Operating Manual

Millennium Carillon

Model 2002 Version 1.20

Millennium carillon™

SYSTEMS

Important Safety Instructions

WARNING

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

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

Grounding

This carillon must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This carillon is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local rules and ordinances.

DANGER

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

Lightning

The Chime Master™ System 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 Chime Master™ System 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.

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.

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

About this Manual

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

Chime Master™ Systems

P. O. Box 936

Lancaster OH 43130

USA 1-800-344-7464

CANADA 1-800-432-3977

Revision 1.20, March 15, 2000

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	Play Selections	Allows pre-recorded and user-recorded selections to be performed manually.
1	View/Edit Schedule	Viewer/Editor for the program schedule. Allows searches for selections programmed to play, and modifications to the automatic schedule.
2	System Setup Menu	Additional sub-menu with options described in the Setup Table below.

Item #	Setup Menu Item	Description
0	Time Strike/Auto Level	Programs periods of time 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 Function Button	Editor for four programmable function buttons.
4	Seasonal Options	Enables or disables Daylight Saving Time adjustment, and allows customization of the seasonal almanac. Also used to disable factory recorded musical styles.

Seasonal Options

Available seasonal options are described in the following table. You may set each option to **Yes** or **No** with the results shown in each column. See **Seasonal Setup** on page 17 for further instructions.

Seasonal Option	Yes Results	No Results
Daylight Time	System will automatically adjust the clock between Daylight Saving and Standard Time.	System 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.
Good Friday	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. Christmas music will continue to play until January 5.	
Use Pre-recorded 2 Part Arrangements	Factory pre-recorded two part arrangements (Chime with Harp) will play randomly.	Will not play Chime and Harp randomly
Use Pre-recorded Full Carillon	Factory pre-recorded full carillon arrangements will play randomly.	Will not play Carillon randomly

Random Music Group Codes

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

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

Enter 70xy (with x and y from the table below) to play multiple random selections with a single code.

70xy Random Music Blocks

x	(Length of Block)
0	Plays four selections
1	Plays until 5 min before next quarter hour (up to 10 minutes)
2	Plays until end of current quarter hour (up to 15 minutes)
3	Plays through current and next quarter hour (up to 30 minutes)

y	(Music Group)
0	Sacred hymns alternated with non-sacred music, always non-seasonal
1	Sacred hymns mixed with non-sacred music, follows the almanac seasons
2	Sacred hymns mixed with non-sacred music, always non-seasonal
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

Schedule Input Sheet

Weekly Schedule (View)

Circle all days that apply	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							

Time Strike/Level (Set-Up)

FROM		TO		Time Strike Mode or Level Setting
Day	Time	Day	Time	

Table of Contents

Operating Manual 1

Important Safety Instructions 2

WARNING 2

Grounding 2

DANGER 2

Lightning 3

Radio Interference 3

About this Manual 4

Reference Tables 5

Operational Menus 5

Seasonal Options 6

Random Music Group Codes 7

Schedule Input Sheet 8

Introduction 13

General Maintenance 13

Connections and Setup 15

AC Power 15

Amplifier Connections 15

Tower Amplifier Connections 15

Tower Speaker 15

Inside Monitoring Systems 16

Sanctuary PA System Connections 16

Carillon Amplifier Monitor 16

Remote Control Connections 16

Setting the Time Clock 16

Seasonal Setup 17

Daylight Time 19

Random Seasons 19

Factory Pre-recorded Music 19

Voicing Pre-Recorded Selections 19

Overview of Important Features 21

Front Panel 21

Key Lock 21

Push Buttons 21

Status Indicators 21

Display 22

Standby Mode 22

Seasonal Almanac 22

Automatic Reset 23

Function Button Performance 23

Remote Control 23

Selecting Menus 24

Play Selections 25

While Selection is Playing 26
To Change Selections 26
On Screen Title Lookup 26
To Enter More Than One Selection 26
To Repeat a Single Selection 26
Switching from Single to Multiple Selection Modes 26
STOP or NONSTOP 26
Programmable Tolling 27
Suspending Automatic Operation 27
Scheduling Automatic Performances 29
Navigating the View/Edit Schedule Screen 29
Viewing the Current Schedule 30
Selecting the Time to Play 30
Specific Selections 30
Onscreen Titles 31
Selection Carry Forward 31
Random Selections 32
Random Selection Blocks 33
Clock Striking (for Specific Time Slot) 33
Automatic Volume Level (for Specific Time Slot) 34
Global Scheduling 35
Schedule Clock Striking 35
Select the Starting and Ending Times 35
Select the Time Strike Mode 36
Set the Program into Schedule Memory 37
Schedule Volume Auto Level 38
Programming Loudness (Volume Level) 38
Verify Global Settings 39
Play Selections (Manually) 41
Function Buttons 41
Play Selections Menu 41
To Change Selections 42
To Enter More Than One Selection 42
To Repeat a Single Selection 42
Programmable Toll 42
STOP or NONSTOP 42
Reprogramming Function Buttons 43
Editing the Function's Selection(s) 43
WAIT or NOW! 43
STOP or NONSTOP 43
Editing the Function's Label 44
Saving the Changes 44
Restoring the Factory Defaults 44
Troubleshooting Guide 45

Error in Program Schedule Detected 45
Error in Seasonal Preference Memory Detected 46
Blank Screen 46
Time Clock Errors 46
No Sound 46
Returning the System for Service or Upgrades 47
Transportation Preparation Procedure. 48
Use Only Original Chime Master Systems Packaging 48
After Your Carillon has Been Serviced 48
Before Turning On Power 48
Millennium Warranty 49
Index 51

Section 1

Introduction

The Chime Master™ Model 2002 carillon is a completely solid state carillon for bell ringing reproduction. All bells and musical arrangements are digitally recorded and permanently stored in high-density memory circuits.

The digital bell recordings are combined with a unique control program. This program provides unparalleled flexibility when the system is used in churches, cemeteries, and colleges, to name but a few possible installations.

A quartz crystal controlled clock, calendar and seasonal almanac follow a user defined weekly schedule. You may select any of the musical selections in the system for playing any time and in any order. Random music functions let the Chime Master automatically select appropriate music for the current season.

A multitude of bell functions, such as swinging, striking, pealing, tolling and Angelus bells, are all provided with the system. These bells can ring manually or automatically at preset times.

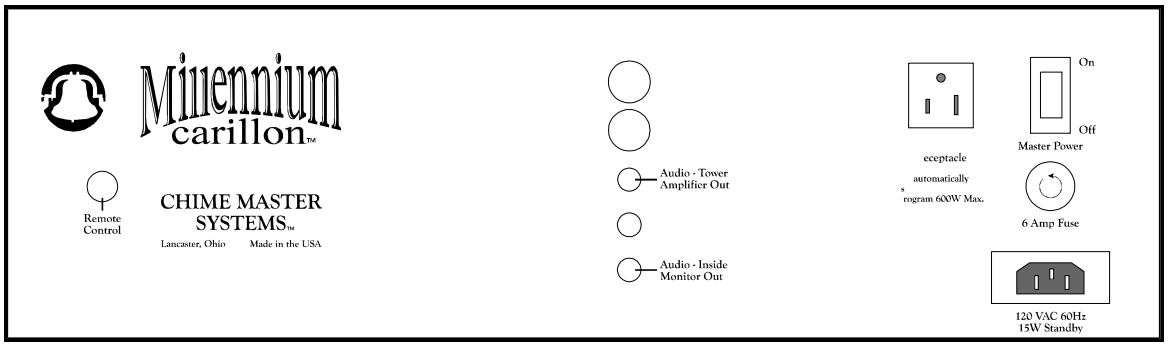
Included with the bell functions are time strike functions. These functions include the Westminster quarter hour and hour strikes. Any quarter hour of the day may be programmed to use the Time Strike function.

General Maintenance

A damp cloth may be used to dust the wooden cabinet. A clean, damp, soft cloth may be used to gently wipe the acrylic front panel.

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.

Each Chime Master System is supplied with a Surge Protector attached to the end of the power cord. If your area has many heavy thunderstorms, the surge protector should be replaced every two years.

Amplifier Connections

Tower Amplifier Connections

The carillon power amplifier is stacked under the carillon module. The rear panel of the carillon module has a ¼" phone jack labeled ***Audio Output, Tower Amplifier***. 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***.

Tower Speaker

The cable from the tower speakers connects to the two amplifier speaker terminals labeled *TOWER*.

Inside Monitoring Systems

Sanctuary PA System Connections

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

Carillon Amplifier Monitor

The carillon power amplifier features a built-in speaker that carries the same signal that is supplied to the tower speakers, though attenuated to 10 Watts. A control on the front panel of the amplifier allows the monitor level to be set. The amplifier monitor will play even if the ***Tower*** speaker switch is in the ***Off*** position. Auxiliary speakers may be attached to the terminals on the back of the amplifier that the built-in speaker is connected to.

Important: Never connect more than one amplifier to a speaker. The carillon cannot be connected directly to speakers that are also used for a PA system. Instead, connect the monitor output of the carillon to a spare input of the PA mixer or amplifier.

Remote Control Connections

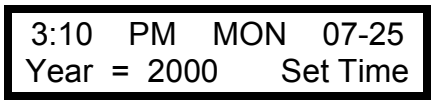
The remote control receiver plugs into the ***Remote Control*** jack located on the rear panel. If the supplied cable is not sufficiently long enough for proper positioning of the receiver, a 1/8" stereo headphone extension cable may be employed.

Setting the Time Clock

The latest 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.

From Standby mode, press the **[ENTER]** button to get to the main menu. Now press button **[2]** (or cursor through the list) for the System Setup Menu and **[ENTER]** to select it.

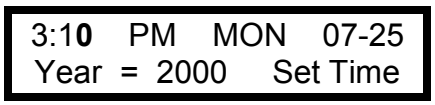
Press button **[1]** (or cursor through the list) and press **[ENTER]** to select the Set System Clock screen.



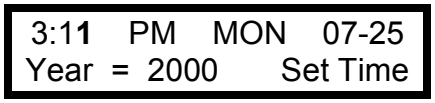
Press **[cursor▶]** to select the digit(s) to change, then **[cursor▲]** to reverse and **[cursor▼]** to advance the settings.

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 correctly set.

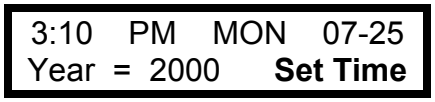
Once all settings are correct, Press [cursor▶] until Set Time flashes on the lower line of the display. As soon as [ENTER] is pressed, the real time clock will be updated to the displayed settings. Pressing [CANCEL] will abort the Set Time menu without making any changes to the actual time settings.



Use and [cursor▶] to choose the parameter to change. Since minor adjustments are more frequently made, the minute digit is flashing on entry.



Use [cursor▼] to reverse and [cursor▲] to advance each setting field.



Move to Set Time with [◀cursor] and [cursor▶]. Pressing [ENTER] will set the clock to the displayed time.

Pressing [CANCEL] will abort changes. In either case, the display will return to Standby Mode.

Seasonal Setup

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

To enter the seasonal options setup menu from Standby mode, press [ENTER] to bring up the Main Menu, [2] to select the setup menu, [ENTER] to go to the Setup Menu, [4] to select Seasonal Options, then [ENTER]. The lower line displays the current seasonal option on the left and its current setting on the right.

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

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

Available seasonal options are described in the following table.

Seasonal Option	Yes Results	No Results
Daylight Time	System will automatically adjust the clock between Daylight Saving and Standard time.	System 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.
Good Friday	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. Christmas music will continue to play until January 5.	
Use Pre-recorded 2 Part Arrangements	Factory pre-recorded two part arrangements (Chime with Harp) will play randomly.	Will not play Chime and Harp randomly
Use Pre-recorded Full Carillon Arrangements	Factory pre-recorded full carillon arrangements will play randomly.	Will not play Carillon randomly

Daylight Time

When enabled, Daylight Saving Time will be entered on the first Sunday of April at 1:59 A.M. Daylight Saving Time will revert to Standard Time on the last Sunday of October at 1:59 A.M. In order for each change to properly process, AC power to the system must be uninterrupted until 3:00 A.M. Please make sure all personnel understand that the Chime Master will change automatically, and that it does not have to be manually set or unplugged.

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 a variety of 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.

Factory Pre-recorded Music

You may favor the Chime with Harp arrangements over the full carillon music. The seasonal setup option allows you to disable one or the other 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 the system will not play when programmed with random selections.

Voicing Pre-Recorded Selections

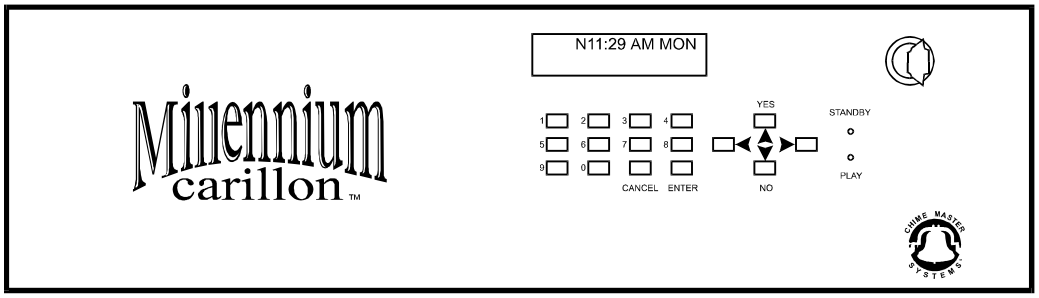
Factory Pre-recorded selections come in two varieties, Chime and Harp and Full Carillon. The Chime and Harp arrangements are actually played on two bell voices while the Full Carillon arrangements are played on one bell voice.

User selections will always play with the bell voice selected when they are saved. You have the option of selecting the bell voice for the pre-recorded selections. The clock striking voice may also be set. To do this, bring up the Set Voicing Preference screen from the Setup Menu by pressing (from Standby Mode) **[ENTER] [2] [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.

Section 3

Overview of Important Features



Front Panel

Key Lock

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

Push Buttons

Ten black buttons are used for entering numeric information such as selection numbers into the programming schedule (which can also be done by title).

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

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

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

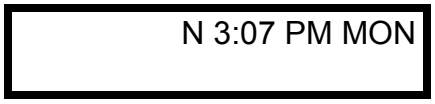
Status Indicators

To the right of the push buttons are two indicator lights. The top one, labeled **STANDBY**, illuminates *yellow* when the system is in **Standby Mode**. This indicates that

the system is ready for automatic operation. Below the Standby light is a *green* light labeled **PLAY**. The play indicator is illuminated whenever the tower amplifier is turned on. When the system is in any of its programming modes both lights will be extinguished.

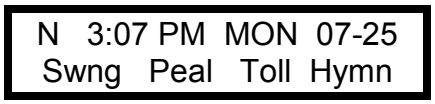
Display

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



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

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

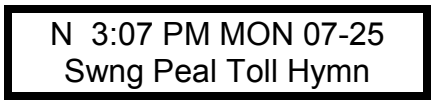


Standby screen after the screen saver has cancelled. Pressing **[ENTER]** bring up the Main Menu.

Standby Mode

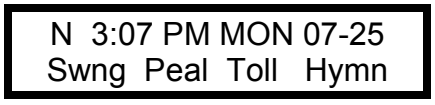
Standby mode is the normal operating mode of the system. Programmed selections and bell functions will not play automatically, unless the system is in Standby mode.

When it is time for a programmed sequence to play, the Standby light (yellow) will extinguish, the Play light (green) will illuminate and the selection numbers playing will be shown on the lower line of the display.



This is the non-seasonal Standby mode Display. The system is ready to play an automatic selection.

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



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

Seasonal Almanac

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

A letter displayed at the top left corner of the standby screen shows which seasonal play list is currently in use. A disabled season (see Seasonal Setup on page 17) will result in an 'N'

displayed during that time. The display always indicates the current season music list in use.

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

Automatic Reset

A watchdog circuit 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. Although this may be a minor inconvenience, it is better than having to race to the church in the middle of the night and to shut the bell system down. Refer to the *Troubleshooting Guide* page 57 for specific instructions for dealing with error messages.

The watchdog 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.

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

Cued selections ready to play and waiting for either the front panel **[ENTER]** or remote **[PLAY]** buttons will hold for up to 60 minutes before the system resets.

Function Button Performance

Remote Control

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

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

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

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

The Function Labels

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

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

Operational Tips

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

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

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

For information about re-programming the Function buttons on the remote control, see Reprogramming Function Buttons on page 43.

Selecting Menus

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

Press the **[cursor▲]** or **[cursor▼]** button until the desired menu selection flashes, then press **[ENTER]** to go into that menu. Item number may also quickly access each menu item. Since the numeric method is quicker, it is used in all step-by-step examples in the manuals.

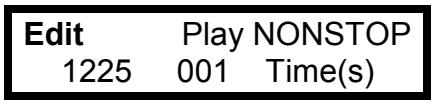
Item #	Main Menu Item	Description
0	Play Selections	Allows pre-recorded selections to be performed manually.
1	View/Edit Schedule	Viewer/Editor for the program schedule. Allows searches for selections programmed to play, and modifications to the automatic schedule.
2	System Setup Menu	Additional sub-menu with options described in the Setup Table below.

Item #	Setup Menu Item	Description
0	Time Strike/Auto Level	Programs periods of time 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 Function Button	Editor for four programmable function buttons.
4	Seasonal Options	Enables or disables Daylight Saving Time adjustment, and allows customization of the seasonal almanac. Also used to disable factory recorded musical styles.

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.

Play Selections

From Standby Mode, press **[ENTER] [0] [ENTER]** to bring up the Play Selections screen. The Play Selections screen allows you to suspend the automatic play mode to use the system during special events. Appropriate music for events such as weddings can be found in the Selections Catalog. Play Selections can be programmed ahead of time, because it remembers the selections you programmed it to play. It is like a programmable function button that you can play immediately.

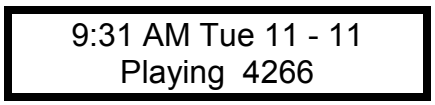


The initial display for Manual mode has **Edit** flashing. Use the**[◀cursor]** or **[cursor▶]** buttons to choose between Edit and Play, followed by **[ENTER]**. The lower line shows the selections programmed to play.

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.

While Selection is Playing



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

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.

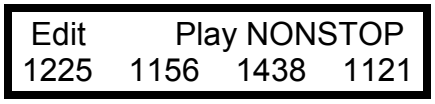
On Screen Title Lookup

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:

Chime Library	Titles of factory pre-recorded two-part Chime and Harp selections.
Carillon Library	Titles of factory pre-recorded full carillon arrangements.
Bell Ringing/Special	Titles of special use bells, random selections, blocks

To Enter More Than One Selection

When only one is currently programmed, press the right-select 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.



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 function that had multiple selections previously programmed, enter zeros into the second selection location until the second, third and fourth selections are zeros. Press the **[ENTER]** button to make **001 Time(s)** display. The number of times to repeat (one to 199) may now be entered.

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.

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 the **[ENTER]** or **[PLAY]**

button 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 the **[ENTER]** or **[PLAY]** button is pressed until the **[CANCEL]** or **[STOP]** button is pressed.

When **NONSTOP** is displayed, the system will play without stopping until all programmed selections and repeats are completed.

Programmable Tolling

The selection repeats feature may be used to cause a tolling bell to ring a specific number of times. The slow single strike (selection 0104) 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 by multiplying the number of repeats by the tempo of the toll given in the title lookup display or the selections catalog.

Suspending Automatic Operation

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

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

Section 4

Scheduling Automatic Performances

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

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

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

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

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

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

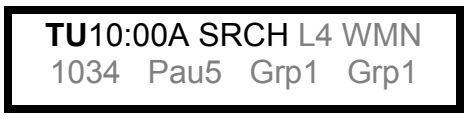
Thirty-second swinging bell at 6:55 P.M. on Wednesday.

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

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

Navigating the View/Edit Schedule Screen

If the **Standby** light is on, bring up the **View/Edit Schedule** screen by pressing **[ENTER] [1] [ENTER]**. If the **Standby** light is not on, press **[CANCEL]** until it is on.



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 **WMN** shows that the scheduled program will be preceded by a time strike using the Westminster 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] [1] [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.

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

Specific Selections

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

Onscreen Titles

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

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

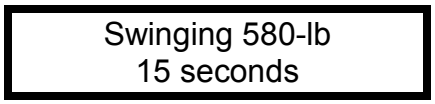
Use the **[◀cursor]** and **[cursor▶]** buttons to select the series then press **[ENTER]** to access the alphabetical index.

Series:	Type of Selections:
Chime Library	Factory installed recordings using two part arrangements suitable for Chime and Harp voices.
Carillon Library	Factory installed recordings using full range arrangements suitable for the full carillon voices.
Bell Ringing/Special	Swinging Bells, Pealing Bells, Tolling Bells, Angelus Prayer Bells, Random selection blocks and Taps (on Bugle).

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

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

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



The first selction 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]**.

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**.

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 plugs itself in.

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 blank time slot you enter.

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

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

Random Selections

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

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

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

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

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

Random Selection Blocks

Random selections may also be programmed as blocks of multiple selections. You'll find them listed in the onscreen title index under **R** in the **Bell Ringing/Special** index. To program them by number, enter 70xy where x signifies the ending time and y signifies the random group to use.

70xy Random Music Blocks

x	(Length of Block)
0	Plays four selections
1	Plays until 5 min before next quarter hour (up to 10 minutes)
2	Plays until end of current quarter hour (up to 15 minutes)
3	Plays through current and next quarter hour (up to 30 minutes)

y	(Music Group)
0	Sacred hymns alternated with non-sacred music, always non-seasonal
1	Sacred hymns mixed with non-sacred music, follows the almanac seasons
2	Sacred hymns mixed with non-sacred music, always non-seasonal
3	Sacred hymns only, follows the almanac seasons
4	Sacred hymns only, always non-seasonal
5	Non-sacred music only, will play patriotic and Christmas in season
6	Non-sacred music only, always non-seasonal
7	Patriotic music independent of season
8	Marian hymns independent of season

Clock Striking (for Specific Time Slot)

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

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

The 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 **WMN** (Westminster melody), and **STK** (strike only). When **WMN** is selected, the appropriate Westminster melody plays on each quarter hour and is followed at the top of the hour with a toll of the hour. When **STK** is selected, the top of each hour is marked with a toll of the hour, and all other quarters are marked by a single strike.

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

Automatic Volume Level (for Specific Time Slot)

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

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

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

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

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

Press **[CANCEL]** to go to next section.

Section 5

Global Scheduling

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

In this section we'll show you how to use the **Setup Mode - Time Strike/Auto Level** screen. In doing so, we'll continue to use the sample schedule described at the beginning of the previous section. In particular,

> Westminster time striking from 8 A.M. until 11 P.M. Monday through Saturday on all four quarter-hours.
>
> Westminster time striking from 1 P.M. to and including 8 P.M. on Sunday, only at the top of each hour.
>
> Lower the volume level from 7 P.M. until 11 P.M. each day.

Schedule Clock Striking

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

Press **[Enter]**, **[2]**, **[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 38) 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 WMN	LEVEL: 2
HALF WMN	LEVEL: 3
TOP WMN	LEVEL: 4
WMN 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.

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

There are three basic time strike functions that 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,** in which the chime system does nothing about striking the time; **STRIKE,** in which at the top of the hour, a chime shall strike the hour, and on all other quarters will strike only once; **WESTMINSTER**, in which on the top of the hour, the full Westminster melody shall play, followed by striking of the hour, and on all other quarters the appropriate Westminster melody shall play. These modes are displayed in the **View/Edit Schedule** screen for each quarter hour as **OFF, STK and WMN**.

The **Time-Strike/Auto-level** screen gives you eight modes that take the three time strike functions and apply them over a given span of hours as follows:

TS OFF (Time Strike **OFF**)
:00 - OFF
:15 - OFF
:30 - OFF
:45 - OFF

FULL WMN (Full Westminster)
:00 - WMN
:15 - WMN
:30 - WMN
:45 - WMN

HALF WMN (1/2 Westminster)
:00 - WMN
:15 - OFF
:30 - WMN
:45 - OFF

TOP WMN (Top Westminster)
:00 - WMN
:15 - OFF
:30 - OFF
:45 - OFF

WMN STK (Westminster 1/2 Strike)
:00 - WMN
: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

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 and new region and 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 WMN MON .. SAT **SET PROG**	This display shows that when **SET PROG** is selected and **[ENTER]** pressed, the Full Westminster function will be programmed from 7:00 A.M. until 10:45 P.M. on Monday throughSaturday.
01P to 09P WMN TOP SUN .. SUN **SET PROG**	This example display will play the Westminster time strike at the top of each hour on Sunday from 1:00 PM until 8:00 PM.

To review, the following procedure will set blocks of time in the **TIME STRIKE** mode.

1. Press [cursor▼] until the time to start is displayed.
2. Press [cursor▶] to select the stop time field and set it with [cursor▲] (use the hour following the last hour to ring).
3. Press [cursor▶] to select the beginning day field and set it with [cursor▼].
4. Press [cursor▶] to select the ending day field and set it with [cursor▲]. If the beginning day and ending day are the same, the setting only changes that day.
5. Press [cursor▶] to select the time strike type or level setting field and set it by scrolling through the options with [cursor▲] or [cursor▼].
6. Press [cursor▶] to select **SET PROGRAM**.
7. When you have reviewed your settings, press [ENTER].

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

After all settings are done, Press [CANCEL] twice 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.

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.

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.

The attenuation for each level setting is:

8 – 0 dB (maximum)	**5** – 3 dB	**2** – 8 dB
7 – 1 dB	**4** – 5 dB	**1** – 10 dB(minimum)
6 – 2 dB	**3** – 7 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.

Section 6

Play Selections (Manually)

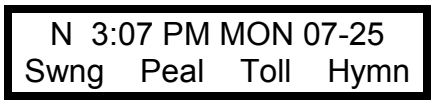
Its nice to know that your Millennium ™ carillon faithfully plays according to your schedule, but there will be times when you want to take control during services or special occasions. Remember, the remote control is always ready to play your function button programs, as well as step through the program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

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

Function Buttons

Return the system to Standby Mode [CANCEL], [CANCEL].

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



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

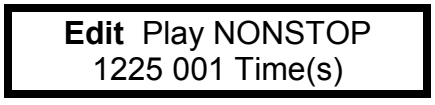
Pressing the button corresponding to a label causes the system to cue the programmed selection.

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

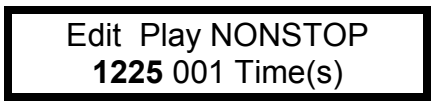
The selection will remain cued and ready to play for one hour after the function button is pressed. This display and the need for [ENTER] will be skipped if the function is programmed to play **NOW!**

Play Selections Menu

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] [0] [ENTER]. The selection(s) played the last time the menu was used will be displayed. You may edit the selections or play the same performance again.



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



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.

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.

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]**).

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.

Reprogramming Function Buttons

The four function buttons may be reprogrammed in a very similar way that you would program a manual performance in the **Play Selections** menu above. Access the function-button editing screen from Standby mode by pressing **[ENTER] [2] [ENTER] [3] [ENTER]**.

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

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

Editing the Function's Selection(s)

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

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

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

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

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

WAIT or NOW!

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

When **NOW!** is displayed, the system will play the first selection as soon as it is ready after the function button is pressed. Cueing usually takes less than three 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. While the letter is flashing the [cursor▲] and [cursor▼] buttons allow you to change the letter.

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

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 *Viewing the Current Schedule* on page 30) 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.

Error in Program Schedule Detected

Program is corrupted Yes-Clear No-Salvage

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

Should you select **[YES]** to reinitialize the program, or select **[NO]** to salvage? The answer depends on how complex your program is to key in, or if you have an adequate record of it at all. The least amount of time and effort will be spent if you press **[NO]** to salvage what you can. When you elect to salvage, each time slot is checked and will be cleared if any invalid selections are found. Also any slots programmed between **11:00 P.M.** and **6:00 A.M.** will be cleared. Be sure to check the schedule with View mode after resetting (refer to *Viewing the Current Schedule*, on page 30).

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

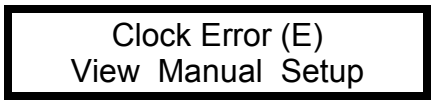
If the system should ever detect that the seasonal preferences memory may have corrupted, the system will display this message and suspend automatic operation.

Press [ENTER] for each option and verify that it is correctly set. Use [YES] and [NO] 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.

Time Clock Errors



A clock error means that invalid data has been found in the time clock registers. Set the clock from the **Setup, Set Time** menu, then check system operation manually. If you get a Clock Error **(S),** showing that the clock has stopped, and you can't restart it by setting the time, the clock's battery may be low. 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. Is the colon (:) on the time display flashing? If not turn the power off and then back on. Try playing a selection manually or with a function button.

1. The green **PLAY** light on the front of the Millennium should come on when the system is playing. Also, you should have a power indication on the amplifier (green or red, depending on the position of the tower switch).
2. Are connections to the amplifier at fault? Make sure that all cables are plugged in completely.
3. Is the amplifier at fault? Try plugging the amplifier power cable directly into the AC wall socket and remove the audio cable from the back of the main unit. One of the Tower lights on the front of the

amplifier should come on. Tap on the tip of the connector at the end of this cable. You should hear a faint hum or thump from the monitor speaker as you do so.

If sound can be heard from the monitor speaker, but not from the tower follow this checklist:

1. Make sure that the tower switch is in the on position and that the green light comes on while the system is playing.
2. Check that the tower speaker cable is properly attached to the amplifier output terminals.
3. Check the tower speaker cable for shorts between the conductors..

Returning the System for Service or Upgrades

Call for Return Authorization. Do not return equipment without calling (800) 344-7464 for return authorization. We probably can help you avoid returning the equipment. The customer service representative will also provide you with the address of the service station.

Follow the steps below to make your system ready for shipment.

Transportation Preparation Procedure.

1. Turn the system power **OFF**. The main power switch is on the rear of the unit.
2. Turn the key to the locked position (fully counterclockwise) and remove the key.
3. Put the key where it will be safe until your unit is returned to you.
4. Disconnect Cables. Unplug the power cord from the rear of the Chime master unit. 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 $25.00 charge is made for the shipping package.

Packing Materials

(1) Box, 24 by 24 by 12 inches

(2) blocks of green cushion foam packing

(1) Accessory box if returning remote

The green cushion 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 35 pounds. Use original packing materials. Chime Master Systems will not be held 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.

Millennium Warranty

Golden Warranty Five Years Parts Five Years Labor

Chime Master™ Systems warrants to the original consumer purchaser (Buyer) that this Chime Master Millennium shall be free from defects in material and workmanship for a period of five (5) years after the original date of shipment to the Buyer. This is a limited warranty limited to its terms. This warranty is void if the product has been altered, misused, taken apart or otherwise abused. **ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED ARE EXCLUDED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE**.

Buyer's Remedies: Chime Master™ System's obligations and liabilities under the foregoing warranty are limited to repair or replacement, at the option of Chime Master™ Systems, of the product without charge, provided it is shipped prepaid to a Chime Master™ Systems Factory-Authorized Service Center. The product must be accompanied by proof of the date of purchase satisfactory to Chime Master™ Systems, and by a Return Merchandise Authorization (RMA) number issued by Chime Master™ Systems. It is the responsibility of the Buyer to properly pack the unit for safe return, using the packing provided with the system. For an RMA number and the location of the nearest authorized service center contact Chime Master™ Systems, 6312 Goss Rd., Sugar Grove, OH, (800) 344-7464. A charge is made for repairing after the expiration of the warranty. **IN NO EVENT SHALL** Chime Master™ Systems **BE LIABLE FOR CLAIMS BASED UPON BREACH OF EXPRESS OF IMPLIED WARRANTY OR NEGLIGENCE OR ANY OTHER DAMAGES WHETHER DIRECT, IMMEDIATE, FORESEEABLE, CONSEQUENTIAL OR SPECIAL OR FOR ANY EXPENSES INCURRED BY REASON OF THE USE OR MISUSE, SALE OR FABRICATIONS OF PRODUCTS WHICH DO NOT CONFORM TO THE TERMS AND CONDITIONS OF THIS CONTRACT.**

The provisions of the foregoing warranty are valid in the United States only.

Excluded from this warranty are defects caused by wear and tear, misuse, neglect, shipping damages, alterations or modifications, or any act of nature. Chime Master™ Systems will make such determinations.

It is the Buyer's responsibility to program this carillon to play at reasonable sound levels, and at appropriate times. Buyer agrees to hold Chime Master™ Systems harmless from, defend, and indemnify Chime Master™ Systems against damages, claims and expenses arising out of subsequent use of this product and based upon personal annoyance, discomfort, injuries, deaths, property damages, lost profits and other matters for which Buyer, its employees and members are or may be to any extent liable.

Every reasonable effort has been made to ensure that Chime Master™ Systems product manuals and promotional materials accurately describe the product's specifications and capabilities at the time of publication. However, because of ongoing improvements and updating of Chime Master™ Systems' products, Chime Master™ Systems cannot guarantee the accuracy of printed materials after the date of publication and disclaims liability for changes, errors or omissions.

<u>IMPORTANT NOTICE</u>: THIS WARRANTY IS IN EFFECT, ONLY IF SYSTEM IS CONNECTED WITH AN APPROVED SURGE PROTECTOR WITH A PROPERLY GROUNDED 120 VOLT 60 CYCLE ALTERNATING CURRENT RECEPTACLE CAPABLE OF SUPPLYING AT LEAST 8 AMPERES DESIGNATED FOR THE CHIME MASTER SYSTEM.

Index

A

Almanac
  Seasonal · 22
Amplifier Power
  Connection · 15
Audio Output
  Tower Amplifier · 15
Auto Level/Time Strike
  Setup Mode · 35
Automatic Operation
  Suspending · 25
Automatic Reset
  Cued selections · 22
  Watchdog · 22
Automatic Volume Level
  For Specific Time Slot · 33

B

Battery
  Time Clock · 46
Bell Ringing/Special
  Title Lookup Screen · 25
Blank Screen
  Troubleshooting Guide · 46
Blocks
  Random Selections · 32
Buttons
  Function · 41
  Green, remote control · 23
  Programming function buttons · 42
  Red, remote control · 22

C

Carillon Library
  Title Lookup Screen · 25
Change
  Selections · 24
Chime Library
  Title Lookup Screen · 25
Clock Error
  Troubleshooting guide · 46
Clock Striking
  Schedule · 35
  Specific Time Slot · 32
Connections
  Audio Output, Tower Amplifier · 15
  Modular Tower Amplifier · 15
  Tower Speaker · 15
Cued selections
  Automatic reset · 22

D

Daylight Time
  Settings · 19
Display
  Standby Mode · *21*
  Stop or Nonstop · 25

E

Error Messages
  Clock Error · 46
  Memory Warning Verify ALL Options · 46
  Program is corrupted · 45

F

Factory selection defaults
  Saving · 43
Function
  Wait or Now · 43
Function Buttons
  Programming · 42
  Remote Control · 22
Function Labels
  changing of · 23
Functions
  Editing Selections · 42
  Editing the Label · 43
Functions Buttons
  Saving Changes · 43

G

Global Settings
  Verify · 39
Green button
  Play · 23
Group Selections
  Groups · 31

K

Keylock
  Location · 21

L

Label
  Editing · 43
Lights
  Green · 21
  Status Indicators · 21
  Yellow · 21

M

Manual
  Play Selections · 41
Menu
  Play Selections · 41
Menus
  selecting · 23
Music
  Factory Pre-recorded · 19
  Voices, Pre-recorded · 19

N

No Sound
  Troubleshooting guide · 46
Nonstop
  Display · 25
Nonstop or Stop
  Programming · 42, 43
Now or Wait
  Function · 43

O

Operating Mode
  Standby Mode · 22

P

Packing the System
  Troubleshooting guide · 46
Play selection
  Selecting the Time · 30
Play Selections
  Manual play · 41
Power
  AC · 15
Program
  Volume Level · 38
Program Corrupted
  Troubleshooting guide · 45
Programming
  Stop or Nonstop · 42, 43
  Tolling · 25
Push Buttons
  Black · 21
  Gray · 21
  No · 21
  Yes · 21

R

Random Selections
  Groups · 31
Red Button
  Stop · 22
Remote control
  placement of · 23
Remote Control
  Function Buttons · 22
Restoring
  Factory Defaults · 43
Returning for repair
  packaging information · 47
Returning the system
  Troubleshooting Guide · 46

S

Saving
  Changes · 43
Schedule
  Clock Striking · 35
  Viewing the Current · 30
Seasonal
  Almanac · 22
  Setup · 16
Seasons
  Advent · 6, 18, 22
  Christmas · 6, 18, 22
  Daylight · 6, 18
  Easter · 6, 18
  Good Friday · 6, 18
  Lent · 6, 18, 22
  Marian · 6, 18, 22
  Non-seasonal · 22
  Patriotic · 6, 18, 22
  Pre-recorded 2 Part · 6, 18
  Pre-recorded Full Carillon · 6, 18
  Random · 19
  Thanksgiving · 6, 18, 22
Selecting
  Time to Play · 30
Selections
  Carry Forward · 31
  Change · 24, 41, 42
  Editing · 42
  Enter more than one · 42
  Entering more than one · 25
  Group · 31
  Multiple Selection Mode · 25
  Play · 24
  Play Menu · 41
  Programming Toll · 42
  Random · 31
  Random Selection Blocks · 32
  Repeat a selection · 25
  Repeat a single selection · 42, 43
  Specific selection · 30
Settings

Daylight Time · 19
Setup Mode
Time Strike/Auto Level · 35
Shipment
preparing the system for return · 47
Specific Time Slot
Clock Striking · 32
Standby Mode
Display · *21*
Operating Mode · *22*
Status Indicators
Lights · 21
Stop
Display · 25
Stop or Nonstop
Programming · 42, 43

T

Time Clock
Battery · 46
Seasons · 16
Setting · 16
System Setup Menu · 16
Time Strike/Auto Level
Setup Mode · 35
Title Lookup
On Screen · 25
Title Lookup Screen
Bell Ringing/Special · 25
Carillon Library · 25
Chime Library · 25
User Recordings · 25
Titles
Onscreen · 30
Toll
Programming · 42
Tolling
Programming · 25
Tower Speaker
Connections · 15
Troubleshooting guide
Clock error · 46
No sound · 46
Packing the system · 46
Program corrupted · 45
Returning the system · 46
Troubleshooting Guide · 22
Blank Screen · 46

V

View/Edit Schedule Screen
Navigating · 29
Volume Level
Automatic · 33
For Specific Time Slot · 33
Programming Loudness · 38

W

Wait or Now
Function · 43
Watchdog
Automatic Reset · 22