

# INTELLIGENT SCOREBOARD CONTROLLER



## MODEL ISC-9000 USER MANUAL



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## INTRODUCTION

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### MODELS

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ISC9000-PR – Hardwired Version  
ISC9000-X9 – Indoor / Outdoor 900 MHz Wireless Versions  
ISC9000-X2 – Indoor / Outdoor 2.4 GHz Wireless Versions  
ISC9000-CX – Additional coaxial cable output  
ISC9000-IP – Additional Ethernet port

**\*\*If experiencing wireless communication issues, placing the antenna vertically may help\*\***

### FEATURES

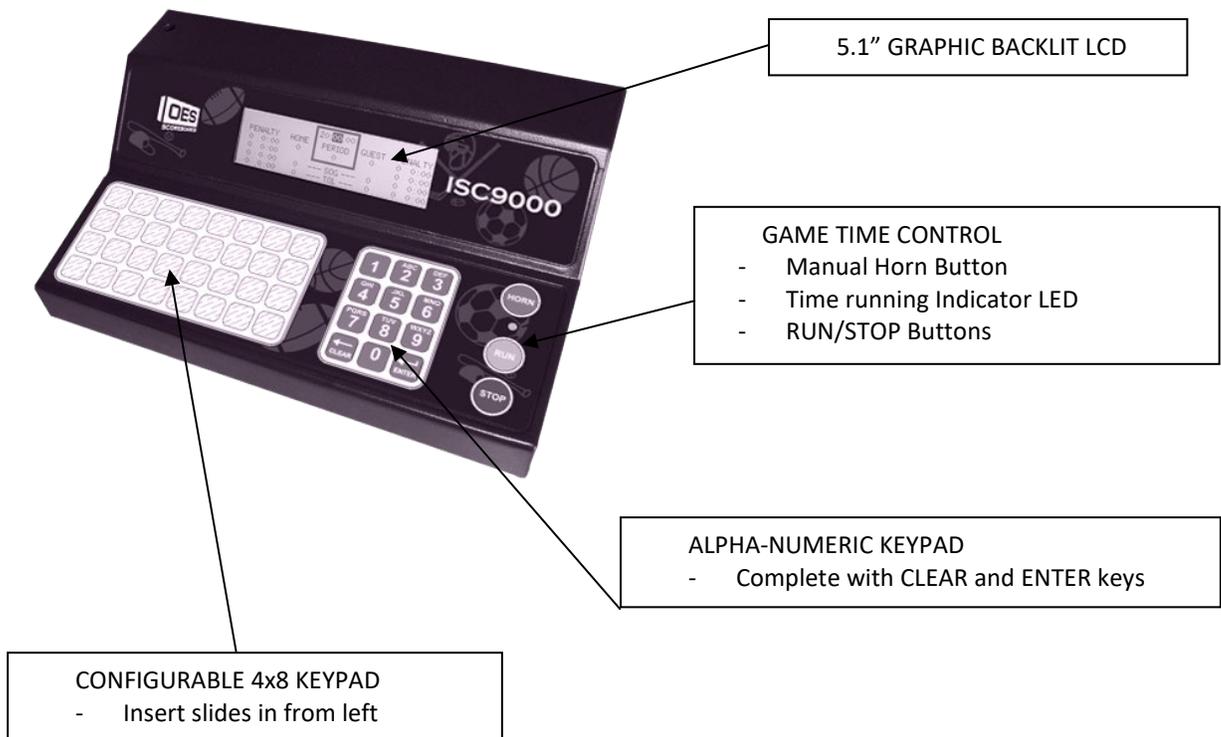
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#### *Standard Features:*

Microprocessor and Quartz Crystal based, providing timing accuracy  
Battery Backed Memory  
5.1" Full Graphic Backlit Display  
Full function keypad complete with 4x8 interchangeable insert  
One RS485 2-Wire Communication Port for Game Data  
One RS232 Communication Port for Game Data  
Additional RS485 2-Wire Communication Port for Multi-Controller setups or Stat system  
One USB Communication Port for Diagnostics and Upgrades  
Two Configurable Remote Input Ports

## HARDWARE

### FRONT PANEL



### BACK PANEL



See next page for interface details.

## INTERFACE DETAILS

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### *Power-In Module (Labeled "100-230VAC" & "1A SLO-BLO")*

IEC connector

Input: 100-230VAC, 50-60Hz

Fuse: 1A, 250V, SLO-BLO, 5x20mm

### *Remote Inputs (Labeled "REMOTE 1" & "REMOTE 2")*

XLR 3 pin connector

Software Configurable

Available Remote: OES # ISCREM

### *Controller Port (Labeled "9000 IN" & "9000 OUT")*

XLR 5 pin connector

RS485 2-Wire

Mating Connectors – OES # CN138F and CN139B

Pin out:

Pin 3 – RS+

Pin 4 – RS-

### *Game Port 1 (Labeled "GAME OUT")*

XLR 4 pin connector

RS485 2-wire

Mating Connector – OES # CN137D

Pin out:

Pin 3 – RS+

Pin 4 – RS-

### *Game Port 2 (Labeled "GAME OUT")*

DB9 Male Connector

RS232 DTE

Serial port settings: Baud Rate = 9600, Data Bits = 8, Parity = None, Stop Bits = 1 and Flow Control = None

Pin out:

Pin 2 – Data into Controller (Should not be used, for diagnostics only)

Pin 3 – Data out of Controller

Pin 5 – Ground

### *USB*

USB B connector

Used for diagnostic and upgrades

### *Ethernet / WI-FI*

RJ45 connector

Not shown, optional (ISC9000-IP)

### *OES Coax*

BNC connector

Not shown, optional (ISC9000-CX)

# OPERATING INSTRUCTIONS

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## GENERAL NOTES

---

Controller beeper only sounds for valid keypad presses.

Keypad LED lights when game time is running.

To set a numeric value:

- Press the desired function key (i.e. HOME SCORE).
- Enter the value on the numeric keypad.
- Press ENTER button.
- In regular game mode:
  - A cursor will appear on the value.
  - If the cursor is on a value and there are no key presses for 10 seconds, the value will go back to pre-cursor state and the cursor will go off.
- Many game values have easy increment/decrement. To increment a value, press the function key twice. The first key press will put the cursor on the value; the second key press will increment/decrement the value by 1 and turn the cursor off. The only value that will be decremented is TOL, any other values will all be incremented.
- Every value has a minimum and maximum. If a value lower than the minimum is entered, the value will be set to the minimum. If a value higher than the maximum is entered, the value will be set to the maximum.

To set a non-numeric setting value:

- Press CLEAR to toggle through available values.
- Press ENTER to accept.
- Often, most of these values have on-screen instructions.

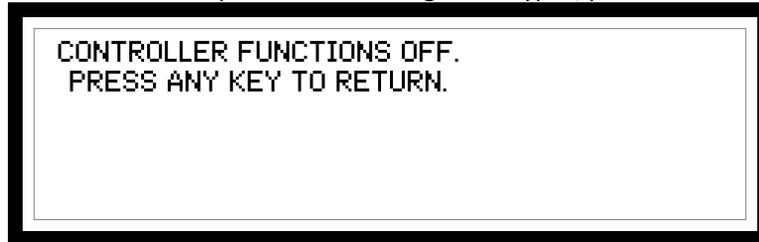
## POWER OFF/ON

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The controller is not equipped with a Power Switch.

To turn controller completely off, unplug power cord.

To turn controller operations off through the keypad, press and hold "OFF" until the following screen appears:



Communication stops to scoreboard.

Pressing any key will bring the controller to the power on sequence.

## POWER ON SEQUENCE

### *SPLASH SCEEN (Displays for 2 seconds)*



Shows OES contact information.

### *STATUS SCREEN (Displays for 2 seconds)*



Shows program revision and date.  
Shows controller operation mode.

### *WIRELESS COMMUNICATION (Displays up to 60 seconds)*



Press ENTER button to use confirm.

### *MEMORY RECALL (Displays up to 60 seconds)*



Press CLEAR button to start a new game.

Press ENTER button to use game data saved from last time unit was on.

- If CLEAR or ENTER buttons are not pressed within 60 seconds, a new game is automatically selected.
- Controller proceeds to game mode after this.

## CONFIGURATION

---

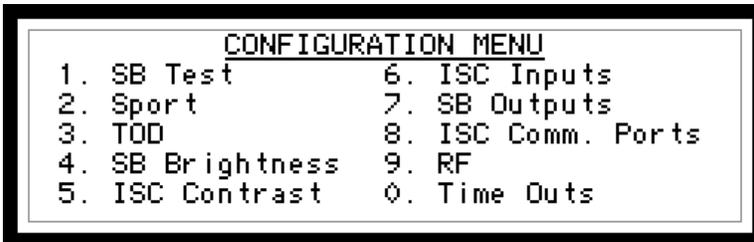
To enter system setup:

- Ensure in normal game mode and all timers are stopped.
- Press and hold SETUP until the following screen appears:



- Enter password (5833) on numeric keypad and press ENTER.
- If an incorrect password is entered, the unit will return to game mode.

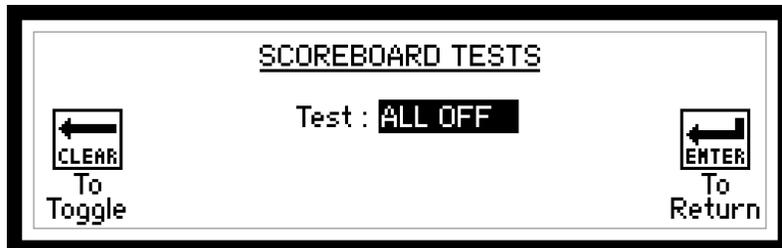
### USER CONFIGURATION MENU



Use numeric keypad to make selection.

## CONFIGURATION OPTION #1 - SB TEST (SCOREBOARD TEST)

---



Follow on-screen instructions.

Available Tests:

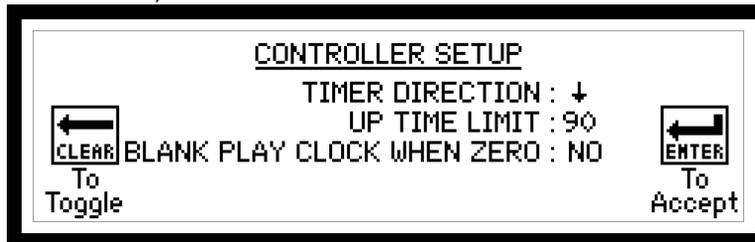
- ALL OFF – blanks all displays
- ALL ON – turns on all displays
- ROTATE – rotates through numbers
- LOCATION – control board driver number
- OUTPUTS – rotates through outputs

## CONFIGURATION OPTION #2 – SPORT (SPECIFIC SPORT SETTINGS)



Follow on-screen instructions.

- Protocol – Not editable, for reference only, set at factory.
- Sport – Select Sport. Toggles through available sports.
- Mode – Select controller setup mode – SOLO (independent operation), MASTER and SLAVE (multi-controller)



Next setup screen will appear allowing you to select timer direction and high limit of the clock. (In minutes)

- TIMER DIRECTION – Select GAME TIME to count up ↑ or down ↓.
- UP TIME LIMIT – The time at which the clock will stop and sound the horn.
- BLANK PLAY CLOCK WHEN ZERO: Play clock blanks when game time is zero.

After this, a game settings screen may appear for a couple of sports for additional settings.

### GAME SETTINGS FOR SPORT

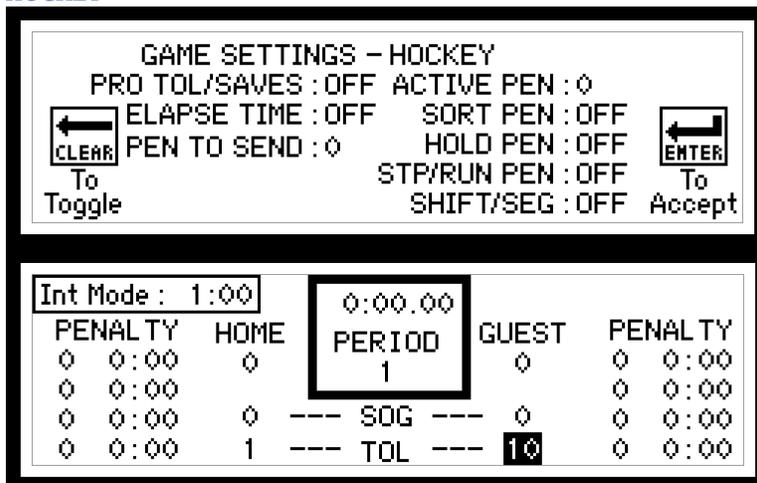
For numeric values:

- Enter value on numeric keypad.
- Press ENTER.

For non-numeric settings, follow on-screen instructions.

After last setting is accepted by pressing ENTER, the controller will restart.

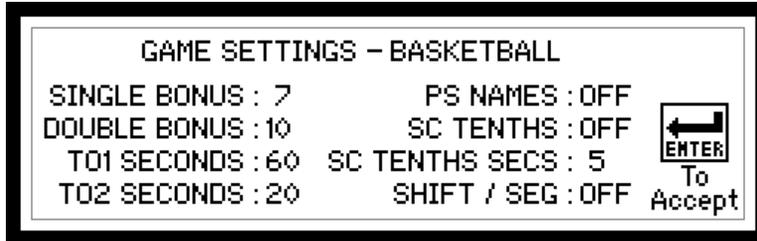
### HOCKEY



- PRO TOL/SAVES – Adds the Time Out Left and SAVES to the PRO protocol.
- ELAPSE TIME – Display the elapsed time on the game screen when game time is stopped.
- PEN TO SEND – Amount of penalties that are to be displayed on the scoreboard.
- ACTIVE PEN – Number of penalties that will run when game time is running.

- SORT PEN – will reorder the penalties from least amount of time to most.
- HOLD PEN – Enables the penalty HOLD button to hold the 3rd and 4th penalties even after the first two have expired.
- STP/RUN PEN – Enables button to STOP and RUN penalties when the GAME TIME is running.
- SHIFT / SEG – Enables the SHIFT TIMER or the SEGMENT TIMER or neither.

### BASKETBALL



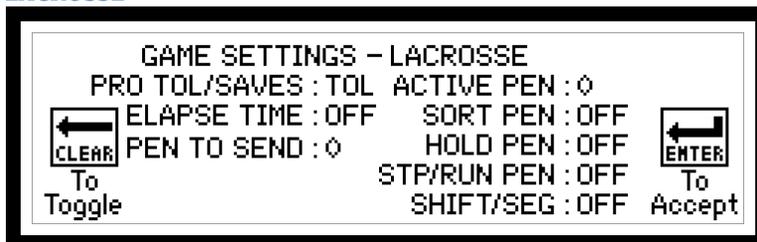
- SINGLE / DOUBLE BONUS – Sets the value for bonus indicators to turn ON.
- TO1 / TO2 – Sets the duration for the TIME OUT indicators.
- PS NAMES – allow player stat names on compatible scoreboard.
- SC TENTHS – Enables SHOT CLOCK to display tenths of seconds. (must have compatible SHOT CLOCKS)
- SC TENTHS SECS – Selects the SHOT CLOCK time to start displaying tenths of seconds.
- SHIFT / SEG – Enables the SHIFT TIMER or the SEGMENT TIMER

### FOOTBALL



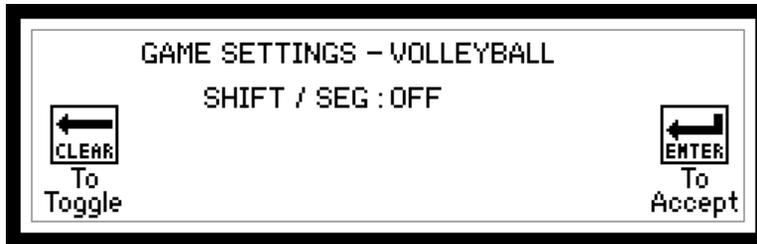
- MAX. DOWNS – Set the maximum number of downs
- CENTER FIELD – Set the yardage at center of the field
- TIME - TENTHS – Select to show tenths of seconds in the last minute of the Game Time.
- SHIFT / SEG – Enables the SHIFT TIMER or the SEGMENT TIMER

### LACROSSE



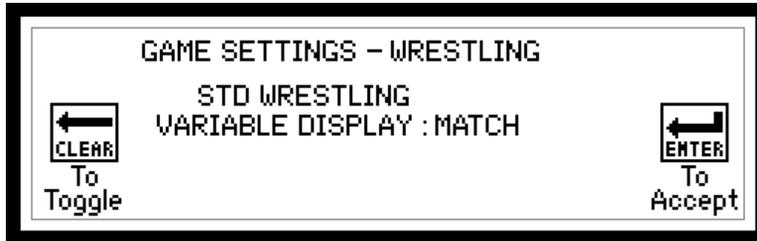
- PRO TOL – Adds the TOL to the PRO protocol.
- ELAPSE TIME – Display the elapsed time on the game screen when game time is stopped.
- PEN TO SEND – Amount of penalties that are to be displayed on the scoreboard.
- ACTIVE PEN – Number of penalties that will run when game time is running.
- SORT PEN – will reorder the penalties from least amount of time to most.
- HOLD PNLTY – Enables button to hold 3rd and 4th penalties after the first two have expired.
- STP/RUN PNLTY – Enables button to STOP and RUN penalties when the GAME TIME is running.
- SHIFT / SEG – Enables the SHIFT TIMER or the SEGMENT TIMER or neither.

## VOLLEYBALL



- SHIFT / SEG – Enables the SHIFT TIMER or the SEGMENT TIMER or neither.

## WRESTLING



- STD WRESTLING VARIABLE DISPLAY – This will change the variable display on the scoreboard to show either match or advantage time. Only displayed on specific scoreboards.

## SOCCER



- AUTO SAVES- Select if the SAVES is manually entered or automatically calculated. The automatic calculation is the difference between opponents SHOTS and your SCORE value.

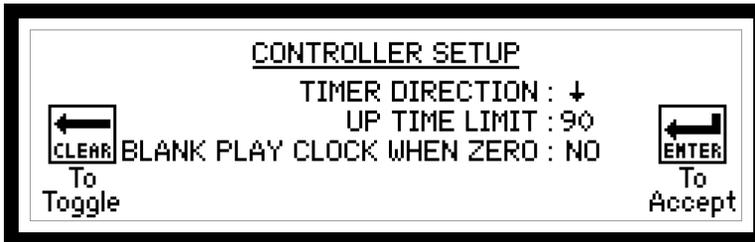
## RUGBY



- TRY – Multiplier for Try to add to the score. Max value is 9
- CNV – Multiplier for Converts to add to the score. Max value is 9
- PEN – Multiplier for Penalty to add to the score. Max value is 9
- FGS – Multiplier for Field Goals to add to the score. Max value is 9

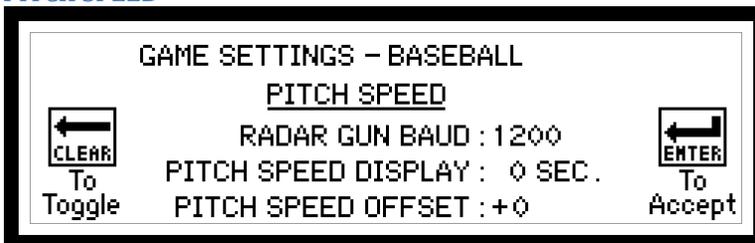
## BASEBALL

### TIMER



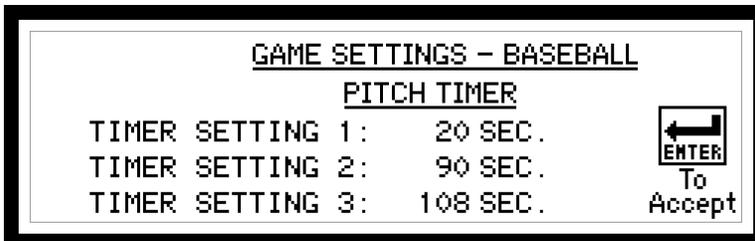
- TIMER DIRECTION – Select GAME TIME to count up ↑ or down ↓
- UP TIMER LIMIT – Minutes that the clock will stop at.
- BLANK PLAY CLOCK WHEN ZERO: Play clocks blank when game time is zero.

### PITCH SPEED



- RADAR GUN BAUD – This needs to match the baud rate of the radar gun output.
- PITCH SPEED DISPLAY – Seconds that the pitch speed will be displayed on the scoreboard. (1- 60sec.)
- PITCH SPEED OFFSET – This will adjust the speed of the speed received from the radar gun.

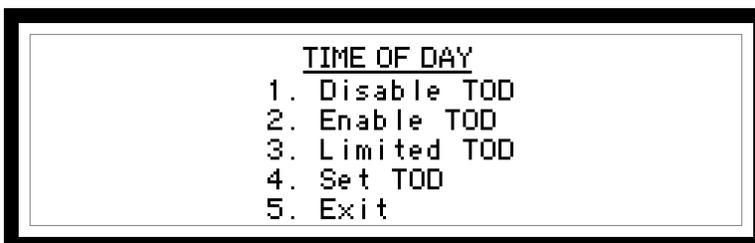
### PITCH TIMER



- TIMER SETTING 1 – Seconds that the first pitch timer will be set to.
- TIMER SETTING 2 – Seconds that the second pitch timer will be set to.
- TIMER SETTING 3 – Seconds that the third pitch timer will be set to.

These values can be set from 1 to 199 seconds

## CONFIGURATION OPTION #3 – SB TOD (TIME OF DAY)



- Use numeric keypad to make selection.
- To Disable/Enable the Time of Day select “1. Disable TOD” or “2. Enable TOD”. Once selected the controller will return to GAME SCREEN.

- Select 3 to set the limits that the Time of Day will be displayed on the scoreboard. This is not compatible with all scoreboard and clocks. To have Time of Day on all of the time, set ON: 0:00AM OFF: 0:00AM.



- Select 4 to set the Time of day (TOD)



- Use the keypad to set the hour and press ENTER. Set the minutes and press ENTER. Press the CLEAR button to toggle between AM and PM, and then press ENTER to continue to the day.
- Using the CLEAR button, scroll through days of the week and press ENTER to continue. Use the keypad to select the day, month and year, pressing ENTER for each field. Once the year is accepted, you will be taken back to game mode.
- Time of day will be sent to clocks when all values are set. Once the time is sent to the clocks, the clocks take over timekeeping, the controller is only used to set or change the time.

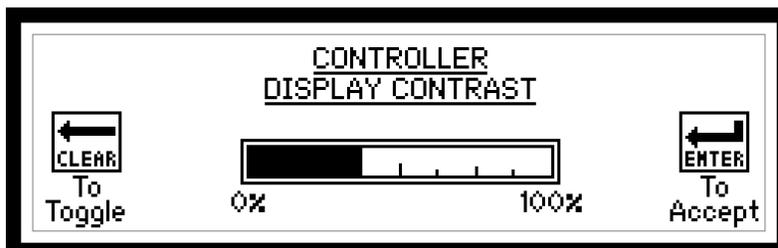
#### CONFIGURATION OPTION #4 – SB BRIGHTNESS (SCOREBOARD BRIGHTNESS)



Follow on-screen instructions.

- When adjusted, scoreboard will change brightness. When a scoreboard is powered on, it defaults to 100% brightness.
- Scoreboard LEDs may turn off when being adjusted but entry will still be accepted.

#### CONFIGURATION OPTION #5 – ISC CONTRAST (DISPLAY CONTRAST)



Follow on-screen instructions.

- When adjusted, controller display will change contrast. Controller will save the setting, when powered on, it will return to the last set value.

## CONFIGURATION OPTION #6 – ISC INPUTS (REMOTE INPUTS)



Each remote input will control 2 different functions A and B  
Follow on-screen instructions.

- Available Wired Remote functions:
  - NO I/O – No remote input function.
  - I/P-GAME TIME – Controls game timer.
  - I/P-HORN – Sounds main game horn.
  - I/P-SHOT TIME – Controls shot timer.
  - I/P-SHOT RESET – Controls shot timer reset.
  - I/P-SHOT RST A – Reset shot clock to “A” value.
  - I/P-SHOT RST B – Reset shot clock to “B” value.
  - I/P-SHOT RST C – Reset shot clock to “C” value.
  - I/P-SHOT RST A/B – Toggle between reset “A” and reset “B”.
  - I/P-HOME SOG – Increments Home Shots on Goal value.
  - I/P-GUEST SOG – Increments Guest Shots on Goal value.
  - I/P-L GOALLIGHT – Turn on goal light to the left of the operator.
  - I/P-R GOALLIGHT – Turn on goal light to the right of the operator.
  - I/P-ADV HOME – Controls home advantage time.
  - I/P-ADV GUEST – Controls guest advantage time.
  - PC TIME – Baseball Pitch Timer Start/Stop
  - PC RESET - Baseball Pitch Timer Reset
  - P.CNT +1 – Baseball Pitch Count +1
- ISC-HH (wireless remote)
  - Available in Standard Protocol only.
  - Used for time start/stop/reset and incrementing scores.
  - COM1 must be set RF (See Setup Option #8).
  - Available functions
    - OFF – Will not accept any input from ISC-HH remote
    - GAME – Start, stop and reset game time. Add and reset Home and Guest scores
    - TIMES – Start, stop and reset Game and Shot clock time.
    - SOG – Add and Subtract Shots On Goals total in hockey, lacrosse and soccer
    - SHOT CLOCK – Control shot clock functions. Start, Stop and reset shot clock timer.
    - ShtClk (2BTN) – Control shot clock function for 2 different reset values.

Setting this disables controller from running shot clock time. A remote needs to be used to start and stop shot time.

## CONFIGURATION OPTION #7 – SB OUTPUTS (SCOREBOARD OUTPUTS)

```
SCOREBOARD OUTPUTS
HORN: O/P 1  TIME ON: No O/P
SC HRN: O/P 2  TIME OFF: No O/P
EOP: O/P 3    GL LEFT: O/P 5
ACTIVE: O/P 4  GL RIGHT: O/P 6
```

Follow on-screen instructions.

- Available options are No O/P or O/P 1-4 for the following:
  - HORN – Main Scoreboard Horn.
  - SC HRN – Shot Clock Horn.
  - EOP – End of period indicator.
  - ACTIVE – System active – Output will be on if controller is communicating to scoreboard
  - TIME ON – Output will be on if timer running.
  - TIME OFF – Output will be on if timer stopped.
  - GL LEFT – assigns the left goal light output
  - GL RIGHT – assigns the right goal light output
- Anytime the Sport or Protocol is edited – default values for #7 SB OUTPUTS are set.
- After editing the outputs, the next screen appears to set output time lengths.

```
SCOREBOARD OUTPUTS – TIMER LENGTHS (SEC)
HORN: 4
SHOT HORN: 1
EOP: 4
```

To set each value:

- Enter value on the numeric keypad.
- Press ENTER.
- HORN is the length of horn in seconds, when times reaches 0 or MAXIMUM UP TIME
- SHOT HORN is the length of shot horn in seconds when the shot clock counts down to 0
- EOP HORN is the length of horn in seconds (or other device assigned to the EOP output on the previous screen).

Note that the value entered is in seconds.

For Manual Horn only, enter a value of “0”.

## CONFIGURATION OPTION #8 – ISC COMM. PORTS (RECEIVE COMMUNICATION PORTS)

```
COMMUNICATIONS SETUP
COM1: RS232
COM2: RS485
COM3: USB
COM3 GAME: OFF
```

Follow on-screen instructions.

- COM1 – Game data port. Choose from RF, RS485 and RS232
- COM2 – Controller-Controller communications. Set to RS485, and cannot be changed.
- COM3 – Game Data or Diagnostics. Choose from USB or WIFI/ETHernet (Must be set to USB to update controller firmware)
- COM3 GAME – if set to “ON” or “SHARED”, it sends game data out on port specified above.

## CONFIGURATION OPTION #9 – RF (RADIO FREQUENCY CHANNELS)

### SETTING RADIO CHANNEL IN CONTROLLER

Factory setting can be found on serial number label.

**\*\*\* ENSURE ALL OTHER CONTROLLERS ARE POWERED OFF BEFORE PROCEEDING. \*\*\***

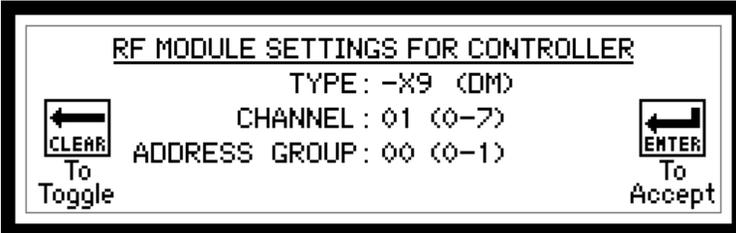


Select option 1 to adjust controller radio channel

Select option 2 to do a scoreboard scan list, in order to have multiple scoreboards controlled by one controller.

Select option 3 to go back to the game menu.

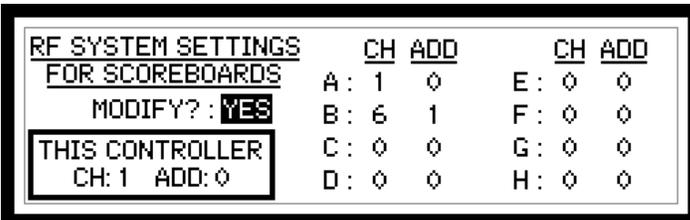
#### Option 1



- If no radio attached, unit will return to game mode.
- TYPE – This value is read from the radio, either –X9 (DM) or –X2 (DM) will appear.
- CHANNEL – Set desired radio channel for the control unit (Press CLEAR to toggle through channels)
- ADDRESS GROUP – Set desired radio address group for the control unit (-X9 only) CLEAR to Toggle.

### SETTING RADIO CHANNELS FOR SCOREBOARDS

**\*\*\* ENSURE ALL OTHER CONTROLLERS ARE POWERED OFF BEFORE PROCEEDING. \*\*\***



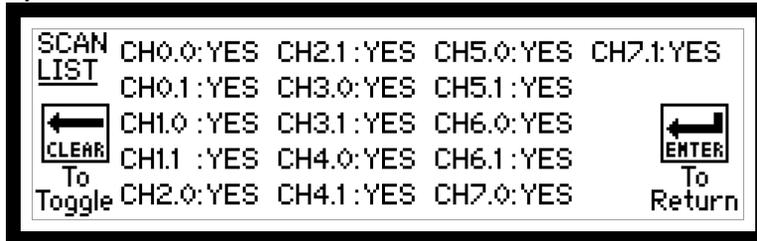
- THIS CONTROLLER shows the current channel and address of the unit from the previous page, and cannot be changed on this page
- Use CLEAR button to toggle YES and NO. ENTER button will accept input.
- Select if YES the RF SYSTEM SETTINGS need to be modified. If NO then the control unit will return to the GAME SCREEN.

**\*\*\* ENSURE THERE ARE NO OTHER CONTROLLERS POWERED ON BEFORE PROCEEDING. \*\*\***

- Each display components will have a factory assigned system group A, B, C, D, E, F, G or H
- Shot clocks and system A will not change channel or address group.

- To set the RF channel and address group, fill in the desired values.
- Set CH (channel) and ADD (address group) for the scoreboards to match corresponding controllers

#### Option 2



- Use CLEAR button to toggle YES and NO. ENTER button will accept input.
- Select YES if, the scoreboard associated with that channel will be controlled by the controller. If NO, then the scoreboard will be used as normal.

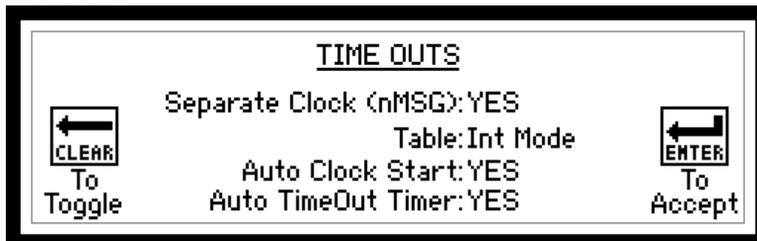


- If yes, settings will be applied and saved to scoreboards in the area. If no, settings will be deleted.
- Press ENTER to return back to the game mode.

## CONFIGURATION OPTION #0 - TIME OUTS

This function can be used to setup fixed time out table for quickly starting different time out times. Setting up the table will happen in this menu. Function of the TIME OUTS will be covered in *Intermission / Break / Time out Timer* section.

First screen



Follow on-screen instructions.

- Separate Clock (nMSG): YES/NO
  - YES - will display the TIME OUT time on a separate clock that is specifically setup to display TIME OUTS.
  - NO - will display the TIME OUT time on the scoreboard in the GAME TIME section whenever active.
- Table : select between OFF, NBA National, NBA Local and INT Mode
  - Off
  - NBA NAT– time out table setup for national broadcast
  - NBA LOC – time out table setup for local broadcast
  - Int Mode – separate table setup to quickly start set time out values
- Auto Clock Start – will start the clock as soon as time value is selected.
- Auto Time Out Timer – will start intermission clock whenever Time Out Left is decremented.

Next screen

TIME OUTS					
Warning Horns			Add-on Times		
#1	: ON	30secs	#1	:	30secs
#2	: ON	15secs	#2	:	75secs
#3	: OFF	0secs	#3	:	105secs

This screen will be for setting up the warning horn and the add-on times

- There is the ability to set 3 warning horns which can be turned ON of OFF. The time must be set when the horn is desired.
- Add-on times allow you to set 3 different times which can be added to the time out time. This allows a time out to be extended by any of the 3 values set here.

Next screen

TIME	#1:	20sec TO	N	1:00	L	1:00
OUT	#2:	60sec TO		1:30		1:30
TABLES	#3:	Mandatory TO		2:45		2:15
	#4:	Quarter Break		3:30		2:30
	#5:	20sec TO Trig.		3:15		2:45
	#6:	Overtime Break		2:30		2:30

On this screen there are 2 different columns of time. N is for a national broadcast and L is for a local broadcast. This is where the 6 different time out lengths can be entered for the specific time out. Use the numeric keypad and ENTER button to accept. Time fields are m:ss (m=minutes) (s=seconds).

Below is the table for INT mode.

INT	#1	20:00 (Auto TimeOut Timer)
MODE	#2	18:30
TABLES	#3	1:30
	#4	3:30
	#5	3:15
	#6	2:30

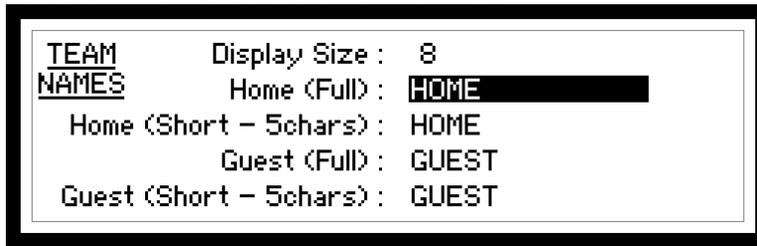
## TEAM NAMES

---

### SETTING TEAM NAMES

---

Press TEAM NAME to enter team name screen

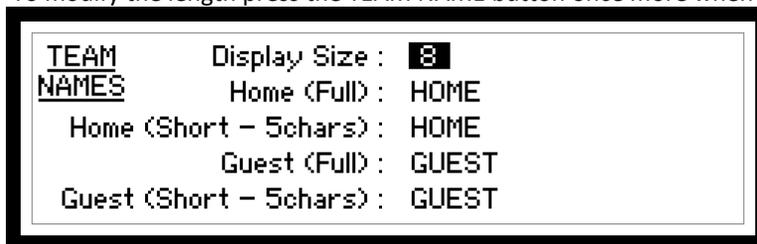


- Full – Names that appear on scoreboard display. The maximum length of these names is per the value set for Display Size.
- Short – Names that appear on controller display. The maximum length of these names is 5 characters.
- To edit Team Names:
  - The hi-light shows the name being edited.
  - The underline shows the character location being edited.
  - To go back a character, press CLEAR.
  - To accept a name and go to next name, press ENTER.
  - To toggle characters, use the numeric/alpha keypad.
  - After one second of editing a character the cursor will go to the next character (A beep will occur).
  - You can go to the next character without waiting the one second, as long as the character is not on the same key, press the new key.
  - Press "0" on the number pad twice, to insert a space.

### SETTING DISPLAY SIZE

---

To modify the length press the TEAM NAME button once more when in team name screen.

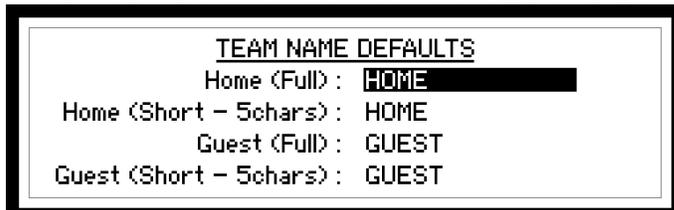


- Set the number of characters on the scoreboard display.
- To set value:
  - Enter value on numeric keypad.
  - Press ENTER.

### PROGRAMING DEFAULT TEAM NAMES

---

This will be the defaulted names that will display in the controller when new game is selected. To modify press the TEAM NAME button twice more when in TEAM NAME screen.



Refer to "SETTING THE TEAM NAME" instructions to modify names.

## REGULAR GAME OPERATIONS

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### GAME TIME

---

Time on the scoreboard display will show mm:ss, where mm is minutes and ss is seconds. In all sports except football and soccer, when game time is less than one minute the display will show ss.t, where ss is seconds, and t is tenths of a second.



- Maximum value is: 99 minutes, 59 seconds, and 99 hundredths of a second.
- Time will count down to 0:00.0. In some sports, the time can be set to count up. The limit on up timer is per setting in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*
- To set Game Time:
  - **All timers must be stopped.**
  - Press GAME TIME.
  - Enter Minutes value on numeric keypad.
  - Press ENTER.
  - Enter Seconds Value on numeric keypad.
  - Press ENTER.
  - Enter Hundredths of Seconds on numeric keypad, and press ENTER. (Alternatively, 00 can be entered by pressing CLEAR, or the current hundredths setting can be accepted by hitting ENTER).
- If GAME TIME is pressed when time is running, the display will show the screen with game time, but the cursor will not display for editing.
- If game timer is started while editing, the cursor will disappear and the game time will revert back to previous setting.
- If GAME TIME is pressed at the end of a period, the last set time will reload and period will increment.

### SAVED TIME

---

This function is used to recall times from the last game time stoppage. Game time and if applicable, shot clock and penalties times are recalled.



- To recall saved times:
  - Press and hold "SAVED TIME" until saved times appear.

### INTERMISSION / BREAK / TIME-OUT TIMER

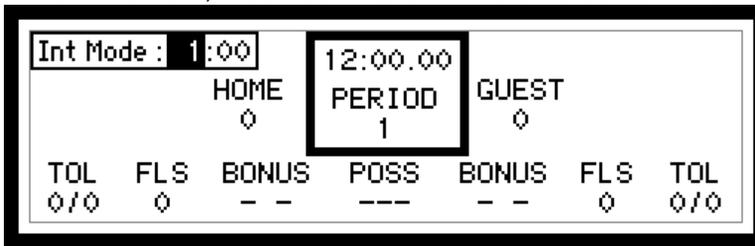
---

This timer can be used for intermissions, time outs, and any kind of break timer. Any other timers, like penalty and shot clock, do not operate while using this break timer. Time out can be setup to operate in 2 different methods. 1) Individually set intermission timer 2) a list of preset time out times from a table. To change this setting, see CONFIGURATION OPTION #0 – TIME OUTS



### Individually set intermission time

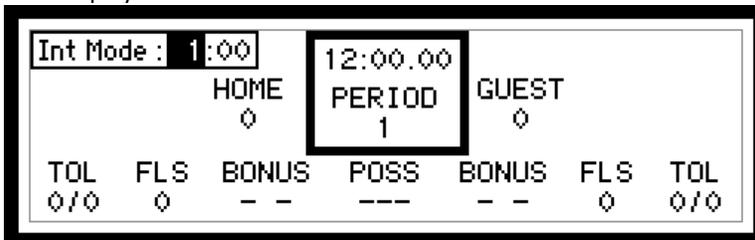
While in this mode, the controller screen will show the timer value in the upper left.



- Maximum value is: 99 minutes and 59 seconds.
- To set Int. Mode time:
  - **All timers must be stopped.**
  - Press INT MODE.
  - The last set time will appear.
  - If this is okay, press ENTER twice.
  - If not okay:
    - Enter Minutes value on numeric keypad.
    - Press ENTER.
    - Enter Seconds value on numeric keypad.
    - Press ENTER.
- Use game time RUN and STOP buttons to count down the INT MODE timer.
- When the timer reaches zero, the horn will sound
- While in INT MODE, press INT MODE to exit back to regular game mode.

### Time out table

While in this mode, the controller screen will show the timer value in the upper left and the scoreboard game time display will show this value.



- Maximum value is: 99 minutes and 59 seconds.
  - To set Int. Mode time:
    - **All timers must be stopped.**
    - Press INT MODE.
    - This screen will appear
- 
- Select 1 to 9 on using the numeric keypad.
  - Time selected will appear in upper left corner of main game screen.
- Use game time switch to count down the INT MODE timer.
- To ADD-ON time onto time out while the time is **RUNNING**, press the INT MODE button again.
  - This screen will appear.



- Select 1 to 4 on using the numeric keypad.
- While in INT MODE with the time **STOPPED**, press INT MODE to exit back to regular game mode.

## PERIOD



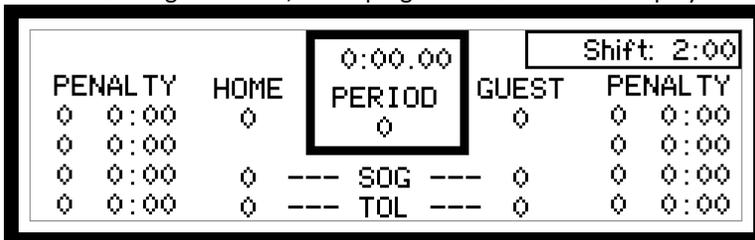
- Maximum value is: 9.
- To set Period:
  - Press PERIOD.
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment Period:
  - Press PERIOD twice.
  - Note in volleyball: Incrementing period will also put current scores in appropriate Sets value and then clear for next game.
- Note: See Game Time for automatic incrementing of the period value.

## SHIFT

To enable/disable, see *CONFIGURATION OPTION #2 – Sport (specific sport settings)* in the setup menu. This timer is repetitive, counts down from a set time, and sounds game horn, then repeats.



- Not available in PRO Protocol setup.
- While using this timer, the top right of the controller display will display running timer.



- Maximum value is: 9 minutes and 59 seconds.
- The Shift Set value is the value the shift time is reset to once it expires.
- To set either Shift Set or Shift value:
  - Press SHIFT until cursor appears on desired value.
  - Enter Minute value on numeric keypad.
  - Press ENTER.
  - Enter Seconds value on numeric keypad.

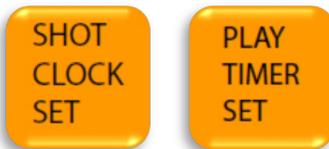
- Press ENTER
- To modify current shift time, press “Shift” twice and modify time.
- Shift timer will operate when game time is running.
- To disable Shift Time, set Shift Set to 0:00.

## SHOT CLOCK (PLAY TIMER)

Shot clock (play timer) RUN, STOP and RESET functions are usually controlled by remote connected to REMOTE 2 port on back of the ISC9000 controller. (Remote 2 port is configured in *CONFIGURATION OPTION #6 – ISC Inputs (Remote Inputs)*). If these inputs are disabled however, the shot clock/play timer reset is controlled by the *SHOT CLOCK RESET* button on the ISC9000 keypad.



- Maximum value (All settings and current time) is: 99 seconds.
- Press SHOT CLOCK SET (PLAY TIMER SET) repeatedly to select the field you wish to modify.



- SET A is the primary reset value.
- SET B is the secondary reset value.
- SET C is an extra reset time value.
- The time in the PLAY TIMER box is the current time on the shot clock. It can be set to a temporary time if necessary, and then reset to one of the A, B, or C presets upon SHOT CLOCK RESET
- Enter value on numeric keypad.
- Press ENTER.
- To select the reset type.
  - Press the SHOT CLOCK SELECT (PLAY TIMER SELECT) repeatedly until the reset type desired is selected.



- Different reset types are:
  - A – sets shot clock to A setting
  - B – sets shot clock to B setting
  - C – sets shot clock to C setting
  - TOGGLE – if clock running, resets shot clock to A setting. If clock stopped, repeated reset presses will toggle the shot clock between the A, B and C setting.
  - LAST – if clock is stopped, will reset shot clock to last value before a reset
  - BLANK – will blank out shot clock digits.
- To operate the Shot Clock Timer
  - Shot clock is normally operated from an independent remote connected to the REMOTE2 port. To set up remote 2 operate the shot clock see the *CONFIGURATION OPTION #6 – ISC Inputs (Remote Inputs)*.

- If there is an input enabled to I/P-SHOT TIMER:
  - The input must be ON for shot clock to run.
  - For basketball and lacrosse – the game timer must also be ON.
- If no input is enabled to I/P-SHOT TIMER:
  - For basketball and lacrosse – the shot timer will run when the game time is running.
  - For football the shot timer cannot be run, therefore an input is needed for football to run the shot clock.
- To blank Play Clocks or Shot Clocks
  - Set reset select to BLANK
  - Press PLAY TIMER RESET or SHOT TIMER RESET

## INNING

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- Maximum value is 40.
- To set inning:
  - Press INNING.
  - Enter a value on numeric keypad and press ENTER
- To increment inning to next half inning:
  - Press INNING twice.
- To toggle between Top/Bottom of Inning (does not change Inning Numeric Value):
  - Press TEAM AT BAT

## BALLS, STRIKES AND OUTS

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Maximum value is 3 for Balls, 2 for Strikes, and 2 for Out:

To Toggle a counts value press, desired count button



## CLEAR COUNT

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- To clear count (Sets Ball & Strikes to 0, clears Batter info, clears Last Play):
  - Press CLEAR COUNT.



## SCORES

---



- Maximum value is: 199. (Depending on the sport, all 3 digits may not show)
- To set a team's Score:
  - Press HOME SCORE or GUEST SCORE
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment a team's Score:
  - Press desired teams increment score button. For example HOME SCORE +1 will increment home score by 1.
  - Note in tennis:
    - If Tie-Breaker is set – scores will increment by 1.
    - If Tie-Breaker is not set – scores will be 15, 30, 40, and Advantage.
  - Note baseball:
    - HOME SCORE +1 or GUEST SCORE +1, will only work for the team at bat.

## PENALTIES

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### *Hockey / Lacrosse:*

The controller allows input of four penalty times per team. Only the penalty times 1 & 2 are active when the game time is running. Penalty times 3 & 4 will become active and shift up into penalties 1 & 2 when the active 1 & 2 penalties expire. This can be changed in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*



- The maximum Player Number is 99.
- The maximum Penalty Minutes is 99, but the message protocol only sends out the last digit of minutes. So if the penalty time is 12:23, the scoreboard display will only show 2:23.
- The maximum Penalty Seconds is 59.
- To enter a penalty:
  - Press either HOME PENALTY or GUEST PENALTY. The first key pressed will put the cursor on the first empty penalty location.
  - When the same button is pressed repeatedly, the controller advances between the 4 penalties.
  - For each penalty, enter values of the player number, penalty minutes, and seconds on the numeric keypad and press ENTER after each.
  - NOTE: ENSURE CURSOR IS OFF BEFORE STARTING TIME OR PENALTY WILL NOT OPERATE PROPERLY.
- To clear a penalty:
  - Press the HOME PEN or GUEST PEN until the cursor is highlighted on the penalty that is to be cleared.
  - While on any value of the penalty to be deleted, press the CLEAR button. This will clear the entire penalty and shift any lower penalties up.

- HOLD PENALTY Feature



- Needs to be enabled in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*
  - If this activated from the keypad during normal operation, any penalty entered in Penalty 3 & 4 will not shift up when either or both Penalty 1 & 2 expired.
  - To toggle OFF/ON, press HOLD PENALTY. A small HOLD box will appear beside both team's penalty 3&4.
- PENALTY STOP/RUN feature



- Needs to be enabled in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*
  - Penalty time stop/run is controlled with the keypad. Game time must be running for penalty time to run.
  - To toggle STOP/RUN, press PENALTY STOP/RUN. A small STP box will appear beside both team's penalty 1&2 when penalty time is stopped.

## GOAL LIGHT

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- Press and hold the goal light button that points to the direction of the goal light you wish to turn on.

## SHOTS ON GOAL (SOG)

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- Maximum value is: 99.
- To set a team's SOG:
  - Press either HOME SHOTS or GUEST SHOTS.
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment a team's SOG:
  - Press either HOME SHOTS or GUEST SHOTS twice.  
OR
  - Press either HOME SHOTS +1 or GUEST SHOTS +1.

## TIME OUTS LEFT (TOL)

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All sports that have TOL have one value, except basketball, which has two.

For STANDARD protocol, an indicator on the scoreboard will illuminate for the time set in game settings under *CONFIGURATION OPTION #2 – Sport (specific sport settings)*.



- Maximum value of first TOL: 9; For basketball's second TOL: 3.
- To set a team's first TOL value:
  - Press either HOME TOL or GUEST TOL.
  - Enter value on numeric keypad.
  - Press ENTER.
- To set a team's second TOL value:
  - Press either HOME TOL or GUEST TOL.
  - Press ENTER.
  - Enter value on numeric keypad.
  - Press ENTER.
- To decrement a team's first TOL value:
  - Press either HOME TOL or GUEST TOL twice.
- To decrement a team's second TOL value:
  - Press either HOME TOL or GUEST TOL.
  - Press ENTER.
  - Press the same HOME TOL or GUEST TOL again.

If automatic AUTO TIMEOUT TIMER is selected in *Configuration Option #0 – Time Outs* the time out time will begin to run as soon at the TOL is decremented.

## FOULS

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### ***Basketball:***

Maximum value is: Per the Double Bonus setting in *CONFIGURATION OPTION #2 – Sport (specific sport settings)* in the setup menu.

- To set a team's Fouls:
  - Press either HOME FOULS or GUEST FOULS.
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment a team's Fouls:
  - Press either HOME FOULS or GUEST FOULS twice and enter player foul information with the keypad. Player Foul can also be entered by pressing HOME PLAYER FOUL or GUEST PLAYER FOUL.
- Press either "HOME PLAYER FOUL" or "GUEST PLAYER FOULS"
- Enter the player number, and press ENTER
- Enter the fouls for that player, and press ENTER

NOTE: The Player number and their respective fouls, are maintained in the memory of the ISC9000 controller. A maximum of 20 player stats are maintained per team. When pressing either "HOME PLAYER FOUL" or

“GUEST PLAYER FOULS” and entering the player number, that player’s last foul amount is recalled. When first plugging in the ISC9000 to power, pressing the “CLEAR” button will clear the game time, scores and game stats. The player stats will remain in memory however.

In STD mode, the “PLAYER STAT” button will recall the last entered player and fouls. (In PRO mode, this button is disabled.) Pressing the “PLAYER STAT CLEAR” button will blank this display on the scoreboard.

### Soccer:

- Maximum value is: 99.
- To set a team’s Penalty:
  - Press either HOME FOULS or GUEST FOULS.
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment a team’s Penalty:
  - Press either HOME FOULS or GUEST FOULS twice

## HITS

---



- Maximum value is: 99.
- To set a team’s Hits:
  - Press HOME HITS or GUEST HITS
  - Enter value on numeric keypad.
  - Press ENTER.



- To increment a team’s Hits:
  - Press desired team’s hits increment score button. For example HOME HITS +1 will increment home hits by 1. Only the HITS value of the team at bat may be changed

## ERRORS

---



- Maximum value is 9.
- To set a team’s Errors:
  - Press HOME ERRS or GUEST ERRS
  - Enter number on keypad, press ENTER



- To increase a team’s Errors:
  - Press desired teams increment hits button. For example HOME ERRS +1 will increase home errors by 1

## PITCHER

---

Maximum value is 99 for pitcher number & 99 for pitch count. (Values will be saved in memory when going between half innings)



- To set a pitcher's value:
  - Press PITCHER, enter the pitchers number on the numeric keypad and press ENTER
  - Enter the pitcher's pitch count on the numeric keypad and press ENTER



- To increment a pitcher's pitch count:
  - Press PITCH COUNT +1

## PITCH SPEED

---

Pitch Speed values normally come from an external pitch speed gun attached to controller, but can also be manually entered.



- Maximum value: 199.
- To manually set a pitch speed:
  - Press PITCH SPEED.
  - Enter the pitch speed on the numeric keypad.
  - Press ENTER

Scoreboard display will show this value for the pre-configured time. This amount if time can be set up in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*. It is set to 20 seconds by default.

## PITCH TIMER

---



- To open the Pitch Timer menu:
  - Press the PITCH TIMER button



- To set a pitch timer:
  - Press the PITCH TIMER SET button to toggle through the set pitch timers.  
\*Note that the pitch timers can be set up in *CONFIGURATION OPTION #2 – Sport (specific sport settings)*.



- To run the pitch timer:
  - Press the PITCH TIMER RUN button.



- To stop the pitch timer:
  - Press the PITCH TIMER STOP button.

## BATTER

---



- Maximum value is: 99 for Player Number and 0.999 for Player Batting Average
- To set a batter's value:
  - Press AT BAT
  - Enter the batter's number on numeric keypad.
  - Press ENTER.
  - Enter the batter's batting average on numeric keypad (Note: "0." Is automatically entered, only need to enter values to the right of the decimal).
  - Press ENTER.

## LAST PLAY

---



- To set Last Play:
  - Press LAST PLAY repeatedly until desired value displays on controller display, H or E.
  - Press ENTER.
  - If Error is selected, the error position will appear with the cursor on it. To set Error Position:
    - Enter value on numeric keypad.
    - Press ENTER.

## BONUS

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Automatically displayed per other teams' fouls value and the bonus settings in CONFIGURATION OPTION #2 – Sport (specific sport settings).

## POSSESSION (POSS) / SERVING

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- Press POSS / SERVING to toggle between HOME and GUEST.
- To blank: press and hold POSS button

## FIELD

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For Football only.

FIELD values – DOWN and YARDS TO GO maximum value is: 99.

Before entering FIELD data, POSSESSION must be set.



- To set FIELD values:
  - Press the FIELD button
  - Enter value for down (DN) on numeric keypad, press ENTER
  - Enter value for yards to go (YTG) on numeric keypad, press ENTER
  - Select side of the field is the ball is on. Toggle HOME/GUEST with the CLEAR button and ENTER to accept.
  - Enter value yard position on numeric keypad, press ENTER

AUTOFIELD can be used to update FIELD data. This will automatically calculate DOWN and YARDS TO GO based on the BALL ON field position. Both POSSESSION and FIELD data must be set.



- To set AUTO FIELD values:
  - Press the AUTO FIELD button
  - Select side of the field is the ball is on. Toggle HOME/GUEST with the CLEAR button and ENTER to accept.
  - Enter value yard position on numeric keypad, press ENTER

NOTE: for a turnover, the POSSESSIONS and FIELD values will need to be set.

To BLANK FIELD values press BLANK FIELD button



## SETS

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### *Volleyball*

The current set score will automatically be recorded when the PERIOD is incremented.



- To manually adjust the set scores:
  - Press SETS
  - Press CLEAR to toggle to different sets.
  - Use the keypad to enter scores, pressing ENTER after each entry

### *Tennis*



- To select current SET:
  - Press SETS +1 or SETS -1 to toggle between the 5 sets.



- To edit SETS:
  - Press SETS EDIT
  - Use the ENTER button to toggle between the set scores
  - Enter scores on keypad, press ENTER

## TIE-BREAKER

---

For Tennis only.

When in tie break mode, the scores will only increase by one. Once tie breakers is complete, press TIE-BREAK WON and a set point will be added to the team with the highest score.



- Press TIE BREAKER to toggle between OFF/ON.

## CORNER KICKS

---

For Soccer only.



- Maximum value is: 99.
- To set a team's Corner Kicks:
  - Press either HOME C.K. or GUEST C.K.
  - Enter value on numeric keypad.
  - Press ENTER.
- To increment a team's Corner Kicks:
  - Press either HOME C.K. or GUEST C.K. twice.

## MATCH

---

For Wrestling only.

Maximum value is: 255.



To set Match:

- Press MATCH.
- Enter value on numeric keypad.
- Press ENTER.

## TEAM POINTS

---

For Wrestling only.



- Maximum value is: 99.
- To set a team's Points:
  - Press either HOME TEAM POINTS or GUEST TEAM POINTS.
  - Enter value on numeric keypad.
  - Press ENTER.
  - To increment a team's Points:
    - Press either HOME TEAM POINTS or GUEST TEAM POINTS twice.

## ADVANTAGE

---

For Wrestling only.

Each wrestler has an advantage time.

The maximum Advantage Minutes is 99, but the message protocol only sends out the last digit of minutes. So if the advantage time is 12:23, the scoreboard display will only show 2:23.

The maximum Advantage Seconds is 59.



- To edit an advantage:
  - Press either HOME ADV or GUEST ADV.
  - Enter values of the advantage minutes and seconds on the numeric keypad and press ENTER after each.
  - NOTE: ENSURE CURSOR IS OFF BEFORE STARTING TIME OR ADVANTAGE WILL NOT OPERATE PROPERLY.



- To start a team's advantage timer:
  - Press either START HOME ADV or START GUEST ADV.



- To stop advantage timers:
  - Press STOP ADV.
  - Active Advantage time runs in sync with game time, if game time is not running neither is the advantage timer.

## SEGMENT TIMER

---

This timer function allows multiple timed intervals (segments) to be preprogrammed and run in sequence.

The scoreboard display will display the information using to following fields

- Time – Current segment time
  - Home Score – Current segment in sequence
  - Guest Score – Total number of segment in sequence
- To enable/disable see *CONFIGURATION OPTION #2 – Sport (specific sport settings) in the setup menu.*

To start the segment timer functions, ensure that the all of the timers are stopped. Then press "SHIFT/SEG" or "SHIFT" button and the screen below will appear.



SEGMENT TIMER					
<u>SET</u>	INT (S)	SEG #	SEGMENT	TIME	HORN (S)
	0	SEG	0	0:00	0
<u>RUN</u>	FIRST	LAST	CURRENT	TIME	
	0	0	100 RUN	0:00	

- To SET segment times
  - Press “SHIFT/SEG” or “SHIFT” button until the cursor appears in INT (S) field.
  - Enter second’s value for intermissions between segments.
  - Press ENTER button to move to the SEG field
  - Use CLEAR button to toggle between SEG/1>> (“1>>” will show the relative number of the segment: i.e when running segments 6, 7, 8, the segment number displayed on the scoreboard will scroll through 1, 2, 3. “SEG” will show the absolute segment number from the 0-99 memory slots available: i.e when running segments 6, 7, 8, the segment number displayed on the scoreboard will scroll through segments 6, 7, 8)
  - Press ENTER to move the cursor to the SEGMENT field.
  - Enter value on numeric keypad of the segment desired to be modified.
    - Maximum value is: 99
  - Press ENTER.
  - Enter minutes of the timer value on numeric keypad.
  - Press ENTER.
  - Enter seconds of the timer value on numeric keypad.
  - Press ENTER.
    - Maximum value is: 59 minutes and 59 seconds.
  - Enter Horn length in seconds on numeric keypad.
    - Maximum value is: 9 seconds. (Enter “0” for no horn)
  - Press ENTER.
  - Repeat for all segments to be modified.

SEGMENT TIMER					
<u>SET</u>	INT (S)	SEG #	SEGMENT	TIME	HORN (S)
	0	SEG	0	0:00	0
<u>RUN</u>	FIRST	LAST	CURRENT	TIME	
	0	0	100 RUN	0:00	

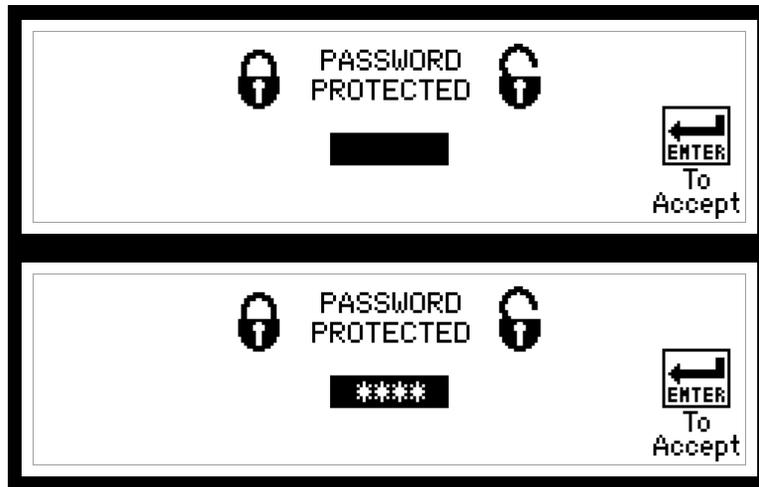
- To RUN segment timers
  - Press “SHIFT/SEG” or “SHIFT” button until the cursor appears in RUN FIRST field.
  - Enter value of the desired FIRST segment to be run in sequence using the numeric keypad.
  - Press ENTER.
  - Enter value of the desired LAST segment to be run in sequence using the numeric keypad.
  - Press ENTER.
  - Use the “RUN” button controller to start the FIRST segment. All selected segments will run consecutively until the LAST segment has expired. The “CURRENT” value on the controller display will show the current segment running, and switch between “RUN” and “INT” to show whether a segment is running or an intermission is running.
- To EXIT SEGMENT TIMER, push and hold “SHIFT/SEG” or “SHIFT” button.

## FAQ

### HOW TO SETUP TIME OF DAY?



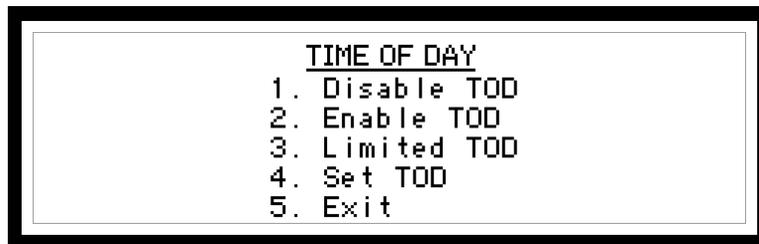
- Hold the setup button until it prompts you for a password.



- The password is "5833", the last 4-digits of our phone number.



- Select option 3 TOD for, Time of Day.



- Select option 4 to set the TOD.



- Use the keypad set the hour and press ENTER. Set the minutes and press ENTER. Press the CLEAR button to toggle between AM and PM, and then press ENTER to continue to the day.



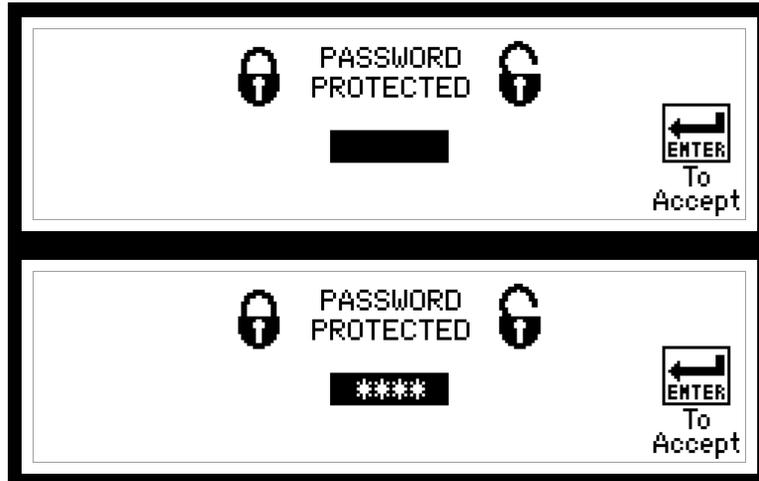
- Using the CLEAR button, scroll through days of the week and press ENTER to continue. Use the keypad to select the day, month and year, pressing ENTER for each field. Once the year is accepted, you will be taken back to game mode.

**\*\*If you accidentally typed the wrong time or date and pressed ENTER already to continue the selection. There is no way to go back in the menu you must keep click ENTER to go through the entire menu and then return to this settings to start it over\*\***

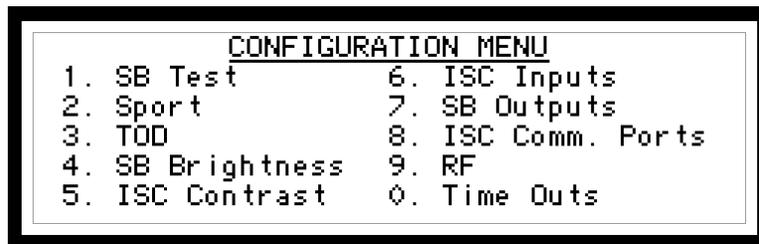
## HOW TO SETUP ISC INPUTS?



- Hold the setup button until it prompts you for a password.



- The password is “5833”, the last 4-digits of our phone number.



- Select option 6 ISC Inputs.



Remote 1A → Corresponds to remote 1, button or switch A

Remote 1B → Corresponds to remote 1, button or switch B

Remote 2A → Corresponds to remote 2, button or switch A

Remote 2B → Corresponds to remote 2, button or switch B

ISC-HH → Corresponds to the type of HH (or “hand held”) controller connected to the ISC9000

*See Configurations Option #6 – ISC Inputs for descriptions of all functions.*

## ISC9000 ETHERNET GAME OUT CONFIGURATION

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### ISC9000 settings configuration

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1. Power on the controller and press “Clear” to enter the main game screen.
2. Ensure game time is not running by pressing the “Stop” button.
3. Press and hold the “Setup” button until the password screen appears.
4. Enter “5833” on the numeric keypad and press “Enter”.
5. Select option “8. ISC Comm. Ports” by pressing “8” on the numeric keypad.
  - a. Press “Enter” to highlight “COM3:” and use “Clear” to toggle COM3 to **WIFI/ETH**.
  - b. Press “Enter” to highlight “COM3 GAME:” and use “Clear” to toggle COM3 GAME to **COPY COM1**. and press “Enter”

### Ethernet port configuration

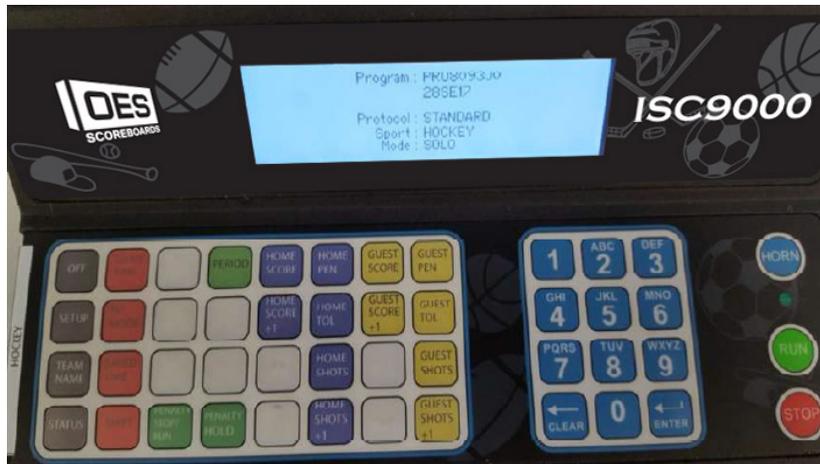
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1. Connect the ISC9000 to the desired network
2. Open Digi’s Device Discovery (available from OES or from [www.digi.com](http://www.digi.com)) on a computer that is on the same network.
3. Look for a device on the right of the screen and click on “Open web interface”. If no devices are listed right click and choose “refresh view”.
4. Enter “root” as the username and “dbps” as the password without quotations and click “login”.
5. From the left side under “Configuration” click “Network”.
  - a. Under the IP Settings tab ensure “Obtain an IP address automatically using DHCP \*” is selected. If any changes are made click “Apply”.
6. From the left side under “Configuration” click on “Serial Ports” and click on “Port 1”.
  - a. Under “Port Profile Settings” tab set the Current Port Profile to “UDP Sockets” and click “Apply”.
  - b. Under “UDP Server Settings” tab **uncheck** “Enable UDP access using UDP Port:”
  - c. Under the “UDP Client Settings” tab set the following:
    - i. The checkbox for “Automatically send serial data” should be **checked**.
    - ii. In the “Send data to the following network services” dialog box enter the desired name, IP address, and UDP port number for the device which is going to be receiving game data and click “Add”.
    - iii. The checkbox for “Send when data is present on the serial line” should be **unchecked**.
    - iv. The box for “Match string:” can remain empty.
    - v. The checkbox for “Strip string before sending” should be **unchecked**.
    - vi. The checkbox for “Send after the following number of idle milliseconds” should be **checked**.
    - vii. The dialog box for “ms” should be **25**.
    - viii. The dialog box for “Send after the following number of bytes” should be **1024** bytes.
  - d. Click “Apply”.
  - e. Under “Basic Serial Settings” set the following:
    - i. Description: **OES UART**
    - ii. Baud Rate: **115200**
    - iii. Data Bits: **8**
    - iv. Parity: **None**
    - v. Stop Bits: **1**
    - vi. Flow Control: **None**
    - f. Click “Apply”.

## SETTING DEFAULT VALUES ON ISC9000 CONTROLLER

It is recommended to load controller default settings for ISC9000 when the firmware is upgraded. System defaults should also be loaded if the controller does not seem to be operating correctly. The following steps are required to load system default setting in the ISC9000 controllers:

- 1) Turn power off to the controller.
- 2) Turn power on to the controller.
- 3) The OES logo and information screen will appear.
- 4) When the program information screen appears press the number "1" key three times while on that screen as indicated below by red arrow:



- 5) If the controller system default settings are performed correctly the following screen will appear on the controller.



- 6) When controller advances to the next screen the controller system default settings have been loaded successfully.

## APPENDIX A: SPECIFICATIONS

Electrical	
Voltage supply	100-240VAC, 50-60Hz, 1A
Physical	
Dimensions – W x D x H	320mm x 210mm x 100mm (12.50" x 8.25" x 4.00")
Weight	2kg (4.4lb)
Operating Temperature	0 to 50°C (32 to 122°F)
Wireless (ISC9000-X9 & ISC9000-X2)	
Frequency	ISC9000-X9 – 902-928MHz ISC9000-X2 – 2.4000 - 2.4835 GHz
Technology	Spread Spectrum (Standard)
Power Output	ISC9000-X9 – 250mW ISC9000-X2 – 63mW
Range	ISC9000-X9 – 300' Indoor, 1000' Outdoor ISC9000-X2 – Up to 300'
Certification	Radio OEM Module approved under FCC Part 15.247 and Industry Canada. Contact factory for more details.

## APPENDIX B: SPARE & REPLACEMENT PARTS

Description	Part #
Fuse	FS127A
Fuse Draw Insert	CN143B
Power Cord	HW179B
Keypad / LCD Cover	EN070C
Feet	HW184B
Antenna – 900 MHz	XF381M
Antenna – 2.4 GHz	XF381F
Radio – 900 MHz	XF381G+
Radio – 2.4 GHz	XF381E
Connector – 4 pin XLR Female	CN137C
Connector – 4 pin XLR Male	CN137D
Connector – 5 pin XLR Female	CN138F
Connector – 5 pin XLR Male	CN139B
Connector – DB9 Female	CN251A
Connector – DB9 Shell	CN290A
Cable – NULL Modem	AU008A
Cable – Controller Comm – 8'	8001005008
Cable – Controller Comm – 25'	8001005025
Cable – Controller Comm – 50'	8001005050

# APPENDIX C: INSERTS

BASEBALL BASEBALL_j12_ver1.0_2019-04-02.LB021E	OFF	TIME	BALL	AT BAT	HOME SCORE	HOME HITS	GUEST SCORE	GUEST HITS	
	SETUP	INNING	STRIKE	PITCHER	HOME SCORE +1	HOME HITS +1	GUEST SCORE +1	GUEST HITS +1	
	TEAM NAME	TEAM AT BAT	OUT	PITCH COUNT +1	PITCH TIMER	HOME ERRS	PITCH TIMER RUN	GUEST ERRS	
	STATUS	LAST PLAY	CLEAR COUNT	PITCH SPEED	PITCH TIMER SET	HOME ERRS +1	PITCH TIMER STOP	GUEST ERRS +1	

SOCCER Soccer_j12_ver1.0_2019-04-01.LB021L	OFF	GAME TIME		PERIOD	HOME SCORE	HOME FOULS	GUEST SCORE	GUEST FOULS	
	SETUP	INT MODE			HOME SCORE +1	HOME C.K.	GUEST SCORE +1	GUEST C.K.	
	TEAM NAME	SAVED TIME			HOME SAVES	HOME SHOTS	GUEST SAVES	GUEST SHOTS	
	STATUS				HOME SAVES +1	HOME SHOTS +1	GUEST SAVES +1	GUEST SHOTS +1	

BASKETBALL Basketb_j12_ver1.0_2019-04-02.LB021F	OFF	GAME TIME	SHOT CLOCK SET	PERIOD	HOME SCORE	HOME FOULS	GUEST SCORE	GUEST FOULS	
	SETUP	INT MODE	SHOT CLOCK SELECT	POSS	HOME SCORE +1	HOME TOL	GUEST SCORE +1	GUEST TOL	
	TEAM NAME	SAVED TIME	SHOT CLOCK RESET	PLAYER STAT	HOME SCORE +2		GUEST SCORE +2		
	STATUS	SHIFT		PLAYER STAT CLEAR	HOME SCORE +3	HOME PLAYER FOUL	GUEST SCORE +3	GUEST PLAYER FOUL	

TENNIS Tennis_j12_ver1.0_2019-04-02.LB021M	OFF				HOME SCORE		GUEST SCORE		
	SETUP			POSS	HOME SCORE +1		GUEST SCORE +1		
	TEAM NAME	SETS -1	SETS +1	SETS EDIT					
	STATUS		TIE-BREAK WON	TIE BREAK					

CURLING Curling_j12_ver1.0_2019-04-02.LB021H	OFF			END	HOME SCORE	HOME TIME	GUEST SCORE	GUEST TIME	
	SETUP	INT MODE		POSS	HOME SCORE +1		GUEST SCORE +1		
	TEAM NAME								
	STATUS								

TRACK TRACK_j12_ver1.0_2019-04-02.LB021N	OFF	GAME TIME		EVENT	HOME SCORE		GUEST SCORE		
	SETUP	INT MODE		HEAT	HOME SCORE +1		GUEST SCORE +1		
	TEAM NAME			LANE					
	STATUS		BLANK	PLACE					

FOOTBALL Football_j12_ver1.0_2019-04-02.LB021I	OFF	GAME TIME	PLAY TIMER SET	PERIOD	HOME SCORE		GUEST SCORE		
	SETUP	INT MODE	PLAY TIMER SELECT	POSS	HOME SCORE +1	HOME TOL	GUEST SCORE +1	GUEST TOL	
	TEAM NAME	SAVED TIME	PLAY TIMER RESET	FIELD	HOME SCORE +3		GUEST SCORE +3		
	STATUS	SHIFT / SEG	BLANK FIELD	AUTO FIELD	HOME SCORE +6		GUEST SCORE +6		

VOLLEYBALL Volleyball_j12_ver1.0_2019-04-02.LB021P	OFF	GAME TIME		PERIOD	HOME SCORE		GUEST SCORE		
	SETUP	INT MODE		POSS	HOME SCORE +1	HOME TOL	GUEST SCORE +1	GUEST TOL	
	TEAM NAME	SAVED TIME		SETS					
	STATUS	SHIFT							

HOCKEY Hockey_j12_ver1.0_2019-04-01.LB021J	OFF	GAME TIME		PERIOD	HOME SCORE	HOME PEN	GUEST SCORE	GUEST PEN	
	SETUP	INT MODE			HOME SCORE +1	HOME TOL	GUEST SCORE +1	GUEST TOL	
	TEAM NAME	SAVED TIME	GOAL LIGHT ←	GOAL LIGHT →	HOME SAVES	HOME SHOTS	GUEST SAVES	GUEST SHOTS	
	STATUS	SHIFT	PENALTY STOP/RUN	PENALTY HOLD	HOME SAVES +1	HOME SHOTS +1	GUEST SAVES +1	GUEST SHOTS +1	

WRESTLING WREST_j12_ver1.0_2019-04-02.LB021S	OFF	GAME TIME		PERIOD	HOME SCORE	HOME TEAM POINTS	GUEST SCORE	GUEST TEAM POINTS	
	SETUP	INT MODE		MATCH	HOME SCORE +1	HOME TIMES	GUEST SCORE +1	GUEST TIMES	
	TEAM NAME	SAVED TIME		STOP ADV		START HOME ADV		START GUEST ADV	
	STATUS			STOP INJ		START HOME INJ		START GUEST INJ	

LACROSSE LACROSSE_j12_ver1.0_2019-04-02.LB021K	OFF	GAME TIME	PLAY TIMER SET	PERIOD	HOME SCORE	HOME PEN	GUEST SCORE	GUEST PEN	
	SETUP	INT MODE	PLAY TIMER SELECT		HOME SCORE +1	HOME TOL	GUEST SCORE +1	GUEST TOL	
	TEAM NAME	SAVED TIME	PLAY TIMER RESET		HOME SAVES	HOME SHOTS	GUEST SAVES	GUEST SHOTS	
	STATUS	SHIFT	PENALTY STOP/RUN	PENALTY HOLD	HOME SAVES +1	HOME SHOTS +1	GUEST SAVES +1	GUEST SHOTS +1	

VOLLEYBALL PLAYER STAT Volleyball_j12_ver1.0_2019-04-02.LB021R	OFF	PLAYER NAME	PLAYER 1 #	PLAYER 2 #	PLAYER 3 #	PLAYER 4 #	PLAYER 5 #	PLAYER 6 #	
	SETUP	TEAM	STAT1	STAT1	STAT1	STAT1	STAT1	STAT1	
	TEAM NAME		STAT2	STAT2	STAT2	STAT2	STAT2	STAT2	
	STATUS	SEND ALL							



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