

Millennium carillon®

VERSION 3.1

Operating Manual

MIDI Compatible Carillon

Doc# 11580



Safety and Environmental Instructions

Warnings

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.

Danger of Electric Shock

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.

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.

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.

Disposal

Disposal of Old Electrical & Electronic Equipment (Applicable in European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Please contact Chime Master for returning this equipment for credit if it is no longer used.

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 keypad buttons are shown as [0]-[9], [CANCEL] and [ENTER].

Front panel cursor up, down, left, right as [cursor▲], [cursor▼], [cursor◀] and [cursor▶]. The left and right buttons are used to select fields that flash on the display, while the up and down buttons generally are used to scroll through selections or make changes to a flashing field.

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

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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 53, 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 43, 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 49, 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 eight programmable function buttons and four remote control. Instructions on page 55.
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 29.
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 34.
7	Keyboard Size/MIDI	Interactive plug and play set-up for MIDI channel and keyboard size and transposition. Instructions on page 33.
8	Time Strike Melody	Select chiming melody or pattern for clock striking. Instructions on page 52.
9	Security Options	Setup keypad locking password and options. Instructions on page 29.

Random Music Group Codes

Press the [cursor▲] button followed by [1] through [9] to program a single random music selection when the selection number is flashing in the programming menu pages.

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
Grp9	User Defined Playlist - requires optional Millennium Suite to set up

70xy Random Music Block Macros

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

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
If the macro is played using the Play Selections mode or remote function button, the block will not be timed. Rather, the following number of songs will play	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
	9 User playlist (requires Millennium Suite)
	1 Six songs
2 Eight songs	
3 Sixteen songs	

Special Function Macro Codes

Scheduling Function Button Programs

The eight programmable remote/function buttons can hold useful programs that you may want to use in a schedule. F1 through F8 may be scheduled using codes *7901* through *7908*. For instance, you might schedule the default peal to ring at several days or times several days using macro code 7902. Whenever you wish to change the style of the peals, all you have to do is edit button F2. This saves you from having to reprogram each time slot.

Another reason to use the function macro codes is to take advantage of the counted tolling bell. Counted tolls are available directly on a function button or in the Play Selections mode. Using the function macro codes they can also be scheduled. Program function F8 to repeat selection 0100 33 times. Placing 7908 anywhere in the program schedule will program a 33 stroke toll.

You can also use this feature to combine several selections into one that you might want to use often. An example would be to play an Angelus 3-3-3, followed by your favorite peal. This group of selections can be programmed 3 times a day, seven days a week with one code. Editing the function button changes all of the scheduled macro functions.

ZoneAutoMute™ Speaker Switching

Inside/Outside speaker switching can be accomplished on the schedule to change the settings made in the Setup-Seasonal Options screen. The following macros switch the speakers to play inside, outside or both for manual or automatic operation:

- 7920 Manual Outside/Automatic Outside
- 7921 Manual Outside/Automatic Inside
- 7922 Manual Outside/Automatic Inside and Outside
- 7923 Manual Inside/Automatic Outside
- 7924 Manual Inside/Automatic Inside
- 7925 Manual Inside/Automatic Inside and Outside
- 7926 Manual Inside and Outside/Automatic Outside
- 7927 Manual Inside and Outside/Automatic Inside
- 7928 Manual Inside and Outside/Automatic Inside and Outside

Load Weekly Schedule

The optional Millennium Suite scheduler application can now store up to ten schedules in the carillon's FLASH memory. Then you can use the annual or one-time event schedules to let the system know when to make each schedule active. You may also 'play' the macros manually in the Play Selections mode to activate a schedule at any time. The macro functions used to activate the schedules are *7930* through *7939* (for schedules 0 through 9). These macro codes make the schedule active by copying the schedule data from FLASH memory to editable RAM.

Changes made to the current schedule may be lost unless they are stored in FLASH memory using the Millennium Suite. Macro schedules cannot be edited or updated from the front panel.

Schedule Input Sheet

Weekly Schedule

Circle all days that apply	Time	Sel 1	Sel 2	Sel 3	Sel 4	Level	TS	Remarks
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								
SU - MO - TU - WE - TH - FR - SA								

Time Strike/Level (Set-Up)

Day Range		Time Range		Time Strike Mode or Level Setting
From	To	From	To	

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. To locate the master level control, check the installation sheet supplied with the amplifier.

Simply press [1], then [ENTER]. This will ring a call-to-worship swinging bell. To play a musical selection, appropriate for the current season, press [4], then [ENTER].

If the system security settings have been set to lock the keypad, you will need the four-digit pass code to unlock it first – see page 29.

You have just used two of the eight 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 flashing, 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.

Let the SmartAlmanac™ Choose Appropriate Music

Press the [cursor▲] button once to display Grp_, and then press [1] to [8] to select a random music group. Grp3 designates a random hymn, and Grp5 will play a non-sacred song. You will find these random groups listed on page 10, and in more detail on page 46.

To Play a Random Block of Music

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 10 and explained on page 46.

To Program a Pause (Automatic Schedule Only)

Use a pause in the schedule to play 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 (selection 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.

Macro Codes

Other codes to perform advanced functions may be found on page 11.

Access Online Music Titles

To enter a specific music selection, you may do it by title rather than number. This procedure works from the **View/Edit Schedule** page (as shown below), the manual **Play Selections** page and the **Setup - Edit Remote Buttons** page. You may use this procedure whenever a four-digit selection number is flashing.

- | | | |
|-------------------------|--|--|
| <i>Step</i>
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]. |
| 2 | Select Series:
Chime Library | Use [cursor◀] or [cursor▶] to select which series listing to show then press [ENTER]. Separate lists are available for music and bell ringing and the optional user recordings. |
| 3 | Music Title Index
ABCDEFGHIJLMN OPRS | Use [cursor◀] or [cursor▶] to select where in the alphabet to open the alphabetical listing then press [ENTER]. |
| 4 | 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. |
| 5 | 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 flashing selection field. The next selection field will flash. Press [ENTER] to save or go to step 1 to choose additional selections. |

Play Selection(s) Using the Manual Mode

Detailed instructions can also be found on page 53.

Step

1

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

If the Standby page (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 the repeat count 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)

7

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.

8

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.

9

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).

10

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.

11

Edit **Play NONSTOP**
1225 001 Time(s)

After the last selection is complete, the display will remain on the **Manual** page for two minutes to allow you to play **[ENTER]** or edit **[cursor◀] [ENTER]** additional performances. You may press **[CANCEL]** to quit before the timeout.

N 3:15 PM MON 07-25
Swng Peal Toll Hymn

Set the Automatic Play Schedule

Detailed instructions may be found on page 43.

Step

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

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.

When the cursor display is flashing in the top left line (day - SRCH) you can navigate to the timeslot you want to see. At the desired timeslot, press **[ENTER]** to toggle between program and navigation modes. If you are in the program mode and make a mistake, press **[CANCEL]** to go back to navigation mode without saving your changes.

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.

4

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.

5

SU 9:30A SRCH L6 OFF
1225 1464 1313 0000

6

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

Press **[CANCEL]** to return to Standby mode.

Whenever the system prompts you to enter a four digit code by flashing the current four digit code, you may enter the code for the selection you want to play directly. You may also press the following buttons to enter supplemental codes:

Press **[cursor▲]**= Grp_ then a digit to set a song to play from a Random Music Group 1 through 9 (see page 13)

Press **[cursor▲][cursor▲]**= Pau_ to set a 1 to 8 minute Pause

Press **[cursor▼]** to activate the Online Title Catalog

Review the Automatic Play Schedule

Detailed instructions may be found on page 43.

- Step*
- 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” page, then **[ENTER]**.
 - 3**

SU 9:30A SRCH L6 OFF
0000 0000 0000 0000

 Press **[cursor▶][cursor▶][cursor▶]** to select **SRCH** (search).

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.
 - 4**

SU 9:30A SRCH L6 OFF
1225 1464 1313 0000
 - 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 43.

- Step*
- 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).

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▲]**.
 - 4**

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.
 - 5**

SU 9:30A SRCH L6 OFF 1225 1464 1313 0000

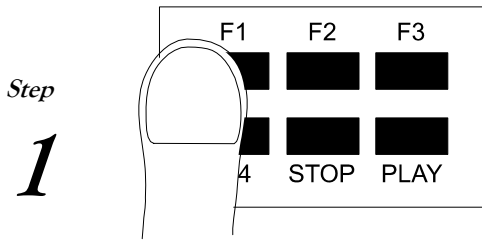
 To change volume level and time strike settings, use the **[cursor▶]** and **[cursor◀]** to cause them to flash. Numeric buttons 1 through 8 may be used to enter new volume levels. Press **[cursor▲]** when Time Strike status is flashing to select between Chiming and Strike modes. Press **[cursor▼]** to disable clock striking.
 - 6**

SU 9:30A SRCH L6 CHM 1225 1464 1313 0000
--
 - 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.

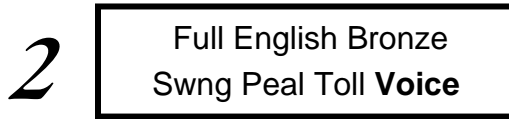
Turn on the Keyboard Using the Remote Control

Detailed instructions may be found on page 57.

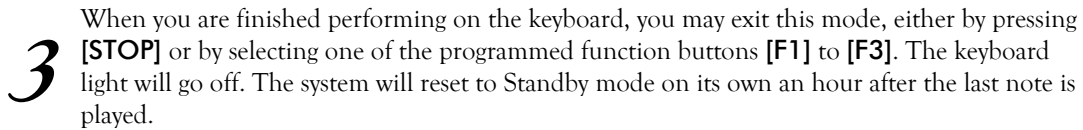
Tower Performance (inside and outside)



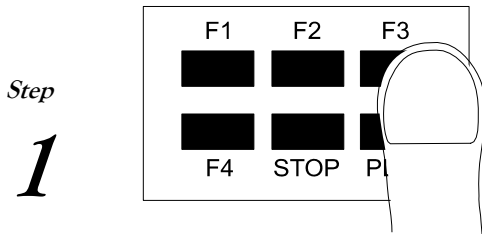
Use your thumb to press **[F1]** and **[F4]** at the same time (the combination is Swing and Song on the mini remote). The keyboard light will come on when the system is ready to play.



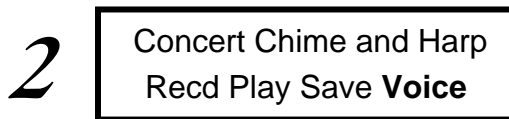
Press **[F4]** to sequence through the available voices (if voice options are installed, otherwise button 4 will play random hymns). The system always remembers the voice you last selected for the keyboard.



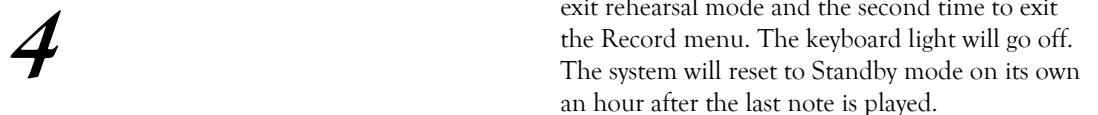
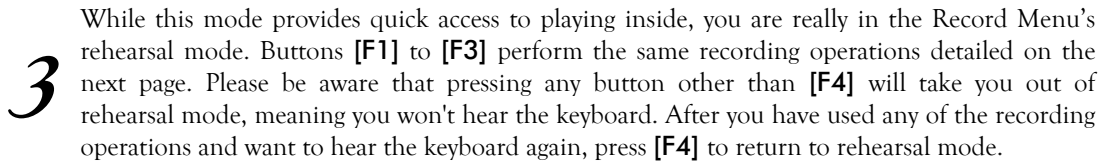
Inside Only Performance



Use your thumb to press **[F3]** and **[PLAY]** at the same time (the combination is Toll and Play on the mini remote). The keyboard light will come on when the system is ready to play.



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



Record a Keyboard Performance with the Front Panel

Detailed instructions may be found on page 59.

- Step*
- 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**

Full English Bronze 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 menu.

Add a Recording to the Library with Title and Category

Detailed instructions may be found on page 63.

- Step*
- 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 75.
 - 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 buttons to title the 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.

- 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**

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 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. While this screen is displayed the clock will be stopped. Select the time to which the tower dial hands point, then press **[ENTER]**.

- 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 menu pages are active.

Set Clock Chiming and Volume Levels (Globally)

Detailed instructions may be found on page 49.

- 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 and display the TimeStrike/AutoLevel programming page.

 - 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 and ending day. Scroll through the levels and time strike programs until your desired setting is shown. All of the programming options are shown in the table below.

 - 7

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

 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** programming page.

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 only on the hour)
Level:5	Chm Stk	(Chime clock on the hour, 1-strike quarters)
Level:6 (Normal)	Full Stk	(Strike the hour, 1-Strike on all other quarters)
Level:7	Half Stk	(Strike the hour, 1-Strike on the 1/2 hour)
Level:8 (Loudest)	Top Stk	(Strike only at the top of the hour)

Reprogram the Remote Control Function Buttons

Follow these steps to reprogram the eight function buttons at the top of the front panel keypad and the four buttons on the remote control. Detailed instructions may be found on page 55.

- 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 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]**. Additional functions (F5-F8) can only be activated from the front panel buttons.
 - 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)
--

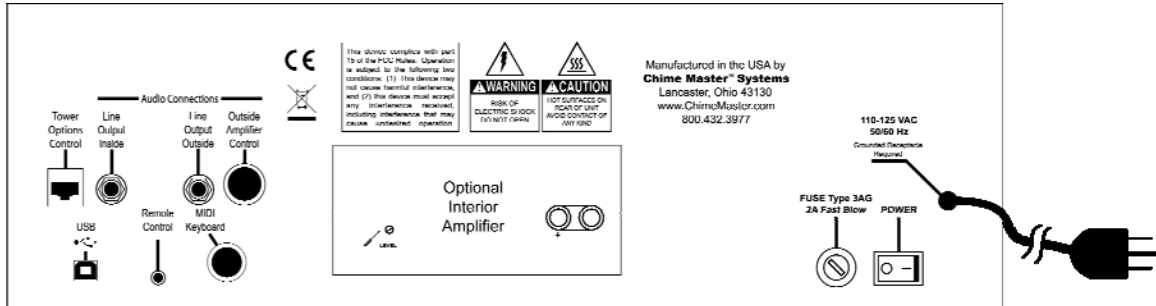
 Press **[ENTER]** to save your changes then **[CANCEL]** to exit when the function number is flashing.

A single selection may be repeated up to 199 times. To change from multiple selections back to a single selection for repeating, zero out the last three selections and press **[ENTER]** then enter the number of repeats desired. Press **[0]** then **[ENTER]** in the repeat field if you wish to play more than one selection.

Blank Page.

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

Look for specific connection diagrams for your system packed separately in the amplifier shipping carton.

Standard 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**. If the carillon is not equipped with this option, plug the amplifier power cord into a live wall receptacle. The amplifier will draw a small amount of current when the system is in standby mode.

Premium Amplifier Option

Balanced audio and amplifier power On/Off control are available on the **Amplifier Control** jack. We will supply an audio/data cable with our premium amplifiers. Plug the round end of the cable into the **Amplifier Control** jack. Plug the 15-pin D-shaped connector into the amplifier's **Data Port** jack. Plug the amplifier's power cord into a live wall receptacle.

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 will be located near the center of the rear panel and labeled *60W/8 Ohm Speaker*. 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.

Whenever the system is in Standby or Play modes, the inside monitoring speaker level can be adjusted using the [cursor▲] and [cursor▼] (scroll up and down) buttons. While pressing the buttons, the display will show the current level from 0 (muted) to 15 (maximum). Adjustments to the monitor level also affect the output level of the *Line Output Inside* jack, and the built-in monitoring amplifier, if installed.

Keyboard Connections

A 7 pin circular DIN jack on the rear of the Millennium Module accepts the 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 that can drive up to 1000 feet of CAT5 cable.

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 up to 25 feet. For longer extensions, Chime Master can supply extended remote control kits that allow one or two (diversity) antenna(s) to be placed up to 1000 feet from the carillon system using CAT5 cable.

Security Options

Set the security options to prevent unauthorized operation or programming if the system is located in an accessible area. A four digit pass code is all that is required to access the system. Choose a meaningful code so you can remember it. If you forget the pass code, call us for help unlocking the system. To enable the security option for the first time, press [ENTER] [3] [ENTER] [9] [ENTER] and a four digit number.

To change the password, press [ENTER] [3] [ENTER] [9] [ENTER] [ENTER]. Input the old pass code then enter a new pass code. If verification fails, the new code will not be set.

The system can be configured to lock automatically after a delay, or only lock when you hold the [CANCEL] button for 2 seconds. To set the auto-lock feature on, press [ENTER] [3] [ENTER] [9] [ENTER] 1 [ENTER] [cursor▲] (Yes) [ENTER].

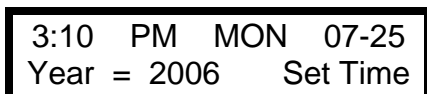
Monitor level control buttons and the Stop/Cancel button will still function during play while the keypad is locked. All automatically scheduled performances as well and the remote control function buttons continue to operate the system when the front panel buttons are locked. Store the remote control in a secure location when it is not being used.

Setting the Time Clock

The clock has an accuracy of +/- one minute per month under normal temperature operations. Periodic checks and settings of the clock may be necessary to insure accurate operation of the system.

From the Standby mode, press the [ENTER] button to access the main menu. Now press button [3] for the System Setup Menu, then [ENTER] to select it.

Press button [1] then press [ENTER] to select the Set System Clock screen.



3:10 PM MON 07-25
Year = 2006 Set Time

Press [cursor▶] to select the digit(s) to change, then [cursor▲] to reverse and [cursor▼] to advance the settings. Use [cursor] or [cursor▶] to choose the parameter to change.

Since minor adjustments are more frequently made, the minute digit is flashing on entry. Once all settings are correct, Press [cursor▶] until Set Time flashes on the lower line of the display. As soon as [ENTER] is pressed, the real time clock will be updated to the displayed settings. Pressing [CANCEL] will abort the Set Time menu without making any changes to the actual time settings.



Important: Make sure the AM - PM selection is correct. It is also important to properly set all of the time parameters. Easter Sundays and Leap Year adjustments will only work properly if the Year is set correctly.

Tower Clocks

After setting the system time, you will be prompted to input the position of any tower clock hands that the system controls. The tower clocks will be stopped at this time to give you time to verify their positions. Newly installed clocks generally have their hands at 12:00.

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 these dates, power on the system while holding the [1] button. After a few seconds the DST setup display will appear as follows.

Start: **2nd** Su Mo:Mar
End: 1st Su Mo:Nov

[**◀**cursor] and [cursor**▶**] buttons select between the changeable fields and the [cursor**▼**] and [cursor**▲**] buttons make the changes. You may choose first, second, third, fourth or last of any day of the week in any month to start or end Daylight Time. Unless you live in the Southern Hemisphere, the start day should come before the ending day. The [ENTER] button will exit and save the settings. Pressing [CANCEL] at any time exits without saving your changes.

When an asterisk follows the day of the week, the system is in Daylight Time mode.

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

SmartAlmanac™ Seasonal Setup

One of your carillon's primary strengths is its 'set it/forget it' ease of programming. The 100-year SmartAlmanac 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 display. When the left side of the display is flashing, [cursor**▼**] and [cursor**▲**] move forward and back through the list of options. When the right side of the display 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 display is flashing, [cursor**▼**] and [cursor**▲**] move forward and back through the list of dates Christmas can begin.

When the right side of the display 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.	

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 Zone 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. Zoning macro codes (7920-7928, see page 11) will modify the selections you make in the setup menu.

Voicing Pre-Recorded Selections

The Millennium Carillon comes in two models:

- Gold Edition - Supports five combinations of voices.
- Platinum Edition - 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. Gold and Platinum Edition

models allow the Harp arrangement to be turned off, playing simpler arrangements on a two-octave chime. These systems have three different arrangements of each song in memory.

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 hour strike will play for the clock arrangements.

Keyboard voice simplification is available for the Keyboard performance and recording menus. 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 limit the voices enabled for keyboard performance to 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. Many organs always transmit MIDI data when the stops are off using channels we don't want to respond to.

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 61 note (five-octave) 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, depending to the organ's MIDI implementation. Volume 0 (mute) commands are ignored.

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.

Keyboard Sensitivity
Light:8 Heavy:8

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.

Section 3

Overview of Features



Front Panel

Push Buttons

Security options can be set so that the keypad can be locked. A four digit pass code is required to unlock the keypad after it has been locked. For help configuring the keypad security, see *Security Options* on page 29.

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. Buttons **[5]** through **[8]** also serve as function- buttons in Standby mode, but their labels are not shown on the 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 prompts you to enter a four digit code by flashing the current four digit code, the number of the desired selection can be entered directly using the numeric buttons. Alternately, you may select a song or ringing function by title by pressing the **[NO]** button to activate the onscreen title lookup feature. Random Groups and Pauses (in the View/Edit Schedule screen) may be entered by alternately pressing the **[YES]** button.

Inside Monitor Speaker Volume Level

Whenever the system is in Standby or Play modes, the inside monitoring speaker level can be adjusted using the **[cursor▲]** and **[cursor▼]** (scroll up and down) buttons. While pressing the buttons, the display will show the current level from 0 (muted) to 15 (maximum), unless the MIDI keyboard mode is active.

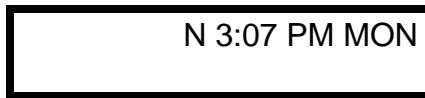
Inside/Outside Speaker Status Indicators

To the right of the push buttons are two indicator lights for the ZoneAutoMute™ feature. 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.

Use *Setup - Seasonal Options* menu (see page 29) to set the scheduled programs to play Inside/Outside or Both. Set the remote control functions to play Inside/Outside or Both. The keyboard will play inside only or inside and outside. You can have special events in the church without being interrupted by clock striking. The front panel indicates at a glance which speakers are active.

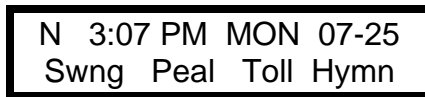
Display

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 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.

If the keypad auto-lock security option is set, the keypad will automatically lock when the display dims and the screen saver is activated.

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.

When it is time for a programmed sequence to play, the *Outside* light will illuminate, and the selection numbers playing will be shown on the lower line of the display.

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 remote function buttons.

The dot after the "PM" in the top line indicates that the clock is synchronized via GPS (optional), while the star after the day indicator means that the unit is in Daylight Savings mode.

SmartAlmanac™ Current Season

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 29) 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 75 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 button.

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.

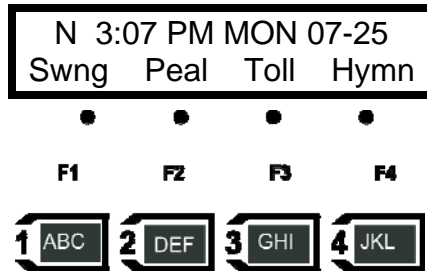


Important! Be sure to [CANCEL] or [STOP] the keyboard performance menus when the performance is complete so that the regularly scheduled automatic performances will continue. The keyboard performance modes will remain active for an hour after the last note is played.

Pushbutton Manual Operation

Function Buttons

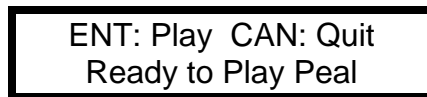
This is **Standby** mode displaying the season, time, day and date, along with a choice of bell functions.



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!**

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.



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. Reorient the receiving antenna for best results.

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 55.

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 (Standby Mode), 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 corresponding to the item number below 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.

If you select the System Setup Menu, you will see additional menu which also has numeric shortcuts as shown in the following table.

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 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.
9	Security Options	Setup keypad locking password and options. Instructions on page 29.

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

The following screen is displayed while a selection is playing. The current time and date appear on the top line and the selection code for the current song or function are shown on the lower line.

You may adjust the inside volume level by pressing either the **[cursor▲]** or **[cursor▼]** button to raise or lower the volume level. This does not affect the level heard from the outside speakers.

You can also reject the selection or all selections that are queued to play.

<p>9:31 AM Tue 11 - 11 Playing 4266</p>

[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

Silver Edition models will show either Chime Library or Carillon Library, but not both since these models come with a choice of one Music Library.

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.

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Section 4

Scheduling Automatic Performances

The schedule editing features of the Chime Master Millennium 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.

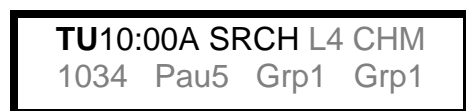
Time striking from 8 A.M. until 9 P.M. Monday through Saturday.

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 selected time strike melody. 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.' An easy 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 the [◀cursor] or [cursor▶] button until Bell Ringing/Special is displayed then press [ENTER].

**Music Title Index
ABCDEFGHIJLMNOPRSTWY**

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.

Programming Random Music

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 |
| Grp9 | User Defined Playlist - requires optional Millennium Suite to set up |

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 Music Block Macros

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. .

Since they determine the ending time of the block of music, these codes cannot be followed by any other selections at the same time slot. Any following selection codes will be ignored.

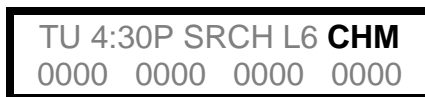
70xy Random Music Blocks

70x (Length of Block)	y (Music Group)
700 Plays four selections	0 Sacred hymns alternated with non-sacred music, always non-seasonal
701 Plays until 5 min before next quarter hour (up to 10 minutes)	1 Sacred hymns mixed with non-sacred music, follows the almanac seasons
702 Plays until end of current quarter hour (up to 15 minutes)	2 Sacred hymns mixed with non-sacred music, always non-seasonal
703 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
	9 User defined playlist

Clock Striking (for Specific Time)

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 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

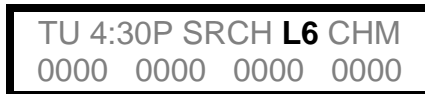
between **CHM** (chime) and **STK** (strike only). When **CHM** is selected, the appropriate clock chime melody plays on the selected quarter hour and will be followed at the top of the hour with a toll of the hour. When **STK** is selected, the top of each hour is marked with a toll of the hour, and all other quarters are marked by a single strike. When **OFF** is selected, no time announcement shall be made for the current quarter-hour.

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)

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. 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 the text 'TU 4:30P SRCH L6 CHM' and the bottom line contains '0000 0000 0000 0000'. A rectangular box highlights the 'L6' in the top line, indicating that the volume level field is currently selected and flashing.

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 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. 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.



Note: 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 51) 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 PROG** and press [**ENTER**] each time. Different time strike types and level settings may be entered for different times and days.

After completing all of your settings, 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	"Christus vincit, Christus regnat, Christus, Christus imperat"
Lourdes	Or <i>Ave Maria</i> "Immaculate Mary"
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 Tin-Tan or Ding-Dong
Warren	Early American tower clock chime
Bigelow	American four-bell chime
Parsifal	Classical four-bell chime
Nautical	Traditional Ship's Time
User Time Strike	Requires <i>Optional</i> Recording Librarian and Millennium Suite

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.

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
SD Card Library	Optional - use title librarian in Millennium Suite to add titles of your files.

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

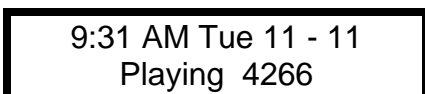
The selection repeats feature may be used to cause a tolling bell to ring a specific number of times. A single strike on a heavy bell (the *Toll 4700-lb Single, 8.6 sec tempo* is selection number 0110) is typically used for funeral tolls. The number of repeats may be set to the age of the deceased. You 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 eight 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]**. Functions F1 to F4 are available on the remote control. Functions F5 to F8 can only be executed from the front panel (or networked Millennium Suite remote controls).

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

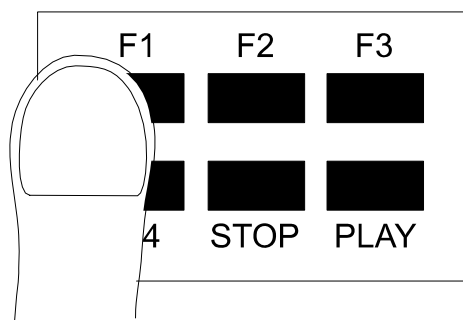
Playing the Carillon Keyboard

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 keyboard remote control as shown in the illustration.

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

Concert Chime & Harp
Swng Peal Toll Voice



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 **Error! Not a valid link.** [ENTER] [5] [ENTER]. You may also select the **Inside Performance/Record Menu** by *simultaneously* pressing [F3] and [PLAY] on the keyboard remote control as shown in the illustration below.

Notice that the green **Outside** light is off, indicating that the tower speakers are not on. The currently selected voice will be displayed on the top line.

Full English Bronze
Recd Play Save Voice

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.

Gold Duet and Platinum Edition systems can be programmed to simplify this list of voices. You can use the **Voice Preference Setup** screen to limit your choices to the two voices used to play factory music arrangements (see page 32).

To Exit Keyboard Mode

Press **[STOP] [STOP]** to return the system to Standby Mode.

If you do not exit the Keyboard Mode by pressing **[STOP] [STOP]**, the system will revert to Standby Mode and resume the automatic schedule an hour after the last note was played.

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.

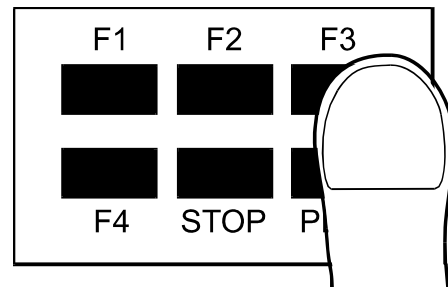
Entering the *Record a Performance* Menu

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 2500 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.

To Exit Record Menu

Press **[STOP] [STOP]** to return the system to Standby Mode.

If you do not exit the Rehearsal Mode by pressing **[STOP] [STOP]**, the system will revert to Standby Mode and resume the automatic schedule an hour after the last note was played.

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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.

Untitled 8005
 8005 Play **Patriotic**

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	Selection is added to the general play list, which will play when none of the following play lists are active (or enabled).
Lent	Selection is added to the Lenten play list
Easter	Selection is added to the Easter play list
Patriotic	Selection is added to the U.S. Patriotic play list
Marian	Selection is added to the Marian play list
Thanksgiving	Selection is added to the Thanksgiving play list
Advent	Selection is added to the Advent play list
Christmas	Selection is added to the Christmas play list

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

Options

SD Card Slot

The SD card slot option provides additional functionality to the Millennium Carillon. The option board the slot is mounted to contains additional memory that holds pre-recorded sound files. The slot will accept SD cards formatted on a PC (FAT32 format) to which you have copied MP3 files. These files can also be played from the carillon when named as described below.

Built-in Sound Files

The SD card slot also adds the following internal sound files to your system. You may have an addendum sheet that lists additional available sound file selections.

Bugles

0175	Adjutant's Call	0170.....	Mess Call
0169	Assembly	0178.....	Officer's Call
0164	Call to Church	0171.....	Recall
0168	Call to Quarters	0163.....	Retreat
0176	Carry On	0162.....	Reveille
0172	Drill Call	0173.....	School Call
0167	First Call (Fast)	0174.....	Stable Call
0179	First Call (Slow)	0165.....	Taps
0160	Hejnal Mariacki	0166.....	Tattoo
0177	Inspection	0161.....	To the Colors

Copy MP3 Sound Files to an SD Card

We supply a properly formatted SD card with your system. It has a capacity for hundreds of selections. We have provided the following bagpipe selections on this card.

6491	Amazing Grace	6494.....	Goin' Home
6492	Amazing Grace (March off)	6495.....	I'll Fly Away
6493	The Battle is Over		

To format another SD card, use a PC with a compatible card slot, or an external SD card adapter (usually connected to the USB port). The card must be formatted using FAT32 (not plain FAT as most cards are pre-formatted out of the package). Copy the desired MP3 files to the card, and then rename the files so that they have numeric filenames from 6000-6499.

Example: original filename is birdsinging.mp3
Rename the file to 6234-birdsinging.mp3

Make sure each 6000 number used is unique on the card. The characters after the hyphen will be ignored by the carillon system. The 6000 number can be used for any four digit selection code in the automatic or manual modes.

The MP3 file's left channel goes to the outside speakers and the right channel plays inside. If the file is to play both inside and outside, create a mono file. To prevent music with significant low frequency content (modern pop music or pipe organ selections) from damaging the outside horns,

we recommend that you prepare full range music files so that all of the audio is on the right channel, so that it plays inside only.

Install the SD Card

Removing the name plate on the lower right of the front panel provides access to this slot (if installed). If a card is already in the slot, push on it to eject and then remove it. Install the card with the contacts down.

Play Selections from an SD Card

Whenever a four digit selection code is flashing, you can simply enter the 6000 number for the selection you want to play from the SD card.

GPS

The Millennium carillon's clock is very accurate and normally will not accumulate errors exceeding more than 60 seconds per year. There are three ways to synchronize the clock.

1. Twice per year, follow the instructions on page 23 to manually set the clock.
2. The Millennium Suite software can update the clock to Internet time. This requires that the system be connected to a PC running the optional Millennium Suite software and an Internet connection. See the Millennium Suite manual for instructions.
3. Install the optional GPS synchronizer as described here.

Installation

The GPS synchronizer consists of a control box that sends the time synchronization information to your unit and the antenna that receives the GPS signal.

The antenna needs to be placed in a window with a clear view of the sky. The signal will NOT go through obstructions such as trees or any building materials other than glass or plastic. The GPS receiver also must be plugged into a standard 110 volt wall receptacle.

When the GPS synchronizer updates the clock, it communicates with the carillon using the remote interface. The synchronizer should be able to send the signal up to 100 feet, depending on your building and other interference issues.

Use

When you plug the GPS system in, you should see a few short blinks on the status light denoting the software version. Four blinks will indicate version 4.

Two long blinks then two short blinks means it is looking for the satellite signal.

A short blink once per second indicates normal operation. That is, valid satellite signals have been acquired and the system will adjust the time at the next hour. Allow up to 10 minutes for the GPS receiver to acquire satellite signals.

After the initial GPS synchronization of the time on your system, the light will blink steadily on/off each second. This means the time will be synchronized each day. This can be verified by looking for a period after the day of the week on the system display.

The time will be synchronized at the top of the next hour after powering on the GPS.

GPS Notes

- The GPS synchronizer does NOT set the time for you. It will set the minutes on the system to match the GPS signal once per day. This eliminates the need to enter time zone settings.
- To verify that the synchronizer has set the time, look for a period after the AM/PM indication. If there is a period, the time has been recently synchronized.
- The system will not synchronize the system clock while the carillon or bell controller is playing. It will however prevent automatic play during the two minutes before synchronizing your clock.
- To reset the GPS unit, simply unplug it then plug it back in. This will reset the satellite information and synchronize the time on the next hour.

Tower Bells Programming

The Millennium Carillon is able to provide ringing control for up to six tower bells. Each bell may be equipped with an electric striker (tolling hammer), a motorized swinging mechanism or both. The features described in this section will be activated when the system is configured with optional Chime Master tower bell relay panels.

Setup

The tower bells option should have been installed at the factory or by the installation technician using a PC connected to the carillon's USB port.

Enabling Time Strikes on Tower Bells

Use the Clock Chime Melody setup menu (see page 52) to configure the clock striking functions to ring on the tower bell(s). Scroll through the list of melodies until you find the one you desire with the prefix *TwrBell*. The names of the melodies also indicate the number of bells (equipped with electric strikers) required to perform the tune. Melodies such as the Westminster, Christus Vincit and Parsifal require bells of certain pitches for the tune to be recognized. Bigelow, Warren and Avondale sequences are generally used to ring two to four bells. For a single bell, select any of the *TwrBell* melodies in this menu, so that the system will toll the time strike on the tower bell.

The second step to getting the bells to ring the time is to schedule when you want the time to ring. Use the **TimeStrike/AutoLevel** setup menu screen (see page 49). For single bell installations, select one of the three striking options: *FullStk* to ring on all quarters, *HalfStk* to ring on the hour and half-hour or *TopStk* to ring on the hour only.

Swinging Tower Bells

Any combination of swinging and/or stationary bells may be controlled in a fashion that can make all of the bells sound as if they are swinging. In the tables below, bells are numbered from largest (always bell 1) to the smallest.

Enter the four-digit code from the table whenever four digits are flashing in the **Play Selections**, **Setup Function Button** or **View/Edit Schedule** screens. Each bell may be rung continuously for 15 seconds to 24 minutes in 15-second increments. The second two digits in the code indicate the number of quarter-minute periods to ring. Simulated swinging bells will stop immediately at the

end of the period, but bells rung by an electric swinging mechanism may take several minutes longer, depending on the weight, to slow to a stop. Keep this in mind when programming the length of time to ring.

The 7701-7899 functions ring combinations of bells. You may want to experiment to see which combinations sound best with your bells.

Swing	15 sec	30 sec	45 sec	1 min	2 min	3 min	4 min	5 min	10 min
Bell 1 Only	7101	7102	7103	7104	7108	7112	7116	7120	7140
Bell 2 Only	7201	7202	7203	7204	7208	7212	7216	7220	7240
Bell 3 Only	7301	7302	7303	7304	7308	7312	7316	7320	7340
Bell 4 Only	7401	7402	7403	7404	7408	7412	7416	7420	7440
Bell 5 Only	7501	7502	7503	7504	7508	7512	7516	7520	7540
Bell 6 Only	7601	7602	7603	7604	7608	7612	7616	7620	7640
1,2 & 4	7701	7702	7703	7704	7708	7712	7716	7720	7740
All Bells	7801	7802	7803	7804	7808	7812	7816	7820	7840

Tolling Bell

The tolling bell is generally selected to be the largest bell with a hammer. You can ring it for a period of time selected by the last two digits of the tolling code as shown below, or ring it manually using code 0300 for a specific number of repeats (from 1 to 199). Example codes are given in the following table.

Toll Bell	Single	15 sec	30 sec	45 sec	1 min	2 min	3 min	4 min	5 min	10 min
Selected ²	0300	0301	0302	0303	0304	0308	0312	0316	0320	0340

Angelus Bell

Angelus bells call the community to prayer at morning, noon and evening times. Three different tempos are available to allow the appropriate amount of time between rings for each prayer. A choice of two pitches as well as either a toll or a one-minute swinging bell to end the prayer is available. The 3-3-3 only is provided so you can program a swing or tolling bell of any length from the previous page to follow the prayer bell. The De-Profundis may be rung following the last Angelus of the day.

Angelus 3-3-3 only	Slow (5 sec tempo)	Medium (4.5 sec tempo)	Fast (4 sec tempo)
Bell 1	4105	4103	4101
Bell 2	4106	4104	4102
Angelus 3-3-3 - 9 tolls	Slow (5 sec tempo)	Medium (4.5 sec tempo)	Fast (4 sec tempo)
Bell 1	4111	4109	4107
Bell 2	4112	4110	4108
Angelus 3-3-3 - Swing	Slow (5 sec tempo)	Medium (4.5 sec tempo)	Fast (4 sec tempo)
Bell 1, Swing Bell 2	4117	4115	4113
Bell 1, Swing Bell 1	4118	4116	4114
De-Profundis	4119	Largest bell, 9 counts, 10 seconds per toll	

² The bell used for tolling is selected using the USB Tower Bells configuration program.

Campus Warning Tones

These are siren type tones that can be programmed to play through your outside and inside speakers. This is an option that must be factory installed prior to shipment. The tones can be programmed using the numeric codes provided below.

Cooling time is built-in to some of the louder tones to protect the speaker voice coils.

Slow Steady One Minute Duration

0480 Low Whoop Slow
0485 High Whoop Slow
0490 Low Siren Slow
0495 Buzz Tone Slow
0500 Low Buzzer Slow

Fast Steady 1 minute Duration

0481 Low Whoop Fast
0486 High Whoop Fast
0498 Buzz Tone Fast
0501 Low Buzzer Fast

Codes 1 minute Duration

0482 Whoop 2
0483 Whoop 3
0484 Whoop 4
0487 High Siren 2 of 3
0488 High Siren 3 of 4
0489 High Siren 4 of 6
0496 Buzz Tone 2 of 4
0497 Buzz Tone 3 of 5
0499 Buzz Tone 4 of 6 Fast
0502 Buzzer 2 of 4
0503 Buzzer 3 of 4
0504 Buzzer 4 of 6 Fast

Traditional Siren (4th interval)

0508 Ten Second wail (plus 10 sec wind-down)
0506 1-minute wail (plus 30 sec cooling time)
0510 2-minute wail (plus 1:00 cooling time)
0505 3-3-3 in 1 minute (plus 30 sec cooling time)
0507 Eight short wails in 30 sec (plus 30 sec cooling time)
0509 Eight long wails in 1:30 (plus 30 sec cooling time)

DISCLAIMER

Chime Master Systems manufactures and provides this musical instrument or bell ringing equipment AS IS for entertainment purposes only. Warning, distress, hazard and catastrophe signals provided may not conform to Federal Regulations, OSHA requirements or UL/CSA/EU standards. Consult a security specialist for installation of approved alarm equipment.

Millennium Suite

The carillon's rear panel USB port will connect to a Windows compatible PC. The Millennium Suite is a collection of utilities and applications that provides additional functionality to the

Millennium Carillon. A free lite-version of this software is available for downloading. Call for details.

Included on the Millennium Suite installation CD-ROM are the latest versions of the Carillon firmware. As updates are released, the application can automatically download them and alert you to keep your carillon up to date.

This page provides an overview of the currently available features of the Millennium Suite. New utilities and applications are being developed. Call us or look on our website for the latest specifications for the Millennium Suite.

Scheduler

Graphical schedule editor simplifies making changes to your ringing schedule. Schedules may be saved to your PC for backup. If your ringing schedule needs to change seasonally, this application makes it easy to program the changes ahead of time, save them to individual files, and then load them into the carillon at the appropriate time.

Up to ten weekly schedules can be stored in the carillon's FLASH memory. These schedules can be made active by executing macro selections 7930-7939. The macros can be manually executed in the Play Selections mode or scheduled to copy the schedule via an Annual or One-time event. See the latest Millennium Suite documentation for details.

Jukebox

Use the Jukebox application to playlists for special occasions or concerts. Drag and drop titles, rearrange the list, and save the playlist to a file for future use. Play modes include Play All, Play Selected, Play Random and Repeat ON/OFF.

Backup

Use the backup utility to backup the entire setup memory of your carillon. This provides additional protection from memory loss to the battery backup.

If you record performances and save many of them using the Librarian, the backup utility will allow you to archive the entire user recording memory.

Remote Control

The remote control panel is useful for controlling the carillon system just as if you were in front of the unit. Available USB/UTP extensions let you run the remote software in another room.

If a networked PC is installed next to the carillon, a remote client can be used to control the carillon from other PCs on your network. Free clients are available from logmein.com and other similar services. Within a network, your IT support personnel can usually help you set this up. An Ultra-Mobile-PC with a touch screen makes an easy to use graphical remote control connecting via WiFi to the host PC.

Enhanced Features

Additional features for the Millennium Carillon require a licensed version the Millennium Suite application software. Call us for help accessing these features.

- Store up to ten weekly schedules in the carillon to activate on specific dates
 - The carillon is programmed with a seven-day repeating schedule. We have added additional FLASH memory to store multiple weekly schedules to load at appropriate times for special holy day services or seasonal church schedule changes.
- Annual and non-Repeating Event Programming
 - Program up to 1000 annual or one-time events. These events can be meaningful musical selections to commemorate an anniversary or memorial. They can be macro selections to load a weekly schedule from FLASH memory to the active schedule memory.
- Custom SmartAlmanac random music group editor (Grp9)
 - Create custom playlists with the music you want to hear. Simply drag and drop titles from the right pane to the playlist on the left. Select the music you want to play for each SmartAlmanac™ season.
- Key transposition and tempo editing for pre-recorded music
- PC-Based user recording library management and MIDI file import
 - Preview keyboard recordings and type titles and select random seasons on the PC. Import MIDI files from the PC to user recording memory. This feature requires the Recording Librarian option on the Millennium Carillon.

See the *Millennium Suite* website for an up-to-date list of features and operational instructions:

<http://www.chimemaster.com/millennium/suite.html>

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Section 11

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.

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 option 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 enter, 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 quarter-hours 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 is on while the display says it is playing, check the muting options in the **Seasonal Setup** (see page 32). 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. The power light 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:
 - a) Make sure that the tower switch is in the on position and that the green light comes on while the system is playing.
 - b) Check that the tower speaker cable is properly attached to the amplifier output terminals.
 - c) 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. 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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