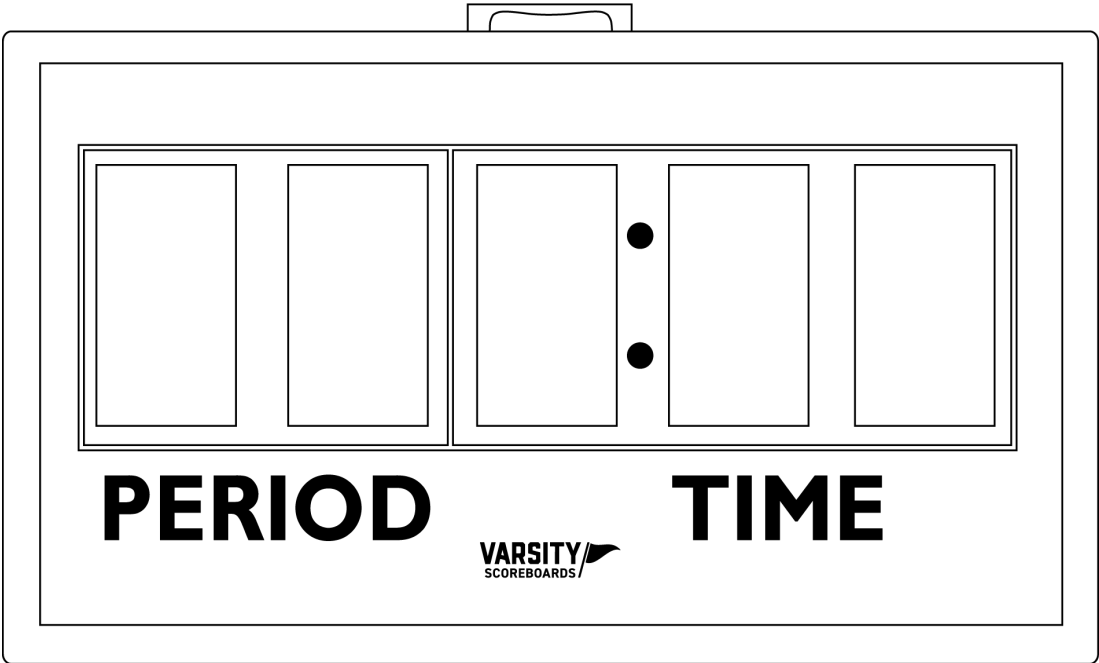




# MODEL FB-15

Installation & Operation Manual





## MODEL FB-15 INSTALLATION

### **WARRANTY**

This product is warrantied against defects in materials and workmanship for the period specified in the warranty from the date of invoice.

### **SERVICE**

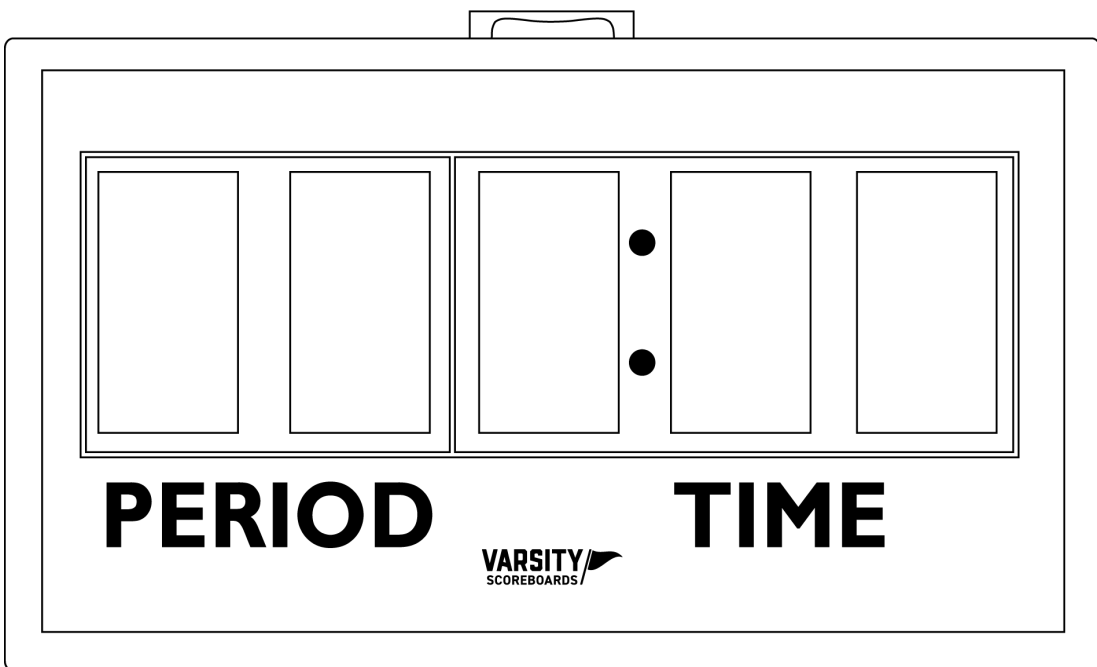
Technical support is available 24 hours a day, 7 days a week.  
1-800-411-3136

<https://www.varsityscoreboards.com/support/contact-support.html>  
(link to fill out support request on website)



## A NOTE TO INSTALLERS

If you are installing this segment timer for a client, please return the manual to the individual in charge of the segment timer upon completion of installation.



### SEGMENT TIMER DIMENSIONS

6.8' wide x 2.3' tall x 8" deep

# TABLE OF CONTENTS /

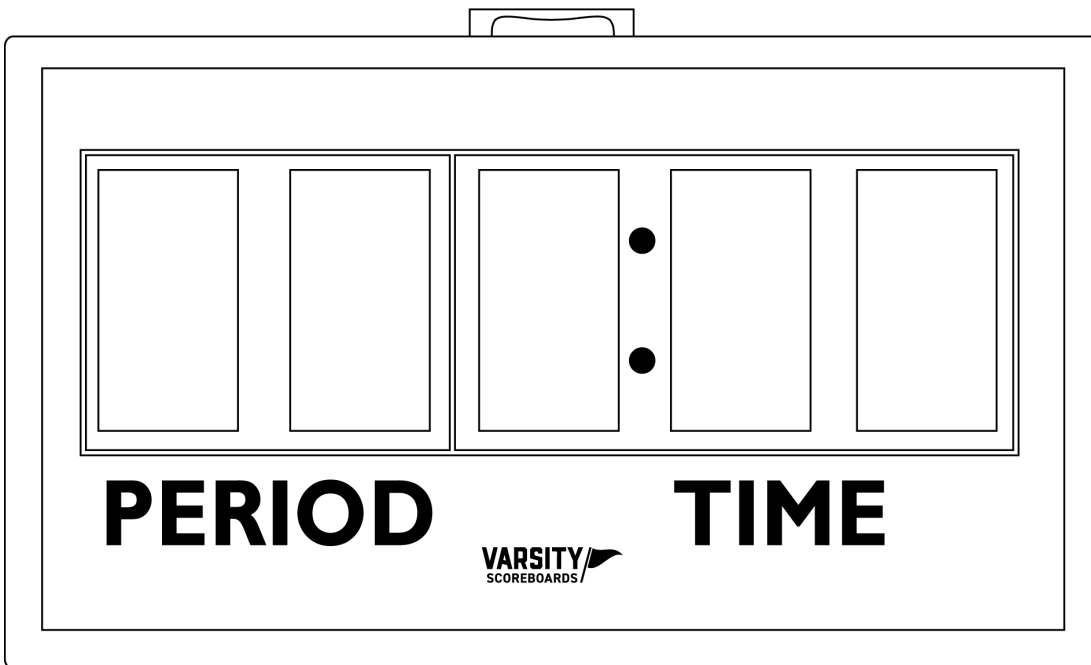
INSTALLATION OVERVIEW . . . . .	6-7
PRODUCT SPECIFICATIONS . . . . .	8
CONNECTING THE CABLES. . . . .	9
CONTROLLER DEFINITIONS . . . . .	10-12
GETTING STARTED . . . . .	13
CONFIGURATION MODE. . . . .	14
PARAMETER 0: TIMER FUNCTION. . . . .	15
PARAMETER 1: NUMBER OF TIMER DIGITS . . . . .	15
PARAMETER 2: NUMBER OF CLOCK DIGITS . . . . .	16
PARAMETER 3: FIRST CLOCK DIGIT VALUE . . . . .	17
PARAMETER 4: HORN LENGTH . . . . .	18
PARAMETER 5: COUNT UP / COUNT DOWN . . . . .	18
PARAMETER 6: 12-HOUR / 24-HOUR CLOCK FORMAT . . . . .	18
TIMER OPERATION. . . . .	19-20
TIME OF DAY OPERATION. . . . .	21



## MODEL FB-15 INSTALLATION

Please inspect all shipping containers upon arrival for damage and ensure that you have all of the parts listed below:

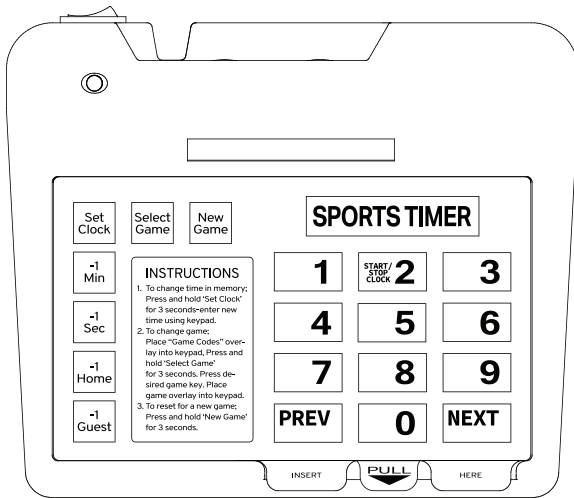
### ITEMS IN LARGE PACKAGE(S)



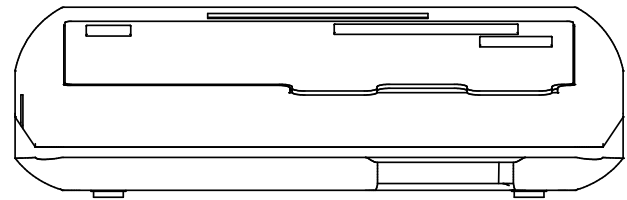
**(1) 6.8' x 2.3' Football Segment Timer**

Shipped in (1) section

## ITEMS IN ACCESSORY BAG



(1) Handheld controller with keypad insert



(1) Built-in horn

(1) 10vAC/3A wall transformer

(1) Removable colon/decimal dots kit

## INSTRUCTIONS FOR REPORTING SHIPPING DAMAGE

### 1 /

Note “DAMAGED” on the Delivery Receipt Form, including details of the type of damage to the freight and packaging.

### 2 /

Ask the delivery driver to call the local terminal and report immediately.

### 3 /

Contact Varsity Scoreboards immediately while the delivery driver is still present to report the damage

- A. Phone number
- B. Email

Shipping damage **must** be noted at the time of delivery. The shipper is **not responsible** for shipments that aren’t sighted for as damaged upon arrival. The shipper is responsible for filing a claim, unless shipped 3rd party.



## INSTALLATION OVERVIEW

The FB15 is a 5-digit sports timer designed to count up or down. The timer is completely user-programmable and allows the user to set the number of clock digits, the “weight” of the digits, whether the timer counts up or down, the length of the horn sounding, and several other features.

The FB15 is shipped from the factory configured as a 2-segment / 3-clock digit count down timer. In configuration mode, the user may specify the number of segment digits and clock digits.

Once the display is configured, the user can program the timer to count up from zero to a user-preset stopping time, or down from a user-preset starting time down to zero. With the desired start or stop time programmed, the user can start or stop the clock counting with a single key press.

The FB15 5-digit sports timer also has a built-in “Time of Day” function and can display the current time of day in either a 12-hour or 24-hour clock format.

Set-up and operation of these features will be explained in later sections.

## BEFORE OPERATING

### 1 /

Review the product specifications below to determine your specific installation hardware.

### 2 /

Run and connect electrical service to the segment timer.

### 3 /

Test the installed system.



## PRODUCT SPECIFICATIONS

### OVERALL DIMENSIONS

6.8' W x 2.3' H x 8" D - shipped in one (1) section

### WEIGHT

Hanging weight = approximately 55 lbs  
Shipping weight = approximately 90 lbs

### INSTALLATION RECOMMENDATIONS

Installation hardware not supplied. Check local code for requirements. Anchors, bolts, chains, cables and related hardware must meet minimum weight requirements.

### POWER REQUIREMENTS

The segment timer is equipped to operate on a 110-volt external AC power, using the supplied 10-volt wall transformer.

The handheld controller is powered from the segment timer when connected directly to it.





## CONNECTING THE CABLES

1 /

**NOTE:** The segment timer is equipped to operate on a 110-volt external AC power, or rechargeable external battery power, using the supplied 10-volt wall transformer. Some units are additionally equipped with an internal rechargeable battery.

To power the segment timer using the AC adapter, plug one end into the receptacle on the unit's switch plate labeled "AC POWER." Then plug the other end into a 120-volt, 60Hz, grounded AC outlet.



**WARNING:** The 10-volt wall transformer can NOT be plugged into the handheld controller. The provided 10-Volt wall transformer is meant for use with the Segment timer ONLY.

2 /

To turn the segment timer ON, move the unit's power switch to the "AC/INT/EXT BATT" position. This position is used to power the board with the external power, internal battery power, or external battery power options.

3 /

To turn the segment timer OFF, slide the switch to the "OFF" position. The handheld controller is powered from the display through the controller cable.



**WARNING:** When using the cable option with the factory provided components, AA batteries can NOT be placed in the controller. Doing so will cause the device to receive too much power and damage the controller.

## CHARGING THE INTERNAL AND EXTERNAL BATTERY (OPTIONAL)

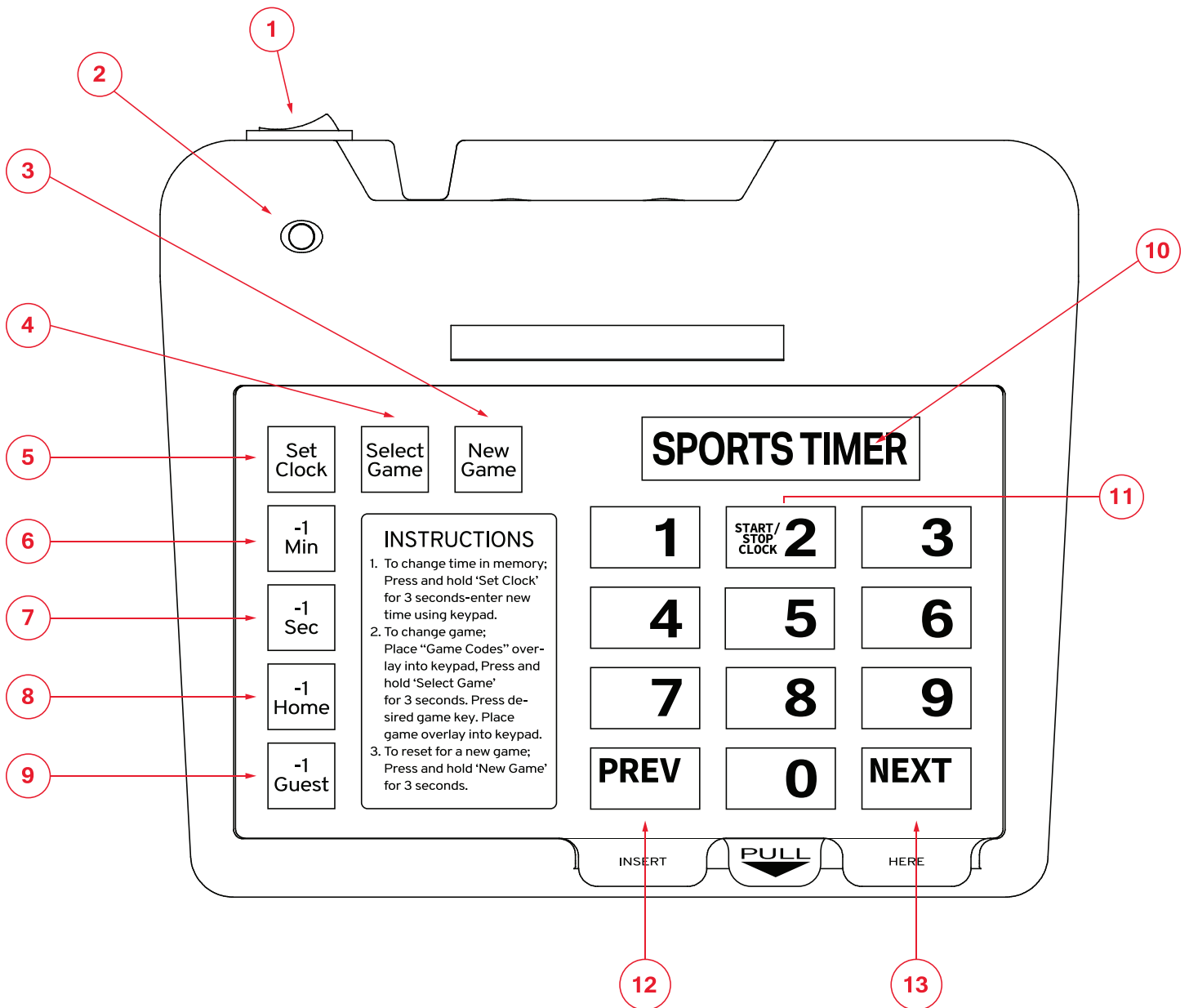
The segment timer's internal battery is charged whenever the AC wall adapter is connected to the timer and plugged into a live AC outlet. This battery will be charged in the "ON" and the "OFF" positions. The built-in charger is completely automatic and will not overcharge your battery, making it safe to leave the timer plugged in when not in use.

The optional external battery is charged when the charging adapter is plugged into a live AC outlet. This is also safe to leave plugged in when not in use.



# CONTROLLER DEFINITIONS

## THE HANDHELD SEGMENT TIMER CONTROLLER





## CONTROLLER DEFINITIONS

### CONTROLLER DEFINITIONS

#### 1 / Power

Turns Controller on/off.

#### 2 / LED Indicator

Indicates power and network identification.

#### 3 / New Game

Starts a new game. Press and hold for 5 seconds or until segment timer resets.

#### 4 / Select Game

Switches from one game to another. Hold for 5 seconds until segment timer blanks out, then press the desired game/sport. The controller will be preset to this game from the factory and will not need to be changed.

#### 5 / Set Clock

Sets the clock. Hold down for 3 seconds until the display clears. Enter the desired time in a four-digit format using the numbers on the keypad, ex: [0, 8, 0, 0] for 8 minutes.

#### 6 / -1 Min

Decreases the minutes on the clock when stopped.

#### 7 / -1 Sec

Decreases the seconds on the clock when stopped.

#### 8 / -1 Home

Not applicable with this model.

#### 9 / -1 Guest

Not applicable with this model.

#### 10 / Horn Key

Manually sounds the horn.

#### 11 / Start/Stop Clock

Starts/Stop the clock.

#### 12 / PREV

Scrolls to the previous Parameter to be set.

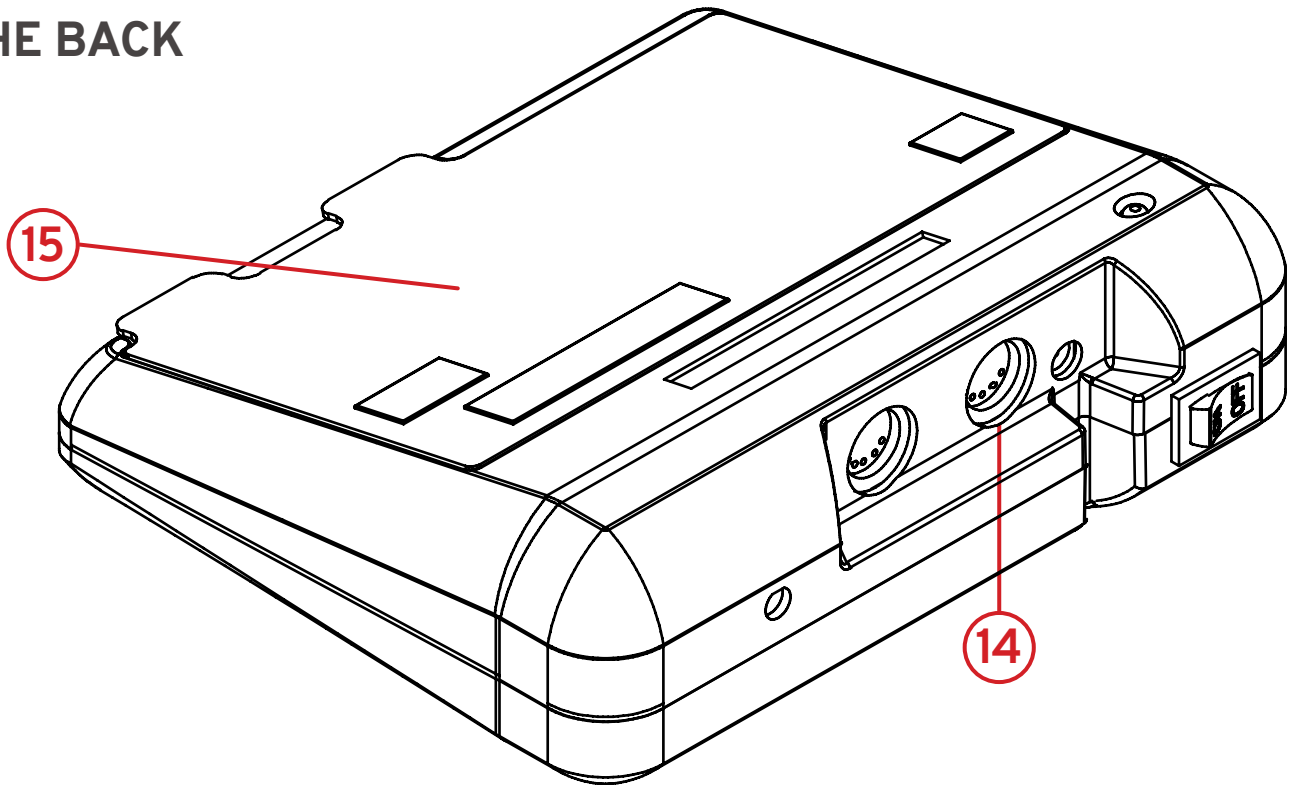
#### 13 / NEXT

Scrolls to the next Parameter to be set.



## CONTROLLER DEFINITIONS

### THE BACK



#### 14 / DIN Socket

For DIN cables.

#### COMMUNICATION

**CABLE:** Connect the provided 5-pin DIN cable to the handheld controller and then to the provided junction box cover plate assembly.

#### 15 / Battery Access Panel

Uses 4 AA Batteries. Batteries are not rechargeable. With cable options, do not place batteries in the controller.



**WARNING:** When using the cable option with the factory provided components, AA batteries can NOT be placed in the controller. Doing so will cause the device to receive too much power and damage the controller.



## GETTING STARTED

### CONFIGURING THE SEGMENT TIMER

The FB-15 is shipped from the factory configured as follows:

**1 /**

2-Digit segment timer with a 3-digit clock.

**2 /**

Periods set to count-down.

**3 /**

3-Second horn when a user-preset time is reached.

**NOTE:** This is the most commonly used configuration for this mode. If this factory configuration suits your needs, there is no need to further configure this display. Skip the “Timer Operation” section for instructions on how to program starting/stopping times and “Count-Up”/”Count-Down” mode. If not, the information on the following pages will guide you in configuring the display to meet your needs.

### CONFIGURING THE DISPLAY

There are seven Parameters that can be set while configuring the display. Each Parameter, 0-6, is assigned a value by the user during configuration. The Parameter numbers, descriptions, and available settings are shown below.

Parameters Set During Configuration		
Parameter ID	Description	Settings
0	Timer Function	1 = Timer / 3 = Time of Day
1	Number of Timer Digits	1-10
2	Number of Clock Digits	1-10
3	First Clock Digit Value	See table on Page 16
4	Length of Horn	0-9 Seconds
5	Count Up/Count Down	0 = Count Down / 1 = Count Up
6	12/24 Hour Clock Format	0 = 12-Hour / 1 = 24-Hour

To configure the items above, the display must be placed in configuration mode. See instructions for switching to configuration mode on the following page.



## CONFIGURATION MODE

Before switching the segment timer to configuration mode, ensure that the handheld controller is properly connected to the timer. To place the timer in configuration mode:

### 1 /

Turn the timer's "POWER" switch to the appropriate "ON" position.

### 2 /

Press the "9" key within one second of turning the timer's power on.

### 3 /

Press the "7" key within one second of pressing the "9" key.

If the timer accepts the key sequence, the next-to-last digit will display a flashing "0" and the last digit will display either a "1" (if the unit was last configured as a sports timer, as is the factory default) or a "3" (if the unit was last configured as a time of day display).

**NOTE:** Once all Parameters have been set, press and hold the "NEXT" key until the unit returns to display mode.

If the timer displays anything other than a flashing "0" in the next-to-last digit, configuration mode was not properly initiated. Turn the timer off, wait ten seconds, then try again.

## SETTING THE PARAMETER

Once in configuration mode, the flashing number shown in the next-to-last digit indicates the Parameter to be set (0-6) and the number shown in the last digit indicates the current value for that Parameter.

### 1 /

To change the value for the current Parameter, use the number keys on the handheld controller.

### 2 /

To scroll forward to the next Parameter to be set, press the "NEXT" key.

### 3 /

To scroll backward to the previous Parameter, press the "PREV" key.

**NOTE:** Once all Parameters have been set, press and hold the "NEXT" key until the unit returns to display mode.



## PARAMETER 0: TIMER FUNCTION

### PERIOD TIMER SETTING

Press the “1” to configure the unit as a period timer. A “1” will be displayed in the last digit. Set Parameters 1-5 then skip to the “Timer Operation” section of the manual.

You can scroll forward and backward through the Parameters to be set for the function you specified by using the “NEXT” and “PREV” keys. If you configured the unit as a period timer, only Parameters 0-5 (those that must be set to use the unit as a period timer) will be available as you scroll forward and backward through the Parameters to be set.

### TIME OF DAY SETTING

Press “3” to configure the unit as a time of day display. A “3” will be displayed in the last digit. Set Parameter “1” to “5,” set Parameter “2” to “4,” set Parameter “3” to “5,” and set Parameter “6” then skip to the “Time of Day” section of the manual.

If you configured the unit as a Time of Day display, only Parameters 0 and 6 (the Parameters that must be set to use the unit as a Time of Day display) will be available as you scroll forward and backward through the Parameters to be set.



## PARAMETER 1: NUMBER OF TIMER DIGITS

This feature is available when Parameter “0” is set to “1” or “3.” Use the numbers keys on the handheld controller to enter the desired number of timer digits. This value may be from “1” to “10,” but “5” is recommended since the timer has 5 digits. If this Parameter’s value is greater than “5” the timer will function properly, but not all of the clock digits will be displayed. However, the timer will continue to count the underplayed time internally and the displayed digits will still change accordingly.



## PARAMETER 2: NUMBER OF CLOCK DIGITS

This feature is available when Parameter “0” is set to “1” or “3.” Use the number keys on the handheld controller to enter the desired number of clock digits. This value may be from “1” to “10,” but the timer will not accept a value greater than the number of timer digits set in Parameter “1” mentioned previously.

For example, if you use the unit as a sports timer (set in Parameter “0” mentioned previously) and you want the timer to display HH:MM (with no seconds, etc.) Then you would set the number of clock digits to four. The fifth display digit will NOT be used. Setting Parameter “2” allows the user to specify how many of the timer digits (set in Parameter “1” above) will be used as clock digits.





## PARAMETER 3: FIRST CLOCK DIGIT VALUE

This feature is available when Parameter “0” is set to “1” or “3.” Possible values for this Parameter are shown in the table below:

First Clock Digit Value Settings	
Setting	Description
1	Days 10’s [ <b>XX:XX:XX:XX.XX</b> ]
2	Days 1’s [ <b>X:XX:XX:XX.XX</b> ]
3	Hours 10’s [ <b>XX:XX:XX.XX</b> ]
4	Hours 1’s [ <b>X:XX:XX.XX</b> ]
5	Minutes 10’s [ <b>XX:XX.XX</b> ]
6	Minutes 1’s [ <b>X:XX.XX</b> ]
7	Seconds 10’s [ <b>XX.XX</b> ]
8	Seconds 1’s [ <b>X.XX</b> ]
9	1/10th Second [ <b>.XX</b> ]
10	1/100th Second [ <b>X</b> ]

All other clock digits are sequential from the First Clock Digit Value. Therefore, if you set the number of clock digits to “3” (set in Parameter “2”) and the First Clock Digit Value to “4” (set in Parameter “3”) the clock will display H:MM, such as 9:30 (9 hours, 30 minutes).

## SETTING THE PARAMETER

### 1 /

If you set the number of clock digits to “4” and want the timer to display “HH:MM,” set the First Clock Digit Value to “3.”

### 2 /

If you set the number of clock digits to “3” and want the timer to display M:SS, set the First Clock Digit Value to “6”.

### 3 /

If you set the number of clock digits to “2” and want the timer to display SS, set the First Clock Digit Value to “7”.



## PARAMETER 4: HORN LENGTH

This feature is only available when Parameter “0” is set to “1.” Use the number keys on the handheld controller to specify how long the horn will sound in seconds.



## PARAMETER 5: COUNT UP / COUNT DOWN

This feature is only available when Parameter “0” is set to “1.” Press the “1” key to make the timer count up from zero to the user-programmed stopping time, if programmed. If no user-preset stopping time is entered when the timer is in count-up mode, the timer will count up indefinitely. Press the “0” key to make the timer count down from the user-programmed starting time to zero.



## PARAMETER 6: 12-HOUR / 24-HOUR CLOCK FORMAT

This feature is only available when Parameter “0” is set to “3.” Press “0” to configure the display to show the time of day in a 12-Hour clock format. Press “1” to configure the display to show the time of day in a 24-Hour clock format.

**NOTE:** Once all Parameters have been set, press and hold the “NEXT” key until the unit returns to display mode.



## TIMER OPERATION

### COUNT-UP FUNCTION

When the unit is configured to count up (set in Parameter “5”) a user-preset stopping time **may** be entered but is **optional**. If a user-preset stopping time is entered and the timer is started, the timer will begin counting up from zero and stop at the user-preset stopping time. If a user-preset stopping time isn’t entered and the timer started, the timer will begin counting up from zero and will count up indefinitely until it is stopped.

### COUNT-DOWN FUNCTION

When the unit is configured to count down (set in Parameter “5”) a user-preset starting time **must** be entered. Once a user-preset starting time is entered and the timer is started, the timer will begin counting down from the user preset time to zero, and the horn will sound for the length of time set in Parameter “4”

### USER-PRESET TIME CONFIGURATION

When the unit is used as a Football Segment Timer, user-preset times will need to be programmed. User-preset stopping times (for count-up mode) and user-preset starting time (for count-down mode) are entered using the same procedure. To enter user-preset segment times:

#### 1 /

Press and hold the “Set Clock” key until the segment indicator starts flashing.

#### 2 /

The first Segment Indicator will be flashing as a “1.” Using the numeric keypad, enter the desired Period length. The format used to enter the time will depend on the number of clock digits set in Parameter “2.”

#### 3 /

Once Period 1 is entered, press the “NEXT” key to proceed to Period “2” (A “2” will then be flashing). Set the Periods in this way up to 99 Periods. Once done, press the “Set Clock” key to go back to Period 1 in ready mode.

**NOTE:** Failing to perform Step 3 will cause the board to not display the correct time.



## TIMER OPERATION

### EXAMPLE OPERATION

If Parameter 2 was set to 3 (3 clock digits), Parameter 3 was set to 6 (first clock digit value), Parameter 5 was set to 0 (count-down) and the desired segment time is 5 minutes, the segment time would be entered by pressing a four-digit entry. So “5:00” would be entered as 0 - 5 - 0 - 0. Each segment must be entered in this manner.

### STARTING / STOPPING THE TIMER

#### 1 /

To start the Segment Timer, press the “Start / Stop Clock” key.

**NOTE:** Restarting a stopped timing sequence continues counting from the point at which it was stopped. It does not reset the timer and begin counting over.

#### 2 /

To reset the Segment Timer, first, press the “Start / Stop Clock” key to stop it, then

#### 3 /

Press and hold the “New Game” key until the display clears and resets.



## TIME OF DAY OPERATION

### CONFIGURATION REQUIREMENTS

If the unit was configured as a time of day display (see Parameter “0: Timer Function” section) the following Parameters must also be set to the specified value before the timer can be used as a time of day display:

Time of Day Parameter Requirements	
Parameter	Required Setting
1	Must be set to “5”
2	Must be set to “4”
3	Must be set to “5”
6	Can be either “0” or “1”

### SETTING TIME OF DAY

#### 1 /

Press and hold the “Set Clock” key until the display clears.

#### 2 /

Use the number keys on the handheld controller to enter the time of day in either a 12-Hour or 24-Hour clock format, depending on the value you set for Parameter “6” in configuration mode.

#### 3 /

Press the “NEXT” key to save the entered time and start the clock.

**NOTE: AFTER EACH USE, POWER TO THE SEGMENT TIMER MUST BE SHUT OFF USING THE POWER SWITCH AND/OR BY UNPLUGGING THE POWER ADAPTER. FAILURE TO DO SO WILL RESULT IN UNNECESSARY POWER CONSUMPTION AND MAY SHORTEN THE LIFE OF THE DISPLAYS AND ELECTRONICS.**

**NOTE: THE HANDHELD CONTROLLER SHOULD BE POWERED DOWN AFTER EVERY USE AND STORED IN A DRY PLACE.**

**NOTICE:** 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 their expense.

**VARSIITY** /   
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