all channels have been recorded, playback digital announcer (see Chart 4), and carefully monitor recorded messages for length and recording level. If necessary, make changes to message lengths or output volume of cassette tape recorder, and re-record on digital announcer.

NOTE 2: When recording from a cassette tape, it is also possible to skip a channel in the same manner as instructed in Note 2 of Chart 2, Recording with Handset or Headset.

Chart 4. Playing Back Digital Announcer

STEP	ACTION	COMMENTS
1	Plug handset or operator's headset into REC/MON jack.	After all desired channels have been recorded, as outlined in Charts 2 and 3, unit will be in Select ("SEL") mode. Handset or headset must be equipped with a modular plug to fit announcer's modular jack.
2	Press PLAYBACK pushbutton to select Playback mode and channel: once for Channel No. 1, twice for Channel No. 2, three times for Channel No. 3, four times for Channel No. 4, (Further operation of pushbutton will repeat channel number sequence.)	With a channel selected, digital display alternately flashes channel number (CH-1, Ch-2, CH-3, or CH-4) and the actual length (in seconds) of the message recorded in that channel. NOTE: An unrecorded (skipped) channel will display the channel number, but with a message length of zero seconds.
3	Press START/STOP pushbutton.	Digital display starts counting down to zero, while the message recorded in the selected channel is outputted to handset or headset for monitoring. At the end of the message (when display reaches zero), digital announcer will switch to Select ("SEL") mode. Playback may be terminated early by pressing START/STOP pushbutton.
4	To monitor another channel, repeat steps 2 and 3.	

Chart 5. Placing Digital Announcer On Line

STEP	ACTION	COMMENTS
1	Press ON LINE pushbutton.	After recording and monitoring playback, as outlined in Charts 2, 3, and 4, digital announcer will be in Select ("SEL") mode. ON LINE indicator (LED) lights, the MBY relays associated with recorded channels energize, and digital announcer goes On Line. Announcer is now ready to accept incoming signals and output messages through the interfaces associated with recorded channels. (An unrecorded channel will remain in a Busy state and cannot be accessed by C.O. equipment). When announcer is in use, digital display will show channel number(s) accessed. If no message has been recorded in any channel, or (on models without Backup Battery option) no recording has been made since a power failure, pressing ON LINE pushbutton will cause digital display to read "AL-3", indicating a "No Recording" alarm,

Chart 5. Placing Digital Announcer On Line (contd)

STEP	ACTION	COMMENTS
		and announcer will not go on line. To clear this alarm, press START/STOP pushbutton; then record messages per Charts 2, 3, and 4.
NOTE: When digital announcer is On Line, pressing ON LINE pushbutton will take unit Off Line, switching to Select ("SEL") mode.		

Chart 6. Re-recording a Channel

STEP	ACTION	COMMENTS
		Before performing the following procedures, refer to paragraphs 7.01 through 7.04 in this section. Announcer must be in Select ("SEL") mode. It may be necessary to place unit in Off Line mode.
TO RE-RECORD A RECORDED CHANNEL		
1	Press PLAYBACK pushbutton, selecting channel number of channel to be re-recorded. (See Chart 4.)	Digital display will indicate amount of time (in seconds) already recorded in that channel. Note number of seconds currently used by that channel, and carefully time new message to determine if it will fit into number of seconds available.
2	If new message will fit into number of seconds available, record new message in that channel. (See Chart 2 or Chart 3 for recording procedures.)	When re-recording, carefully keep track of recording time by monitoring seconds countdown, on digital display, making sure new message fits into number of seconds originally used by channel. When playing back new message (see Chart 4), also playback next higher channel to make sure that message has not been affected by re-recording the lower channel. (If message on re-recorded channel has inadvertently run longer than the number of seconds permitted, the message on the next higher channel will be erased.)
3	If new message is longer than number of seconds originally used by channel, re-record channel with new message, and then re-record messages on any higher channels affected. (See Chart 2 or Chart 3 for recording procedures.)	After re-recording, check messages by playing back all re-recorded channels. (See Chart 4.) If recording time runs out while recording, unit will automatically switch to Select ("SEL") mode.
TO RECORD A SKIPPED CHANNEL		
1	Press RECORD pushbutton, selecting channel number of channel that was skipped. (See Chart 2 or Chart 3.)	Digital display will indicate amount of time available for recording the skipped channel and re-recording any higher channels affected.

Chart 6. Re-recording a Channel (contd)

STEP	ACTION	COMMENTS
2	Record message on skipped channel, and then re-record any higher channels affected. (See Chart 2 or Chart 3 for recording procedures.)	Since the skipped channel does not originally occupy any recording memory, as soon as the recording of that channel is started, the message on the next higher channel will be erased and replaced by the message being recorded into the channel that had been skipped. Therefore, any higher channels affected must be re-recorded.

8.04   SIT (Special Information Tones) are used by telephone companies to allow equipment to identify the type and content of announcements. The digital announcer is able to produce all of the SIT codes currently in use by the telephone companies, and several more as prescribed by established standards.

8.05   S6 switches (see figure 3) are numbered from left to right, are ON in the up position, OFF in the down position, and accessible through the case opening with a small screwdriver shaft, or equivalent.

8.06   SIT code generation is governed by the instruction set in the EPROM. Details for selecting the SIT code which most closely matches the messages content are covered in the firmware publication (60-213405-XXX). Switch S6-6 must be in the ON position to enable the SIT circuits (see figure 3 for switch position).

SAMPLING FREQUENCY SELECTION

8.07   The sampling frequency used for digital encoding and decoding of the voice messages is switchable, using switch S6-5 (part of DIP switch S6), located on the C.P. Chassis rear panel (see figure 3). Switch S6-5 selects a sampling frequency of 32 kHz in the OFF (down) position, a sampling frequency of 24 kHz in the ON (up) position.

8.08   The digital announcer is shipped from the factory with S6-5 set at the normal sampling frequency of 32 kHz. The list of recording times available with the digital announcer, given in table 3, Part Number Ordering Information, Section 756-0224-100, is based on the 32 kHz sampling rate (providing recording times in increments of 16 seconds, up to maximum of 128 seconds). Switching to a sampling rate of 24 kHz provides somewhat longer recording times, up to a maximum of 184 seconds.

NOTE: SIT codes are available only at the 32 kHz sampling rate.

START COMMAND SELECTION

8.09   The digital announcer can be set to accept either "pulsed start" or "level start" commands on the ST leads of the J2 and J2M interfaces, using the S6 DIP switch on the C.P. Chassis rear panel. Switch S6-7 (see figure 3) selects the desired mode per the following settings:

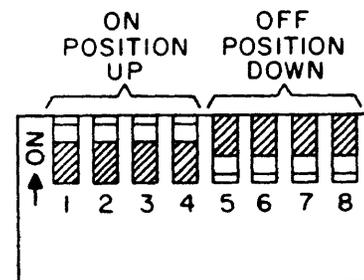| S6-7	Start Mode
Down (Off)	Level Start (regular operation)
Up (On)	Pulse Start (SL-1 Compatible)

Fig. 3 — Examples of On and Off Positions for C.P. Chassis Switch S6 and M.C. Chassis Switches S2 and S3

PEG COUNT READOUT

8.10   The multi-channel digital announcer
        maintains peg count for all four chan-
nels, displaying, when requested, the number
of times each channel has been accessed, up
to 999,999 per channel, when the readout re-
turns to zero and repeats. Peg count is also
reset to zero by a power alarm (AL-0). The
procedure for obtaining peg count is given
in Chart 7, Peg Count Readout.

Chart 7.   Peg Count Readout

STEP	ACTION	COMMENTS
1	Press PLAYBACK pushbutton.	Digital announcer must be in ON LINE mode. Digital display will give the Channel No. 1 peg count by outputting three displays in succession, as follows: CH-1 PCXX XXXX These displays will keep flashing in sequence. The first display indicates the channel number, the second identifies the readout as peg count, and the X's in the second and third displays represent numerical digits. For instance, if the first display reads "CH-1", the second "PC02", and the third "6243", then the total display indicates that Channel No. 1 peg count is at that time 26,243.
2	Press PLAYBACK pushbutton again	Digital display gives the Channel No. 2 (CH-2) peg count in the same sequence as described in step 1.
3	Repeat PLAYBACK operation as above for Channels No. 3 and No. 4 peg count readout.	Digital display output for Channels No. 3 and No. 4 will be in same sequence described above. Successive operation of PLAYBACK pushbutton after Channel No. 4 will repeat channel number sequence. Readout for a specific channel can be selected rapidly by pressing PLAYBACK rapidly in succession, stopping when the desired channel number is reached to allow peg count output to be displayed.
4	Press START/STOP pushbutton to terminate Peg Count readout.	