Operating Manual

Libertas LX
Bell Controller

2306 (version 3.1/0922)

CHIME MASTER®

SYSTEMS

Important Safety Instructions

WARNING – General Precautions

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

I. Read all instructions before use.
II. Do not use this instrument near water - for example, near a bathtub, washbowl, sink, wet basement, near a swimming pool, or the like.
III. This instrument, 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.
IV. This instrument should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
V. Care should be taken so that objects do not fall, and liquids do not spill into the enclosure through openings.
VI. The instrument 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 instrument; or
    C. The instrument has been exposed to rain; or
    D. The instrument 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.
VII. Do not attempt to service this instrument beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

Grounding

This instrument 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 instrument 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.

Shock Hazard

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 instrument is properly grounded. Do not modify the plug provided with the instrument - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Lightning

The Chime Master® Libertas LX 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. Since there is a super-capacitor clock backup, all system information and files will be restored the next time the system is powered up.

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 owner expense.

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.

Schedule Work Sheet

Weekly Schedule (View)

Circle all that apply	Sel 1	Sel 2	Sel 3	Sel 4	TS	Remark
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 (Set-Up)

Day		Time		Time Strike Mode
From	Through	Start	Ending	

Table of Contents

Reference Guide

Trying Out the System for the First Time

If you have just installed your system, you are probably eager to hear how it sounds. Simply press [4], then [Enter] to toll the bell. To hear a simulated swing on a stationary bell or to turn on the swinging motor on a bell so equipped, press [1], then [Enter]. This type of ringing is suitable for call-to-worship or call-to-Mass.

You have just played two of the eight re-programmable pushbutton functions. The procedure to re-program these buttons is explained on page 19.

Front Panel

Status Indicators

To the right of the push buttons is the back-lighted speaker. The status of the Libertas LX is indicated by these different colors.

No Light – Initializing   White – Booting   Blue – Standby   Green – Active
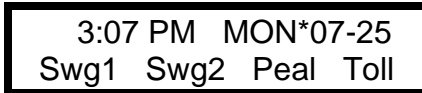
Display

When coming to the bell control, the home screen or Main Menu will be displayed.

```
 3:07 PM   MON*07-25
Swg1   Swg2   Peal   Toll
```

Selecting Menus

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

```
          Main Menu
      Play Selections
```

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

The Main Menu items are frequently used for schedule editing and manual ringing.

Item #	Main Menu Item	Description
0	Play Selections	Manual operation of ringing functions by selection number
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.

The Setup Menu items are not as frequently accessed after installation and are therefore separated into their own sub-menu.

Item #	Setup Menu Item	Description
0	Program Time Strike	Programs periods of time for time striking style.
1	Set System Clock	Allows adjustments to the clock/calendar.
2	Edit Function Buttons	Editor for eight programmable function buttons.
3	Miscellaneous Options	DST, Swinging bell coasting delay and funeral toll tempo
4	Swinging Bell Timing	Allows adjustments to be made to swinging bell motors/simulation
5	Time Strike Melody	Select Time Striking Melodies
6	Power Off - Save State	Saves your latest schedule and setup changes to permanent memory. Backup normally takes place within fifteen minutes of any edits.
7	Security Options	Set Pass Code and keypad locking options

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.

Entering Selections

Use the black ten numeric buttons on the front control panel to enter numeric information such as selection numbers into the programming schedule.

The top row of black buttons numbered [1] through [4] represent the four functions displayed on the lower line of the Standby screen. In addition, buttons [5] through [8] will activate additional functions, but their labels are not displayed 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 ▶], [cursor ▲] and [cursor ▼]. When answering 'Yes' and 'No' to questions appearing on the display, the up and down cursor buttons will be shown in this manual as [Yes] and [No].

The [0] can used to suspend the automatic schedule as explained on page 25. The red button may be referred to as [Cancel] or [STOP] and the green button is [Enter] or [PLAY}.

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

Use the tables on the next page to find the four-digit code for the selection you want to play or program. Enter specific selection codes directly using the numeric buttons.

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. This operation is detailed on page 12.

To Program a Pause (Automatic Schedule Only)

Use a pause in the schedule to delay subsequent selections a specific number of minutes beyond the even quarter hour. Selection 0071 represents a 1-minute pause. Selection 0072 represents a 2-minute pause, up to selection 0080 which represents a 10-minute pause. You may use multiple pauses to increase the delay time.

```
MO 3:15P Search  OFF
0075  1103  3104  0000
```

This view shows a five-minute pause, which allows an Angelus bell (1103) to play at 3:20 P.M., followed by a one-minute swinging bell.

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 [Titles/NO] button to bring up the on-screen index. See page 12 for step-by-step instructions.

Selection Codes

Funeral Toll Selections

The steady striking of a bell is called a toll. Tolling functions are numbered 6100 to 6699. The second digit selects which bell to toll (1 through 6, only one at a time). The last two digits again indicate length of time in 15 second intervals. For example, to ring the second to largest bell for 3 minutes, program 6**212**.

Frequently for funerals you may wish to manually play a certain number of tolls. A single toll may be repeated from 1 to 199 times in either the *Play Selections* menu or programmed on a function button. The single strike toll function is numbered similar to the timed functions above, but the last two digits is 00. For example, to ring the large bell for 56 strikes, program **6100 056 time(s)**.

De Profundis

Selection 0063 rings 9 tolls at 9 second intervals. This ring has traditionally been used as a curfew bell (*couvre-feu* lit. cover fire) at 8 or 9 o'clock in the evening, and to call the faithful to evening prayers.

Swinging Bell Ringing

Codes to ring for one minute					
Selection	Bells	Selection	Bells	Selection	Bells
3104	1 - Largest	4104	1,2,5	5104	1,2,3,4
3204	2	4204	1,3,5	5204	1,2,3,5
3304	3	4304	2,3,5	5304	1,2,4,5
3404	4	4404	1,4,5	5404	1,3,4,5
3504	5	4504	2,4,5	5504	1,3,4,6
3604	6 - Smallest	4604	3,4,5	5604	3,4,5,6
3704	1,2,3	4704	2,4,6	5704	1,2,3,4,5
3804	1,2,4	4804	3,4,6	5804	2,3,4,5,6
3904	1,3,4	4904	3,5,6	5904	1,2,3,4,5,6
4004	2,3,4	5004	4,5,6		

Note that not all peal combinations will result in a pleasant chord. Specific combinations ideal for your installation should be noted for future reference. The second two digits select the length of time to ring in 15 second intervals.

Examples:

3201 = 15 second bell 2 only

4004 = 1-minute peal bells 2,3 and 4

5110 = 2:30 bells 1,2,3,4

3120 = 5-minute bell 1 only

5999 = 24hr 45min (maximum) all bells 1, 2, 3, 4, 5 and 6

Angelus Prayer Bell Selections

1101 Bell 1 333 4 sec tempo

1102 Bell 2 333 4 sec tempo

1103 Bell 1 333 4.5 sec tempo

1104 Bell 2 333 4.5 sec tempo

1105 Bell 1 333 5 sec tempo

1106 Bell 2 333 5 sec tempo

The Angelus 333 codes may be followed by your choice of swinging or tolling bells.

1107 Bell 1 3339 4 sec tempo

1108 Bell 2 3339 4 sec tempo

1109 Bell 1 3339 4.5 sec tempo

1110 Bell 2 3339 4.5 sec tempo

1111 Bell 1 3339 5 sec tempo

1112 Bell 2 3339 5 sec tempo

1117 Alternative 2-bell Angelus

1118 Alternative single-bell Angelus

1119 Fast Angelus 333-12 for Noon

1120 Fast Angelus 333-9

0063 De Profundis (9 count, 9 second tempo

0064 Eastertide 4-slow, 9-fast

Faster Tolling Bells

The time strike tolls (1005 to 1016 for 1:00 to 12:00) can be used for faster ringing tolls. For the Sanctus, or a Trinity bell (during The Lord's prayer) you can use selection 1007. A distinctive Angelus can be built by ringing 1007, 1007, 1007 followed by 1013.

Function Button Macros

The eight programmable 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. If we program function F7 to repeat selection 6100 33 times, placing 7907 anywhere in the program schedule will toll the bell 33 times.

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. We typically program button F8 to be the Angelus button at the factory, and schedule 7908.

It is not possible to use a function button macro on another function button or in the manual Play Selections mode.

Access Online Titles

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

Most frequently used functions are in the title lookup, but not all combinations of peals and lengths of time are included in the listing.

Step

1

```
    MO 3:15P Search  OFF
    1103   0000   0000   0000
```

Whenever a four digit number is blinking, press [Titles/NO] then [Enter] to open the title index.

2

```
         Ringing Index
    ABCDEFGHIJLMNOPRSTWY
```

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

3

```
Swing Bell 1
1 Minute
```

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

4

```
    MO 3:15P Search  OFF
    1103   3220   0000   0000
```

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

Play Selection(s) Using the Manual Mode

Step

1

```
    3:07  PM  MON  07-25
  Swg1  Swg2  Peal  Toll
```

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

2

```
        Main Menu
      Play Selections
```

Press [0] to select "Play Selections," then [Enter].

```
  Edit    Play  NONSTOP
  1103   001  Time(s)
```

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

3

```
  Edit    Play  NONSTOP
  1103   001  Time(s)
```

To Play a previously created program:

Press [cursor▶] to get to play. Go to step 6 to continue using this program.

- OR -

```
  Edit    Play  NONSTOP
  1103   001  Time(s)
```

To Edit/Create a program to play:

Select Edit by pressing [Enter].

5

```
  Edit    Play  NONSTOP
  1104  0000  0000  0000
```

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

Enter the new selection number (see Entering Selections on Page8) and then number of times to repeat. Enter zero then [Enter] for repeat if you wish to play more than one selection.

6

```
  Edit    Play  NONSTOP
     1104   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

(While playing in the Manual Mode)

```
┌─────────────────────────────┐
│  3:10  PM  MON  07-25        │
│        Playing  1104         │
└─────────────────────────────┘
```

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

```
┌─────────────────────────────┐
│  ENT: Play    CAN: Quit      │
│        Ready to Play         │
└─────────────────────────────┘
```

The next selection will start to play if "NONSTOP" has been selected. If "STOP" was selected, the system will wait for you to press [Enter] on the front panel to continue. If you do not want to play any selections remaining in the programmed sequence, press the red buttons marked [STOP] on the front panel to reject the next selection.

```
┌─────────────────────────────┐
│  3:14 PM MON 07-25           │
│        Operator Cancel       │
└─────────────────────────────┘
```

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

```
┌─────────────────────────────┐
│  3:14 PM MON 07-25           │
│        Canceling All...      │
└─────────────────────────────┘
```

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

```
┌─────────────────────────────┐
│  Edit    Play  NONSTOP       │
│  1104   001  Time(s)         │
└─────────────────────────────┘
```

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

Set the Automatic Play Schedule

Detailed instructions may be found on page 27.

Step

1

```
   3:07 PM MON 07-25
  Swg1  Swg2  Peal  Toll
```

Press [Enter] for the Main Menu.

2

```
        Main Menu
     View/Edit Schedule
```

Press [1] for the "View/Edit Schedule," then [Enter].

3

```
  SU 9:30A Search  OFF
  0000  0000  0000  0000
```

This is the time slot navigational mode. Press [cursor▼] or [cursor◻] to set the day. Press [cursor▶] to move to the time fields, then [cursor▼] and [cursor▲] to set the hour and minute of the time slot you wish to program.

4

```
  SU 9:30A Search  OFF
  5920  0000  0000  0000
```

Press [Enter] and the first selection will flash (this is the programming mode. Four-digit selections may be directly entered from the Selections Catalog. Four zeros will clear a selection. Pressing [cursor▲] will allow random selections and pauses to be entered. See page 8 for selection entry instructions.

5

```
  SU 9:30A Search  OFF
  1225  1464  0000  0000
```

Press [Enter] to save the program in memory. Go back to step 3 to set additional times to play. The selections you set in the first time slot will carry forward to subsequent time slots for your convenience.

6

```
   3:07 PM MON 07-25
  Swg1  Swg2  Peal  Toll
```

Press [Cancel] to return to Standby mode.

While a selection is flashing, press [Titles/No] to bring up the Selection Title Catalog.

Review and Change the Weekly Schedule

Detailed instructions are located on page 27.

Step

1

```
    3:07 PM MON 07-25
  Swg1   Swg2   Peal   Toll
```

Press [Enter] for the Main Menu.

2

```
         Main Menu
      View/Edit Schedule
```

Press [1] for the View/Edit Schedule, then [Enter].

3

```
MO 3:15P   Search   OFF
0000   0000   0000   0000
```

Press [cursor▶][cursor▶][cursor▶] to select Search.

4

```
SU 9:30A   Search   OFF
1104   3104   0000   0000
```

Press [cursor▼] and [cursor▲] to step forward and backward through the programmed schedule. To go to a time slot without a program, select the day, hour or minute using [cursor◀] and [cursor▶], then step through the schedule by time or day using [cursor▼] and [cursor▲].

If you wish to make changes to the schedule continue with step 5. If you are satisfied with the schedule, skip to step 8.

5

```
SU 9:30A   Search   OFF
1103   3104   0000   0000
```

Press [Enter] and the first selection will flash. Four-digit selections may be directly entered over existing ones. Four zeros will clear a selection. Pressing [cursor▲] will allow random selections and pauses to be entered.

6

```
SU 9:30A   Search   CHM
1103   3104   0000   0000
```

To change time strike settings, use the [cursor▶] and [cursor◀] to cause them to flash. Press [cursor▲] when Time Strike status is flashing to select between Chiming and Strike modes. Press [cursor▼] to disable clock striking.

7

Press [Enter] to save the changes in memory. Go back to step 4 to make further changes.

8

Press [Cancel] to return to Standby mode.

Set the Time Clock

The Libertas LX bell system's clock is very accurate and normally will not accumulate errors more than 60 seconds per year. Periodic checks and settings of the clock may be beneficial. The clock is factory set to your local time before shipment and should not require setting at the time of installation.

Step

1

```
   3:07 PM MON 07-25
Swg1   Swg2   Peal   Toll
```

Press [Enter] for the Main Menu.

2

```
       Main Menu
  System Setup Menu
```

Press [2] 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 = 2006    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.

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 setting is accurate.

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

6

```
    Tower clock dial
  Hands indicate:  3:08
```

Use the cursor buttons to change settings to match the tower dials. Tower dial movement is suspended while the time setting screens are active.

Set Time Strike Schedule (Globally)

Detailed instructions are located on page 30.

Step

1

```
    3:07 PM MON 07-25
    Swg1  Peal  Toll  Toll
```

Press [Enter] for the Main Menu.

2

```
         Setup Menu
     System Setup Menu
```

Press [2] to select System Setup Menu, then [Enter].

3

```
      System Setup Menu
     Program Time Strike
```

Press [0], then [Enter] to select the Program Time Strike screen.

4

```
    12A  to  12A    TS  Off
    SUN . . SAT   SET PROG
```

Use the [cursor▼] and [cursor▲] buttons to change the beginning time.

5

```
    12A  to  12A    TS  Off
    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    Full Chm
    SUN . . SAT   SET PROG
```

Similarly, select and change the beginning day, ending day, and the program type/level as shown in the table below.

7

```
    12A  to  12A    Full Chm
    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 mode screen.

TS OFF	(Time Strike OFF)
Full Chm	(Chime Clock All Quarters)
Half Chm	(Chime Clock on Hour and 1/2 Hour)
Top Chm	(Chime Clock on the Hour Only)
Chm Stk	(Chime Clock on the Hour, 1-Strike Quarters)
Full Stk	(Strike the Hour, 1-Strike Other Quarters)
Half Stk	(Strike the Hour, 1-Strike the 1/2 Hour)
Top Stk	(Strike the Hour Only)

Reprogram the Function Buttons

Follow these steps to reprogram the eight function buttons available on the front panel keypad.

Step

1
```
3:07 PM MON 07-25
Swg1  Swg2  Peal  Toll
```
Press [Enter] for the Main Menu.

2
```
Main Menu
System Setup Menu
```
Press [2] to select "System Setup Menu," then [Enter].

3
```
System Setup Menu
Edit Remote Button
```
Press [2] to select Edit Remote/Function Button then press [Enter].

4
```
F1  Swg1  Wait  Nonstop
3104  001   Time(s)
```
Use [cursor▼] to select which function button (F1-F8) to reprogram then press [Enter].

5
```
F1  Swg1  Wait  Nonstop
3104  001   Time(s)
```
Input the new selection number (see Selection Codes on page 9) 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  Swg1  Wait  Nonstop
3104  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  Swg1  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. NOW! bypasses the wait for the [PLAY] button before ringing.

8
```
F1  Swng  Wait  Nonstop
1123  001   Time(s)
```
Press [Enter] to save your changes then [Cancel] to exit when the function number is flashing.

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

Refer to the instructions for the Manual Mode for more information about the Stop/Nonstop modes and programmable tolling on page 25.

Initial Setup

Miscellaneous Options

From Standby mode, press [Enter] [2] [Enter] [3] to select **Misc. Options**, then [Enter]. The lower line displays the current option on the left and its current setting on the right. The [Enter] button advances through the list of options. 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. The options come up in the following order.

Daylight Time

Press the [Yes] or [No] button to select automatic Daylight Time adjustments. Press [Enter] to save your selection.

By default, Daylight Savings begins on the second Sunday in March and ends on the 1st Sunday in November. If other dates are required, power on the bell system while holding button [1] until the custom daylight time screen is displayed. Then use the cursor buttons to change the dates. Press [Enter] after your changes are complete.

Bell Coasting Delay

When a motorized swinging bell is turned off, it takes awhile to stop moving. Set this delay in seconds to allow the bells to stop swinging before unlocking the tolling hammer functions. If the bells are all stationary, disable the delay by pressing [0].

Tolling Tempo

Set the time between tolls from 2 to 30 seconds. The factory setting is 10 seconds.

Swinging Bell Timing

The adjustments made in this menu allow stationary bell strikers to simulate a swinging bell. The overall time between strikes may be lengthened (for a large bell) or shortened (for a small bell). The time difference between the forward swing and the backward swing may also be independently adjusted to provide additional realism.

The swing simulation timing menu is activated from the Standby mode by pressing [Enter] [2] [Enter] [4] [Enter].

Pressing buttons [1] through [6] will cause each striker to strike once as well as selecting that bell and displaying its timing swing simulation parameters. Pressing the [Enter] button while a particular bell is displayed will demonstrate the swing simulation of that bell for fifteen seconds.

```
Swing Bell 1 Timing
Swing: 3.6 BackSw:42%
```

Pressing [1] rings bell one and displays its settings. It is currently set to cycle once every 3.6 seconds (forward and backward swings). The back-swing timing is set to be 42% of the total cycle time.

While the swing timing is flashing, pressing the [cursor▲] and [cursor▼] buttons will allow you to adjust the timing. Press [cursor▶] to allow adjustments to be made to the back-swing timing.

Shortening the Swing time until **Mtr** is displayed enables motorized bell swinging systems. To revert to a simulation on a particular bell that has both a motor and a tolling hammer, set the Swing time to a cycle time of 2.0 seconds or more.

Pressing [Cancel] at any time exits the menu and saves any changes you have made.

Time Strike Melody Setup

If you have more than one bell, it is possible to have a chiming tune precede the hour strike and mark the other quarters. The melody selection menu is activated from the Standby mode by pressing [Enter] [2] [Enter] [5] [Enter]. Use the cursor buttons to select the melody you want and press [Enter] to save it.

Westminster

Throughout this manual, the chime melody associated with the clock striking functions is referred to as the Westminster. The system is supplied with 4 and 5-bell variants.

Christus Vincit

The Roman Catholic Church has its own distinctive hour chime rung at the Vatican, known as the Christus Vincit. It requires six bells tuned differently from the Westminster.

Parsifal

Richard Wagner's opera has a part for chiming bells. The chiming pattern has been widely used for time strike purposes. It requires four bells.

Other Clock Chime Melodies

The Warren chime is widely used in historic clock movements. It is available for three or four bells. The Avondale chime, sometimes called the ding-dong, alternates between two bells to signify the quarters, available for two or three bells. Nautical time may also be selected to ring on a single bell.

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.

Create the Password

To enable the security option for the first time, open the System Setup Menu by pressing the front panel green *Enter* button so that you read *Main Menu* on the top line of the display. Press [cursor▶] to scroll to *System Setup Menu* then press the *Enter* button again. Press [cursor▶] until the flashing lower line reads *Security Options* then press the *Enter* button again.

If there is no password on your system, you will be prompted to create a new password.

Setup Password
New Password:

Type a 4-digit number you will remember. You can now lock your carillon.

Change the Password

    If there is already a password on your unit, the following screen will appear (with the text in bold flashing).

```
┌─────────────────────────────────┐
│        Security Menu            │
│      Change Password            │
└─────────────────────────────────┘
```

    Press [Enter} then enter the current password then you can enter the new password.

Enable Your Password

    To turn on the auto-lock feature enter the Security Menu and scroll using the cursor buttons to find **Auto Lock Option** and press [Enter]. Use your cursor buttons to toggle between *OFF* and *ON*. Press [Enter] to save your changes or [Cancel] to discard them.

    If you do not turn auto-lock on, you can still lock your system per use. Holding the [Cancel] button down for 2 seconds will lock the carillon. Or, enter the Security Menu and scroll using the cursor buttons to find **Lock Unit Now!** and press [Enter].

    The [STOP] button will still function during play while the keypad is locked. All automatically scheduled performances continue to operate the system when the front panel buttons are locked.

    If you forget the pass code, call us for help unlocking the system.

Manual Operation

Front Panel Function Buttons

Buttons [1] through [8] activate commonly used functions. They can be customized using the steps on page 19.

Suspending Automatic Operation

Unplugging your Libertas LX wears on the battery and puts your schedule at risk of loss. If you wish to hold the automatic operation for a quiet time like communion or a memorial service, instead, press and hold the zero [0] button for three seconds to suspend automation.

The time display will alternate between the current time and *Automation Suspended.* During suspension of the automatic schedule, manual selections may be played.

Your schedule will be suspended for three hours, or you can press and hold the zero [0] button again to resume scheduled ringing.

Manual Play Mode

From Standby Mode, press [Enter] [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. 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.

Step-by-step instructions for setting and using the Play Selections screen are found on page 13.

While Selection is Playing

The [Cancel] button will reject the current selection. If additional selections are programmed, they will begin to play. [Cancel] [Cancel] will reject the entire program. For step-by-step instructions, see page 14.

STOP or NONSTOP Modes

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 repeat feature may be used to cause a tolling bell to ring a specific number of times. The slow single strike (selection 6100) 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 set in the Miscellaneous Options (see page 21).

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 also may save a trip to the bell control panel at an inopportune moment in order to shut the bell system down.

Please refer to the Troubleshooting Guide located on page 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.

```
System Resetting to
Standby in 90 secs.
```

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

Cued selections ready to play and waiting for the [Enter] button will hold for up to 60 minutes before the system returns to the regular schedule.
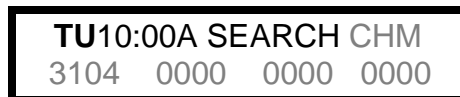
Weekly Schedule Editing

The schedule program memory is organized in quarter hour slots. Typically, ringing begins 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, and a time strike option.

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 make changes to specific time slots. The **Time Strike** global programming screen appears in the **Setup Menu**. Time strike options over larger periods of time are set on this screen.

View/Edit Schedule Screen

From the Standby screen press [Enter] [1] [Enter] to bring up the Schedule editing screen.

TU10:00A SEARCH CHM
3104   0000   0000   0000

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 portions 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. 3104 represents a one-minute swinging bell. CHM shows that the scheduled program will be preceded by a time strike using the Westminster or other selected 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 (SEARCH) is flashing, the [cursor▲] button will search backward and the [cursor▼] button will search forward to the next time slot which 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 SEARCH is flashing. A chart for this documentation is provided on page 4.

Selecting the Time to Play

As an example, we'll program a swinging bell at 8 A.M. on Sunday morning (and add a 10:30 bell for a second service below). 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 if a different minute is flashing.

```
SU 8:00A SEARCH  OFF
0000  0000  0000  0000
```

8:00 A.M. Sunday morning is selected. No selections are programmed to play. 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. See page 9 for selection number codes.

Schedule Ringing Between Quarters

Pauses are used to delay subsequent selections beyond the quarter hour. They are only used when programming or editing the automatic play schedule. Selection 0071 represents a 1-minute pause. Selection 0072 represents a 2-minute pause, up to selection 0080 which represents a 10-minute pause. You may use multiple pauses to increase the delay time. For example, if you want to ring at 8:10, schedule 0080 3104 at 8:00.

Onscreen Titles

Whenever a four-digit selection field is flashing, press the [Titles/No] button to bring up the following screen.

```
Ringing  Index
ABCDEFGHIJLMNOPRSTWY
```

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

Press [cursor▶] until **S** (for Swing) flashes and press [Enter].

28

```
┌─────────────────────────────┐
│ Swing Bell 1                │
│ 1 Minute                    │
└─────────────────────────────┘
```

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

```
┌─────────────────────────────┐
│ Swing Bell 2                │
│ 5 Minutes                   │
└─────────────────────────────┘
```

Press [cursor▼] until Swing bell 2 for 5 minutes is displayed then press [Enter].

```
┌─────────────────────────────┐
│  SU 8:00A Search  OFF       │
│  3220  0000  0000  0000     │
└─────────────────────────────┘
```

The next selection field will be flashing in anticipation of further programming. If only one selection is needed, press [Enter] to save the program to memory.

The last time field selected will flash after the program is saved for the current time slot. Use the cursor buttons to select 10:30.

```
┌─────────────────────────────┐
│  SU10:30A SEARCH  OFF       │
│  0000  0000  0000  0000     │
└─────────────────────────────┘
```

To add 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 the system carries the previous time slot's program forward to save time. If you wish to use a different bell, simply overtype the desired selection, or press [Cancel] [Enter] to clear the carry forward memory.

```
┌─────────────────────────────┐
│  SU10:30A SEARCH  OFF       │
│  3220  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. The carry forward will be updated by any changes you make in the current slot and will clear when you exit back to standby mode.

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 the way you want it. The SEARCH 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 you may wish 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.

```
┌─────────────────────────────┐
│  TU 4:30P SEARCH  CHM       │
│  0000  0000  0000  0000     │
└─────────────────────────────┘
```

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 the time strike **OFF**. Alternate presses of [cursor▲] select between **CHM** and **STK** (described below).

Schedule Clock Striking Globally

The Time Strike Setup menu allows you to program the manner in which the system announces the time of day. Press [Enter], [2], [Enter], [0] from Standby mode to enter the Time Strike Scheduling mode.

```
07A to 11P  FULL CHM
MON .. FRI  SET PROG
```

When the upper right portion of the display is flashing, the [◄cursor] and [cursor►] buttons sequence through the following menu of levels and time strike options. Use [cursor▲] [cursor▼] to make the changes.

Important!   Setting TS OFF turns all TIME STRIKE functions OFF. You can use this option to clear the time strike program before making changes.

The three basic modes will act differently, depending on the quarter of the hour being chimed. These modes are: **OFF,** in which the chime system does nothing about striking the time; Strike (**STK**), in which at the top of the hour, a chime shall strike the hour, and on all other quarters will strike only once; Chime (**CHM**), in which on the top of the hour, the full chosen melody shall play, followed by striking of the hour, and on all other quarters the appropriate melody shall play. These modes are displayed in the **View mode** for each quarter hour as **OFF, STK and CHM**. The eight options take the three modes and apply them to each quarter hour, as follows:

TS OFF (Time Strike **OFF**)	**FULL CHM** (Full Chime melody)
:00 - OFF	:00 - CHM
:15 - OFF	:15 - CHM
:30 - OFF	:30 - CHM
:45 - OFF	:45 - CHM
HALF CHM (1/2 Chime melody)	**TOP CHM** (Top Chime melody)
:00 - CHM	:00 - CHM
:15 - OFF	:15 - OFF
:30 - CHM	:30 - OFF
:45 - OFF	:45 - OFF
CHM STK (Chime melody half strike)	**FULL STK** (Full Strike)
:00 - CHM	:00 - STK
:15 - OFF	:15 - STK
:30 - STK	:30 - STK
:45 - OFF	:45 - STK
HALF STK (Half Strike)	**TOP STK** (Top Strike)
:00 - STK	:00 - STK
:15 - OFF	:15 - OFF
:30 - STK	:30 - OFF
:45 - OFF	:45 - OFF

Once you have decided which mode to use, determine the block of time, and during which days of the week you wish to do it. For example, you may wish to strike the time from seven o'clock in the morning until 11 o'clock in the evening Monday through Friday.

Press [Enter] while Time Strike is flashing to enter the Time Strike menu.

After entering the Time Strike menu, the left half of the display shows the block of time, during the days that can be changed. Upon entering the Time Strike menu, the displayed time shall appear as the example shown below. '12A to 12A' shows that all 15-minute intervals of the 24-hour day are selected. 'SUN .. SAT' shows that all the days of the week are selected. Therefore, the initial display covers all periods in the program schedule.

> **12A** to 12A   FULL CHM
> SUN .. SAT SET PROG

Use the [◀cursor] and [cursor▶] buttons to select starting and ending times, and starting and ending days. When you have made the selection, it will flash. Use the [cursor▲] [cursor▼] to change or select times and days.

It is helpful to set the largest blocks of time first.

Note: If 10A to 09P is displayed, 10:00 A.M. to 8:45 P.M. is selected (up to but not including 9:00 P.M.). MON. - WED shows that the block of time is selected for Monday, Tuesday, and Wednesday (This includes the days between and including the days shown).

To set a single day, set it in both positions (**SUN..SUN** would be only Sunday).

Any programs displayed in the upper right corner of the display will be written into the program schedule for the selected block of time when SET PROG is selected and the [Enter] button is pressed for the times and days shown on the left side of the display.

Select **SET PROG** and press [Enter] for each change you wish to make.

> 07A to 11P FULL CHM
> MON .. FRI **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 through Friday.

After all settings are done, Press [Cancel] twice to return to Standby mode.

Verify Global Settings

The **Time Strike** screen always comes up showing **TS OFF** for every 24-hour period during the whole week. Since multiple programs can overlap as they are added in this menu, there is no practical way to display all 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 **SEARCH** function in the **View/Edit** Schedule screen will not find time strike events, only bottom-line selections.

Section

5

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. 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 your system is doing any other strange things that are not described below, turn the power off for about 10 seconds, then back on. If the circuit breaker panel or disconnect switch is not convenient for switching power, you may unplug the CAT-5 cable from the bottom of the wall mount control head for 10 seconds.

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. 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 *Review and Change the Weekly Schedule*, on page 16*).

If you say **YES**, you must answer many questions from the installation menu. You may wish to refer to *Section 2, Initial Setup* on page 21.

Blank Screen

```

```

If the screen is blank, but the power light is on, cycle the power using the options given in the first paragraph of this section. If the power light is not on, and the CAT5 cable is connected, troubleshoot the power supply (from the main circuit breaker to the relay panel, to the control head).

Time Clock Errors

```
┌─────────────────────────────────┐
│        Clock Error (E)          │
│      View  Manual  Setup        │
└─────────────────────────────────┘
```

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. **(800) 432-3977**

Libertas LX Automatic Bell Control Warranty

Chime Master® Systems (Chime Master) shall warrant to the original consumer purchaser (Buyer) that this Chime Master Libertas LX 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. Bell Strikers and motors, if supplied by Chime Master, shall be warranted for 1 year. 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**.

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