

Millennium carillon®

Operating Manual

MIDI Compatible
Silver, Gold and Platinum Editions
Version 2.3
with Keylock



Important Safety Instructions

WARNING

When using this electric product, basic precautions should always be followed, including the following:

1. Read all instructions before use
2. Do not use this carillon near water - for example, near a bathtub, washbowl, sink, wet basement, or near a swimming pool, or the like.
3. This carillon, either alone or in combination with a PA amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
4. This carillon should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
5. Care should be taken so that objects do not fall and liquids do not spill into the enclosure through openings.
6. The carillon should be serviced by qualified service personnel when:
 - a) The power supply cord has been damaged; or
 - b) objects have fallen, or liquid has been spilled onto the carillon; or
 - c) The carillon has been exposed to rain; or
 - d) The carillon does not appear to be operating normally or exhibits a marked change in performance; or
 - e) The product has been dropped, or the enclosure damaged.
7. Do not attempt to service this carillon beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

Grounding

This carillon must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This carillon is equipped with a cord having an equipment-grounding conductor and a grounding plug. Do not remove or alter the grounding prong in any manner. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local rules and ordinances.

DANGER

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the carillon is properly grounded. Do not modify the plug provided with the carillon - if it will not fit the outlet; have a proper outlet installed by a qualified electrician.

Lightning

The Millennium Carillon is provided with surge protection circuits. Lightning strikes near, or directly to nearby power lines can cause an excessive surge of voltage that can damage the unit.

Lightning damage is uncommon, but it can occur to any electronic device. We suggest that you unplug all electronic products during storms, especially if you are concerned about it or if you live in an area with frequent and/or severe electrical storms.

As with any valuable equipment purchase, you should review your insurance policy to be sure that your Millennium Carillon is covered for fire, theft, vandalism or damage due to electrical storms.

Radio Interference

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by any combination of the following measures:

- Relocate or reorient the receiving antenna
- Increase the separation between the equipment and the receiver
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The above instructions apply only to units that will be operated in the United States

About this Manual

This manual has been written to help you install and use the Chime Master Systems Millennium carillon. Every precaution has been taken to ensure that it is correct. However, Chime Master Systems assumes no liability for errors or omissions. All specifications and features are for reference only and are subject to change without notice. For exact specifications, contact:

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Typography used in this Manual

Front panel push buttons are shown as **[0]-[9]**, **[CANCEL]** and **[ENTER]**.

Front panel cursor up, down, left, right as **[cursor▲]**, **[cursor▼]**, **[cursor◀]** and **[cursor▶]**.

Remote control push buttons are shown as **[F1]**, **[F2]**, **[F3]**, **[F4]**, **[STOP]** and **[PLAY]**.

Segments of the display that are flashing will be shown in bold type. The display below shows a flashing quarter hour.

MO 3: 15 P SRCH L6 OFF
1225 1464 1313 0000

Reference Tables

Operational Menus

Press [ENTER] to bring up the Main Menu. Press the [cursor▲] or [cursor▼] button until the desired menu selection flashes, then press [ENTER] to go into that menu. Pressing a numeric button for the item number will also quickly access each menu item.

Item	Main Menu Item	Description
0	Tower Performance	Enables the keyboard for performance both inside and outside. Instructions on page 57.
1	Play Selections	Allows pre-recorded and user-recorded selections to be performed manually. Instructions on page 51, and step-by-step on page 15.
2	View/Edit Schedule	Viewer/Editor for the program schedule. Allows searches for selections programmed to play, and modifications to the automatic schedule. Instructions on page 41, and step-by-step on pages 17-19.
3	System Setup Menu	Additional sub-menu with options described in the Setup Table below.
4	Recording Librarian	Titles and categorizes user recordings for retrieval and automatic play. Instructions on page 63, and stop-by-step on page 22.
5	Record a Performance	Inside keyboard performance and recording menu. Instructions on page 59, and step-by-step on page 21.
Item	Setup Menu Item	Description
0	Time Strike/Auto Level	Programs time periods for time striking style and volume level. Instructions on page 47, and step-by-step on page 24.
1	Set System Clock	Allows adjustments to the clock/calendar. Step-by-step instructions on page 23.
2	Voicing Preferences	Allows selection of bell voices for the various factory recorded music arrangements and clock striking selections. Instructions on page 32.
3	Edit Remote Button	Editor for four programmable function buttons and remote control. Instructions on page 53.
4	Seasonal Options	Enables or disables Daylight Saving Time adjustment, and allows customization of the seasonal almanac. Options to select or disable factory recorded musical styles. Options to provide inside/outside muting. Table of options on the following page and instructions on page 28.
5	Chime Tuning	Tune the carillon to a pipe organ that may be other than A-440. Instructions on page 34.
6	Keyboard Sensitivity	Sensitivity adjustments for touch sensitive keyboards. Instructions on page 33.
7	Keyboard Size/MIDI	Automatic MIDI channel select and transposition of keyboard. Instructions on page 33.
8	Time Strike Melody	Select chiming melody or pattern for clock striking. Instructions on page 50.

Seasonal Options

Available seasonal options are described in the following table. You may set each option to **Yes** or **No** with the results shown in each column. See **Seasonal Setup** on page 28 for further instructions.

Seasonal Option	Yes Results	No Results
Auto Daylight Saving Change	The carillon will automatically adjust the clock between Daylight Saving and Standard Time.	The carillon will never adjust the clock.
Use US Patriotic	Independence Day (July 4) and Memorial Day (Last Monday of May).	Continues to play non-seasonal selections.
Play Lenten	From Ash Wednesday until Good Friday.	Continues to play non-seasonal selections.
OFF Good Friday/Saturday	Will not play random selections on Good Friday and Holy Saturday (other bells or specific hymns will continue to ring).	Continues to play Lenten selections on Good Friday and Holy Saturday.
Play Easter	From Easter Sunday until End of April if Marian also selected. Otherwise plays for one week.	Continues to play non-seasonal selections.
Play Marian	August 15 and 22, December 8, and the entire month of May	Continues to play non-seasonal selections
Play Thanksgiving	Thanksgiving Day and the previous Sunday	Continues to play non-seasonal selections
Play Advent	First Sunday in Advent until date selected for 'Christmas from.'	Continues to play non-seasonal selections
Christmas from	Christmas cannot be disabled. The date Christmas starts can be selected from 12/1 to 12/24. If Advent is enabled, Christmas music will continue to play until January 5. If Advent is disabled, then Christmas ends on 12/26.	
Use Pre-recorded 2 Part Arrangements	Factory pre-recorded two part arrangements (Chime with Harp) will play randomly (if option installed).	Will not play Chime and Harp randomly
Use Pre-recorded Full Carillon	Factory pre-recorded full carillon arrangements will play randomly (if option installed)	Will not play Carillon randomly
Speakers On Automatic	Automatically scheduled programs will play: Inside/Outside/Both.	
Speakers On Manual	Remote control, front panel function and Play Selections programs (manual modes) will play: Inside/Outside/Both.	

Random Music Group Codes

Press the [cursor▲] button followed by [1] through [8] to program a single random music selection when the selection number is flashing in the programming screens.

Grp1	Sacred hymns mixed with non-sacred music, follows the almanac seasons (Sacred non-seasonal music is disabled when Easter season is disabled)
Grp2	Sacred hymns mixed with non-sacred music, always non-seasonal
Grp3	Sacred hymns only, follows the almanac seasons
Grp4	Sacred hymns only, always non-seasonal
Grp5	Non-sacred music only, will play patriotic and Christmas in season (Sacred Patriotic and Christmas music will not play)
Grp6	Non-sacred music only, always non-seasonal
Grp7	Patriotic music independent of season
Grp8	Marian hymns independent of season

Enter 70xy (with x and y from the table below) to play multiple random music selections with a single code. These codes cannot be followed by any other selections at the same time slot. Any following selection codes will be ignored.

70xy Random Music Blocks

x (Length of Block)	y (Music Group)
0 Plays four selections	0 Sacred hymns alternated with non-sacred music, always non-seasonal
1 Plays until 5 min before next quarter hour (up to 10 minutes)	1 Sacred hymns mixed with non-sacred music, follows the almanac seasons
2 Plays until end of current quarter hour (up to 15 minutes)	2 Sacred hymns mixed with non-sacred music, always non-seasonal
3 Plays through current and next quarter hour (up to 30 minutes)	3 Sacred hymns only, follows the almanac seasons
	4 Sacred hymns only, always non-seasonal
	5 Non-sacred music only, will play patriotic and Christmas in season
	6 Non-sacred music only, always non-seasonal
	7 Patriotic music independent of season
	8 Marian hymns independent of season

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This section of the Chime Master® Systems Millennium Carillon Operating Manual is organized as several step-by-step procedures that you may refer to after the carillon has been installed. Hookup instructions are found in Section 2, and your initial familiarization of the carillon should begin with Section 3 on Page 35.

Trying Out the System for the First Time

If you have just installed your system, you are probably eager to hear how it sounds. While it is ringing, you may need to adjust the volume level. The Master Level control may be located on the rear panel of the carillon amplifier. Check the installation sheet supplied with the amplifier.

First, insert the key into the front panel key-switch and turn the key on. Now, simply press [1], then [ENTER]. This will ring a call-to-worship swinging bell. To play a musical selection, press [4], then [ENTER].

You have just used two of the four re-programmable functions. These functions are explained on page 15.

Entering Selections

Many of the following pages show how to play or program selections. As you follow those instructions, it will be helpful to know how to enter selections. When a four-digit number is flashing on the display, the system is waiting for you to enter a selection. You may enter the selection using one of the following methods.

To Play Specific Selections

Look the title up in the selections catalog to find the four-digit number for the selection. You can enter specific selection numbers directly using the numeric buttons. When a four-digit selection is blinking, you may also look up the number using the online catalog (see the next page).

To Delete or Change Selections

Press [0] [0] [0] [0] while a selection is flashing, to remove it. To change a selection, just enter a new selection number over the old one.

To Play a Random Selection

Press the [cursor▲] button once to display Grp_, and then press [1] to [8] to select a random music group. You will find these random groups described on page 7, and in more detail on page 44.

To Play a Random Block of Selections

Random blocks are used to schedule random music for a block of time. They are four-digit numbers beginning with 70, and are listed on page 7 and explained on page 45.

To Program a Pause (Automatic Schedule Only)

Use a pause in the schedule to delay subsequent selections a specific number of minutes beyond the even quarter hour. Press the [cursor▲] button twice to display Pau_ followed by [1] to [8] which indicate the number of minutes to delay. Use multiple pauses to increase the delay time.

MO 3:15P SRCH L6 OFF
Pau5 1225 Grp2 7023

This view shows a five-minute pause, which allows Amazing Grace (#1225) to play at 3:20 P.M., followed by a random music selection from group 2, followed by random music filling the quarter hour from group 3.

Access Online Music Titles

To enter a specific music selection, you may do it by title rather than number. This procedure works from the schedule editing screen (as shown), the manual-selection entry screen and the function-button programming screen. You may use this procedure whenever a four-digit selection number is flashing.

Step

1

MO 3:15P SRCH L6 OFF
0000 0000 0000 0000

Press [cursor▼] to open the title index. Select between user selections, chime, carillon or bell ringing libraries then press [ENTER].

Select Series:
Chime Library

2

Music Title Index
ABCDEFGHIJKLMNOPS

Use [cursor◀] or [cursor▶] to select where in the alphabet to open the alphabetical listing then press [ENTER].

3

O Beautiful for
Spacious Skies

Use [cursor▼] or [cursor▲] to scroll through the listing until you find the selection you desire. If you wish to move to another alphabetical index point, press [CANCEL] then return to step 2.

4

MO 3:15P SRCH L6 OFF
1174 0000 0000 0000

Press [ENTER] to use the displayed title. The four-digit selection number will be automatically entered into the editing screen. The next selection field will flash.

Play Selection(s) Using the Manual Mode

Detailed instructions can also be found on page 51.

Step

1

N 3:07 PM MON 07-25
Swng Peal Toll Hymn

If the Standby screen (shown here) is not displayed, press [CANCEL] to return to Standby mode. Press [ENTER] for the "Main Menu."

2

Main Menu
Play Selections

Press [1] to select "Play Selections," then [ENTER].

Edit Play NONSTOP
1225 001 Time(s)

The display will show the last program played in the Manual mode.

3

Edit Play NONSTOP
1225 001 Time(s)

To Play a previously created program:
Press [cursor▶] to get to play. Go to step 6 to continue using this program.

Edit Play NONSTOP
1225 001 Time(s)

To Edit/Create a program to play:
Select Edit by pressing [ENTER].

5

Edit Play NONSTOP
1174 0000 0000 0000

The lower line holds up to four selections, or one selection repeated from 1 to 199 times¹.

Enter the new selection number (see **Entering Selections** on Page 13) and then number of times to repeat. Enter zero then [ENTER] for repeat if you wish to play more than one selection.

6

Edit Play NONSTOP
1225 001 Time(s)

Press [ENTER] to select Play. Press [ENTER] to cue the program.

ENT: Play CAN: Quit
Ready to Play

The selection remains ready to play for up to one hour. To play, press [ENTER] again. To cancel the performance, press [CANCEL].

¹ Pressing [ENTER] when the last three selections are 0000 will display the repeat field. Pressing [0], then [ENTER] when the number of repeats is flashing will display the three additional selection fields.

Stop a Selection or Reject the Entire Performance

(Manual Mode, continued)

3:10 PM MON 07-25
Playing 1225

The current time and the selection number will be displayed until the selection is completed. If additional selections have been entered, the system will retrieve the next one.

ENT: Play CAN: Quit
Ready to Play

The next selection will start to play if "NONSTOP" has been selected. If "STOP" was selected, the system will wait for you to press [PLAY] on the remote control or [ENTER] on the front panel to continue. You may also press the red buttons marked [STOP] or [CANCEL] to reject the next selection.

3:14 PM MON 07-25
Operator Cancel

While a selection is playing, you may reject it by pressing [CANCEL]. If additional selections are programmed, the system will continue to play them unless you press [CANCEL] (twice).

3:14 PM MON 07-25
Canceling All...

After double clicking the [STOP] or [CANCEL] buttons, the display will indicate that all selections were cancelled.

Edit Play NONSTOP
1225 001 Time(s)

After the last selection is complete, the system will remain in the Manual screen for two minutes to allow you to play or edit additional performances. You may press [CANCEL] to quit sooner.

Set the Automatic Play Schedule

Detailed instructions may be found on page 41.

- | | | |
|-------------|---|---|
| <i>Step</i> | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 1 | | |
| 2 | Main Menu
View/Edit Schedule | Press [2] for the "View/Edit Schedule," then [ENTER]. |
| 3 | SU 9:30A SRCH L6 OFF
0000 0000 0000 0000 | This is the time slot navigational mode. Press [cursor▼] or [cursor▲] to set the day. Press [cursor▶] to move to the time fields, then [cursor▼] and [cursor▲] to set the hour and minute of the time slot you wish to program. |
| 4 | SU 9:30A SRCH L6 OFF
1225 1464 1313 0000 | Press [ENTER] and the first selection will flash (this is the programming mode. Four digit selections may be directly entered from the Selections Catalog. Four zeros will clear a selection. Pressing [cursor▲] will allow random selections and pauses to be entered. See page 13 for selection entry instructions. |
| 5 | SU 9:30A SRCH L6 OFF
1225 1464 1313 0000 | Press [ENTER] to save the program in memory. Go back to step 3 to set additional times to play. The selections will carry forward to subsequent time slots. |
| 6 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [CANCEL] to return to Standby mode. |

While a selection is flashing:

[cursor▲]= Grp (Random Music Group)

[cursor▲][cursor▲]= Pau (1-8 Min. Pause)

[cursor▼]= Online Title Catalog

Review the Automatic Play Schedule

Detailed instructions may be found on page 41.

- | | | |
|-------------------------|--|--|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the “Main Menu.” |
| 2 | Main Menu
View/Edit Schedule | Press [2] for the “View/Edit Schedule” screen, then [ENTER] . |
| 3 | SU 9:30A SRCH L6 OFF
0000 0000 0000 0000 | Press [cursor▶] [cursor▶] [cursor▶] to select SRCH (search). |
| 4 | SU 9:30A SRCH L6 OFF
1225 1464 1313 0000 | Press [cursor▼] and [cursor▲] to step forward and backward through the schedule. Only time slots with selections scheduled to play (on the lower line) will be displayed. To check time strike and level settings (top right line), select the day, hour or minute using [cursor◀] and [cursor▶] , then step through the schedule. |
| 5 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [CANCEL] to return to Standby mode or [ENTER] to edit the displayed time slot (see pg. 19) |

Make Changes to the Automatic Play Schedule

Detailed instructions may be found on page 41.

- | | | |
|-------------------------|---|---|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
View/Edit Schedule | Press [2] for the View/Edit Schedule, then [ENTER]. |
| 3 | MO 3:15P SRCH L6 OFF
0000 0000 0000 0000 | Press [cursor▶][cursor▶][cursor▶] to select SRCH (search). |
| 4 | SU 9:30A SRCH L6 OFF
1225 1464 1313 0000 | Press [cursor▼] and [cursor▲] to step forward and backward through the programmed schedule. To go to a time slot without a program, select the day, hour or minute using [cursor◀] and [cursor▶], then step through the schedule by time or day using [cursor▼] and [cursor▲]. |
| 5 | SU 9:30A SRCH L6 OFF
1225 1464 1313 0000 | Press [ENTER] and the first selection will flash. Four digit selections may be directly entered over existing ones. Four zeros will clear a selection. Pressing [cursor▲] will allow random selections and pauses to be entered. |
| 6 | SU 9:30A SRCH L6 CHM
1225 1464 1313 0000 | To change volume level and time strike settings, use the [cursor▶] and [cursor◀] to cause them to flash. Numeric buttons 1 through 8 may be used to enter new volume levels. Press [cursor▲] when Time Strike status is flashing to select between Chiming and Strike modes. Press [cursor▼] to disable clock striking. |
| 7 | | Press [ENTER] to save the changes in memory. Go back to step 4 to make further changes. |
| 8 | | Press [CANCEL] to return to Standby mode. |

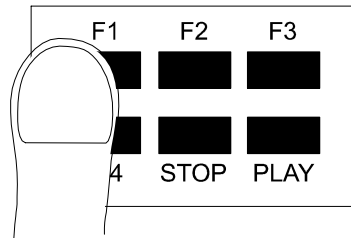
Turn on the Keyboard Using the Remote Control

Detailed instructions may be found on page 57.

Tower Performance (inside and outside)

Step

1



Use your thumb to press **[F1]** and **[F4]** at the same time. The keyboard light will come on when the system is ready to play.

2

Bronze Bell Carillon
Swng Peal Toll Voice

Press **[F4]** to sequence through the available voices (if voice options are installed, otherwise button 4 will play random hymns). The system always remembers the voice you last selected for the keyboard.

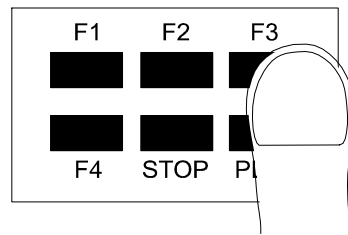
3

When you are finished performing on the keyboard, you may exit this mode, either by pressing **[STOP]** or by selecting one of the programmed function buttons **[F1]** to **[F3]**. The keyboard light will go off.

Inside Only Performance

Step

1



Use your thumb to press **[F3]** and **[PLAY]** at the same time. The keyboard light will come on when the system is ready to play.

2

Bronze Bell Carillon
Recd Play Save Voice

Press **[F4]** to sequence through the available voices. The system always remembers the voice you last selected for the keyboard.

3

While this mode provides quick access to playing inside, you are really in the Record Menu's practice mode. Buttons **[F1]** to **[F3]** perform the same recording operations detailed on the next page.

4

Press **[STOP]** twice when you are finished. The keyboard light will go off.

Record a Keyboard Performance with the Front Panel

Detailed instructions may be found on page 59.

- | | | |
|-------------------------|---|---|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
Record a Performance | Press [5] to select "Record a Performance," then [ENTER]. |
| 3 | Record Menu
Recd Play Save Voice | Press [4] repeatedly until the bell voice you wish to use is displayed. You may audition the voice and rehearse for the recording at this time. |
| 4 | Replace Last Take?
Yes/F1 No/Cancel | The lower line labels the record menu buttons (duplicated on the remote control). Press [1] to begin recording. If the last recording wasn't saved to permanent memory, you will have to press [1] again to overwrite it. |
| 5 | Record Performance
Ready to Begin.. | Play your performance on the keyboard. The bar graph will indicate the amount of selection recording memory remaining. You should only record one song per recorded selection. |
| 6 | Record Performance
 | End the selection by pressing [CANCEL]. The system will assume that you are at the end of the recording after 15 seconds of silence. |
| 7 | Verify OK
Saved Selection 8068 | Press [2] to play back your recording. If you like it, press [3] to save it to permanent memory. The system briefly displays the selection number that it assigns to the recording. Write it on a log sheet with the song title to make adding selections to the library easier. The system will occasionally skip sequential numbers in order to store selections efficiently. |
| 8 | | Press [CANCEL] to return the system to Standby Mode or to access the Record Librarian screen. |

Add a Recording to the Library with Title and Category

Detailed instructions may be found on page 63.

- | | | |
|-------------------------|--|---|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
Recording Librarian | Press [4] to select "Recording Librarian," then press [ENTER]. If the display says, 'Option not installed,' see page 67. |
| 3 | Warning! Can't Undo
Permanent Changes | A warning will be displayed that the changes made will affect permanent memory. Press [ENTER] if you wish to continue. |
| 4 | User Music Librarian
New/Edit Recordings | Press [ENTER] to select New recording, or [cursor▶] to select Edit a previously titled selection. Press [cursor▲] or [cursor▼] to locate selection number to be edited. |
| 5 | Untitled 8127
8127 Play Not Random | Press [cursor▶] to make Play flash, then [ENTER] to play selection. If you are sure of the selection, you may [cursor▶] to season/category. |
| 6 | Untitled 8127
8127 Play Patriotic | When selection is complete, category field will be flashing. Use [cursor▼] and [cursor▲] to select category, then press [ENTER]. |
| 7 | My Country Tis Of Thee
8127 Play Patriotic | Use the letter keys to title selection. Use [cursor▶] to advance to the next letter or for a "space" in the title. Press [ENTER] when complete or to quit. |
| 8 | My Country Tis Of Thee
8127 Save Patriotic | After you have titled the selection, Play will change to Save . Press [ENTER] to make your changes permanent. Go to step 5 to continue to process all new recordings. |

Set the Time Clock

Temperature compensated crystal clock circuitry gives the clock accuracy greater than +/- two minutes per year. Periodic checks and settings of the clock may be necessary to insure accurate operation of the system. The clock is factory set to your local time before shipment and should not require setting at the time of installation.

- | | | |
|-------------------------|--|---|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
System Setup Menu | Press [3] to select "System Setup Menu," then [ENTER]. |
| 3 | Setup Menu
Set System Clock | Press [1] to select "Set System Clock," then [ENTER]. |
| 4 | 3:10 PM MON 07-25
Year = 2004 Set Time | Use [cursor◀] and [cursor▶] to select hour, minutes, month, day and year, then use [cursor▲] and [cursor▼] to change settings. |
| 5 | Setting Real Time
Clock... | Use [cursor▶] to select Set Time, double check settings (especially AM/PM) and press [ENTER] to start the clock from the selected time. |

If the carillon system is also used to control tower clock dials, the following screen will appear to let you synchronize the tower clocks with the system time. Enter the time to which the tower dial hands point.

- | | | |
|----------|--|--|
| 6 | Tower clock dial
Hands indicate: 3:08 | Press [cursor▲] and [cursor▼] to change settings to match the tower dials. Tower dial movement is suspended while the time setting screens are active. |
|----------|--|--|

Set Clock Chiming and Volume Levels (Globally)

Detailed instructions may be found on page 47.

- | | | |
|------------------|---|---|
| Step
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
System Setup Menu | Press [3] to select “System Setup Menu,” then [ENTER] . |
| 3 | System Setup Menu
TimeStrike/AutoLevel | Press [0] , then [ENTER] to select the “TimeStrike/AutoLevel” screen. |
| 4 | 12A to 12A LEVEL: 6
SUN . . SAT SET PROG | Use the [cursor▼] and [cursor▲] buttons to change the beginning time. |
| 5 | 12A to 12A LEVEL: 6
SUN . . SAT SET PROG | Press [cursor▶] to select ending time, then change with [cursor▼] and [cursor▲] . The program will be set from the beginning time up to, but not including, the ending time. For example: 8A to 10P will program from 8:00 AM to 9:59PM. |
| 6 | 12A to 12A LEVEL: 6
SUN . . SAT SET PROG | Similarly, select and change the beginning day, ending day, and the program type/level as shown in the table below. |
| 7 | 12A to 12A LEVEL: 6
SUN . . SAT | Select “Set Program” and then press [ENTER] to put the selected program into schedule memory. |
| 8 | Modifying
Program Memory | When finished, press [CANCEL] . You should verify all changes using the View/Edit Schedule mode screen. |

Level:1 (Softest)	TS OFF	(Time Strike OFF)
Level:2	Full Chm	(Chime Clock All Quarters)
Level:3	Half Chm	(Chime Clock on Hour and 1/2 Hour)
Level:4	Top Chm	(Chime Clock on the Hour Only)
Level:5	Chm Stk	(Chime Clock on the Hour, 1-Strike Quarters)
Level:6 (Normal)	Full Stk	(Strike the Hour, 1-Strike Other Quarters)
Level:7	Half Stk	(Strike the Hour, 1-Strike the 1/2 Hour)
Level:8 (Loudest)	Top Stk	(Strike the Hour Only)

Reprogram the Remote Control Function Buttons

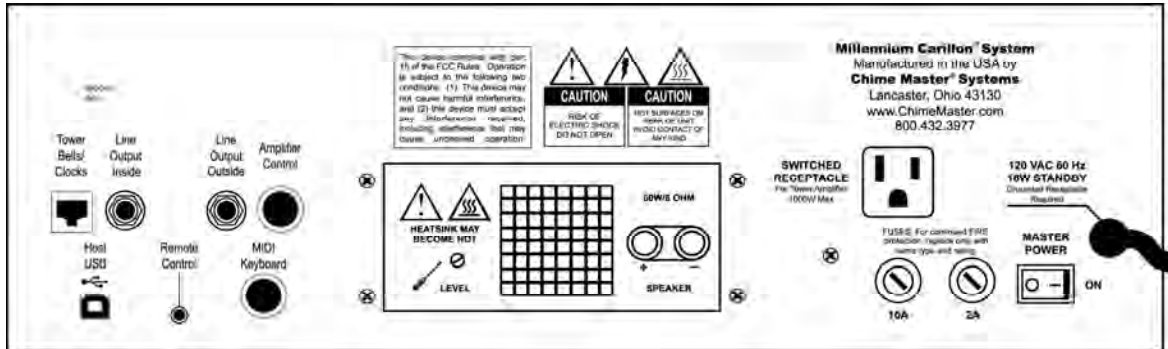
Follow these steps to reprogram the four function buttons at the top of the front panel keypad and on the remote control. Detailed instructions may be found on page 53.

- | | | |
|-------------------------|---|---|
| <i>Step</i>
1 | N 3:07 PM MON 07-25
Swng Peal Toll Hymn | Press [ENTER] for the Main Menu. |
| 2 | Main Menu
System Setup Menu | Press [3] to select “System Setup Menu,” then [ENTER] . |
| 3 | System Setup Menu
Edit Remote Button | Press [3] to select “Edit Function Button” then press [ENTER] . |
| 4 | F1 Swng Wait Nonstop
1123 001 Time(s) | Use [cursor▼] to select which function button (F1-F4) to reprogram then press [ENTER] . |
| 5 | F1 Swng Wait Nonstop
1123 001 Time(s) | Input the new selection number (see To Enter Selections on the next page) and number of times to repeat. Press [0] then [ENTER] in the repeat field if you wish to play more than one selection. |
| 6 | F1 Swng Wait Nonstop
1123 001 Time(s) | Press [cursor▶] to select the button label. You may select each letter and change it using the [cursor▲] and [cursor▼] buttons. |
| 7 | F1 Swng Wait Nonstop
1123 001 Time(s) | Select and change WAIT/NOW! and STOP/NONSTOP flags by pressing [cursor▶] to select the desired field and then [cursor▲] to change the options. |
| 8 | F1 Swng Wait Nonstop
1123 001 Time(s) | Press [ENTER] to save your changes then [CANCEL] to exit when the function number is flashing. |

A single selection may be repeated up to 199 times. To change from multiple selections to a single selection for repeating, zero out the last three selections and press **[ENTER]**. Key in the number of repeats and press **[ENTER]** again.

Section 2

Connections and Setup



AC Power

Power supplied to the Chime Master System should be from a properly grounded receptacle connected to a clean circuit capable of providing 10 Amps of current. By clean, we mean that the circuit should not also provide power to large motors associated with air conditioners or refrigerators. Most electrical supply and hardware stores sell simple test plugs that can verify that the receptacle is wired properly.

Surge suppression components are built-in to the carillon. For additional protection, you may add a surge suppressor to the receptacle that the carillon plugs into. You may also consider having an electrician install a lightning/surge suppressor to the circuit breaker panel supplying any of your electronic equipment.

Amplifier Connections

Typical Tower Amplifier Connections

Typically, the carillon power amplifier is stacked under the carillon module. The rear panel of the carillon module has an unbalanced ¼" phone jack labeled *Line Output, Outside*. A cable with a ¼" phone plug is attached to the Chime Master Carillon Amplifier, and should be plugged into this jack.

The power cord from the amplifier plugs into the receptacle on the rear panel of the carillon module labeled *Amplifier Power*.

Remote Amplifier Option

Balanced audio and amplifier power control are available on the *Amplifier Control* jack. We will supply special cables and hookup instructions when this connection is used.

Tower Speaker Connections

Follow the instructions for connecting the tower speakers that were included with the tower amplifier.

Inside Monitoring Systems

Optional Organ Chamber Speaker Connections

An optional monitoring system may be built-in for inside listening. A pair of 3-way binding posts are located near the center of the rear panel and labeled *60W/8 Ohm Speaker*. A control located on the right of the carillon front panel controls the level of the built-in monitor speaker as well as speaker(s) connected to the monitor speaker jacks. Do not connect speakers to the carillon that are simultaneously connected to any other device.

Sanctuary PA System Connections

The rear panel of the Modular Millennium carillon has a ¼" phone jack labeled *Line Output, Inside*. This output carries an unbalanced line level signal suitable for connecting to the Line Input of a nearby PA or instrument amplifier.

Plugging a cable into this jack will mute the carillon's built-in speaker. If you should wish to mute the speaker without making a connection to the PA system (because you're using monitor speakers described in the preceding section), you may insert a ¼" plug without a cable, such as an RCA to ¼" adapter.

The monitor level control located on the right of the carillon module front panel also controls the output level of the PA System jack.

Keyboard Connections

A 7 pin circular DIN jack on the rear of the Millennium Module allows connection of either a Chime Master keyboard (supplied with a 7 pin cable) or a compatible MIDI keyboard (requiring a standard 5 pin MIDI cable). The length of the keyboard cable should be less than 50 feet. Lengths greater than 50 feet can be accommodated using a line driver extension accessory available from Chime Master Systems.

Optional keyboard scanner adaptors are available that convert the electrical keying voltages available on an electric pipe organ console to play the carillon.

Remote Control Connections

The remote control receiver plugs into the *Remote Control* jack located on the rear panel. If the supplied cable is not sufficiently long enough for proper positioning of the receiver, a 1/8" stereo headphone extension cable may be employed.

Seasonal Setup

The Millennium's primary strength is its 'set it and forget it' ease of programming. The seasonal almanac makes this possible and you have total control. In addition to daylight saving time, you may enable or disable liturgical seasons and set the date in December that Christmas music begins to play.

To enter the seasonal options setup menu from Standby mode, press [ENTER] to bring up the Main Menu, [3] to select the setup menu, [ENTER] to go to the Setup Menu, [4] to select

Seasonal Options, then **[ENTER]**. The lower line displays the current seasonal option on the left and its current setting on the right.

[◀cursor] and **[cursor▶]** buttons select between the left and right sides of the screen. When the left side of the screen is flashing, **[cursor▼]** and **[cursor▲]** move forward and back through the list of options. When the right side of the screen is flashing, the cursor buttons turn into **[YES]** and **[NO]** buttons allowing the features to be enabled or disabled. When the Christmas From option is displayed with the right side of the screen is flashing, **[cursor▼]** and **[cursor▲]** move forward and back through the list of dates Christmas can begin.

When the right side of the screen is flashing, **[ENTER]** advances through the list of options. So the easiest way to go through the menu is to press **[YES]** or **[NO]** to enable or disable the option, then **[ENTER]** to go to the next option. When you press **[ENTER]** for the last option, all options are saved. Pressing **[CANCEL]** at any time exits without saving your changes.

Available seasonal options are described in the following table.

Seasonal Option	Yes Results	No Results
Daylight Time	The carillon will automatically adjust the clock between Daylight Saving and Standard Time.	The carillon will never adjust the clock.
Patriotic	Independence Day (July 4) and Memorial Day (Last Monday of May).	Continues to play non-seasonal selections.
Lent	From Ash Wednesday until Good Friday.	Continues to play non-seasonal selections.
OFF Good Friday/Saturday	Will not play random selections on Good Friday and Holy Saturday (other bells or specific hymns will continue to ring).	Continues to play Lenten selections on Good Friday and Holy Saturday.
Easter	From Easter Sunday until End of April if Marian also selected. Otherwise plays for one week.	Continues to play non-seasonal selections.
Marian	August 15 and 22, December 8, and the Entire month of May	Continues to play non-seasonal selections
Thanksgiving	Thanksgiving Day and the previous Sunday	Continues to play non-seasonal selections
Advent	First Sunday in Advent until date selected for 'Christmas from.'	Continues to play non-seasonal selections
Christmas from	Christmas cannot be disabled. The date Christmas starts can be selected from 12/1 to 12/24. If Advent is enabled, Christmas music will continue to play until January 5. If Advent is disabled, then Christmas ends on 12/26.	
Use Pre-recorded 2 Part Arrangements	Factory pre-recorded two part arrangements (Chime with Harp) will play randomly (if option installed).	Will not play Chime and Harp randomly
Use Pre-recorded Full Keyboard Arrangements	Factory pre-recorded full carillon arrangements will play randomly (if option installed)	Will not play Carillon randomly
Speakers On Automatic	Automatically scheduled programs will play: Inside/Outside/Both.	
Speakers On Manual	Remote control, front panel function and Play Selections programs (manual modes) will play: Inside/Outside/Both.	

Daylight Time

When enabled, Daylight Saving Time (DST) will be entered on the second Sunday in March and end on the 1st Sunday in November. The DST dates can be adjusted if needed for future energy law changes or for use in other countries. To adjust the dates, power on the system while holding the [1] button.

The status of Daylight time is shown on the screen by an asterisk following the day of the week.

N 3:07 PM. MON*07-25
Swng Peal Toll Hymn

Disabling Random Seasons

Typically each time you want the carillon to play music you will select one or more random selections. This allows the system to pick selections at random from seasonal or non-seasonal play lists. There are several reasons why you may not want the system to always do this. For example, a Protestant church will typically not play Marian Hymns during the month of May. Some churches do not wish to play patriotic selections on Memorial and Independence days.

Selecting Factory Pre-recorded Music Arrangements

If you have used the optional record librarian to build a large library of music, you may wish to disable all of the factory recordings in favor of your own. On the other hand, you may favor the Chime with Harp arrangements over the full carillon music. The seasonal setup option allows you to disable one or both by pressing [NO] when the Use Pre Rec 2 Part or Use Pre Rec Full options are displayed. Both types of arrangements are always available on a title-by-title basis. This setting only affects random playback.



Important! If both factory pre-recorded musical arrangements are disabled, and you don't have many (or any) user recordings set for random playback; the system may not play when programmed with random selections. When the system is supposed to play, watch for an error message that says "Seasonal Play list Empty."

Inside/Outside Auto-Mute

The Millennium Carillon can automatically mute the inside or outside speakers depending on how you wish to use the system. At the end of the Seasonal Options menu are two options that allow you to customize this feature.

Both automatic play (any music or bell ringing activated by the automatic schedule) and manual play (music or bell ringing activated by the remote control or *Play Selections* menu) can be set so that the speakers will operate inside only, outside only or both (inside and outside). These options are displayed in the menu as In, Out or Bth. Use the [cursor▼] and [cursor▲] buttons to rotate the selection between **In**, **Out** and **Bth**.

Generally you would set the automatic mode to play either both or outside only. The factory defaults are to play both inside and outside for automatic and manual selections.

Let's say for an example, that you only wish the keyboard performances to be heard inside. That is, all non-keyboard bell-ringing needs to play outside only. To accomplish this, set

automatic to outside, and manual to outside. Because these options do not affect the keyboard performance modes, only the keyboard will be heard through the inside speakers. When the system is playing, the green front panel lights will indicate which speakers are active.

Voicing Pre-Recorded Selections

The Millennium Carillon comes in five models:

- Bronze Edition - uses compressed audio files - no voice preference menu.
- Silver Edition - One bell voice, the Voicing Preference menu is disabled.
- Gold Duet Edition M3 - Supports five combinations of voices.
- Gold Edition M6 - Supports six combinations of bell voices.
- Platinum Edition M10 - Supports 19 voice combinations.

Factory Pre-recorded selections come in two varieties, Chime and Harp and Full Carillon. The Chime and Harp arrangements can be played on two bell voices (melody with accompaniment), while the Full Carillon arrangements are played on a single bell voice. M3 and M10 models allow the Harp arrangement to be turned off, playing simpler arrangements on a two-octave chime.

To enter the Setup Voicing Preference screen from the standby screen press [ENTER] [3] [ENTER] [2] [ENTER]. Use [cursor▼] and [cursor▲] to select the arrangement to voice then [cursor▶] so that the right side of the display flashes and [cursor▼] and [cursor▲] to select the voice for that arrangement. [ENTER] will exit and save the change or you can [◀cursor] back to the left side to select another arrangement to voice. [CANCEL] exits without saving any changes.

While in this menu, you may audition the various voices. Press [2] to hear the displayed voice and arrangement. A hymn tune will play for music arrangements, and a 3:00 Westminster hour strike will play for the clock arrangements.

Keyboard voice simplification is available on the Gold and Platinum Edition models. When the left side of the display says "Keyb1:" the right side can be set to either "Music Setting" or "Long Listing." "Music setting" will show only the voices set for Chime and Harp or Full Carillon arrangements above. "Keyb2" allows the secondary keyboard (swell manual on an organ) bell voice to be preset.

Keyboard Setup

The Modular Millennium carillon is designed to be compatible with a wide range of MIDI compatible keyboards. The keyboard setup menu allows the system to be set to respond to any size keyboard transmitting on any MIDI channel. In addition, the touch sensitivity may be adjusted to suit individual playing styles.

The Millennium can easily be configured to respond to two manuals of compatible MIDI organ consoles. Be sure that both MIDI stops you intend to use are on before proceeding with the setup procedure.

Configure Keyboard Menu

Bring up the Configure Keyboard screen from the Setup Menu by pressing (from Standby Mode) [ENTER] [3] [ENTER] [7] [ENTER]. A precautionary screen makes sure that you wish to change this critical setup by requiring that you also press [9] to continue. You must proceed to each step of the setup procedure within two minutes or the system will default to the correct configuration for the Chime Master 49 note single keyboard.

Depress the highest note available on the primary keyboard manual. This is the keyboard that you would normally use for playing the melody on multiple keyboard consoles (typically the Great manual). The display will show both the note and the MIDI channel it was transmitted on.

Depress the lowest note on the primary keyboard manual.

Depress the highest note on the secondary keyboard manual (if available, or the highest note of the single keyboard again). The secondary keyboard is used to play the accompaniment bell voices for Chime and Harp arrangements (typically the Swell manual).

Depress the lowest note on the secondary keyboard manual (if available, or the lowest note of the single keyboard again).

Always be sure to engage the organ's MIDI stops before running the Setup/Configure Keyboard procedure. Failure to do so may prevent the carillon from muting when the MIDI stops are disengaged. The procedure will automatically set the carillon MIDI channels for each manual to the lower numbered channel received.

While some organs only output MIDI data when the MIDI stop is selected, others always transmit on channels 12 (Great) or 13 (Swell). When the MIDI stops are engaged they transmit on both channels 2 and 12 (Great) or 3 and 13 (Swell).

Incidentally, the MIDI stops are the only means that should be used to enable/disable the Millennium carillon during a performance. Using the remote control to enable the bells during a performance can cause the carillon to become 'lost' because it does not process the MIDI data stream when in the standby mode.

Bell striking intensity is controlled by either note velocity or MIDI volume (controller 7) data.

Setting Touch Sensitivity

You may find that when you play softly, the notes are not playing loud enough. Your MIDI organ keyboard may not be touch-sensitive, and the notes play too harshly. Both cases can be adjusted for with the Touch Sensitivity menu.

Bring up the Keyboard Sensitivity screen from the Setup Menu by pressing (from Standby Mode) [ENTER] [3] [ENTER] [6] [ENTER].

Keyboard Sensitivity Light:1 Heavy:8

Use [**◀cursor**] and [**cursor▶**] to switch between Light and Heavy parameters. Press [**ENTER**] to save the settings and [**CANCEL**] to abort the changes.

While the Light and Heavy parameters are flashing, use the [**cursor▲**] and [**cursor▼**] to adjust the settings, or just press a valid digit to enter directly. Valid numbers are 1 through 8 and represent how hard the bell is struck when the keyboard is played lightly or heavily.

<p>Keyboard Sensitivity Light:8 Heavy:8</p>
--

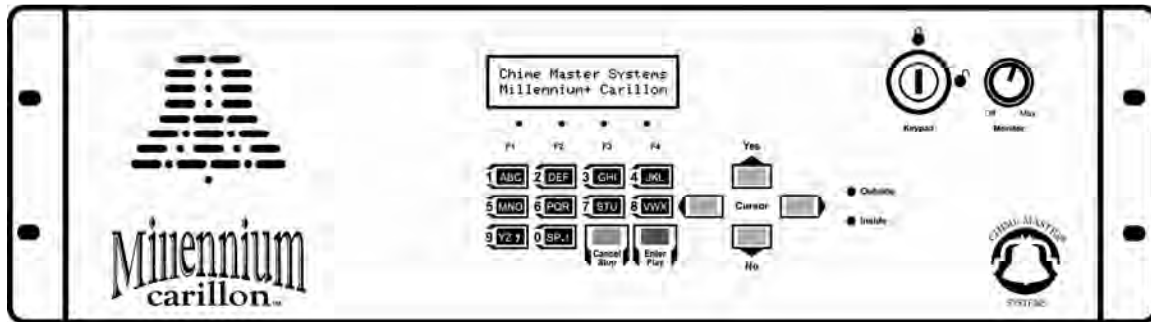
Example: Will result in bells striking hard regardless of keyboard touch. Can be used to brighten up the sound when used with an organ console without touch sensitivity.

Tuning the Chimes to Your Organ Pipes

If you plan to play the Millennium chimes with your organ, you will want to make sure they are in tune with one another. Bring up the Chime Master Tuning setup menu by pressing [**ENTER**] [**3**] [**ENTER**] [**5**] [**ENTER**].

Play the chimes and the organ simultaneously while pressing the [**cursor▲**] to raise the pitch of the chimes, or [**cursor▼**] to lower the pitch of the chimes. Press [**ENTER**] to save the tuning setting, or [**CANCEL**] to return the chimes to A=440Hz tuning.

Overview of Important Features



Front Panel

Key Lock

On the far right of the panel is a key lock. It prevents unauthorized operation and programming. When the key is in the vertical position, the buttons on the front panel will not operate. All automatically scheduled performances as well as the remote control functions continue to operate the system when the front panel buttons are locked. The key cannot be removed when it is in the horizontal unlocked position. Store the remote control in a secure location when it is not being used.

Monitor Level Control

The monitor level control adjusts the volume of the bells ringing inside. This includes the monitoring speaker (mounted behind the bell shaped grille), the built-in monitoring amplifier that can drive organ chamber speakers or the line output jack when it is connected to a PA system.

Push Buttons

The [ENTER] button will execute selected menus. In programming screens, it confirms changes made to the program.

The [CANCEL] button will escape out of certain system operations and modes. It will reject the currently playing selection. Press it twice to reject an entire performance.

Ten black buttons have alphabetical characters printed on them, and numbers printed to the left of them. They are generally used for entering numeric information such as selection numbers into the programming schedule (which can also be done by title).

When assigning titles to selections, the black buttons will allow you to easily enter alphabetical characters. The system will type the first character printed on the button the first time you press it. Subsequent presses will rotate through the remaining characters and finally through the number. The system automatically capitalizes the first letter of each word in the title.

The top row of black buttons ([1] through [4]) represents the four functions displayed on the lower line of the Standby Menu screen.

The four gray buttons arranged in a diamond pattern are the cursor buttons. They will be referred to in this manual as [**◀**cursor], [cursor**▶**] (*select left and right*), [cursor**▲**] and [cursor**▼**] (*scroll up and down*). When the scroll-up and down buttons are needed to answer 'Yes' and 'No' to questions appearing on the display, they will be shown in this manual as [YES] and [NO].

Whenever the system is prompting for a selection (by flashing four digits), the number of the desired selection can be entered directly, or selected from the onscreen title display by pressing the [NO] button. Random Groups and Pauses (in the View/Edit Schedule screen) may be entered by alternately pressing the [YES] button.

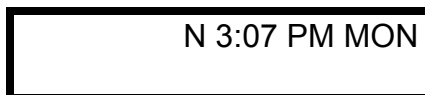
Inside/Outside Speaker Status Indicators

To the right of the push buttons are two indicator lights. When the system is playing or ready to play, the top light will light if the program will play through the outside speakers; the bottom light will light if the program will play through the inside monitor or organ chamber speakers.

The *Setup – Seasonal Options* menu (see page 28) allows inside/outside/both options to be set independently for automatic (scheduled) programs and remote (manual function) programs. This allows, for example, a system that has frequent programs scheduled to be set so that the inside speakers are muted when the system plays automatically. The automatic programming would not interrupt any special events occurring in the church. Bells played from the remote control would be played through the inside speakers. The keyboard performance modes always play inside.

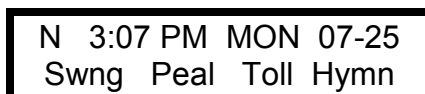
Display

If the system has been in Standby mode for more than a few minutes, the display will be dimmed and the current time will scroll. The life of the display is greatly increased by operating it this way. The display intensifies and shows the Standby Menu when you push any of the gray cursor buttons.



An example of the display screen saver. The current season code, time and day of the week scroll around the display.

Press a gray cursor button to exit the screen saver, or [ENTER] for the Main Menu.



Standby screen after the screen saver has cancelled. Pressing [ENTER] bring up the Main Menu.

Standby Mode

Standby mode is the normal operating mode of the system. Programmed selections and bell functions will not play automatically, unless the system is in Standby mode.

Please note that it is normal for the display to enter a screen saver mode after several minutes of keyboard inactivity. This extends the life of the display. Pressing any gray button will restore the Standby mode display. The position of the key lock does not affect automatic playing; it only locks the front panel buttons.

N 3:07 PM MON 07-25
Swng Peal Toll Hymn

The 'N' denotes a non-seasonal time of year. This changes with the seasons as described below. This is followed on the top line by the current time and date. The lower line labels the four function buttons.

Seasonal Almanac

During the selected seasons, a seasonal play list is substituted for the non-seasonal lists as described in the Selections Catalog. Supported seasons are Non-seasonal, Lent, Good Friday, Easter, Marian, Patriotic, Thanksgiving, Advent and Christmas.

A letter displayed at the top left corner of the standby screen shows which seasonal play list is currently in use. A disabled season (see Seasonal Setup on page 28) will result in an 'N' displayed during that time. The display always indicates the current season music list in use.

L 3:07 PM FRI 03-28
Swng Peal Toll Hymn

Example: During the Lenten Season, the display will show that Lenten (L) selections will be substituted when seasonal random selections are programmed.

Automatic Reset

Diagnostic reset circuits and programming continually monitors the system for proper operation. If it detects anything out of the ordinary, it will attempt to correct itself without operator intervention. If that is not possible, it locks up and displays a message. Refer to the *Troubleshooting Guide* on page 67 for specific instructions for dealing with error messages.

The reset program places highest priority on automatic performance. For this reason, the system will reset from most setup menus after a few minutes of push button inactivity. A ninety second countdown warning screen will allow you to continue the current operation by pressing any button.

System Resetting to
Standby in 90 secs.

Countdown warning screen appears after a period of inactivity in the setup screens. To return to the previous operation press any key.

Cued selections ready to play and waiting for either the front panel [ENTER] or remote [PLAY] buttons will hold for up to 60 minutes before the system resets. Tower Performance and Record Menu-Voice (Inside practice performance) screens also reset after 60 minutes of inactivity.



Important! Be sure to **[CANCEL]** or **[STOP]** the keyboard performance menus when the performance is complete so that the regularly scheduled automatic performances will continue. The keyboard performance modes will remain active for an hour after the last note is played.

Remote Function Performance

Remote Control

The four function selection buttons duplicate the buttons **[1]** through **[4]** on the front panel of the Chime Master System Unit. When the system is in the Standby mode, these four buttons allow special functions to be played.

The red **[STOP]** button on the remote duplicates the **[CANCEL]** button on the front panel. Whenever the system is playing, pressing stop will cause the selection to be interrupted. If a function with multiple selections is programmed, then the next selection in the sequence may play after the current one is canceled. To cancel all selections, press **[CANCEL]** at least two times.

When a function selection is ready to play, the green **[PLAY]** button duplicates the action of the **[ENTER]** button on the front panel.

To send a command from the remote transmitter to the Chime Master, simply press the appropriate button. Each time a button is pressed, it should be held for about one second. If the battery condition allows proper transmission, the green battery condition light will illuminate.

The Function Labels

The lower part of the remote transmitter allows the function selection buttons to be labeled. A label corresponding to the factory default function programs is shipped installed in the transmitter. Spare labels, which can be typed on, are also included so that you may label your own custom functions.

To remove the label card, push it toward the top slot with the eraser end of a pencil, while curling the top of the card outward with a letter opener or other sharp flat object, being careful not to scratch the finish.

Operational Tips

The remote transmitter operates in the UHF frequency band. This provides a line of sight transmission of at least 100 feet. Any mass of metal between the transmitter and receiver will inhibit proper operation. You may also discover a few dead spots where the unit may not operate, even though you are closer than 100 feet.

For best results, the transmitter antenna should be hanging vertically when transmitting. If it must lie horizontally, it should be oriented so that it is perpendicular to the direction to the receiver. Operation from metal cabinets or tables will probably not be satisfactory.

If the transmitter is operated next to microphones or microphone cables, it is possible that the PA system will pick up a noise, similar to a telephone ring tone. Avoid operation in

close proximity to PA equipment and wiring.

For information about re-programming the Function buttons on the remote control, see Reprogramming Remote Buttons on page 53.

Selecting Menus

Whenever the system is scrolling the time, or displaying the time on the top line and the function button labels on the bottom line, pressing [ENTER] will bring up the Main Menu.

**Main Menu
Tower Performance**

Press the [cursor▲] or [cursor▼] button until the desired menu selection flashes, then press [ENTER] to go into that menu.

You may press the number button to quickly access each menu item. Since the numeric method is quicker, it is used in all step-by-step examples in the manuals.

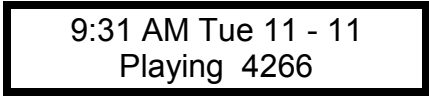
Item #	Main Menu Item	Description
0	Tower Performance	Enables the keyboard for performance both inside and outside.
1	Play Selections	Allows pre-recorded and user-recorded selections to be performed manually.
2	View/Edit Schedule	Viewer/Editor for the program schedule. Allows searches for selections programmed to play, and modifications to the automatic schedule.
3	System Setup Menu	Additional sub-menu with options described in the Setup Table below.
4	Recording Librarian	Titles and categorizes user recordings for retrieval and automatic play.
5	Record a Performance	Inside keyboard performance and recording menu.

Item #	Setup Menu Item	Description
0	Time Strike/Auto Level	Programs time periods for time striking style and volume level.
1	Set System Clock	Allows adjustments to the clock/calendar.
2	Voicing Preferences	Allows selection of bell voices for the various factory recorded music arrangements and clock striking selections.
3	Edit Remote Button	Editor for four programmable function buttons and remote control.
4	Seasonal Options	Enables or disables Daylight Saving Time adjustment, and allows customization of the seasonal almanac. Options to select or disable factory recorded musical styles. Options to provide inside/outside muting.
5	Tuning	Tune the carillon to a pipe organ that may be other than A-440
6	Keyboard Sensitivity	Sensitivity adjustments for touch sensitive keyboards.
7	Configure Keyboard	Automatic MIDI channel select and transposition of keyboard.
8	Time Strike Melody	Select chiming melody or pattern for clock striking.

Use the **[CANCEL]** button to exit most screens when you inadvertently activate them. This will generally also undo any inadvertent changes you make. Most menus are exited normally with the **[ENTER]** button when you wish to keep the changes you make. Screens, which allow you to edit system critical settings, may require that you press additional buttons to verify your selection.

Other Operational Features

While Selection is Playing



[Cancel] will reject the current selection. If additional selections are programmed, they will begin to play.
[Cancel] [Cancel] will reject the entire performance.

On Screen Title Lookup

Whenever a four-digit number is flashing on the editing display, and you don't remember the number for your favorite selection, press the **[NO]** button (as in "No, I don't know what number I want"). This will bring up the Title Lookup Screen that is subdivided into four groups:

User Recordings	Titles of recordings that have been recorded at the church. Any untitled selections will be displayed as 'untitled 8001' with the catalog number given.
Chime Library	Titles of factory pre-recorded two-part Chime and Harp selections.
Carillon Library	Titles of factory pre-recorded full carillon arrangements.
Bell Ringing/Special	Titles of special use bells, random selections, blocks

Suspending Automatic Operation

If you wish to hold the automatic operation for a quiet time like communion or a memorial service, select a selection to play without starting. The system will hold the cued selection for an hour before resetting to **Standby Mode**. For funerals, the **Toll** function can be cued so that when you are ready for it, you can press **[PLAY]** on the remote control.

If you do not wish to use a bell function at the end of the service, the system will reset to **Standby** by itself so that automatic operation may resume.

Section 4

Scheduling Automatic Performances

The schedule editing features of the Chime Master Millennium Carillon allow you to easily schedule this carillon to do just about anything you can think of on a weekly basis.

The time clock program memory is organized in quarter hour slots. Typical performances will begin on quarter hours, but timed pauses can be used to delay the start of a performance to any time. Each quarter hour time slot contains four selection holders, a time strike option and a volume level setting.

Two menu screens are used for changing the performance schedule. **View/Edit Schedule** appears on the **Main Menu**. Use it to review the current schedule and easily make changes to specific time slots. The **Time Strike/Auto Level** screen appears in the **Setup Menu**. Time strike options and volume level changes over larger periods of time are set on this screen.

For the purposes of explaining the process, let's set up a typical ringing schedule:

Two random music selections at noon, and again at 6 P.M. every day.

One minute Call to Worship swinging bell at 8:00 A.M. and 10:30 A.M. on Sunday morning.

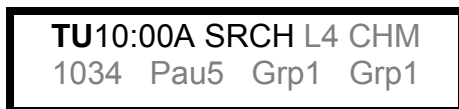
Thirty-second swinging bell at 6:55 P.M. on Wednesday.

Westminster time striking from 8 A.M. until 9 P.M. Monday through Saturday.

Westminster time striking from 1 P.M. until 8 P.M. on Sunday.

Navigating the View/Edit Schedule Screen

If the **Standby** light is on, bring up the **View/Edit Schedule** screen by pressing [ENTER] [2] [ENTER]. If the **Standby** light is not on, press [CANCEL] until it is on.



TU10:00A SRCH L4 CHM
1034 Pau5 Grp1 Grp1

The display will show what is programmed for the next quarter hour timeslot. The day will be flashing, and the [◀cursor] and [cursor▶] buttons will select between the day, hour, minute and search mode fields.

The dark areas shown on the above display are the time positioning fields. The grayed out portion of the display are the program fields. The [ENTER] button toggles activity between the time positioning and program fields. The [CANCEL] button will reject any changes made if the program fields are flashing. When the time positioning fields are flashing [CANCEL] will exit the **View/Edit Schedule** screen and return the system to **Standby**.

The program fields are accessed after the time slot is selected by pressing [ENTER]. When the program field is flashing, the [◀cursor] and [cursor▶] buttons select the program fields, allowing them to be edited. To store the changes press [ENTER], to reject the changes and

revert to the previous program press [CANCEL]. The time positioning field last selected will flash.

The four zero fields on the lower line represent events programmed at the current time slot. 1034 represents a one-minute swinging bell. This is followed by a five-minute pause (Pau5) and two hymns from random group 1 (Grp1). The L4 on the upper line indicates that the system will play at volume level four at this time, and the CHM shows that the scheduled program will be preceded by a time strike using the Westminster melody (if Westminster is selected as the clock striking melody in *Setup - Clock Chime Melody* menu.

When the day field (SU, MO, TU, WE, TH, FR, SA) is flashing, the [cursor▲] button will scroll backwards to the previous day and the [cursor▼] button will scroll forward to the next day, at the same time of day.

When the hour field is flashing, the [cursor▲] button will scroll backwards to the previous hour and the [cursor▼] button will scroll forward to the next hour.

When the minute field is flashing, the [cursor▲] button will scroll backward to the previous quarter hour time slot and the [cursor▼] button will scroll forward to the next quarter hour time slot.

Viewing the Current Schedule

When the search field (SRCH) is flashing, the [cursor▲] button will search backward and the [cursor▼] button will search forward to the next time slot that has a program scheduled.

When you press and hold a cursor button, the display will continue to scroll through the schedule so that you can quickly locate any time you desire.

If you search to the first scheduled time slot on Sunday, you can easily document your weekly schedule by copying down what is programmed at each scheduled slot as you step through the schedule while SRCH is flashing.

Selecting the Time to Play

Our example schedule calls for a swinging bell at 8 A.M. and again at 10:30 A.M. on Sunday morning. From the standby mode press [ENTER] [2] [ENTER] and the current day will flash. Use the [cursor▼] button to set the day to SU and press [cursor▶] to make the hour flash and press [cursor▲] to go backward or [cursor▼] to go forward to 8 A.M. Note that if you go past midnight, the day field will change. Press [cursor▶] to make the minute flash and press [cursor▲] to go backward to :00 another minute is flashing.

SU 8:00A SRCH L6 OFF
0000 0000 0000 0000

8:00 A.M. Sunday morning is selected. No selections are programmed to play. The volume level is set to the default value of 6. The clock striking function is OFF.

Specific Selections

Press [ENTER] to enable the programming mode. The first selection field will flash. If you know the selection number you wish to play, enter the four digits directly.

Onscreen Titles

If you don't remember the number of the selection you wish to use, just say 'NO.' A handy way to remember how to access the onscreen titles is to say 'NO, I don't remember the number.'

Whenever a four-digit selection field is flashing, press the [NO] button (the same button as [cursor▼]). This will bring up the following screen.

**Select Series:
User Recordings**

Use the [◀cursor] and [cursor▶] buttons to select the series then press [ENTER] to access the alphabetical index.

Series:	Type of Selections:
User Recordings	Selections that you have recorded are available by title if you have titled them with the Recording Librarian.
Chime Library	Factory installed recordings using two part arrangements suitable for Chime and Harp voices.
Carillon Library	Factory installed recordings using full range arrangements suitable for the full carillon voices.
Bell Ringing/Special	Swinging Bells, Pealing Bells, Tolling Bells, Angelus Prayer Bells, Random selection blocks and Taps (on Bugle).

Press [◀cursor] or [cursor▶] button until Bell Ringing/Special is displayed then press [ENTER].

**Music Title Index
ABCDEFGHIJKLMNoprstwy**

Select the index letter you would like to begin your search at and press [ENTER].

Press [cursor▶] until S flashes and press [ENTER].

**Swinging 580-lb
15 seconds**

The first selection available is displayed. Use the [cursor▲] and [cursor▼] buttons to scroll through the listing.

Press [cursor▼] until a Swinging 2300-lb bell for one minute is displayed then press [ENTER].

**SU 8:00A SRCH L6 OFF
1034 0000 0000 0000**

The next selection field will be flashing in anticipation of further programming. If the time slot programming is complete, press [ENTER].

Press [ENTER] to store the program for 8:00 A.M. The minute field will flash. Press [cursor▼] twice to select :30 then press [◀cursor] to select the hour and advance it to 10.

```
SU10:30A SRCH L6 OFF
0000 0000 0000 0000
```

Our example calls for a second call to worship bell for the 10:30 A.M. service.

Selection Carry Forward

When you press [ENTER] to enter the bell at 10:30, it automatically carries forward from the previous timeslot.

```
SU10:30A SRCH L6 OFF
1034 0000 0000 0000
```

The selection fields are automatically programmed with the same selections that were programmed into the last time slot. The first field flashes for editing if needed.

The *selection carry forward* feature allows multiple time slots to be easily programmed with the same selections. It remembers the selections you programmed for the last time slot and automatically enters them into the next time slot you enter.

If you do not wish to use the same program for the new time slot, simply program over the selections or erase them by entering zeros.

The carry forward will be updated by any changes you make, and will clear when you exit back to standby mode.

Random Selections

Our example calls for two random music selections at noon and 6 P.M. every day. Using the method described above (Selecting the time to play), position the View/Edit Schedule screen to 12:00 P.M. on Sunday. Use the [cursor◀] button to make the SU flash, so programming subsequent days will be easier. Press [ENTER] to make the first selection field flash.

Press [cursor▲] while the selection number is flashing. The number will change from 0000 to Grp_. A number from 1 to 8 may be entered signifying which random group the selection will play from. For our example we'll use group three, press [3]. Press [cursor▲] [3] again for the second random hymn, then [ENTER] to exit the programming mode.

- Grp1 Sacred hymns mixed with non-sacred music, follows the almanac seasons
- Grp2 Sacred hymns mixed with non-sacred music, always non-seasonal
- Grp3 Sacred hymns only, follows the almanac seasons
- Grp4 Sacred hymns only, always non-seasonal
- Grp5 Non-sacred music only, will play patriotic and Christmas in season
- Grp6 Non-sacred music only, always non-seasonal
- Grp7 Patriotic music independent of season
- Grp8 Marian hymns independent of season

To program the remainder of the week with two selections at noon (the day should be flashing), simply press the sequence, [cursor▼] [ENTER] [ENTER], six times to get back Sunday. The carry forward function will automatically fill in each day's program.

Select the hour and change it to 6:00 P.M. then select the day again and press the sequence, [cursor▼] [ENTER] [ENTER], seven times to get back Sunday, and you will have two random selections programmed every day of the week at noon and 6 P.M.

Random Selection Blocks

Random selections may also be programmed as blocks of multiple selections. You'll find them listed in the onscreen title index under **R** in the **Bell Ringing/Special** index. To program them by number, enter 70xy where **x** signifies the ending time and **y** signifies the random group to use. These codes cannot be followed by any other selections at the same time slot. Any following selection codes will be ignored.

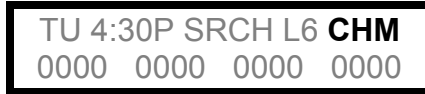
70xy Random Music Blocks

x (Length of Block)	y (Music Group)
0 Plays four selections	0 Sacred hymns alternated with non-sacred music, always non-seasonal
1 Plays until 5 min before next quarter hour (up to 10 minutes)	1 Sacred hymns mixed with non-sacred music, follows the almanac seasons
2 Plays until end of current quarter hour (up to 15 minutes)	2 Sacred hymns mixed with non-sacred music, always non-seasonal
3 Plays through current and next quarter hour (up to 30 minutes)	3 Sacred hymns only, follows the almanac seasons
	4 Sacred hymns only, always non-seasonal
	5 Non-sacred music only, will play patriotic and Christmas in season
	6 Non-sacred music only, always non-seasonal
	7 Patriotic music independent of season
	8 Marian hymns independent of season

Clock Striking (for Specific Time Slot)

Generally the clock striking is set for periods of time. The procedure to do this is detailed in the next section. The **View/Edit Schedule** screen must be used to verify that the clock striking is programmed correctly. The **SRCH** function does not check for clock striking, so you must select either the hour or minute fields and hold the [cursor▼] button when checking the clock striking periods.

Sometimes it is useful to turn the clock striking on or off for a particular time slot. Using the method described above (Selecting the time to play), position the **View/Edit Schedule** screen to the time you wish to enable or disable clock striking. Press **[ENTER]** **[cursor◀]** and the clock-striking field will flash.



The screenshot shows a two-line display. The top line contains 'TU 4:30P SRCH L6 CHM' and the bottom line contains '0000 0000 0000 0000'. The 'CHM' field is highlighted with a thick black border.

The clock striking field is found in the upper right corner of the **View/Edit Schedule** screen.

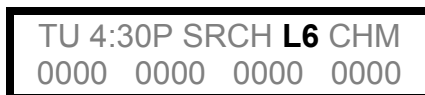
While the clock striking field is flashing you may program its status using the **[cursor▲]** (to turn on and select ringing type) and **[cursor▼]** (to turn off) buttons. Alternate presses of **[cursor▲]** select between **CHM** (chime) and **STK** (strike only). When **CHM** is selected, the appropriate clock chime melody plays on each quarter hour and is followed at the top of the hour with a toll of the hour. When **STK** is selected, the top of each hour is marked with a toll of the hour, and all other quarters are marked by a single strike.

Press **[◀cursor]** or **[cursor▶]** to select other fields to program or **[ENTER]** to accept the changes you have made.

Automatic Volume Level (for Specific Time Slot)

Generally the volume level is set for periods of time. The procedure to do this is detailed in the next section. The **View/Edit Schedule** screen must be used to verify that the volume level is programmed correctly. The **SRCH** function does not check for volume level, so you must select either the hour or minute fields and hold the **[cursor▼]** button when checking the volume level periods.

Sometimes it is useful to set the volume level for a particular time slot. Using the method described above (Selecting the time to play), position the **View/Edit Schedule** screen to the time you wish to set the volume level. Press **[ENTER]** **[cursor◀]** **[cursor◀]** and the volume level field will flash.



The screenshot shows a two-line display. The top line contains 'TU 4:30P SRCH L6 CHM' and the bottom line contains '0000 0000 0000 0000'. The 'L6' field is highlighted with a thick black border.

The volume level field is found on the upper line of the **View/Edit Schedule** screen between the **SRCH** and clock striking fields.

While the volume level field is flashing you may raise or lower it using the **[cursor▲]** and **[cursor▼]** buttons. You may also directly enter the level (1 to 8) using the alphanumeric buttons. **Level 8** is the loudest setting, **level 1** is the softest setting and **level 6** is the default setting.

Press **[◀cursor]** or **[cursor▶]** to select other fields to program or **[ENTER]** to accept changes you have made.

Press **[CANCEL]** to go to return to Standby Mode.

Section 5

Global Scheduling

In the previous section we described how the clock striking and volume level settings could be changed for a particular time slot. Changing these settings for several days, or even several hours in one day would be a tedious task without the capability of global scheduling.

The step-by-step procedure reference for this mode is found on page 24.

Schedule Clock Striking

The Time Strike Setup menu allows you to program the manner in which the system chimes the time on quarter hours.

12A to 12A LEVEL:6
SUN .. SAT SET PROG

Press [Enter], [3], [Enter], [0], to reach the Time Strike/Auto-level programming screen from the Standby mode.

The default times when entering this screen are all 24 hour segments of all seven days of the week. The default program is to set the level to 6. Use the [◀cursor] and [cursor▶] buttons to move around the screen and the [cursor▲] and [cursor▼] buttons to modify each field. When the start and end times and days are set and the time strike mode or level setting for those times is selected, move the cursor to **Set Prog** and press [ENTER] to program the settings for those times.

Select the Starting and Ending Times

The left half of the **Time Strike/Auto Level** screen displays the region of the schedule that will be modified. The top portion shows the starting hour and ending hour. When first entering this screen it will display '12A to 12A' and 'SUN .. SAT' indicating that all 24 hours of each day, and every day of the week are selected for programming.

Set the starting time field (to the left of 'to') to the time that you want to start the time strike mode. From 12A you will use [cursor▼] to select another starting time. Next, press [cursor▶] to get to the ending time field. From 12A you will use [cursor▲] to select another ending time.



Important! Each hour specified in this screen represents only four quarter-hours. So, '01PM to 02PM' specifies the range including 1:00 P.M., 1:15 P.M., 1:30 P.M. and 1:45 P.M. 2:00 P.M. is not included in the range and will not be programmed. If '10A to 09P' is displayed, 10:00 A.M. to 8:45 P.M. is selected (to but not including 9:00 P.M.).

The system will not allow you to reverse the starting and ending times. Once the ending time is set to the hour following the starting time it will go no earlier. Attempting to set the starting time past the ending time will push the ending time ahead so that it is always at least an hour after the starting time.

Press [cursor▶] to select the starting day. Pressing either [cursor▲] or [cursor▼] will allow you to set the starting day to any day of the week. Press [cursor▶] to select the ending day. Pressing either [cursor▲] or [cursor▼] will allow you to set the ending day to any day of the week. When the starting day and ending day are the same, only that day will be programmed. If 'SUN .. SUN' are set, only Sunday will be programmed. If 'FRI .. MON' are set, Friday, Saturday, Sunday and Monday will be programmed. 'SUN .. SAT' will program every day of the week.

It is helpful to set the program for largest blocks of time first. Also, since the block of time does not change after setting the program for the time strike, you may also set the volume level for that time period as well (see *Programming Loudness* on page 49) for the same block of time.

Select the Time Strike Mode

Press [cursor▶] to select the upper right program mode field that reads 'Level:6' on entry.

LEVEL: 6 (default)	FULL STK
LEVEL: 7	HALF STK
LEVEL: 8	TOP STK
TS OFF	LEVEL: 1
FULL CHM	LEVEL: 2
HALF CHM	LEVEL: 3
TOP CHM	LEVEL: 4
CHM STK	LEVEL: 5

When the upper right program mode field is flashing, you may use the [cursor▲] and [cursor▼] buttons to scroll through the list of available volume level settings and time strike modes. Each mode is described below.

TS OFF (Time Strike OFF)

:00 - OFF
:15 - OFF
:30 - OFF
:45 - OFF

FULL CHM (Full Chimes)

:00 - CHM
:15 - CHM
:30 - CHM
:45 - CHM

HALF CHM (1/2 hour Chimes)

:00 - CHM
:15 - OFF
:30 - CHM
:45 - OFF

TOP CHM (Top Chime)

:00 - CHM
:15 - OFF
:30 - OFF
:45 - OFF

CHM STK (Chime with 1/2 hour strike)

:00 - CHM
:15 - OFF
:30 - STK
:45 - OFF

FULL STK (Full Strike)

:00 - STK
:15 - STK
:30 - STK
:45 - STK

HALF STK (Half Strike)

:00 - STK
:15 - OFF
:30 - STK
:45 - OFF

TOP STK (Top Strike)

:00 - STK
:15 - OFF
:30 - OFF
:45 - OFF



Important! Setting **TS OFF** turns all **TIME STRIKE** functions **OFF** for the times selected. Doing this when first entering the menu will turn off the time strike for all times. You can do this to clear the time strike program before resetting it for new times.

Three basic time strike functions behave differently, depending on the quarter of the hour being chimed. They can be viewed and changed for any quarter hour in the **View/Edit Schedule** screen. These functions are: **OFF**, where the system does not announce the time; **STRIKE**, where at the top of the hour, a chime shall strike the hour, and on all other quarters will strike only once; **CHIME**, where at the top of the hour, the selected time strike melody shall play, followed by striking of the hour, and on all other quarters a portion of the selected time strike melody shall play. You can check these modes in the **View/Edit Schedule** screen for each quarter hour, displayed as **OFF, STK and CHM**.

Set the Program into Schedule Memory

Press [**cursor▶**] to select the **SET PROG** field and press [**ENTER**] to write the time strike mode into the selected region of the schedule. If you wish to select a new region or mode you will have to select **SET PROG** and press [**ENTER**] for each change you wish to make.



Important! Check the settings that you have made to see that they are correct before pressing [**ENTER**].

08A to 11P FULL CHM
MON .. SAT SET PROG

This display shows that when **SET PROG** is selected and [**ENTER**] pressed, the Full Chimes function will be programmed from 7:00 A.M. through 10:45 P.M. on Monday through Saturday.

01P to 09P CHM TOP
SUN .. SUN SET PROG

This example display will play the Chime and time strike at the top of each hour on Sunday from 1:00 PM through 8:45PM. The last strike will be at the top of the 8:00 hour.

What you see is set in memory. Both the Time strike option and Level setting may be made over the same time period. Select **SET PROGRAM** and press [**ENTER**] each time. Different time strike types and level settings may be entered for different times and days.

After all settings are done, Press [**CANCEL**] to return to Standby mode.

Schedule Volume Auto Level

Programming Loudness (Volume Level)

The loudness of your Chime Master® System may be preset to specific levels for various times of the day. This is accomplished using the **Time Strike** menu. Eight preset levels are available, **Level:1** being the softest and **Level:8** the loudest. **Level:6** is pre-programmed at the factory to be the normal play level. Programming the levels do not affect the time strike settings previously programmed.

Refer to the preceding section for information on setting up the ranges of times to be reprogrammed. Then select the desired level by pressing [**cursor▲**] or [**cursor▼**] to index

through the Time Strike types. The loudness levels follow the time strike types. Select **SET PROG**, press **[ENTER]** then exit with **[CANCEL]** button, if finished.

7P to 11P Level:3 SUN .. SAT SET PROG
--

Example display showing a reduction in level for the evening hours. Depending on the location of the installation, Time Strikes may be played all night at such reduced levels.

Table of Attenuation Values:

8 - 0 dB (maximum)	5 - 6 dB	2 - 15 dB
7 - 2 dB	4 - 8 dB	1 - 20 dB(minimum)
6 - 4 dB	3 - 10 dB	

Verify Global Settings

The **Time Strike/Auto Level** screen always comes up showing **Level:6** for every 24-hour period during the whole week. Obviously this is not what we just programmed. Since multiple programs can overlap as they are added in this menu, there is no reasonable way to display the changes on one screen. In order to see what has been programmed, the schedule must be scanned by hour or quarter hour in the **View/Edit Schedule** screen. Remember also that the **SRCH** function in the **View/Edit Schedule** screen will not find time strike events, only bottom line selections.

Select Clock Chime Melody

Several time strike chime melodies are included with the Millennium Carillon. To enter the time strike melody selection menu from Standby mode, press **[ENTER] [3] [ENTER] [8] [ENTER]**. Use the **[cursor▲]** or **[cursor▼]** buttons to select the melody, then **[ENTER]** to exit saving the changes, or **[CANCEL]** to exit and abandon your changes.

If the tower bell control option is installed, you may select the time strike to ring on the tower bells by selecting a melody with the prefix *TwrBelln* (where n is the number of bells required). If you have only one bell that is controlled by the carillon and wish to use it to strike the time, select any of the *TwrBell* melodies, then set the system to one of the STK only modes described above.

Available melodies as of this writing are:

Westminster High	from the Houses of Parliament (London)
Westminster Low	as above, but played on larger bells
Christus Vincit	from the Vatican
Praise Peal	"Holy God We Praise Thy Name"
Whittington	Eight-bell melody reminiscent of change ringing
St. Michael's	Eight-bell melody with different changes than Whittington
Avondale	Sometimes called Ting-Tang or Ding-Dong
Warren	Early American tower clock chime
Bigelow	American four-bell chime (Taft Memorial)
Parcifal	Classical four-bell chime
Nautical	Traditional Ship's Time

Section 6

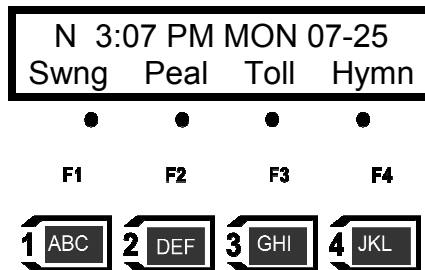
Play Selections (Manually)

It's nice to know that your Millennium Carillon faithfully plays according to your schedule, but there will be times when you want to take control during services or special occasions. Remember, the remote control is always ready to play your function button programs, as well as step through the program entered in the **Play Selections** screen. The **[PLAY]** button on the remote corresponds to **[ENTER]** on the front panel when used to control manual playing. Likewise, the **[STOP]** button on the remote corresponds to the **[CANCEL]** button on the front panel.

If for any reason you wish to suspend the regularly scheduled automatic performances of the carillon, cueing a selection and not playing it will inhibit automatic operation for an hour. For durations longer than one hour, the power switch may be turned off.

Function Buttons

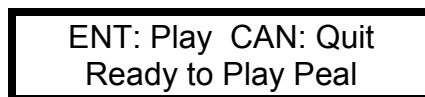
This is **Standby** mode displaying the season, time, day and date, along with a choice of bell functions.



This is **Standby mode** displaying the season, time, day and date. The bottom line holds the labels for the **function buttons** which are the top four alphanumeric buttons.

Pressing the button corresponding to a label causes the system to cue the programmed selection.

You may select a swinging, pealing, tolling bell or play a song by making your selection with the function buttons, ([1], [2], [3] or [4]) directly below the label on the screen. After making your selection, the screen will prompt you to press **[ENTER]** to play or **[CANCEL]**, to reject the selection and return to **Standby mode**.



The selection will remain cued and ready to play for one hour after the function button is pressed. This display and the need for **[ENTER]** will be skipped if the function is programmed to play **NOW!**

Play Selections Menu

You may wish to refer to the step-by-step reference on page 15.

Any selection on the carillon may be played at any time using the Play Selections menu. From the Standby mode, access Play Selections by pressing **[ENTER]** [1] **[ENTER]**. The selection(s) played the last time you used the menu will be displayed. You may edit the selections or play the same performance again.

Edit Play NONSTOP
 1225 001 Time(s)

Press **[ENTER]** to edit the performance program or **[cursor▶]** **[ENTER]** to play the same performance again.

Use the **[cursor◀]** and **[cursor▶]** buttons to select between **Edit** and **Play**. When **Play** is flashing, pressing **[ENTER]** will retrieve and cue the first selection. Note that pressing **[PLAY]** on the remote control while **Play** is flashing will not cause the selection to play. You must see **ENT: Play CAN:Quit** on the display indicating that the selection is cued, for the **[PLAY]** button to work.

When **Edit** is flashing, pressing **[ENTER]** will cause the first selection to flash, allowing changes to be made to the program. Pressing **[ENTER]** after modifying the selections will retrieve the selections for playing. If you do not wish to play the selections at this time, you can abort the performance by pressing **[CANCEL]** when the display says **ENT: Play CAN:Quit**. Pressing the **[CANCEL]** button instead of **[ENTER]** will abort modifications and retrieves the original settings to the screen from memory.

Edit Play NONSTOP
 1225 001 Time(s)

After pressing **[ENTER]** to edit the performance program, the first selection will flash. You can either enter a new four digit selection number or press **[cursor▼]** for the title lookup.

To Change Selections

New selections may be entered over the existing program. Entering all zeros for a selection will clear it and move subsequent selections back. If only one selection is entered, **001 Time(s)** will be displayed allowing you to repeat the selection up to 199 times.

On Screen Title Lookup

Whenever a four-digit number is flashing on the editing display, and you don't remember the number for your favorite selection, press the **[NO]** button (as in "No, I don't know what number I want"). This will bring up the Title Lookup Screen that is subdivided into four groups:

User Recordings	Titles of recordings that have been recorded at the church. Any untitled selections will be displayed as 'untitled 8001' with the catalog number given.
Chime Library	Titles of factory pre-recorded two-part Chime and Harp selections.
Carillon Library	Titles of factory pre-recorded full carillon arrangements.
Bell Ringing/Special	Titles of special use bells, random selections, blocks

To Enter More Than One Selection

When only one selection is currently programmed, press the **[cursor▶]** button to select the number of times to play the single selection. Pressing zero then **[ENTER]** will clear this field and allow up to three more selections to be programmed.

Edit Play NONSTOP
1225 1140 1152 1317

This screen demonstrates what a multiple selection program looks like. The four selections will be queued to play when either the [ENTER] button is pressed.

To Repeat a Single Selection

If a single selection is entered into a performance that had multiple selections previously programmed, enter zeros into the second selection location until the second, third and fourth selections are cleared. Press [ENTER] to make 001 Time(s) display. The number of times to repeat (one to 199) may now be entered (if less than three digits follow with [ENTER]).

Switching from Single to Multiple Selection Modes

After entering one selection, you want to open up the other three fields for additional selections, press [0] [ENTER] while 001 Times is flashing.

Programmable Toll

The selection repeats feature may be used to cause a tolling bell to ring a specific number of times. A single strike on a heavy bell (the Toll 4700-lb Single, 8.6 sec tempo is selection number 0110) is typically used for funeral tolls. The number of repeats may be set to the age of the deceased. You may also use the single strike to strike for a specific length of time. A repeat value of 35 will ring for five minutes (tempo of 8.6 times 35 divided by 60 = 5).

STOP or NONSTOP

When STOP is displayed and multiple selections are programmed, or a single selection is programmed to repeat, the system will pause between selections until [ENTER] or [PLAY] is pressed, before playing the next selection. When STOP mode is selected for repeated selections, the unit does not count how often the selection is played. The selection will be ready to play each time [ENTER] or [PLAY] is pressed until [CANCEL] or [STOP] is pressed.

When NONSTOP is displayed, the system will play without stopping until the entire performance, including repeats, is completed.

While Selection is Playing

9:31 AM Tue 11 - 11
Playing 4266

[Cancel] will reject the current selection. If additional selections are programmed, they will begin to play. [Cancel] [Cancel] will reject the entire performance.

Reprogramming Remote Buttons

The four function buttons may be reprogrammed in a very similar way that you would program a manual performance in the Play Selections menu above. Access the function-button editing screen from Standby mode by pressing [ENTER] [3] [ENTER] [3] [ENTER].

F1 Swng WAIT NONSTOP 1034 001 Time(s)

F1 is flashing to indicate that you may select the function button you wish to edit. Use [cursor▲] and [cursor▼] or press the button you wish to edit then [ENTER].

In addition to the function button number, a four-character label and a **WAIT/NOW** field appear where **Edit** and **Play** were on the **Play Selections** screen. The four-character label appears above the function button on the standby display (unless the screen saver is active).

Editing the Function's Selection(s)

While the function number 'F1' is flashing press [cursor▼] to select the function you wish to edit then press [ENTER].

New selections may be entered over the existing program. Entering all zeros for a selection will clear it and move subsequent selections back. If only one selection is entered, **001 Time(s)** will be displayed allowing you to repeat the selection up to 199 times.

When only one selection is currently programmed, press the [cursor▶] button to select the number of times to play the single selection. Pressing zero then [ENTER] will clear this field and allow up to three more selections to be programmed.

If a single selection is entered into a performance that had multiple selections previously programmed, enter zeros into the second selection location until the second, third and fourth selections are cleared. Press [ENTER] to make **001 Time(s)** display. The number of times to repeat (one to 199) may now be entered (if less than three digits follow with [ENTER]).

Press [◀cursor] and [cursor▶] to select the **WAIT/NOW** and **STOP/NONSTOP** fields, then [cursor▲] to change them if needed.

WAIT or NOW!

When **WAIT** is displayed, the system will not go ahead and play the first program selection after pressing the function button. It will cue the selection for immediate play when the [ENTER] button on the front panel or the [PLAY] button is pressed on the remote.

When **NOW!** is displayed, the system will play the first selection as soon as it is ready after the function button is pressed. Cueing usually takes less than five seconds.

When **WAIT** or **NOW!** is flashing, the [cursor▲] button will alternately select between the two functions.

STOP or NONSTOP

When **STOP** is displayed and multiple selections are programmed, or a single selection is programmed to repeat, the system will pause between selections until [ENTER] or [PLAY] is pressed, before playing the next selection. When **STOP** mode is selected for repeated selections, the system does not count how often the selection is played. The selection will be ready to play each time [ENTER] or [PLAY] is pressed until [CANCEL] or [STOP] is pressed.

When **NONSTOP** is displayed, the system will play without stopping until the entire performance, including repeats, is completed.

Editing the Function's Label

Once the selections are programmed, press [cursor▶] until the first letter of the label is flashing. Title your new function using the ten black alphanumeric buttons on the front panel, pressing [cursor▶] for each character position.

For example, to enter *Wdng* as an abbreviation for *Wedding*, the following button presses would be used.

[VWX] [VWX] [cursor▶] [DEF] [cursor▶] [MNO] [MNO] [cursor▶] [GHI] [cursor▶]

Saving the Changes

When all of the changes you want to make to the function buttons have been completed, press [ENTER]. If you wish to revert to the performance that was previously programmed on the button, press [CANCEL].

Restoring the Factory Defaults

If you wish to restore the factory default for a button (1-*Swinging Bell*, 2-*Pealing Bells*, 3-*Tolling Bell*, 4-*Hymn*), just enter zeros for all of the selections and press [ENTER].

Section 7

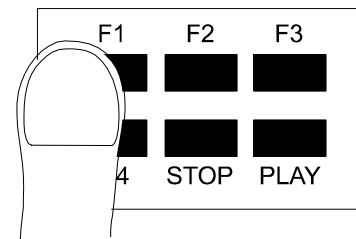
Playing the Carillon Keyboard

Inside and Outside

To activate the keyboard to play the carillon through the tower, simply press [ENTER] [ENTER] (from **Standby** mode). Since **Tower Performance** is the first option on the main menu, it is instantly available. You may also select the **Tower Performance** mode by simultaneously pressing the [F1] and [F4] buttons on the remote control.

Notice that the green **Outside** light is on, indicating that the tower speakers are on and your performance will be broadcast outside.

As you can see on the lower line of the display, the pre-programmed function buttons [1] to [3] (and corresponding [F1] to [F3] on the remote control) are available for immediate performance.



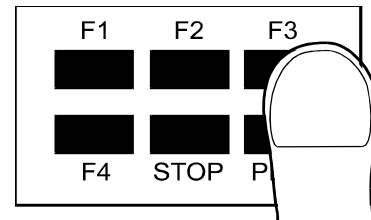
Inside Only (Record Menu)

You may wish to practice on the keyboard before performing for the neighborhood. The record menu allows you to select a bell voice and practice playing it while the tower speakers are disabled.

To enter the Record Menu from **Standby** mode, press [ENTER] [5] [ENTER]. The currently selected voice will be displayed on the top line. Notice that the green **Outside** light is off, indicating that the tower speakers are not on.

The remote control provides immediate access to the inside performance mode. Simultaneously, press [F3] and [PLAY] on the remote control and you are ready to play.

The remote function buttons [F1] to [F3] control the record menu functions. These functions are detailed in the following section. To play a pre-programmed manual selection after an inside-only performance, you must press [STOP], wait a couple of seconds then press the function button.



Selecting Keyboard Bell Voices

Pressing [F4] on the remote control or [4] on the front panel will step through the available bell voices. The last voice selected will be remembered (even if the power fails) so you will not be surprised by a different voice the next time you perform.

Section 8

Recording from the Keyboard

The Chime Master Millennium carillon allows you to build a custom library of your own musical selections. This section describes the process of recording performances to be stored in numerical order. The following section will describe the process of putting titles and seasonal categories to the tunes.

In addition to recording, the *Record a Performance* menu will allow inside only performances because the tower amplifier is disabled. You may audition the available bell voices, create temporary special music and rehearse for recording or performance.

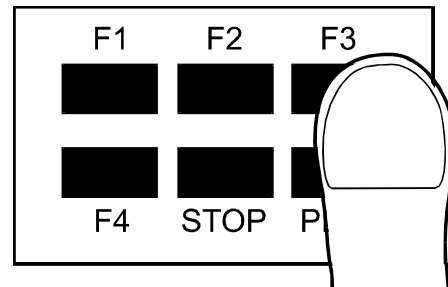
Entering the *Record a Performance* Menu

You may scroll through the Main Menu until reaching 'Record a Performance' or go there directly from Standby mode by pressing [ENTER] [5] [ENTER].

Concert Chime & Harp
Recd Play Save Voice

The record menu has four items displayed on the lower line. Use the [◀cursor], [cursor▶] buttons to select and [ENTER], or just press the button below the item [1] through [4] to select it.

The record menu may also be activated by simultaneously pressing [F3] and [PLAY] on the large hand-held remote control supplied with our keyboard performance package.



Practice Mode

From the record menu press the **Voice** button [4] to select the practice mode. The currently selected voice will be displayed on the top line of the screen while the record menu remains on the bottom.

Concert Chime & Harp
Recd Play Save Voice

Repeatedly pressing **Voice** button [4] will cycle through the complete list of available bell voices.

The keyboard is active so you may audition each voice to find a suitable one, or practice your performance on the selected voice. The currently selected voice will stick so that when you record or even exit the record menu and return, the same voice will be selected. If you should subsequently enter the *Live Performance* menu, the last selected voice will be active regardless of which menu you selected it from.

Recording a Selection

The step-by-step reference page for this mode is found on page 21.

From the record menu press **Record** (*Recd*), front panel button [1] (or [F1] on the remote), to put the system into record. If the record buffer does not contain any unsaved music, you will see the following display.

Record Performance
Ready to Begin...

The system will wait for fifteen seconds for you to begin playing.

If you have previously recorded a selection without saving it the system will remind you that proceeding will result in the erasure of the previous recording (i.e. take “one”).

Replace Last Take?
Yes/F1 No/CANCEL

To proceed with the recording press [1] or [F1] again. To abort the recording so you may play or save the previous recording press [CANCEL] or [STOP].

Record Performance
|||||

Once you begin to play, the lower line will display a bar graph of the remaining record buffer available.

The recording will automatically stop if you pause for more than fifteen seconds. You may also stop the recording by pressing [CANCEL] (or [STOP] on the remote) or any other record menu button, including [2] for playback.

Buffer Low!
|||

The record buffer will hold over 1200 notes, and will warn you if you are about to use it all up.

Playback the Recording

From the record menu press **Play** (front panel button [2] or [F2] on the remote), to listen to your recording.

4:13 PM FRI 7-21
Playing 8000

Playback will automatically stop and return to the record menu at the end of the selection, or you may stop at any time by pressing [CANCEL] (or [STOP] on the remote).

Selection 8000 is displayed because that is the number of the temporary record buffer. When you save recordings, they are numbered from 8001 and up, in the order that they are saved.

Change the Bell Voice

Whichever bell voice is currently selected when you press the **Save** button will be the permanent voice for the selection when it plays. You may change the bell voice any time after the recording is made (by pressing button [4]) until **Save** is pressed. Be sure that you have selected an appropriate voice for the performance (full carillon or split keyboard chime with harp) before saving.

Save Selection

The save selection feature is included with the optional Recording Librarian. When that option is not installed, the **Save** button/menu label will say '----'.

Press **Save** (front panel button [3] or [F3] on the remote) to permanently archive the performance. If a particular tune is used for several hymns belonging in more than one season, you may save it multiple times so that each entry may be categorized appropriately.

Saving Selection

Saving the selection into permanent memory will take a few seconds.

Verify OK
Saved Selection 8258

The program double checks that all of the notes have been properly saved and then displays the selection number for future reference.

Generally, the selections will be numbered sequentially. Occasionally you may see the system skip one or two numbers. This might happen if you save a particularly long selection that will not fit at the end of a 'cell' in the memory bank. If the system decides that it might fit one or more shorter selections in that space later, it will reserve sequential selection numbers for the shorter selections.

You will want to put titles on your selections before you save too many to remember. They won't play randomly either unless you add them to seasonal or non-seasonal play list categories. The *Recording Librarian* allows you to manage your recordings, and is the subject of the next section.

Section 9

Adding Recordings to the Library

Once you have recorded a few selections as described in the preceding section, you'll be anxious to put them to use. You could schedule or select them by number, but after you accumulate more than about five selections it will be difficult to remember their numbers.

The librarian not only allows you to assign titles to your selections, but also to categorize them into a seasonal grouping so that they will be played from the random play list at appropriate times. Supported categories are listed in the table on the following page.

The Recording Librarian is an optional feature. It can be installed with appropriate upgrade software. If the display says 'Option not installed,' when you attempt to activate the librarian, call 800-432-3977 for upgrade details.

Activating the Librarian

From the Standby mode press [ENTER] [4].



Important! Titles and seasonal groupings assigned to user recordings are stored in permanent memory when you press **SAVE**. Any misspellings will be permanently stored. Once a selection is coded to a random season, it cannot be coded to a different season.

**Warning! Can't Undo
Permanent Changes**

Just a reminder. Press [ENTER] to continue.

**Recording Librarian
New/Edit Selections**

This screen allows you to select between new selections that are untitled/categorized and previously edited selections that you may wish to remove.

New will be flashing on the display. Press [ENTER] to continue to the editing screen for newly recorded selections..

Edit may be selected by pressing [cursor▶] then [ENTER]. **Edit** allows you to remove selections from the random play lists or delete them permanently from the system (the space they occupy will not be reclaimed).

**Untitled 8005
8005 Play Not Random**

The selection number on the lower left indicates the current selection. Use [cursor▲] or [cursor▼] to select another selection.

The first untitled selection will be displayed. Pressing [cursor▲] will display the last selection you recorded. Pressing [cursor▼] will advance through the recordings in the order that they were recorded.

Processing New Recordings

Play the Selection

When the selection you wish to catalog is selected, press [ENTER] or [CURSOR▶]. **Play** will flash indicating that pressing [ENTER] again will allow you to audition the selection. If you

did not write down the title when you recorded the selection, perhaps hearing it will help you remember what it was.

Categorize for Random Play

After auditioning the selection, the category field will flash. The default category is **Not Random**, which means that the selection is not in any of the random music groups, and therefore will never play randomly. This is the proper category for selections like *Pomp and Circumstance* or wedding music, which will only be played on special occasions, and will be selected specifically.



While the category field is flashing, you may scroll through the available categories using the [CURSOR▲] and [CURSOR▼] buttons. When the category that suits the selection is flashing, press [ENTER].

Available seasonal categories are described in the following table.

Category	Results
Not-Random	The selection will not be added to any of the random play lists. It may be selected specifically by title.
Non-Season	The selection is added to the general play list, which will play when none of the following play lists are active (or enabled).
Lent	The selection is added to the Lenten play list for the period from Ash Wednesday until Good Friday.
Easter	The selection is added to the Easter play list for the period from Easter Sunday until End of April if Marian also selected. Otherwise plays for one week.
Patriotic	Selection is added to the play list for Independence Day (July 4) and Memorial Day (Last Monday of May).
Marian	Selection is added to the play list for the Marian season, which encompasses the entire month of May; August 15 and 22; December 8.
Thanksgiving	Selection is added to the Thanksgiving play list for Thanksgiving Day and the preceding Sunday.
Advent	The selection added to the Advent play list, which plays from the First Sunday in Advent until date selected for 'Christmas from' in the seasonal setup.
Christmas	The Christmas play list will be used from the date selected for 'Christmas from' in the seasonal setup until January 5.

Title the Selection

After you have entered the category for the selection, the cursor will move to the first character of the title field. You may begin to enter the title by pressing the alphanumeric buttons. The first letter of each word will automatically be capitalized.

Each black button is labeled with four characters, three alphabetical characters on the face and one numeric character beside it. Each time the button is pressed, the alphabetical characters cycle through in turn, followed by the number. When the desired character has been selected, move to the next character position using the [cursor▶] button. Up to twenty characters may be entered for each title.

All Hail The Power
8005 Play Non-Season

Press [ENTER] when the title is complete.

Saving Your Changes

All Hail The Power
8005 **Save** Non-Season

Play will change to **Save** and begin to flash. Press [ENTER] if the title and seasonal category are correctly set.

Double-check the title and seasonal category when 'Save' is flashing before pressing [ENTER]. The information showing on the screen will be permanently stored in memory.

You can move around the screen using [◀cursor] and [cursor▶] to make corrections to the information prior to saving it. When you cursor away from 'Save' it will revert to 'Play.' To make it say 'Save' again, press the [◀cursor] or [cursor▶] buttons until 'Play' is flashing then press [YES]. While 'Save' is flashing, press [ENTER] to save.
The next untitled selection will be displayed.

untitled
8006 Play Not-Random

Refer back to *Play the Selection*, page 63, to repeat the process for each untitled selection.

Editing Previously Processed Selections

To make changes to recordings that have already been processed as new, enter the *Recording Librarian* screen from *Standby* mode by pressing [ENTER] [4] [ENTER] [ENTER]. Then press [cursor▶] to make **Edit** flash and press [ENTER].

Recording Librarian
New/Edit Selections

Edit allows you to remove selections from the random play lists or delete them permanently from the system (the space they occupy will not be reclaimed).

Removing Selections from the Random Play Lists

If a user recorded selection plays during an inappropriate season, it may be removed from that season's random play list. The selection will be available for performance by title or selection number, but will not play randomly.

Happy Birthday
8324 Play Christmas

Use [cursor▲] and [cursor▼] to find the selection you wish to remove from the random play list.

Happy Birthday
8324 **Play** Christmas

Press [cursor▶] to make **Play** flash.

Happy Birthday
8324 **Rmov** Christmas

Press [cursor▼] [cursor▼] to select Rmov (remove). Press [ENTER].

Remove Song From Rnd
Permanently? (Y/N)

Press [YES] to continue, or [NO] to abort.

Happy Birthday
8324 Play RemovedRnd

The selection has been removed from the Christmas random play list. **RemovRnd** signifies that it has been removed from random play.

You will still find *Happy Birthday* in the **User Recordings** section of the online title lookup, and 8324 will be a valid selection number for playback.

Deleting User Recordings

User recorded selections can be deleted. This may be desirable if a selection was accidentally saved, or is otherwise unusable.

Away With Our Fears!
8325 Play Non-Season

Use [cursor▲] and [cursor▼] to find the selection you wish to delete.

Away With Our Fears!
8325 **Play** Non-Season

Press [cursor▶] to make **Play** flash.

Away With Our Fears!
8325 **Eras** Non-Season

Press [cursor▼] to select **Eras** (erase). Press [ENTER].

Erase Selection
Permanently? (Y/N)

Press [YES] to continue, or [NO] to abort.

Abide With Me
8326 Play Non-Season

The selection has been deleted. The next recording will be displayed.

The selection will no longer appear in the online title lookup, and, if selected by number, will return a *Selection Not Found* error.

Section 10

Troubleshooting Guide

In Standby mode, the system is continuously performing diagnostics. If it detects something out of the ordinary, it will attempt to correct itself without operator intervention. If that is not possible, it locks up and displays a message. Although this can be an inconvenience, it will prevent the system from falsely ringing at inconvenient times, such as after a storm in the middle of the night. In the rare event that a problem is detected, one of the following messages may appear on your display. If this happens, follow the procedure listed below the message.

If the system appears to be ringing at inappropriate times, search the program schedule (see *Review the Automatic Play Schedule* on page 18) to be sure that it is correct (double check the AM/PM) field and that the time is set correctly on the Standby screen (check AM/PM here also).

If your system seems to be doing any other strange things that are not described below, turn the power switch off for about 10 seconds, then back on.

Librarian Option Not Installed

Option Not Installed
Recording Librarian

If your carillon does not have this option installed, you will see this momentary message whenever you attempt to activate the Recording Librarian (see *Activating the Librarian* on page 63) or attempt to save a selection from the Record Performance Menu (see *Save the Selection* on page 61).

Without the Librarian option you may only record one selection that will remain in the record buffer. To schedule or manually play this selection, enter selection number **8000**. Obviously there will be no user titles in the On Screen Title Lookup pages, so this series option also will not appear (see *Onscreen Titles* on page 40).

All Millennium carillons have a MIDI keyboard connector on the rear panel. To configure the carillon to work with your MIDI keyboard, see *Keyboard Connections* (on page 28) and *Keyboard Setup* (on page 33). You may use your keyboard for both live performance and the recording of selection 8000.

Your system may be upgraded with the Recording Librarian at any time. Call customer support for details at (800) 432-3977.

Error in Program Schedule Detected

Program is corrupted
Yes-Clear No-Salvage

If a power outage that surges on and off rapidly occurs (which often accompany high winds and storms), program memory may be affected. If the system detects any change in the schedule memory, it will display this message and suspend automatic operation. The corruption is usually minor and so we have provided a way to salvage as much of it as possible.

Should you select [YES] to reinitialize the program, or select [NO] to salvage? The answer depends on how complex your program is to key in, or if you have an adequate record of it at all. The least amount of time and effort will be spent if you press [NO] to salvage what you can. When you elect to salvage, each time slot is checked and will be cleared if any invalid selections are found. Also any slots programmed between 11:00 P.M. and 6:00 A.M. will be cleared. Be sure to check the schedule with View mode after resetting (see *Review the Automatic Play Schedule* on page 18).

If you press [YES], the system will also clear the seasonal preferences, so you will have to reset those in addition to re-entering your ringing schedule.

Error in Seasonal Preference Memory Detected

Memory Warning
Verify ALL Options

If the system should ever detect that the seasonal preferences memory may have corrupted, the system will display this message and suspend automatic operation.

Press [ENTER] for each option and verify that it is correctly set. Use the [YES] and [NO] buttons to modify the settings.

Blank Screen



Due to rare interruptions of program process, the screen may appear blank for a period that should not exceed 15 minutes. If it does exceed this period, turn off the power to the system or unplug it from the wall receptacle for about 10 seconds, then power back on or plug the system back into the wall receptacle. The program should resume after resetting itself to normal. If it does not, check the fuses on the rear panel. Be sure to replace with the same fuse types.

Time Clock Errors

Clock Error (E)

A clock error means that invalid data has been found in the time clock registers. Set the clock from the **Setup, Set Time** menu, and then check system operation manually. Call the factory for service information.

No Sound

If no sound is heard either from the tower or from the monitor speaker when the display shows that a selection is playing, follow this checklist.

Determine that the system is actually playing properly. Turn the power off and then back on. Try playing a selection manually or with a function button.

1. One or both green speaker status lights on the front of the Millennium should come on when the system is playing. If neither light while the display says it is playing, check the muting options in the **Seasonal Setup** (see page 31). Also, you should have a power indication on the amplifier power light.
2. Are connections to the amplifier at fault? Make sure that all cables are plugged in completely.
3. Is the amplifier at fault? Try plugging the amplifier power cable directly into the AC wall socket and remove the audio cable from the back of the main unit. One of the Tower lights on the front of the amplifier should come on.
4. If sound can be heard from the monitor speaker, but not from the tower follow this checklist:
 1. Make sure that the tower switch is in the on position and that the green light comes on while the system is playing.
 2. Check that the tower speaker cable is properly attached to the amplifier output terminals.
 3. Check the tower speaker cable for shorts between the conductors.

Returning the System for Service or Upgrades

Do not return equipment without calling (800) 432-3977 for return authorization. We may help you avoid returning the equipment. The customer service representative will also provide you with the address of the service station.

The following steps make your system ready for shipment.

Transportation Preparation Procedure

1. Turn the system power **OFF**. The main power switch is on the rear of the unit.
2. Turn the key to the locked position (fully counterclockwise) and remove the key.
3. Put the key where it will be safe until your unit is returned to you.
4. Disconnect Cables. Unplug the power cord from the wall receptacle. Unplug the audio cables from the rear of the unit. Do not send any of the cables with the unit, unless they are suspect.

Use Only Original Chime Master Systems Packaging

Locate the original packing. Your warranty may be voided if your system arrives with shipping damage due to improper packing. If you cannot find your original boxes with foam packing materials as described below, call us to order a new box with packing. A nominal charge is made for the shipping package.

Packing Materials

- (1) Box, 24 by 24 by 12 inches
- (2) Blocks of cushioned foam packing
- (1) Accessory box if returning remote

The cushioned foam packing fits the ends of the unit (large spacer end toward the rear of the system).

If you are returning accessories, do not place them loosely in the box with the system. A separate accessory box was used to ship them to you. Place it vertically behind the system.

Insure the package. The package should weigh about 40 pounds. Use original packing materials. Chime Master Systems will not be liable for shipping damages.

After Your Carillon has Been Serviced

Before Turning On Power.

To prepare system for operation:

Reconnect the cables to the rear panel of the system.

We make every effort to reprogram your schedule and settings after servicing your carillon.

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