

IVX 20 Plus: additional features

Installer's programming supplement to the IVX 20 documentation

Thank you for your purchase of the **IVX 20 Plus**. In addition to what is covered in your *IVX 20 Installation Manual*, this system has additional programmable features, described herein, as well as changes in the way you program previously available functions; so please use this supplement with your *Installation Manual*.

Remote setting/recording of day, night and holiday modes

Normally, the system's day/night mode operation will be manually controlled at a Digital Feature Phone and/or set to follow the day/night mode tables (programmed by the Installer) automatically. In addition, the Administrator can remotely change the mode and/or re-record the day/night main greeting and holiday greeting to handle unexpected closings such as for inclement weather. Remotely logging into the system with the Installer or Administrator password will allow the caller to re-record the holiday greeting and manually change the mode for day/night/holiday.

1. At the main greeting, enter ****789#** or ****456#** (or ****** and the new password then **#**) to enter remote programming mode.
2. You'll hear prompts that will allow you to change the answer mode (day, night, holiday or auto) and/or to re-record the day/night main greeting and holiday greeting. Follow the prompts to perform the desired operation.
3. Exit by pressing ***** and hanging up.

Function 16: System feature parameters

What's new: Function 16 has been broadened: the recording alert has now become Function 161, while connect tone and system-wide hold have been added.

Function 161: Recording alert tone

This sets whether the system plays a short beep every 15 seconds during a call recording, indicating to both parties that a recording is in progress.

Default: Disabled (the beep does not play).

Function 162: Connect tone

This sets whether the system plays a system connect tone (the two short beeps a user hears when a station answers).

Default: Enabled (the beeps play).

Function 163: System-wide hold

Used in conjunction with station CO line key appearances. This function — when enabled — allows station users to press the **HOLD** key to place a caller on hold so that any station programmed with CO line key appearances can retrieve the call. After the user presses **HOLD**, the caller’s CO line will blink green at the station placing the call on hold and red at all other stations. Any user who has a key blinking due to this call can retrieve the call from hold by pressing the blinking key. (For stations without line key appearances, placing a caller on hold puts him on exclusive hold only.)

Default: Disabled.

Function 31: Extension definition and routing

What’s new: The operator reroute can go to **any** valid extension, mailbox or ID branch — **not just extension 100.**

Extensions are numbered 100–113 and can be as follows:

- Extensions 100–111 — Digital Feature Phone extensions (*DIGITAL* in the chart below and succeeding charts)
- Extensions 112 and 113 — Analog ports (*ANALOG* in the same charts)

Digital Feature Phones

Below is an example of the portion of a completed programming worksheet (Appendix II) for Digital Feature Phones.

1.	2.	3.	4.			5.	6.
Ext.	Type	Name	CO	CF day	CF night	Pg zone	Ext.
0		Operator		X100	X100		X100
100	DIGITAL	Jane	9	MB100	MB100	0,1,2	
101	DIGITAL	Roger	9	MB101	MB101	0	
102	DIGITAL	Sally	9,8	MB102	MB102	0,1	
112	ANALOG	Roger 2	9	MB110	MB106		
113	FAX	Fax					

Note: 100 defaults as OPR (when a user dials 0); 101 is an example of system default.

Each programming step for Digital Phone Extensions is defined as follows:

1. Extension number

Extension numbers range from 100 to the highest number of ports installed and must match the port numbers as connected to the system.

2. Type

Based on whether the system has an 242 expansion card installed and the extension number entered, **IVX 20 Plus makes default selections** — *digital, analog, fax*, etc.

3. Extension name

This is used for the LCD display, reports, and as a programming aid. The name's length can be no longer than 10 characters (See "Entering alphanumeric characters," page C.2 in standard IVX 20 manual).

Default: The extension number.

4. CO line group

Assigns the extension's ability to access one or more CO line groups (9, 8, and 7).

Default: 9.

5. Extension page zone assignment

List the page zones (1, 2, 3) that are to include this extension. All stations are in All Page and cannot be edited.

Default: 0 (All page).

The overhead paging port (extension 199) can be paged along with other extensions in a zone by including the desired page zone(s) for extension 199.

All digital phone extensions are included in the all-page zone. Analog extensions cannot be included in page zones.

6. Operator translation

Extension 0 (Operator) programming requires:

- Programming call forwarding for day and night mode
- Entering the extension number to which calls are to be directed when someone dials 0.

Default: 100

Analog programming is the same as the IVX 20.

Function 41: Auto attendant branch programming

What's new: The auto attendant has: **two Main Greeting branches, ID1 and ID2;** GoTo branches ID11–ID17 and ID21–ID27; and directory branches ID18 and ID28.

The no-response for both Main Greeting branches can go to **any** valid extension, mailbox or ID branch, **not just extension 100.**

All GoTo branches can go to **outdial numbers**, as well as extensions, departments, guest mailboxes.

A directory branch (ID18 or ID28) may be either Alpha or All (see "Function 62: Record directory names" in this document).

The IVX 20 Plus auto attendant follows a **branch concept**: the caller is routed through a series of branches, ultimately to the extension he wishes to reach. The caller moves from branch to branch by selecting a number or name presented in a branch prompt.

There are three types of branches — *menu*, *GoTo* and *directory*.

Menu branch (ID1 and ID2)

A **menu branch** includes a prompt that instructs the caller to make a selection from the choices presented such as “*For sales press 1, for service press 2, or for admin press 3.*” Whenever you create a menu branch, you must also program the corresponding sub-branch to match the choice given to the caller in the prompt.

When a caller makes a single-digit selection in the menu branch, he/she will then advance to one of its sub-branches — which will be a GoTo branch (routes the caller to a destination; see below) or Directory Branch (for choosing from a list of names).

Note: If a caller makes no selection during the prompt in a menu branch, he will be transferred according to the no-response programming for that branch.

GoTo branch (ID11-17 and ID21-27)

A **GoTo branch** transfers the caller to an Extension, Department, Mailbox, Branch ID, or outside number:

- **GoTo: Dial** — Automatically blind-transfers the caller to the extension or department number programmed as its destination. If the number listed is a department, the system will follow the programming for the Department as set in Function 33.
If the destination extension or department dialed is busy or does not answer, the call will follow call forwarding for the extension as programmed in Function 31 or the department as programmed in Function 33.
- **GoTo: Mailbox** — Routes a caller to that mailbox’s personal greeting. The mailbox can be a user, a guest/information mailbox or cascade paging mailbox.
- **GoTo: Branch ID** — Can also be used to jump to any other branch in the auto attendant. It is a good idea to provide a jump as a sub-branch of each menu branch, giving the caller the option either to repeat the menu or exit should he not wish to select any of the choices.
Example: “*For Widget Sales, press 1. For Gadget Sales, press 2. Or, to return to the main menu, press 3.*” In this case, the third sub-branch would be a GoTo Branch with ID1 (the main greeting) as its programmed destination.
- **GoTo: Outdial** — Can be used in conjunction with Centrex lines to transfer to an off-premises location. It can be programmed to include, in its “dial string,” pauses, flash hooks, etc. Insert these special codes by using a **scroll (▼ or ▲)** key to select the appropriate code. (Since you press the # key to confirm, you must use this special code technique to actually program a # DTMF tone, if required.) The codes are:

Code	Produces
#	# DTMF tone
*	* DTMF tone
F	Flash hook
P	Two-second delay
E	The most recently attempted extension number

IVX 20 Plus will dial the string as programmed, then release the call to Centrex to complete the connection.

Example: To create an outdial string that...

- Sends a flash hook
- Dials 9
- Dials 555-555-5644 (a local 10-digit call, in this example)
- Goes on-hook

... enter F # 9 5 5 5 5 5 5 6 4 4 # #

Directory branch (ID18 and ID28)

A **directory branch** allows the caller to be connected to an employee by selecting his or her name from a list played. Two types of directories are available:

- **All-names** — The caller selects the person he wishes to reach from the playback of all recorded names (use this if there are 10 or fewer names in the directory).
- **By-alpha**
 - IVX 20 Plus prompts the caller to enter the first letter of the individual's first or last name. (The default is by last name. If you prefer the directory to be by first name, you must re-record the appropriate directory prompts, 18 or 28, in Function 61.)
 - IVX 20 Plus then plays the matched names to the caller **in the order recorded**.
 - A second prompt then instructs the caller to press # when he/she hears the name of the individual.

Note: The actual recording of the names and alpha “key” input (if the directory type is by-alpha) will come later in Function 62. **The directory branch(es) will not be enabled until at least one name has been recorded.**

Here is the sequence for programming the IVX 20 Plus auto attendant:

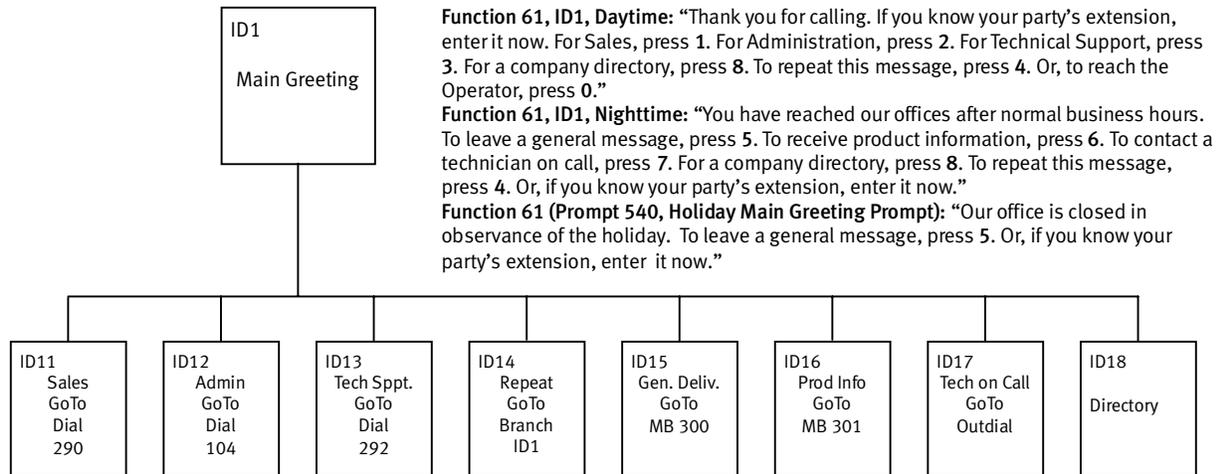
1. **Branch ID** — A numeric designator which indicates its location and relationship to the other branches. There can be up to 2 levels of branches, the first level being a single digit, the second level being two digits.
The Main Greeting is ID1 (or additionally ID2 for different Lines if desired), then each of its sub-branches will have that number plus an additional digit of its own (corresponding to choices given to the caller): 11, 12, 13, etc.
2. **Type** — Select a Menu (Main greeting ID1 or 2), GoTo (ID11-17 or ID21-27), or Directory Branch (ID18 or 28).
3. **Name** — Input the name to help identify the branch for later programming changes and is also the source for LCD display information at user's phones and reports.
4. **Destination**

Each branch type has different possible destinations as indicated:

Branch Type	Destination(s)
GoTo	Extension, mailbox, branch ID, or outside number
Directory	List of names (entered in Function 62)

Additional notes

- **Automatic disconnect** — If ID9999 is programmed as a destination, the call will be automatically disconnected.
- **Call forward no response** — Programmed (and will be prompted for) only for a menu (ID1 or 2) or directory branch (ID18 or 28).
- **Deleting a branch** — To delete a previously created branch, input the branch ID, press **HOLD**, and confirm by pressing a **scroll (▼ or ▲)** key and #.



In the example above, the branch IDs and branch titles shown are for programming purposes only. The caller needs only to press 1, 2, etc., to move through the choices.

Function 53: Guest/info mailboxes

What’s new: Mailboxes 300–309 can be either guest or info mailboxes.

Mailboxes numbered 300–309 can be programmed as either a guest or info mailbox. Enter the mailbox number and select *Guest* or *Info* by pressing a **scroll (▼ or ▲)** key.

Guest mailboxes

Guest mailboxes are designed to be used by personnel, such as in outside sales or manufacturing, who do not have an extension assigned to them. A guest mailbox requires no programming other than the assigning of a name.

Note: A Guest Mailbox can be handled like a regular extension (i.e. listed in the Directory, assigned a Station Key, etc.).

If a programmable feature key is programmed as a virtual mailbox key with a guest mailbox number, the key’s LED will blink, to indicate that new messages exist.¹ To retrieve messages from a station, press **VOICEMAIL, *** and then either the DSS key or dialing the mailbox number.

To record a guest mailbox’s greeting, press **PROG/HELP, *** and then the mailbox number, and follow the prompts. The default password is the mailbox number.

To retrieve messages from the outside, press * and the mailbox number **during the Main Greeting.**

Default: 300–309 as Guest.

¹ Otherwise, the key is a DSS key that allows for single-key transfer of a call with no message indication.

Info mailboxes

Info mailboxes can be used to give callers information on a variety of different subjects by “publishing” these mailbox numbers. Info Mailboxes are identical to Guest Mailboxes except that the caller will not be given a record tone after the personal greeting (the information to be played). Instead, the caller will be forwarded as programmed in this function (default is the caller will be disconnected after the information is played). The maximum length of the record time is 14 minutes. Guest/Info Mailboxes are created or deleted here, but are turned “on” only when a personal greeting (the information to be played) has been recorded. Deleting the personal greetings will turn “off” the mailbox.

Below is an example of a completed Programming Worksheet. The sequence of programming is as follows:

1.	2.	3.	4.	5.
MB	Name	Type	CF day	CF night
300	Dana	Guest		
302	Literature	Info	X/MB/ID	X/MB/ID

Each programming step is defined as follows:

- Mailbox number** — Input a mailbox number, 300–309.
- Name** — The mailbox name is used for the LCD display, reports, and as a programming aid. The name length can be no longer than 10 characters.
Default: The Mailbox number.
- Type** — Select a mailbox type: Guest or Info.
Default: Guest.
- 4 & 5. Call forward (info mailbox only)** — An info mailbox can be set to call forward after the personal greeting has played to an extension, department, a mailbox or a branch ID for day mode and differently for night mode.
Default: ID9999 (automatic disconnect).

Function 56: Cascade paging mailboxes

What’s new: There are up to 10 cascade paging mailboxes.

In addition to individual mailbox paging, IVX 20 Plus can support up to 10 cascade paging mailboxes (520–529). These can be assigned to anyone who requires escalating levels of paging beyond the single level available in all user mailboxes. In this function, you program the paging numbers and number of times each is to be paged before the next paging number is added; additionally, the mailbox owner can program these settings.

Function 561: Cascade mailbox options

The user can program up to three paging numbers, of up to 24 digits each, to be paged whenever the mailbox takes a new or urgent message. The system will page the first paging number (for the number of times listed), then add the second paging number (for the number of times listed), then add the third paging number and will continue to page all three pagers until the message has been retrieved.

1.	2.	3.	4.	5.	6.
MB	1st Number	Attempts	2nd Number	Attempts	3rd Number
520	9725553232	2	9725554254	3	972555452

To program this, enter:

1. **The mailbox number** — Range: 520–529.
2. **First pager number** — The number to be dialed (**without** the CO Line Group [9, 8 or 7]).
3. **Attempts** — How many times the system will page (up to 20) before adding the second pager number. **Range:** 0–20. (0 turns off delivery.)
4. **Second pager number** — The number to be dialed (**without** the CO Line Group [9, 8 or 7]).
5. **Attempts** — How many times the system will page (up to 20) before adding the third pager number. **Range:** 0–20. (0 turns off delivery.)
6. **Pager number** — The number to be dialed (**without** the CO Line Group [9, 8 or 7]; it will use the CO line group assigned in Function 55).

Function 562: Cascade paging parameters

The cascade paging mailboxes will use the same CO line group and pager dialing pause as programmed in Function 55.

Paging interval

Enter the number of minutes for the interval between attempts.

Range: 10–1440.

Default: 30.

Function 61: Re-record system prompts

What's new: There is increased flexibility in recording prompts, including the ability to re-record system prompts.

IVX 20 Plus plays the **system prompts** to an outside caller at different points in the call routing or mailbox functions. These system prompts have been pre-recorded at the factory but you may re-record them, if preferred — *e.g.*, in a different voice or with different instructions.

The **auto attendant branch prompts** (such as the main greeting [day and night] or sub-menus) are also recorded here — enter the branch ID number as the prompt number.

Recording a prompt

1. Practice the prompt by recording and re-recording (start and stop by pressing **1**).
2. When satisfied with its quality, press **#** to confirm.

Note: Deleting a system prompt by pressing **HOLD** (instead of **#**) restores to the default recording.

System prompts

- **Busy Prompt: 530** — Plays to the outside caller if an extension is busy.
Default: *"That extension is busy."*
- **No Answer Prompt: 531** — Plays to the caller if an extension does not answer.
Default: *"That extension does not answer."*
- **Hold Prompt: 532** — Plays to the caller who makes a menu selection or enters an extension.
Default: *"One moment, please."*

- **Q/Z Prompt: 534** — Plays to a caller who has selected an alphabetic directory; instructs the caller to press **1** for the letters *Q* or *Z* since these two letters do not appear on the phone keypad; plays at the end of the first directory prompt (but only if a name in the directory starts with a *Q* or *Z*).
Default: *"For the letters Q or Z, use key number 1."*
- **No Names Matched Prompt: 535** — Played to the caller if, in a directory branch, the first letter he/she selected does not have any names associated with it, or if he/she has listened to all of the names played and has not made a selection. After playing the prompt, IVX 20 forwards the call to the extension, branch or mailbox as programmed in call forward no response.
Default: *"No names matched; one moment please."*
- **End of Message Prompt: 537** — Plays after a caller leaving a message presses **1** to stop recording; the prompt then tells the caller his/her options.
Default: *"To continue this recording, press 1; to return to the main menu, press 8; or, if finished, press * and hang up."*
- **Holiday Main Greeting Prompt: 540** — Plays to callers when the system has been manually placed in holiday mode.
Default: *"Thank you for calling. Our office is closed in observance of the holiday. You may dial your party's extension, at any time, or please call back during regular business hours."*
Note: While in holiday mode, IVX 20 follows night mode programming for call routing. The day/night mode setting and holiday greeting can be activated remotely.

Function 62: Record directory names

What's new: A directory branch (ID18 or the new ID28) can be either an Alpha or an All directory; thus, in Function 62, you can set a name key for the caller to enter.

Enter the extension number and record the name (and, if this is a by-alpha branch, enter the name key.)

Important: Make photocopies of the blank worksheet for preparing directories and making future changes. As names change, you can enter this function and change any field via the Installer password or Administrator password.

1. Ext.	2. Recorded name	3. Key
102	George Straite	4
113	Janet Smith	5

Each programming step is defined as follows:

1. **Extension number** — Enter the extension number for the directory name.
2. **Record name** — Press **1** to begin recording and press **1** again when finished.
3. **Name key** — (Necessary if the directory type is by-alpha). Enter the numeric equivalent to the letters appearing on a phone keypad (for *Q* or *Z*, use *1*).

Note: To re-record the prompt that says, "Enter the first letter of the person's last name," you must enter Function 61 and then enter the ID number of the directory branch.

Function 63: Message-on-hold (MOH) programming

What's new: The ability to record a custom MOH.

MOH can be:

- A live feed from an external music source connected to the MOH connector located on the side of the cabinet.
- One of three default, generic MOHs pre-recorded by the factory.
- A custom MOH loaded into the system by using a cassette recorder connected to the MOH connector.

Function 631: MOH source

This selects the source that will be played to callers on hold.

Code	Source
590	Live external source
591	Pre-recorded music
592	Pre-recorded with <i>"please continue to hold"</i>
593	Pre-recorded with <i>"dial 0 or extension from hold"</i>
594	Customer-recorded message on hold

Default: 592 (generic message-on-hold).

Function 632: MOH recording

1. Connect the message/music source to the MOH port on the side of the cabinet.

Note: The connector is monophonic-only — if you use a stereo source, you must either set it to output mono, if possible, or use a stereo-to-mono conversion cable (or adapter).
2. Enter **5 9 4**.
3. Press **1** to begin recording. To aid you in queuing, the source will be played through the phone's speaker.

Note: The recorded material should not have a "beginning" or "end" — so that playback can loop continuously.
4. Press **1** when finished. The recording will play back so you can review it.
5. Press **#** to accept the recording.



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