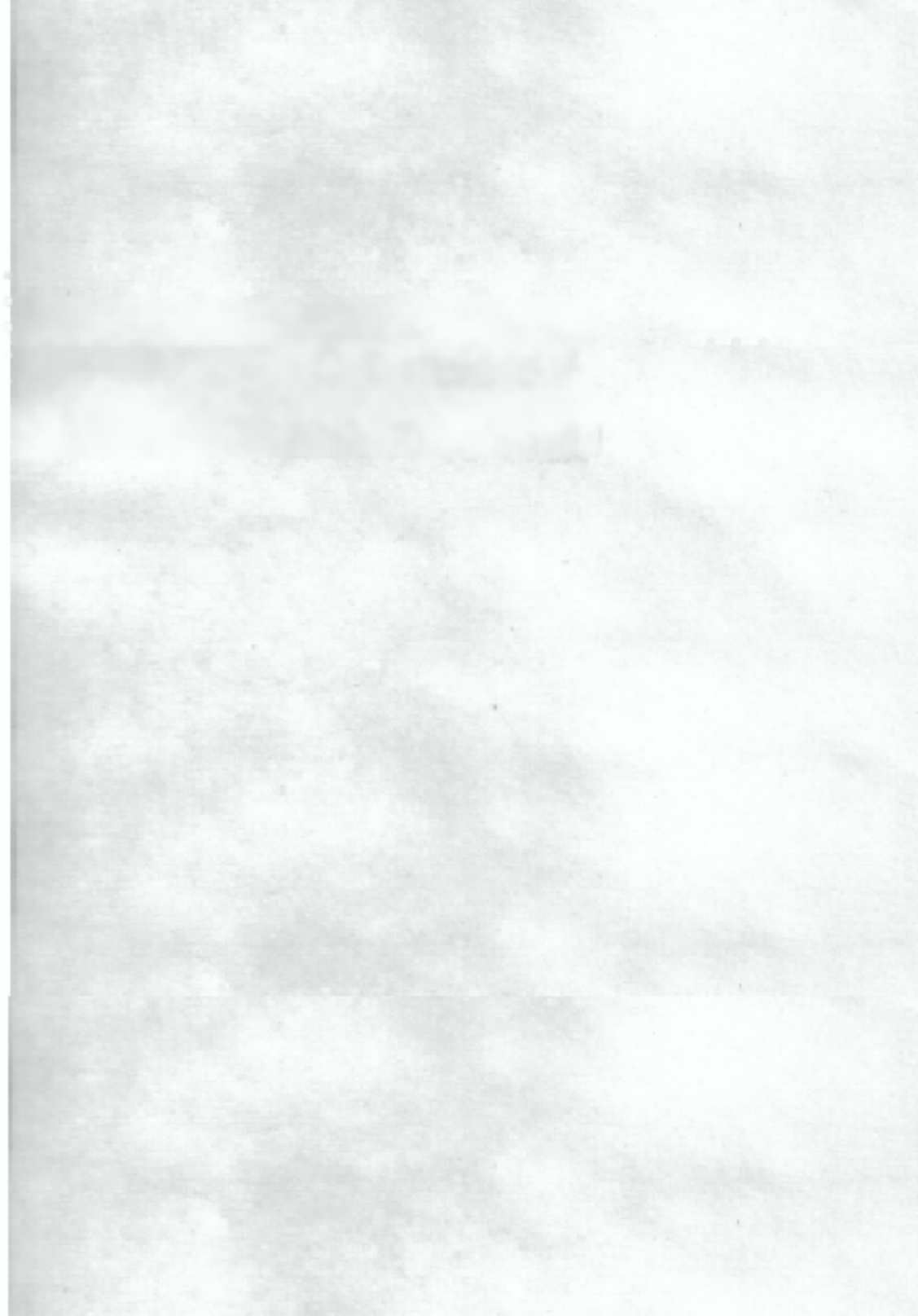


# CINPHONY

**ACD FOR NORSTAR**

Version 1.0  
User's Guide

**CINTECH TELE-MANAGEMENT SYSTEMS**



# Installing CINPHONY

A CINPHONY installation begins with the Norstar telephone equipment. Using your **Norstar Installation Guide**, check to be sure that:

- All required equipment is set up.
- All cabling and jacks are in place.
- The Norstar is programmed correctly for your operation.

CINPHONY installation then consists of following these steps:

1. Install the CINPHONY Processor. Follow the instructions in **The CINPHONY Processor** (later in this chapter) to install cables and set up the processor for operation.
2. Complete the configuration forms. Refer to the background information in **Chapter 3. Understanding CINPHONY Options** for complete descriptions of the configuration choices available.
3. Enter configuration data into the CINPHONY Processor. Follow the instructions in **Chapter 4. Configuring CINPHONY** to make the required screen entries.
4. Program the station sets. Refer to **Chapter 4. Configuring CINPHONY** for instructions for obtaining the feature code assignments. Follow the instructions in the **Norstar Station Set Guides** to implement the programming. Program the station sets to meet CINPHONY requirements (outlined in the last section of this chapter) and to meet your unique combination of ACD and non-ACD communications requirements.
5. Reboot the CINPHONY Processor to reset and complete the configuration files.
6. Test the system. Follow the instructions provided later in this chapter to make final connections, place test calls, make required corrections, and reboot the processor.
7. Begin the CINPHONY experience!

## Equipment Requirements

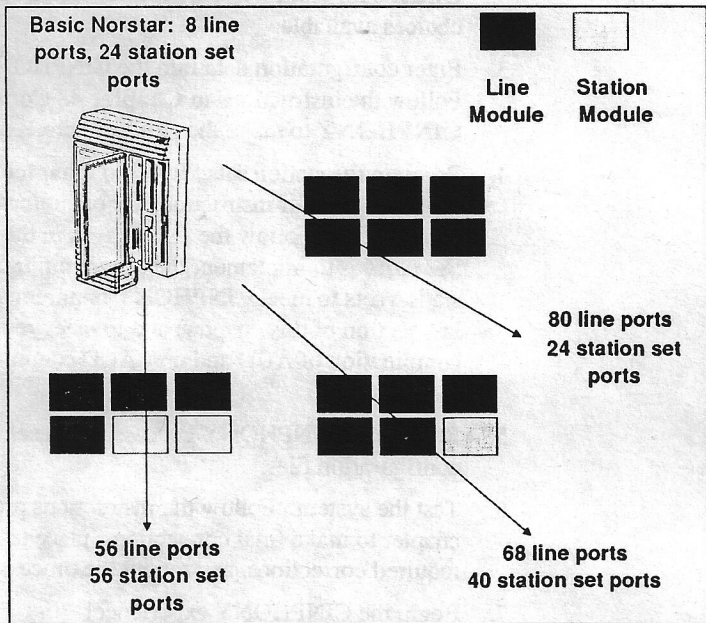
The Norstar must have:

- DR3 software, or
- DR3 Centrex software.

We recommend that your Norstar line modules be equipped with Disconnect Supervision capability, so that CINPHONY can track the length of time callers wait in queue before they hang up. Without Disconnect Supervision, your system has no way of knowing when a caller disconnects an incoming line.

The Norstar comes equipped with 24 station set ports and 8 line ports. The system may be expanded by adding any combination of up to 6 line or station modules. Each module can add up to 12 line ports or 16 station set ports. Figure 2-1 illustrates several possible configurations for the basic Norstar with line modules (12 ports each) and station modules (16 ports each).

Figure 2-1.  
Norstar  
expansion  
examples



## The CINPHONY Processor

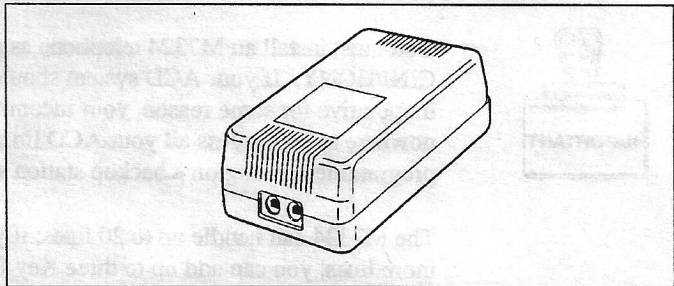
The processor is a 386-based system specifically equipped to run the software and hardware that make up the CINPHONY system.

## Peripherals

The processor accommodates several peripheral and interface cards that make communication with the Norstar possible.

- A custom interface card connects the Norstar system to the processor.
- One or more voice cards enable CINPHONY to deliver recorded announcements. Voice cards record and play back digitally, avoiding the wear and mechanical problems associated with external tape devices.
- CINPHONY uses an internal, 2400-baud, error-correcting modem for remote training or remote problem diagnosis and troubleshooting.
- Analog terminal adapters (ATAs) (Figure 2-3) interface the voice cards and modem to the Norstar.
- A printer (EPSON compatible) is used for printing reports.

Figure 2-3. Analog Terminal Adapter



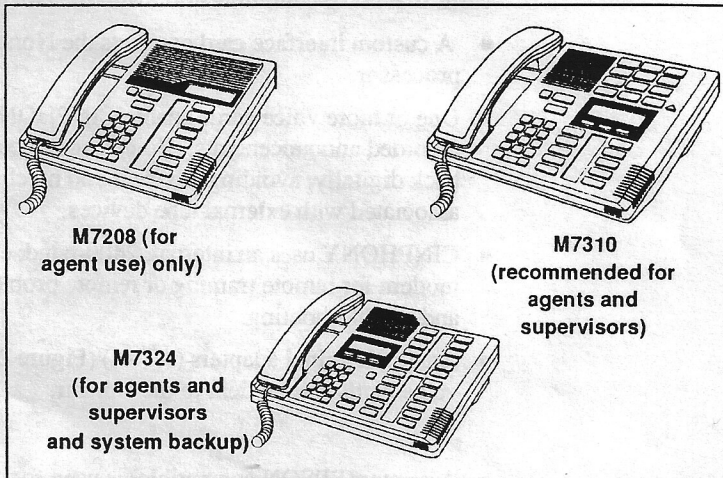
## Processor Location

Two factors determine the location of the processor:

- The processor must be accessible to the person in charge so that status screens are visible, configuration changes can be made, and reports can be run.
- The processor must be within 1000 feet of the Norstar to which it is connected.

**Station sets** The M7310 telephone is the station set recommended for use by agents and supervisors with CINPHONY. Agents may use the M7208; agents and supervisors may also use the M7324. Supervisors cannot use the M7208 telephone. Figure 2-2 illustrates the three models that can be used with CINPHONY.

Figure 2-2.  
CINPHONY  
Station Sets



You must install an M7324 telephone as a backup system for CINPHONY. If your ACD system should become inoperative for some reason, your incoming ACD calls have nowhere to go - unless all your ACD lines are also programmed to ring on a backup station set.

The M7324 can handle up to 20 lines; if your system needs more lines, you can add up to three Key Lamp Modules. To function as a backup, an M7324 must meet two requirements:

- It must be dedicated to its backup function; it cannot be used as an agent or supervisor station set.
- Every line that is handled directly by CINPHONY must have a ringing appearance programmed on it.

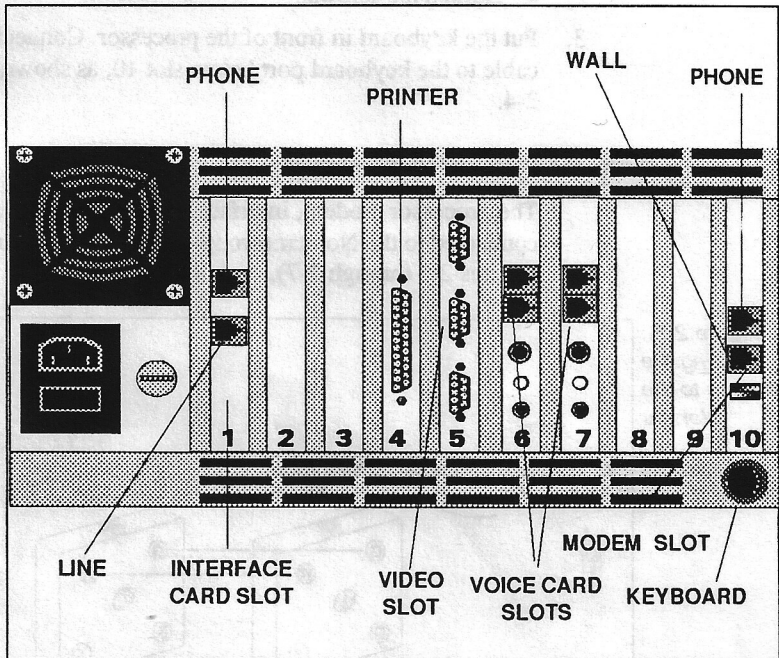
# Installing the Processor

Follow the instructions in this section to install the processor.

## Connecting the Processor Components

In addition to the central processing unit (CPU), the CINPHONY processor consists of a monitor (or screen) for display, a keyboard for data entry, and a printer for reports. Processor components and peripherals connect to the CPU through ports in the back of the unit, as illustrated in Figure 2-4.

Figure 2-4.  
Processor  
Interface Slots



Before you begin connecting the components, place the processing unit on a level surface, within 1000 feet of the Norstar.

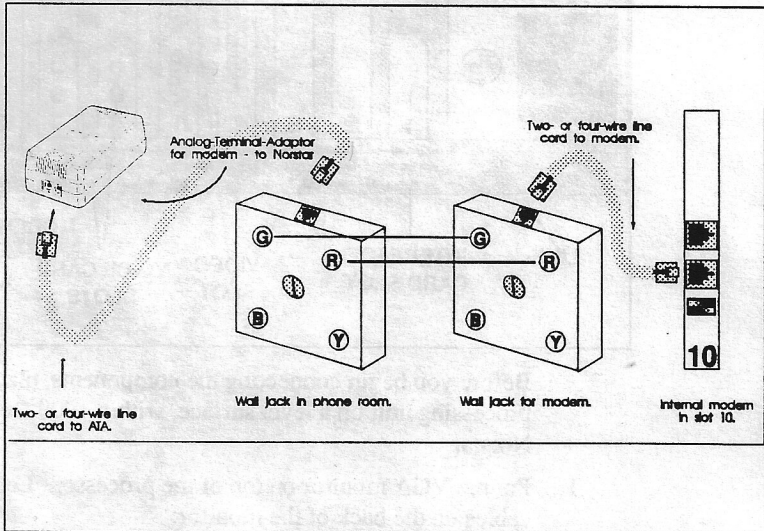
1. Put the VGA monitor on top of the processor. Look at the two cables on the back of the monitor:
  - The power cable ends in a standard three-prong electrical plug.

- The video cable ends with a connector that fits into the center video port in slot 5 on the back of the processor. Connect the video cable to the video port.
- 2. Put the printer on a level surface next to the processor. Note that the printer also has two cables; one is a power cord, the other is a parallel printer cable that connects to the processor.
  - Connect one end of the printer cable to the printer.
  - Connect the other end to the printer port (slot 4, Figure 2-4). Note that the printer cable can only go one way.
  - Tighten the screws.
- 3. Put the keyboard in front of the processor. Connect the keyboard cable to the keyboard port below slot 10, as shown in Figure 2-4.

*Connect the processor to the Norstar.*

The processor modem, interface, and voice cards must be connected to the Norstar through wall jacks (as illustrated in Figures 2-5 through 2-7).

Figure 2-5.  
Wiring the  
Modem to the  
Norstar



1. To connect your modem, refer to Figure 2-5. Using standard two- or four-wire modular line cord with modular plugs at each end:
  - Plug one end of the cord into the wall port in slot 10 (Figure 2-4).

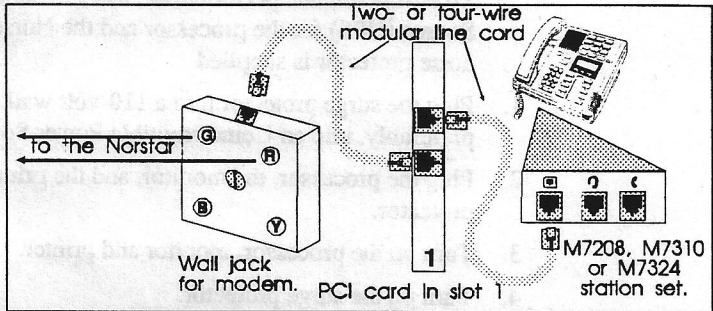


- Plug the other end into a wall jack that is wired to a corresponding jack in the Norstar phone room.

Also shown in Figure 2-5, the Norstar connects to the wall jack in the phone room through an ATA.

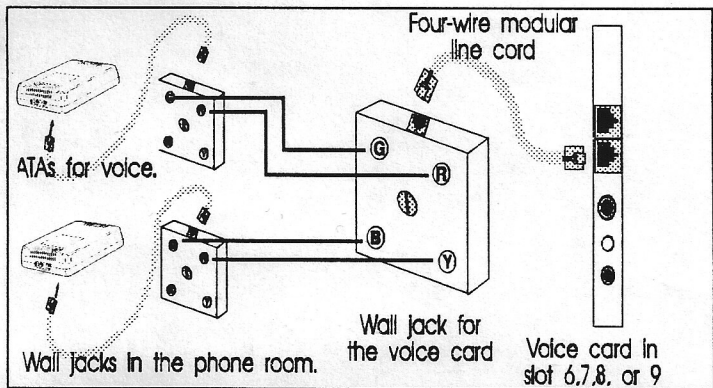
2. To connect the interface card to the Norstar, refer to Figure 2-6. Using standard two- or four-wire modular line cord:

Figure 2-6. Wiring the Interface Card



- Connect the wall port in slot 1 to a wall jack.
  - You may also connect a station set to the phone port in slot 1.
3. To connect one or more voice cards to the Norstar, refer to Figure 2-7.

Figure 2-7. Wiring the Voice Cards



Using standard four-wire modular line cord:

- Connect one end of the cord to the voice port in slot 6.
- Connect the other end of the cord to the wall jack wired to the Norstar.

- Repeat the procedure for each voice card; you must have a jack for each installed voice card.

*Make the required electrical connections.*

To ensure reliable performance, use an Uninterruptible Power Source (UPS) for the processor and the Norstar. A surge/noise protector is supplied.

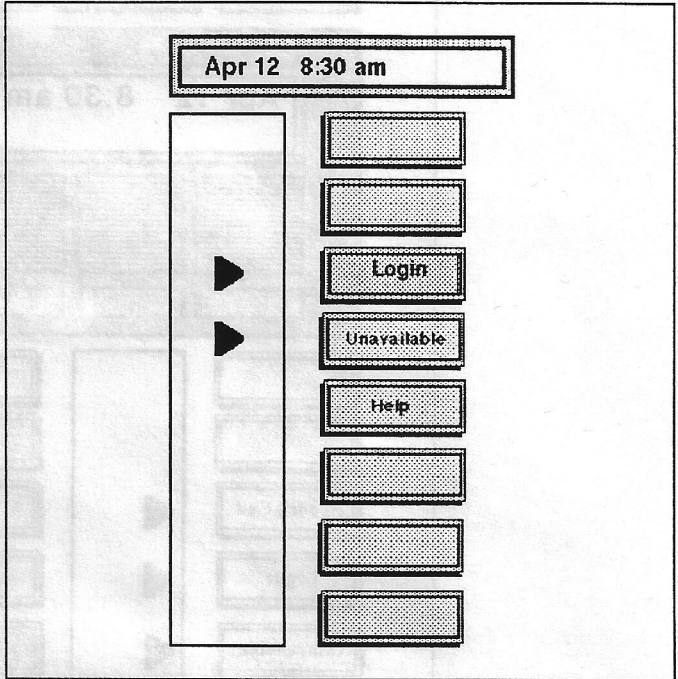
1. Plug the surge protector into a 110-volt wall outlet or, preferably, into an Uninterruptible Power Source (UPS).
2. Plug the processor, the monitor, and the printer into the surge protector.
3. Turn on the processor, monitor and printer.
4. Turn on the surge protector.

# Programming the Station Sets

This section defines the recommended memory key layouts for agent and supervisor station sets.

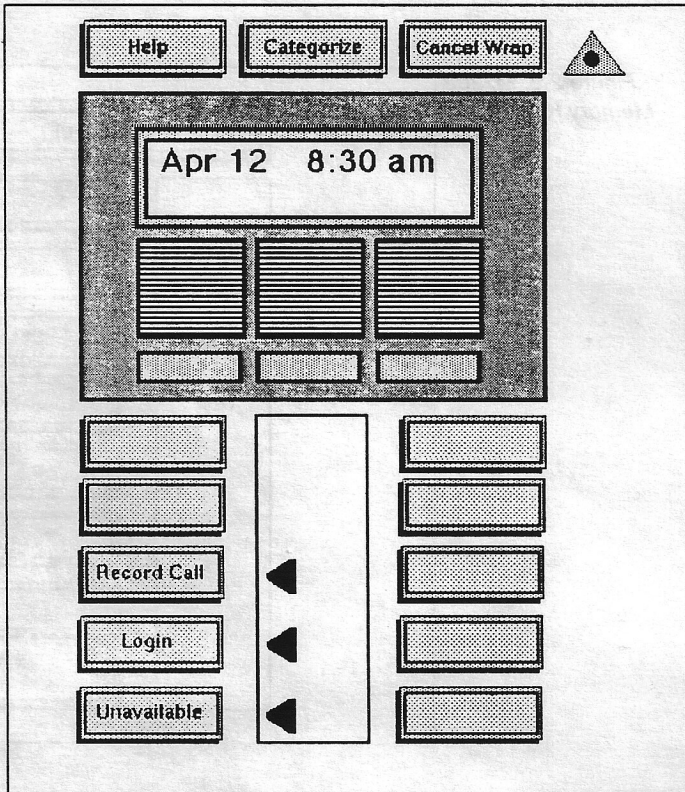
- Figure 2-8 shows memory keys on an M7208 programmed to perform Login/Logout, Unavailable/Available, and Help functions.

Figure 2-8. M7208  
Memory Key Layout  
for Agents



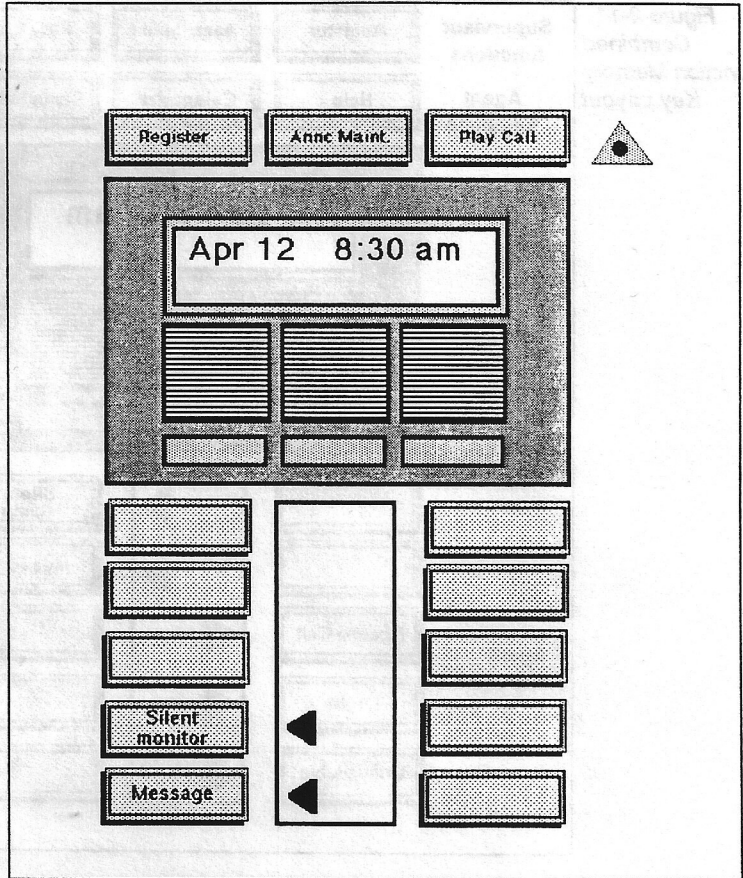
- Figure 2-9 shows a memory key layout for an agent's M7310 station set. The additional memory keys allow additional functions - call categorization (Categorize), call recording (Record Call), and terminating wrap (Cancel Wrap) - to be programmed into the station set. .

Figure 2-9. M7310 Memory Key Layout



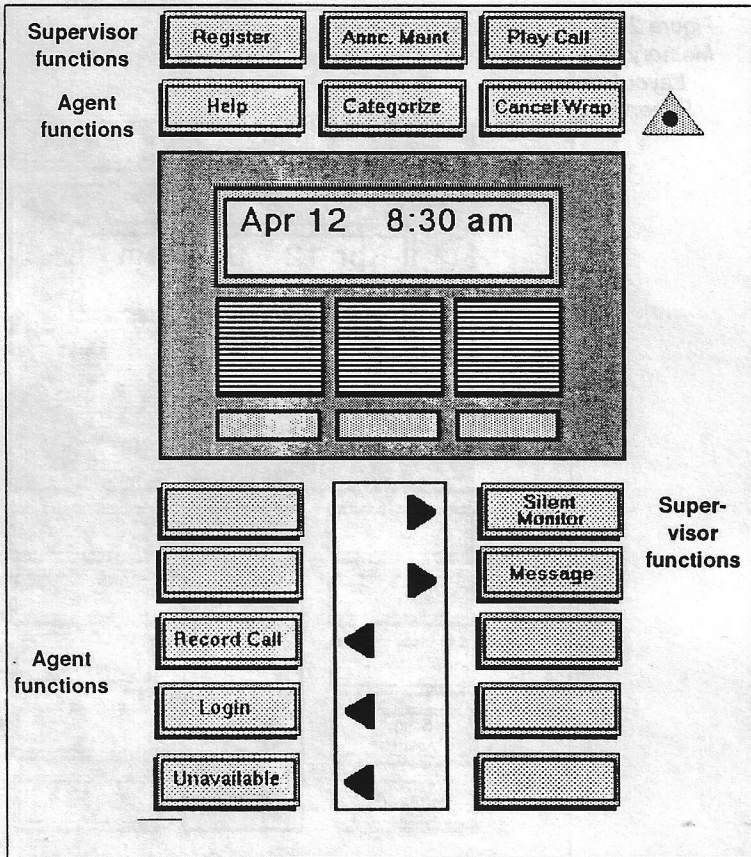
- Figure 2-10 shows a memory key layout for a supervisor's M7310 station set. The memory keys are programmed to perform the supervisor's functions: registering (Register), maintaining announcements (Annc Maint), playing calls (Play Call), retrieving messages (Messages), and monitoring agent performance (Silent Monitor).

Figure 2-10.  
Memory Key  
Layout for  
Supervisor



- Figure 2-11 shows a memory key layout for an M7310 that may be used by either an agent or a supervisor. When an agent logs in on this station set, the agent functions are active. When a supervisor registers on the station set, the supervisor functions are active. An agent and supervisor cannot log and register onto the same station set simultaneously.

Figure 2-11.  
Combined  
Function Memory  
Key Layout



# Programming the Norstar

---

The **Norstar Coordinator Guide** provides complete instructions for programming your telephone system. The **Modular Programming Record** that comes with the **System Coordinator Guide** helps you plan your programming. As you program the system, remember the **CINPHONY** requirements that affect Norstar programming:



- A line that is to be handled directly by **CINPHONY** cannot have an appearance of any kind - ringing or non-ringing - on an agent's station set. If you put a line on a **CINPHONY** Line List configuration screen, you cannot program or assign it to an agent's station set.
- Make **CINPHONY** lines public or line pool and set **PRIME** equal to **NONE**.
- Lines should be set as **Supervised**.
- Agents may never call forward their station sets when logged in. An agent who wants to receive calls at another station set must logout and then log in at the other station set.
- All **CINPHONY** lines must have a ringing appearance on the **M7324 CAP**.
- All **ATA** extensions must have **PRIME** equal to **I/C**.
- Hold source is heard by both **CINPHONY** and non-**CINPHONY** callers.
- A minimum of two intercom buttons on each station set is recommended. **CINPHONY**'s lines ring on the intercom button because they are not assigned to a station set.
- A non-**ACD** line can be assigned to an agent's station set. When a call comes through on the non-**ACD** line, the agent cannot receive a **CINPHONY** call until the non-**ACD** call is completed. When the agent is on a **CINPHONY** call, calls can still be received on the non-**ACD** line.
- When an agent transfers a call, the agent gets a seven-second wrap. This allows the call to come back to the agent if the extension is busy.