2524 ChronoCom Master Clock and Intercom Controller
Operation

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General Information

The Two Functional Modes

As its name signifies, the ChronoCom unit *an* perform two distinct functions: chronometric (clock) and communications. Its master-clock functions Include keeping time, controlling different events (e.g., **ringing bells, turning lights** and equipment on and off), and correcting secondary clocks. Its communiations functions Include showing all-ins from associated room stations; using its dial pad for calling rooms, paging, **and distributing a program source; checking** the room-station wiring for faults; and monitoring room stations.

Variations in Equipment

Which operations a given 2524 will run depends In part upon what other equipment is In the system. The most obvious example is the "Comm" mode, which requires such items as a Director Intercom control panel, speaker relay panels, and room speakers. As you go through this manual, you may find it helpful to place a check mark next to the operations that apply to your system, or to cross out those that do not apply.

Variations in Programming

The other major factor that determines which operations the 2524 will run is the programming. For ample, the 2524 will not even enter the "Comm" mode unless that has been enabled. See the programming manual, KI-1629, for complete information.

Changing Run Modes

When the 2524 is in the Clock Run **Mode, the "Clock"** LED remains lit and its displays show the time of day, any event-zone activities, the day of the week, and the current schedule. In the "Comm" Run Mode, only **the "Comm"** LED will be lit; the "Station" window will be dark unless **it is** displaying the number of a room that Is **calling in or is** in communication with the system opentor.

Automatic Switching

As soon as it detects a all-in or its numerical keys are used to dial a mom, the 2524 automatically switches from the Clock Run Mode to the "Comm" Run **Mode. When all** suchcommunications have ended, the 2524 automatically switches back to the Clock Run Mode.

Exception: **If you** manually switch from the 'Comm" to the Clock Run **Mode** while a all-in Is displayed, *the* 2524 will not return to the "Comm" Run Mode **until you switch it back manually. The** 2524 will continue to **signal waiting** all-ins with **a** "beep," but you will not be able to answer them from the 2524 until you switch it back to the "Comm" Run **Mode.**

Manual Switching

Because the 2524 displays little Information in the "Comm" Mode and **automatically** switches to it for all-ins. you should not normally switch modes *manually*. However, you will have to switch to the "Comm" mode before you an begin certain "Comm" functions (and to the clock mode for its functions).

Press *Clock/Comm* to toggle the operation modes.
* The "Clock" or **"Comm"** LED will **light to show which mode** the 2524 is currently in, and the display will change, as described in the introduction to this subsection.

Clock Mode

Run-Mode Displays

While the 2524 **is in** the Clock Run Mode, its front-panel windows and LEDs will display the following information:
✓ The "Mode" window will show "0."
✓ The "Time" **window will show** the current time.
✓ The "AM" or "PM" LED will be lit (if the 2524 is in the 12-hour mode).
✓ Each **"Zone/Output LED will** light whenever its corresponding output is active for an "event" (time **tones, music during a class change,** running equip-ment). paging, or clock-correction activities.
✓ The appropriate "Days" LED will be lit.
✓ The "Sched" (Schedule) window will show which schedule is currently running.
✓ The "Music" LED will light if a music event is running.
✓ The "Clock" LED will be lit.

Show the Date

To display the date on rhc front panel, hold in *Enter*.
"*The* "Time" window will show the month and day. Releasing Enter will return the normal display.

Preview the Next **Event**

To see what event the 2524 will run next, hold in the right cursor (→).

* The "Time" window will show the time when the event will start, the "Zone" LEDs will light to show which zones will be activated, and, if the event includes music, the "Music" LED will light. Releasing the cursor key will bring back the normal time display. If no more events are to run on that day, the 2524 will "beep" and leave the display unchanged.

Manually Disable All Events

This function allows you to temporarily stop all events from running.

Step 1. Push *Manual*, then *Erase.*
» The "Time" window will read "Off," and no events will be carried out.
Step 2. To return the 2524 to its normal opention. press *Clear.*
» The "Time" window will show the time again, and the 2524 will arty out events at their scheduled **times (however, it will not run any events that were skipped).**

Manual Zone Activation

This function an be used to activate any "Zone-Outputs" desired (except those used for correcting clocks). Depending upon what is wired to the selected outputs, result could be sending time to. ies or activating lights d equipment. This manual activation an be used to send a special signal or to test the system.

Step 1. Push *Manual.*
» All the available **"Zone" LEDs** will flash.

Step 2. Select the zones by pushing the corresponding numerical keys ("1" for "Zone 1," etc.). To turn a zone back off, push its corresponding key again. To select all zones, press "0."

» As soon as you select a zone, its LED will flash and the others will remain off unless you select them as well.

Step 3. When you have finished selecting the zones, hold in *Enter* for as long as you want to activate them.

» The selected zones will be activated and their LEDs will glow steadily while you hold in *Enter.* Releasing *Enter* will de-activate the zones and cause the LEDs to flash again.

Step 4. To end this function, press *Clear.*
» The "Zone" LEDs will turn off (unless a clock event is taking place).

Test All Speakers

This function enables one person to check, unassisted, whether all the room speakers are operating. It activates all the zones (except those used for clock corrections) for **a limited number of seconds** (determined by the Clock Mode 5 programming) and automatically repeats **the test** every minute.

Step 1. Push Manual, then *Funct.*
» *The* "Time" window will display **"CH--"** ("Cheek"), and the 2524 will momentarily activate all of the event zones every minute.

Step 2. tier verifying that the proper 'Zone" LEDs are lighting, walk through the facility to verify that all the room speakers are working.

Step 3. To **end the test Function, press *Clear.***
» **The** "Time" window will revert to showing the time.

"Comm" Mode

Designations of Orange Keys

The orange keys have different names when they are used for "Comm" functions. A special stick-on label, supplied with the clock. lists both sets of names. These names are also listed in the smaller table at the back of this manual.

Answering Call-ins

Step 1. The person at the room station places a all-in by pressing the call-in push button there. Some **rooms** may have two push buttons: one for normal all-ins, and one for priority (emergency) call-ins.

» The 2524 will automatically switch to the 'Comm" Run Mode and flash a "C" (regular Call-in) or a **"P"** (Priority call-in) plus the station's number in the "Station" window. It will "beep" every 10 seconds for normal call-ins or every two seconds for priority call-ins. It will queue all priority all-ins ahead of normal call-ins; within each group, it will queue the call-ins in the order that they were placed. The "Sched" window will show the number of all-ins

waiting (from 1-9); if there are more than nine, it will show "E" ("Exceeds nine").

Step 2. Press the *Answer* key when the all-in is dii played in the "Station" window.

» The 2524 will connect the station to the intercom control panel.

Step 3. Press *Reset* to **end the communications.**
» If more call-ins are present, the 2524 will display the next one in the queue; otherwise. it will switch back to the Clock Kun Mode.

Answering from a Remote Handset

Step 1. Lift the handset from the hook switch.
» The 2 j24 will connect the handset to the station.
Step 2. To end the call, hang up.
» The 2524 will disconnect the station. If there is a call-in waiting. the 2524 will signal this. Otherwise. the 2 524 will return to the Clock Run Mode.

Cancel All Call-ins

This would usually be done only if there are spurious call-ins or if a technician wants to clear the system before

testing it.

Step 1. Press *Program/Erase*.

» The "Station" window will display "Cncl," to warn you that you are about to "cancel" all call-ins.

Step 2. (a) If you do *not* want to cancel the call-ins, press *Reset* to exit this function.

» The 2524 will continue to display the call-ins in the "Comm" Run **Mode.**

(b) To cancel the call-ins, press *Enter*.

» The 2524 will remove all call-ins from its queue and return to the Clock Run **Mode.**

Calling a Room Station

This can be done while the 2524 is in either run mode.

Step 1. Type the station's threedigit Architectural (dialing) Number.

» If the 2524 was in the Clock Run Mode, it will automatically switch to the "Comm" Run **Mode. It** will display the number in the "Station" window and connect that station to the intercom control panel (you cannot make calls with a remote phone).

Step 2. Press *Reset* to end the call.

» Unless a call-in is waiting, the 2524 will return to the Clock Run **Mode.**

Paging

Step **1.** Dial any number from "1" to "8" to select an individual zone, or "0" to select all zones.

» If the 2524 was in the Clock Run Mode, it will automatically switch to the "Comm" Run **Mode. The** number you dialed will flash in the "Station" window.

Step 2. Push *Page.*

» *The* 2524 will show "Page" in the "Station" window, light the LED of the selected zone (or all of the paging zones' LEDs for an All-Page), connect the intercom control panel to all the appropriate room stations, then "beep" for you to start talking.

Step **3.** When you have finished paging, press *Reser* to end the page.

» The 2524 will switch back to the Clock Run Mode if no call-ins are present.

Paging from a Remote Phone

This can only do an All-Page. Simply press the associated *Page* push button, then pick up the handset. To end the page, hang up.

Distribute a Program

You can send an audio program to any stations desired when the system is idle (i.e., no paging, intercom communications, or time tones areoccupying any room stations). You can also add or remove stations while the program is running.

Step 1. If necessary, enter the "Comm" Run Mode, then press *Funct.*

» If the program is already being distributed, the calling number of the one with the lowest Physical h'umbcr (wiring number) will appear in the "Station" window, and the "PM" LED will light to show that this station is receiving the program. If the

program is not being run, the "Station" window will read "000" and the 2524 will "beep."

Step 2. To review stations already receiving the program, press →. To bring up a particular station (whether or not it is already receiving the program), type its number.

» Pressing the right cursor will bring up the next station (according to the wiring) that is receiving the program; when all have appeared on the display, the "Station" window will show "000" and the 2524 will "beep." Typing in a number will cause it to appear in the "Station" window.

Step **3.** To turn the programming on or off for an individual station, press *Program* while its number is displayed in the "Station" window.

» The "PM" LED will light when programming has been selected, and go off when the programming has been canceled.

Step **4. To** end the program distribution, cancel it for each station currently receiving the program. (Use the right cursor arrow to run through all the stations currently receiving the program, and use the *Program* key to turn off the programming for that station.)

Step **5.** To exit this mode (whether or not the program Is running), press *Reset.*

» *The* 2524 will return to the Clock Run Mode.

Monitoring

This function enables you to continuously *listen* to a selected group of stations in order to detect any disturbance that might require a response. The 2524 momentarily connects the intercom control panel to each station in succession, and continues cycling through the stations until you end this function.

Note that the 2524 programming determines which stations are to be monitored, how long the 2524 will pause at each one, and whether this function can be used.

Step 1. To start monitoring the programmed stations, press the right-cursor key (→).

» The 2524 will sequentially connect the selected stations to the intercom panel. As each station is monitored, its Architectural Number will be displayed in the "Station" window.

Note: If a call-in comes in while the 2524 is monitoring, the unit will "beep" and display a "C" or a "P" in the "Sched" window. To answer the call-in, first exit the monitoring function.

Step 2. To stop scanning and remain connected to one of the stations, press *Enter* when its number is displayed in the "Station" window.

» The intercom panel will be in communication with the selected station. To resume scanning, exit (Step 3), then begin afresh (Step I).

Step 3. To stop monitoring. press *Reset*.

» *The* 2524 will return to the Clock Run Mode (or the "Comm" Run Mode, if there is a call-in).

Manual Supervision

The supervision function checks the speaker wiring of selected stations for defects (a short or a break in the wiring). The 2524 can be set to automatically run this

check every hour. You can also run this check manually any time. The 2524 programming selects the rooms co e checked and enables this function.

Step 1. Press *Manual*.

» The "Station" window will show "Sup," to indicate that it is ready to begin the supervision function.

Step 2. To activate the function, press *9*.

If the 2524 finds a faulty line, it will display the station's Architectural Number in the "Station" window and flash

an "F" ("Fault") in the "Schcd" window. If it docs not find any faults, it will return to the Clock Run Mode.

Step 3. If a fault is displayed, press the right-cursor key (→).

. If there are other faulty lines, their Architectural Numbers will appear in turn as you press →. After the last faulty station has been displayed, pressing → will return the 2524 to the run mode.

Quick Reference to Operations

Function	Mode	Key Strokes	Comments
Show the Date	Clock	Hold in *Enter.*	The "Time" window will display the date so long as *Enter* is pressed.
Preview the next **Event**	**Clock**	Hold in right cursor key (→).	The displays will show the next executable event for the current day.
Manually Disable All Events	**Clock**	Press **Manual,** then *Erase.* To re-enable events, press Clear.	The "Time" window will read "Off" while the events are **disabled.**
Activate Zones Manually	**Clock**	Type *Manual* **plus any combination of zones (or "0" for all), then hold in** *Enter.*	The time tone will continue sounding in the selected zones until you release *Enter.*
Test All Speakers	Clock	Press *Manual,* then *Funct.* **Press Clear to end the test.**	The time tones will sound every minute at all stations until you press *Clear.*
Answer a Call-in	Comm	Press *Answer.* To end the communications, press *Reset.*	The station number must be displayed on the front panel before you press *Answer.*
Cancel All Call-ins	Comm	Press *Program,* then *Enter (or Reset* to exit without canceling).	*This* cancels normal and priority call-ins.
Call a Room	Clock or Comm	Dial the number. Push *Reset* to end the call.	The **2524** will automatically switch to the Clock **Run mode after** *Reset.*
Page	Clock or **Comm**	Type in any one zone or "0" **for all, then press** *Funct.* Press *Reset* **to** end the page.	The **2524 will automatically change to the** "Comm" mode and connect the zone or all stations to the control panel.
Run, Review, or Edit Program **Distribution**	Comm	Press *Page/Funct* The 2524 will display the number of a room already receiving the program **(or "000" if** none is). Push → to display the next station receiving the program, or type **the number of each desired station.** Press *Program* to select or de-select **programming** for the displayed station. Press *Reset* to bring back the normal display. To end the program distribution, de-select each room.	**When you are viewing a station number. the "PM" LED** will light to show that the station is receiving the program. As soon as you select programming for the station, it will begin **receiving it.**
Monitor Rooms	Comm	Press → to start monitoring. Press *Enter* to remain connected to the displayed station. Press *Clear* to cancel the monitoring function.	Each station programmed for monitoring is briefly connected in turn to the intercom control panel. Several programming steps are required to enable this function.
Supervise Lines Manually	Comm	**Press** *Manual,* **9, and** → **in succession. If a fault is displayed, press** → **to move on to the next one.**	If no wiring fault is found or you have advanced beyond the last one found, the 2524 will return to the Clock Run Mode.

Note: The table to the right lists the alternate names that the orange keys have, depending upon which mode the 2524 is in. The 2524 itself shows only the clock designations; both designations are on a supplied label that can be applied to the face of the 2524 when it is used for both clock and intercom functions.

The 2524 must be programmed to use the "Comm" functions-see the 2524 programming manual, M-1629.

Alternate Key Names

Clock **Mode**	"Comm" Mode
Enter	Answer
Clear	Reset
Erase	Program
Funct	Page