

## **WARRANTY**

**The Verdin Company warrants the equipment to be furnished free from defects in workmanship and materials for three (3) years from the date of installation. If a defect or malfunction occurs, the OWNER should call The Verdin Company Service Department on our toll-free line 1-800-883-7346 (outside continental US., call collect (513) 559-3962) to review the problem and receive instructions for correction or repair.**

**If a defect occurs during this period, The Verdin Company will repair or replace the defective part at no charge, providing said part is returned to The Verdin Company for determination of the cause for malfunction. This warranty is not applicable to any misuse, neglect, or natural disaster, such as lightning or fire.**

**Machine damage or personal injury caused by negligence and/or unfamiliarity with machine operation is not covered by Verdin Company warranty. All operating instructions, descriptions, drawings and supplements remain the property of Verdin Company, with all rights reserved.**

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**The Verdin Company reserves the right to make changes and modifications without notice.**

# **DIGITAL BELL CONTROLLER 2000 SYSTEM** **OPERATING AND PROGRAMMING INSTRUCTIONS**

## **INTRODUCTION**

Congratulations on your acquisition of the Verdin Digital Bell Controller 2000. We are sure that you will be pleased with the quality and workmanship of this fine system.

This manual contains the instructions for installing, playing, programming and automation of the system. Please read this manual to familiarize yourself with the operation and controls.

## **RECEIVING**

Upon receiving your Bell Controller and before releasing the driver, inspect the shipping cartons for visible damage (broken carton or puncture holes in the side of the box).

If damage is apparent, show the delivery driver the suspected carton and record the information on the signature manifest. Hidden damage can only be found after the cartons are opened and the driver has gone.

A Bell Controller may have as many as 1 or 2 cartons as a normal shipment. Each carton is identified with the weight indicated on the carton and identified in the packing list. This packing list is the most important piece of paper in your shipment. It is attached (taped & glued) to one of the cartons.

Find the carton with your packing list and remove packing list from carton. Compare the packing list with your order and the cartons you have actually received. Make certain that all cartons have been delivered.

If there is a discrepancy, notify Verdin by calling 1-800-883-7346 or fax (513) 559-3966.

## **UNPACKING**

After it has been determined that all cartons have been received in good condition, begin opening the cartons and compare their contents with packing list. Save all cartons in the event of return.

Unpack each carton carefully to be certain that all material is removed from the carton and save the packing material.

## **CONTROLS FOR MANUAL FUNCTIONS**

The push buttons on the control module are used to control manual functions of the system.

### **BELL RINGING:**

To operate bell ringing manually, press the control labeled for the desired BELL. Bell will continue to ring until the control labeled STOP is pressed.

To ring any bell manually for one minute and have it automatically shut off, press the desired BELL control twice.

### **PEAL RINGING:**

To operate peal ringing manually, press the control labeled PEAL. Peal will continue to ring until the control labeled STOP is pressed.

To ring the peal manually for one minute and have it automatically shut off, press the PEAL control twice.

### **FUNERAL TOLL:**

To operate the funeral toll bell (striking the large bell at 10 second intervals), press the control labeled TOLLER. Funeral toll will continue to ring until the control labeled STOP is pressed.

Pressing TOLLER control twice will cause the funeral toll to ring for five minutes and automatically shut off.

### **INSTANT TOLL:**

Pressing this control will cause the large bell to strike once each time the control is pressed.

### **STOP:**

Press this switch to stop any bell ringing function, manual or automatic.

## **ADDITIONAL MANUAL CONTROLS**

In addition to the manual function controls as outlined above which provide the operation with immediate control over bell ringing and music functions, there are additional controls for other features of the Bell Controller system.

### **AUTO FUNCTIONS INHIBIT Push Button:**

This control governs whether the bell ringing functions (including time strike) will be operated by any preset programs in the Bell Controller. When the light on the button is ON, automatic functions are inhibited, meaning programmed functions will not occur. When the light on the button is OFF, all programmed functions will occur at the correct time.

## **PROGRAM CLOCK SETTINGS**

All initial time setting and bell ringing schedule programming is done by means of a simple twenty character keypad mounted on the panel with associated alpha/numeric display. Programming is simplified with easily understood prompts being furnished to the user at all steps during programming or setting.

## **PURGING THE MEMORY**

When the unit is first powered up, it should be purged of any spurious data or programs still resident in memory. To purge the memory:

- |                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| 1. Press <b>PROG</b>  | display changes to "Enter Command__"                              |
| 2. Press <b>STAT</b>  | display remains the same                                          |
| 3. Press <b>CLEAR</b> | display remains the same                                          |
| 4. Press <b>ENTER</b> | display briefly flashes "INITIALIZING RAM" then displays the Date |
|                       | and Time                                                          |

All data has now been purged and the Bell Controller is ready for your programming.

## **SETTING THE CONSOLE CLOCK**

**NOTE:** For your convenience, the system is set to **AUTOMATICALLY** adjust for Daylight Savings Time change on the appropriate weekends of the year. This feature is set at the factory, although it is disabled for those areas that do not follow the conventional time change.

After power-up, the Program Clock display panel will show the Day, Month, Date, Year, and Time. The clock time is displayed in a twenty-four hour format (sometimes called Military Time.)

The clock is set for the correct time at the factory and is backed-up with a battery so it is always active, but it may not be correct for your area.

To change the clock display to the correct day and time for your area, proceed as follows:

1. Using the Program Clock push button pad, press the **PROG** button. The control will respond by displaying "Enter Command\_\_".
2. Press the button marked **TIME**. The control will respond with the display "Day of Week:".
3. Press the button for the day of the week (MON TUES WED, etc.) and press **ENTER**. The control will respond with the display "Month\_\_".
4. Using a two-digit format (01 is Jan., 02 is Feb., etc.), press the numbered buttons that correspond to the current month and press **ENTER**. The control will respond with the display "Date of Month\_\_".

5. Again, using the two-digit format (01, 02, 03, etc.), press the numbered keys corresponding to the current date and press **ENTER**. The control will respond by displaying "Year\_\_".
6. Press the numbered keys corresponding to the last two digits of the current year (98, 99, 00, etc.) and press **ENTER**. The control will respond with "Time\_\_".
7. Using the 24-hour format (also called Military time), press the numbered keys (09:00=9:00 am, 15:01=3:01 pm) corresponding with the current 24-hour time and press **ENTER**.

NOTE: If at any time during programming you make an error, press **CLEAR** and the control will respond with the previous display.

The clock should now read the correct day of the week, month, date, year and time. This time and date will remain in the system memory and will continue to increment internally and be displayed on the Program Clock Display.

### **SETTING TOWER CLOCK**

If your unit is equipped with the optional feature of setting the tower clock, you can reset the tower clock from the operating console at the Program Clock push button panel.

Go to a location where you can see the tower clock and record the time indicated on the clock face. Repeat for each face.

Compare the tower clock time to the console displayed time. If the times differ, reset the tower clock as follows:

1. Press the **PROG** button. Display will show "Enter Command\_\_".
2. Press the button **TWR CLK**. The display will show "PROGRAM TWR CLK TOWER TIME:\_\_".
3. Using standard 12 hour time format, press the corresponding number buttons for the time shown on the clock tower. (You may have to check the tower clock since your first reading.)
4. With the tower clock time keyed into the console, press **ENTER**.

The system will begin to synchronize the tower clock with the console time. Depending on the difference between the console time and the tower clock time entered, this synchronization may involve either fast forward movement (ten times normal speed) or waiting (if tower clock time is less than one hour ahead of console time.)

## **SETTING TOWER CLOCK LIGHTS**

If your unit is equipped with the optional feature of setting the tower clock lights, you can set the ON and OFF time for the tower lights at the Program Clock push button panel as follows:

1. Press the **PROG** button. Display will show "Enter Command\_\_".
2. Press the **FUNC INHIBIT** button. The display will show the functions available to be programmed.
3. Press the down arrow key and scan until the display shows "LIGHTS" and then press **ENTER**. The control will respond with questions.
4. Read the prompts on the display and type the required response as follows:
5. First question is "DATE?" If you want the lights to operate every day, press **NO** and then press **ENTER**.  
If you want the lights on certain days and not others, press **ENTER** twice. You will then be required to answer the day of the week when you want the lights to activate. The control will respond with a day of the week, you answer **ENTER** for yes or **NO** as required. Remember to press **ENTER** after each answer.
6. Once you have established the date the lights will activate (either every day or just certain days as indicated in step 5 above), the display will show the question "ON TIME?" Type in the 24-hour time you want the lights to come on and press **ENTER**.
7. The last question is "OFF TIME?" Type in the 24-hour time you want the lights to turn Off and press **ENTER**.
8. Display will return to the scanning menu items. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

## **PROGRAMMING BELLS, AUTO OPERATION**

This section covers the instructions for programming the automatic functions for bells, Westminster Chimes, Hour Strike, Peal, Bell Swinger, Angelus, and De Profundis.

Allow a five minute window for the control to activate or deactivate the pre-programmed hourly functions Westminster Chimes and Hour Strike. For example: if you program the Westminster to start at 08:00, the first bell sounding will occur at 08:15 and if you program the Off time to be 22:00 (10:00 pm), the last bell sounding will occur at 21:45 (9:45 pm). Thus, to begin ringing at 08:00, program the On times for 07:55. Similarly, if you want the last rings of the day at 22:00 (10:00 pm), program the Off times for 22:05.

Before you enter any programs, sit down with all interested parties and write down the programs you wish to happen, such as Westminster Chime and Hour Strike, Bell Peal, Angelus, etc. Get the appropriate time for both start and stop plus the dates desired and **WRITE THEM DOWN**.

If at any time during programming you make an error, press **CLEAR** and the control will respond with the previous display.

Programming Westminster: Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.
3. Use the arrow keys to scan for the function you want (in this case, Westminster). Each press of the arrow key changes the display to the next function.
4. When the program display shows "Westminster", press **ENTER** for Yes and the display will show "Westminster Daily?" If you want the Westminster to play every day, press **ENTER** twice and the display will show "ON Time:" Go to step 5.  
If you want the Westminster to play only certain days of the week (say to omit Sunday), press **NO** and then **ENTER**. The display will show a week day MON? Press **ENTER** for each day you want the Westminster to play. (**NO** and **ENTER** for the days you want it to skip.) When each day has been programmed, the display will show "On Time:"
5. Using the 24 hour format press the numbered keys for the time you want Westminster to start. (Remember to allow for the 5 minute setup time.) Press **ENTER** and display will respond with "Off Time:"
6. Using the 24 hour format, press the numbered keys for the time you want Westminster to stop. (Remember to allow for the 5 minute delay time.)
7. Press **ENTER** and display will return to the scanning menu items. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

Programming Hour Strike: Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.
3. Use the arrow keys to scan for the function you want (in this case, Hour Strike). Each press of the arrow key changes the display to the next function.
4. When the program display shows "Hour Strike", press **ENTER** for Yes and press **ENTER** again to confirm. The display will show "Hour Strike Daily?" If you want the Hour Strike every day, press **ENTER** and the display will show "On Time:" Go to step 5.  
If you want the Hour Strike only certain days of the week (say to omit Sunday), press **NO** and the display will show a week day MON? Press **ENTER** for each day you want the Hour Strike to occur. (**NO** and **ENTER** for the days you want it to skip.) When each day has been programmed, the display will show "On Time:"
5. Using the 24 hour format, press the numbered keys for the time you want the Hour Strike to start. (Remember to allow for the 5 minute setup time.) Press **ENTER** and display will respond with "Off Time:"
6. Using the 24 hour format, press the numbered keys for the time you want the Hour Strike to stop. (Remember to allow for the 5 minute delay time.)
7. Press **ENTER** and display will return to scanning menu items. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

Programming Peal: The Peal is a programmed function that will play at the time you program it and then shut off. Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.
3. Use the arrow keys to scan for the function you want (in this case, Peal). Each press of the arrow key changes the display to the next function.
4. When the program display shows "Peal", press **ENTER** for Yes and display will show "Date". If you want the peal to be Annual (say Christmas), press **ENTER** for Yes and **ENTER** again to confirm. Follow the prompts for the one time function. If you want the Peal to be other than on a specific date, press **NO** and then **ENTER** to confirm. Display will show "Daily?" If you want the Peal every day, press **ENTER** and the display will show "On Time:" Go to step 5.  
If you want the Peal only on certain days of the week (say Sunday only), press **NO** and **ENTER** to confirm. Display will show a week day MON? Press **NO** and **ENTER** for each day you want the Peal to skip. Press **ENTER** twice for the day you want the peal to play. When each day has been programmed, the display will now show "On Time:"
5. Using the 24-hour format, press the numbered keys for the time you want the Peal to start. (Peal will occur at the time set.)
6. Press **ENTER** and display will show "Off Time:". Using the 24-hour format, press the numbered keys for the time you want the Peal to stop. (Peal will stop at the time set.)
7. Press **ENTER** and display will return to the scanning menu items. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

Programming Bell Swinger: The Bell Swinger is a programmed function that will play at the time you program it and then shut off. Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.
3. Use the arrow keys to scan for the function you want (in this case, Bell Swinger). Each press of the arrow key changes the display to the next function.
4. When the program display shows "Bell Swinger", press **ENTER** for Yes and display will show "Date". If you want the Bell Swinger to be Annual (say Christmas), press **ENTER** for Yes and **ENTER** again to confirm. Follow the prompts for the one time function. If you want the Bell Swinger to be other than on a specific date, press **NO** and then **ENTER** to confirm. Display will show "Daily?" If you want the Bell Swinger every day, press **ENTER** and the display will show "On Time:" Go to step 5.  
If you want the Bell Swinger only on certain days of the week (say Sunday only), press **NO** and **ENTER** to confirm. Display will show a week day MON? Press **NO** and **ENTER** for each day you want the event to skip. Press **ENTER** twice for the day you want the Bell Swinger to play. When each day has been programmed, the display will now show

"On Time:"

5. Using the 24-hour format, press the numbered keys for the time you want the Bell Swinger to start. (Bell Swinger will occur at the time set.)
6. Press **ENTER** and display will show "Off Time:". Using the 24-hour format, press the numbered keys for the time you want the Bell Swinger to stop. (Bell Swinger will stop at the time set.)
7. Press **ENTER** and display will return to the scanning menu items. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

Programming Angelus: The Angelus is a programmed function that does not require an OFF time. It will only play at the time you program it and then shut off for that day. Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.
3. Use the arrow keys to scan for the function you want (in this case, Angelus). Each press of the arrow key changes the display to the next function.
4. When the program display shows "Angelus" press **ENTER** for Yes and the display will show "Date". If you want the Angelus to be Annual (say Christmas) press **ENTER** for Yes and **ENTER** again to confirm. Follow the prompts for the one time function. If you want the Angelus to be other than on a specific date, press **NO** and then **ENTER** to confirm. Display will show "Daily?" If you want the Angelus every day, press **ENTER** and the display will show "On Time:" Go to step 5.  
If you want the Angelus only certain days of the week (say to omit Sunday), press **NO** and **ENTER** to confirm. Display will show a week day MON? Press **ENTER** twice for each day you want the Angelus to play. Press **NO** and **ENTER** for the days you want to skip. When each day has been entered, the display will show "On Time:"
5. Using the 24 hour format, press the numbered keys for the time you want the Angelus to play.
6. Press **ENTER** and display will respond with scanning menu items. (Angelus plays one time and shuts off for that day. If you want to have the Angelus for the traditional 3 times a day, you must program each of the times you want the Angelus to play for a daily program.)
7. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

Programming De Profundis: The De Profundis is a programmed function that does not require an OFF time. It will only play at the time you program it and then shut off for that day. Use the Program Clock push button pad and proceed as follows:

1. Press **PROG**. Display will show "ENTER COMMAND\_\_".
2. Press **FUNC INHIBIT** and the display will show the functions available in your system in numeric-alphabetical order.

3. Use the arrow keys to scan for the function you want (in this case, De Profundis). Each press of the arrow key changes the display to the next function.
4. When the program display shows "De Profundis" press **ENTER** for Yes and the display will show "Date". If you want the De Profundis to be Annual (say Christmas) press **ENTER** for Yes and **ENTER** again to confirm. Follow the prompts for the one time function. If you want the De Profundis to be other than on a specific date, press **NO** and then **ENTER** to confirm. Display will show "Daily?" If you want the De Profundis every day, press **ENTER** and the display will show "On Time:" Go to step 5.  
If you want the De Profundis only certain days of the week (say to omit Sunday), press **NO** and **ENTER** to confirm. Display will show a week day MON? Press **ENTER** twice for each day you want the De Profundis to play. Press **NO** and **ENTER** for the days you want to skip. When each day has been entered, the display will show "On Time:"
5. Using the 24 hour format, press the numbered keys for the time you want the De Profundis to play.
6. Press **ENTER** and display will respond with scanning menu items. (De Profundis plays one time and shuts off for that day.)
7. Press the arrow key to scan for the next item on your list or press **CLEAR** to return to the Day and Time display.

### **REVIEWING PROGRAMS**

**NOTE:** Always select "VIEW FUTURE" because the control only looks at present time and forward. You may miss an event that was programmed to occur earlier in the day.

To review all programmed times use the Clock Control push button panel. Press **STAT** and the display responds with "STATUS FUNCTION Enter Command\_\_".

Press **TIME** and display will show "VIEWING EVENTS NEXT EVENT 19:50". This is a sample display, ignore it and press **ENTER**. The display responds with "VIEW TODAY?"

Answer **NO**. Display responds with "VIEW FUTURE?", press **ENTER** for yes.

Display responds with the first programmed event on file. Press **ENTER** to view each event and continue until display shows "VIEW AGAIN?"

If you wish to repeat the viewing process, press **ENTER** for yes, otherwise press **NO**. Display will return to the Time and Date display.

## **DELETING PROGRAMS**

**NOTE:** Always select "VIEW FUTURE" because the control only looks at present time and forward. You may miss an event that was programmed to occur earlier in the day.

If an error is made during programming and you wish to remove the program from the schedule, press **STAT** on the Clock Control push button panel. The display responds with "STATUS FUNCTION Enter Command\_\_".

Press **TIME** and display will show "VIEWING EVENTS NEXT EVENT 19:50". This is a sample display, ignore it and press **ENTER**. The display responds with "VIEW TODAY?" Answer **NO**. Display responds with "VIEW FUTURE?" Press **ENTER** for yes.

Display responds alphabetically with the first programmed event on file. Press **ENTER** to view each event and continue until display shows the program you wish to delete.

With the program in the display window, press **CLEAR**. The display will show "ERASE EVENT?" If you are certain, press **ENTER**, if not, press **NO**. The display shows "CONTINUE VIEW?" Continue to view and delete as necessary until you reach the prompt, "VIEW AGAIN?"

If you wish to repeat the viewing process, press **ENTER** for yes, otherwise press **NO**. Display will return to the Time and Date display.

**NOTE:** To erase the entire schedule of programs, press **PROG - STAT - CLEAR - ENTER**.

## **RETURN POLICY**

If necessary to return your equipment for repair, contact Verdin Service Department at 1-800-883-7346 for a Return Authorization Number (RA). This number is required to identify your equipment and all correspondence related to the repair.

Package equipment in the original boxes if still available and use the packing material supplied in the original shipment.

Mark the outside of each carton with the RA number.

Enclose information as to the problem and the name of the person that you discussed the problem with.

Include a name and phone number of the person to contact if additional information is needed for the repair.

Always include the correct return address for shipping purposes.

Ship (UPS if possible) to:

VERDIN COMPANY  
2021 Eastern Avenue  
Cincinnati, OH 45202

We will either contact you or return the repaired equipment within three working days from receipt of the equipment.

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