

**EXACOM<sup>tm</sup>**  
**MODEL VCR-2020**  
**DIGITAL VOICE CALL RECORDER**

**MULTI-POSITION PLAYBACK FEATURE (V4.04 or greater)**

**Technical Description**

**Issue 4**

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## INTRODUCTION

### 1.0 Feature Description

The Multi-Position Playback feature is a special version of the VCR-2020 Instant Recall Recorder in which the operator functions have been optimized for replaying recorded messages from multiple recording positions. This is helpful in cases where a single operator needs rapid access to many sources. Access to other positions is normally part of the supervisor functions in the standard system; this special feature makes it available in the operator mode.

This feature is implemented by assigning several channels to a group. Up to 8 groups can be assigned per 20 system. Any console assigned to a group has access to all channels/consols that are also part of that group. Access to messages can be selected for an individual channel/console in the group or all messages within that group.

Since the console/channel number is not very useful for identifying the nature of the channel of a channel, a complementary feature has also been added. A name up to 8 characters can be assigned to each console/channel. This name is displayed directly below the channel number during selection and playback. (I.e., position 01 might be labeled PHONE, channel 02 might be labeled SELECT, 03 might be UNSELECT...)

This feature is particularly useful in conjunction with one or more record-only(remote) consols, in which the only playback access is through another full-function console. This combination can help solve congestion problems when multiple radio channels must be recorded but console space prohibits individual control.

This addendum will be divided into two sections.

**Section 1** – Describes the Supervisor Programming Setup to put consols into groups and assigning console/channel names.

**Section 2** – Describes Operator functions when the console is in a group.

## GROUP PROGRAMMING

### 2.0 VCR-2020 Supervisor Group Programming Mode

To program groups, you must use the supervisor key to enter supervisor mode. Note the supervisor screen below. **Warning. When in supervisor mode, the console will NOT record. Always be sure to enter supervisor mode from a NON recording position, when possible.** Also, turn down the volume control because the setup mode causes the console to monitor the audio into the console.

```
*HH:MM:SSA MM/DD NNN
Cxx  SELECT POSITION
      SAVED XX
SEL  SRCH  MON  SUPV
```

Screen when supervisor key is turned

#### Step 1: Selecting the Console for Group Setup.

To select which console to program into a group(s), use the SEL button until you see the desired console position displayed. Note: The selection steps downward, skipping any uninstalled console positions. Now strike the NORM/SLOW button for group setup of the selected console. Note the screen below. The procedure thus far is similar to the VOX adjust feature in standard operation. Please refer to the standard system technical manual for a full description of the VOX adjust feature.

```
*HH:MM:SSA MM/DD NNN
Cxx  SETUP VOX/START
      _____ +
LEFT  -   +   RIGHT
```

Figure 1: Group Setup Screen

#### Step 2: Entering the Console Name

When in the group setup screen, line 3 of the display is the data you will be changing. The cursor will be positioned on the leftmost position of the line. The first 8 characters of the line will be used to setup the Console Name. Striking the button under + will change the character to the next higher ASCII character in sequence (see ASCII character sequence table). Striking the button under - will change the character to the next lower ASCII character in sequence. Use these two buttons until the first character of the Console Name is displayed, as you want it. Now strike the button under RIGHT to move the cursor right to the next position. Once again use the + or - buttons to change the character. Repeat this sequence until you see the Console Name as desired.

### **Step 3: Selecting the group(s) for the Console Selected.**

The Group (s) field is displayed to the right of the name field. It has 8 underline characters in the field. This allows you to put the Console into any one or all of 8 groups. (There can be no more than 8 groups per system.) For example, if the console belonged to groups 1 and 4, the field would look like this: 1 \_ \_ 4 \_ \_ \_ \_ .

To put the console in group 1 and 4, first move the cursor over the first underline character using the RIGHT button. Now use the + button to enable group 1 and display a 1. Now move the cursor over the 4<sup>th</sup> underlined position. Press the + button and a 4 will be displayed. Now the Console belongs to groups 1 and 4.

### **Step 4: Saving your Changes**

Strike the SAVE/CLEAR button to save your data. The console will return to the first supervisor screen. (Note the SAVED on the display does NOT refer to the data as being saved, it refers to how many messages that particular console has saved.)

Note: Save can be done after some or all the positions are programmed.

Strike the NORM/SLOW to exit without saving changes.

### **What have you just done?**

You have put a console in two groups. Therefore, this console can now easily select, search and play calls from any other consoles in those groups.

Go to Step 1 to repeat the group setup for other consoles.

## **2.1 Group Setup Using Serial Port**

The VCR 2020 group programming can also be done by connecting a terminal to serial port 2 (com2) on the VCR 2020.

Set your terminal to 9600 baud, 8 data bits, no Parity, and 1 stop bit. Connect to the VCR using a null modem type cable (pins 2 and 3 swapped). The VCR port is configured as DTE.

Once connected, use the following commands:

- R – Show Group/Name setup for all channels
- E – Edit Group/Name setup
- S – Save changes
- Esc - Backup
- L – Show boot/configuration log

Strike the **R** key on your terminal to see the Name/Setup screen. Notice all channels displayed with their names and groups.

CHANNEL / GROUP CONFIGURATION					
CHANNEL	NAME	GROUP	CHANNEL	NAME	GROUP
C01	PHONE1	1_____	C11	C11	_____
C02	SELECT1	1_____	C12	C11	_____
C03	UNSEL1	1_____	C13	C11	_____
C04	PHONE2	_2_____	C14	C11	_____
C05	SELECT2	_2_____	C15	C11	_____
C06	UNSEL2	_2_____	C16	C11	_____
C07	C07	_____	C17	C11	_____
C08	C08	_____	C18	C11	_____
C09	C09	_____	C19	C11	_____
C10	C10	_____	C20	C11	_____

Figure 2: Group/Name setup screen

When in the Group/Name setup screen, strike **E** to edit Group/Name setup. Notice, the first channel Name is highlighted. Type in the group name desired. When entering the group name be sure to space fill the name at the end so the Name is left justified. Strike the Enter key. The group number field will now be highlighted. The group numbers the channel belongs to can be entered and cleared by striking the corresponding number. For example, strike the 5 key to put the channel in group 5. Strike the 5 key again to take the channel out of group 5. Strike Enter when done with the first channel. Continue until setup is complete.

Using the **Esc** key at any time when editing a field will “back” you out of the edit mode and not keep the changed data just typed on that field. Strike the **Esc** key a second time to exit the Edit mode.

All changes to this point have been made temporarily. The changes need to be stored permanently. To save changes, strike the **S** key when done entering and field’s data. Notice the “**Changes Saved**” message at the bottom of the screen.

The **L** key can also be used to see a log of system reboots or configuration changes. See figure 3.

B 03/22/99 08:59:38 V4.04	----	System was re-Booted at 08:59:38
B 03/22/99 08:59:54 V4.04	---	
C 03/22/99 09:20:34	-----	System Configuration was changed at 09:20:34
C 03/22/99 09:20:56	-----	
C 03/22/99 09:21:28	-----	
C 03/22/99 09:55:56	-----	

Figure 3: Log after striking the L key.

## OPERATOR FUNCTIONS for a Grouped Console

### 3.0 VCR-2020 Operator Modes

All consoles that are part of a group with other consoles will show the bottom right button function as SEL instead of the usual LAST function.

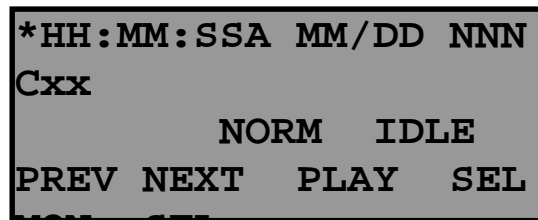
There are four basic operating modes for Operators in groups.

- IDLE
- MESSAGE SEARCH
- MESSAGE PLAY
- (RECORD)

Operating mode can be determined by viewing the display.

#### 3.1 IDLE Mode

When the console has had no buttons struck for one minute, or after turning off the supervisor key, the console goes to the IDLE mode. In IDLE, the recorded message is being presented. The date and time is the current time. The ANI and duration fields are blank. The current channel selection remains as it was before entering IDLE mode. The current message is the most recent message for the selected channel. Any key press functions the same as from the SEARCH mode and the SEARCH mode is immediately invoked.



```
*HH:MM:SSA MM/DD NNN
Cxx
          NORM  IDLE
PREV NEXT  PLAY  SEL
```

The Console display in IDLE mode

#### 3.2 SEARCH Mode

In SEARCH mode (Figure 5), the time and date displayed is the start time of the current message. Likewise, the ANI and duration are from the current message. From this mode, pressing the SEL button selects the source channels/position, as displayed on the screen. Each press decrements the number, cycling through all channels/positions within the console's group(s). In addition, the selection ALL will be displayed. This will allow the operator to search for messages on any of the consoles in his group. It will search and display them in chronological order. When a call is displayed, it will also show the console name of the call being displayed (See Figure 4). When the channel selection changes, the current message becomes the most recent message for that channel.

```
*HH:MM:SSA MM/DD NNN
ALL ---ANI--- MMM:SS
MYNAME          SEARCH
PREV NEXT      PLAY  SEL
```

Figure 4. Console in SEARCH mode with ALL selected

The first step in selecting a recorded call for playback is to select the position at which it was recorded, or select ALL. Once the desired position or positions are displayed, the console will be in SEARCH mode for the selected console(s).

### 3.3 MESSAGE SEARCH Mode

MESSAGE SEARCH mode is entered by pressing STOP during MESSAGE PLAY or striking the SEL button.. The display will be as shown in Fig. 6. The last recorded message is also selected, so immediately re-entering SEARCH mode does so with the last message selected.

```
*HH:MM:SSA MM/DD NNN
Cxx ---ANI--- MMM:SS
MYNAME          SEARCH
PREV NEXT      PLAY  SEL
```

Figure 6: Console display in MESSAGE SEARCH with a console selected.

The FREV and FFWD buttons select messages recorded at that console or group. Pressing FREV moves to the previous message relative to the time of the current message, while pressing FFWD moves to the next message. If the "first" or "last" message is selected, further pressing of these buttons will have no effect.

Once a message has been selected, pressing the PLAY button can play it. As each message is selected, the real-time clock will reflect the time and date relative to the selected message. The message duration and caller's telephone number (if ANI is available) will also be displayed.



### 3.4 MESSAGE PLAY Mode

In MESSAGE PLAY mode, the display will show the status of the current message being played:

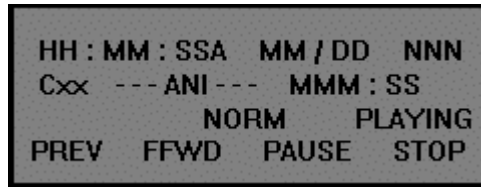


Figure 7: Console display during MESSAGE PLAY mode

FREV/FFWD provide the functionality of Fast Reverse/Fast Forward during MESSAGE PLAY. Pressing these buttons during play will cause the message to be instantly fast-forwarded or rewound; each press of the button moves the message in two (2) second increments. The "location" within the message will be indicated by the relative time on the real-time clock.

If the FFWD button is pressed continuously, the message will stop at the message end and the console will return to the MESSAGE SEARCH MODE; if FREV is pressed continuously, the message will go to the beginning. and when released, continue to play. **NOTE: Message play may be continuous from message-to-message if your console has been set up for radio communications monitoring.**

### 3.4 RECORD Mode

1 – In IDLE mode, the word REC will appear at top right of the screen and the live duration will show in the right side of line 2. Normally, in IDLE mode, no duration will be present (see Figure 5).

2 – In SEARCH mode, the word REC will appear at the top right of the screen and the duration is moving.