

USS Controller Manual

How to run the scoreboard.

Language, setup, every sport, display, admin, logos, and advertisers.

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Contents

1. Open the scoreboard 3
- Setup Wi-Fi 3
- IP on the HDMI screen 3
- Main page 3

2. Language 3

3. Setup 3
- School / venue 4
- Admin password 4
- Time of day 4
- Wi-Fi mode 4
- Wi-Fi recovery 4
- Updates 4
- TV setup 5
- Scoreboard display (TV) 5
- Timer sounds 5
- Remote horn, buzzer, and lights 5

4. Three screens 5
- Addresses 6

5. Shared game controls 6
- One operator at a time 6
- Return to main page 6
- Horn, lights, and ads 6
- New game and new match 7

6. Sports 7
- Basketball 7
- Volleyball 7
- Badminton 8
- Hockey 8
- Handball 8
- Soccer 9
- Football 9
- Rugby 9
- Lacrosse 10
- Wrestling 10
- Baseball and slowpitch 11
- Pickleball 11

7. Admin 11
- On every sport except wrestling 12
- What each sport's admin adds 12

8. Team logos and sponsor banner 12
- Team logos 12
- Sponsor banner 13

9. Advertisers 13
- When ads appear 13
- Time of day 13
- Six images and one web page 13

10. Subscription expired 14
- The scoreboard has internet 14
- The scoreboard has no internet 14

11. Troubleshooting 14

1. Open the scoreboard

Use a phone, tablet, or laptop on the same network as the scoreboard. In the browser, open http:// and the scoreboard address. Example: http://192.168.1.21. Use http, not https. If the page does not open, try the same address with :3000 at the end.

Setup Wi-Fi

If the scoreboard is broadcasting its own network, join that Wi-Fi first.

- Network name: USS-Controller. Password: 12345678. These are the defaults until someone changes them in Setup.
- Then open http://192.168.4.1. If that fails, use http://192.168.4.1:3000.

IP on the HDMI screen

Each time the scoreboard is turned on, the HDMI display shows one notice: “This is your IP for the controller. Write it down.” The network address is under that line, in large type.

- It stays for 10 seconds, then disappears.
- It does not come back if you refresh the display or change sports.
- That address is the one a phone or laptop uses to open the scoreboard. It is not 127.0.0.1.
- If the unit is on its own access point and not joined to the venue Wi-Fi, that address can be 192.168.4.1.

Main page

You should see Setup, Advertisers, and one tile for each sport. A sport tile opens that sport’s control panel.

> **The TV follows the sport you open**
> The big screen uses the display page. It checks every 2 seconds and switches to the sport whose control page was opened last. Until a sport is opened, that page is basketball.

- If the browser jumps to https, type http:// again or use a private window.

2. Language

On Setup, open Text language. The choices are English, Français (Canada), and Simplified Chinese. The Chinese choice is labeled on screen in Chinese characters.

The choice applies to Setup, the main menu, and the scoreboard control and display pages. It is saved on this unit.

3. Setup

Open Setup from the main page. A shorter copy of the instructions is the User manual link on that page.

The top line shows Subscription valid until and Refresh from monitor. If the scoreboard cannot reach the service, a dialog says it cannot get subscription information.

School / venue

Venue name, school name, email, and contact phone are required. Save school / venue. These are the names sent when the clock checks in.

Admin password

This password is only for Admin (colors, logos, banner, layout). Operators can run the clock and scores without it.

- First time, leave Current password blank.
- Enter New password and Confirm, then Save admin password.
- If the password is still 12345678, Setup and each control page ask you to change it. The on-screen hint shows that default.

Time of day

Sets the clock on this unit. Type the local date and time and press Set time. The line above the box shows the current time.

Wi-Fi mode

Choose one mode, then Apply WiFi config. Reboot after apply is checked by default. Leave it checked when you switch between Access Point and Client.

Access Point	This unit makes its own Wi-Fi. Name and password default to USS-Controller and 12345678. Config address on the page: http://192.168.4.1:3000
Client (join WiFi)	The unit joins the gym Wi-Fi so phones and the TV are on the same network. Use 2.4 GHz. Many units cannot use 5 GHz.

- Scan lists nearby networks. Scan works from Ethernet. It does not work while you are joined to this unit's setup Wi-Fi.
- Client password can be left blank for an open network.
- If you Apply Client mode while you are on the setup Wi-Fi, you will lose that connection. Join the gym Wi-Fi and use the unit's new address.

Wi-Fi recovery

Use this when the unit fails to join the venue Wi-Fi and you are at the scoreboard keyboard.

- Press Ctrl+Shift+R. It works on Setup, on a sport control page, and on the HDMI display.
- The unit reboots into Access Point mode. This is the same action as Setup, Apply WiFi config, with Access Point selected.
- After it comes back, join Wi-Fi USS-Controller. Password: 12345678.
- Then open http://192.168.4.1. If that fails, use http://192.168.4.1:3000 and correct the Wi-Fi settings.

Updates

Current version is shown. Check for updates when the unit has internet. View last log shows the last attempt. If an update is offered, Apply update downloads it and restarts the scoreboard. Cancel leaves the current version.

TV setup

On the scoreboard itself, this button turns the HDMI screen into a fullscreen scoreboard. Turning it on or off reboots the unit. The change can take several minutes, and the page shows progress while it works.

The button only works when you open Setup on the scoreboard. From another computer, the page says TV setup is not available.

Scoreboard display (TV)

These settings apply to the TV display only, not the control tablet. They stay on the scoreboard after you save.

Font / board scale	50 to 200 percent. 100 is the normal fit. Larger can clip.
Nudge horizontal / vertical	−500 to 500 pixels.
Outer frame	0 to 40 pixels, plus a #RRGGBB color.
Fullscreen	The display page tries to go fullscreen when it opens. Some browsers still need a click or F11.

Press Save display settings, then refresh the TV page.

Timer sounds

Upload an MP3, WAV, or M4A, or pick a sound already on the scoreboard. Choose one for Game timer sound and one for Pitch / shot clock sound, or leave either as None.

Local sound	Green: the TV plays these sounds, and the scoreboard speaker can play them. Red: the TV stays quiet.
Control device sound	Green: Horn and Buzzer also play on the phone or tablet. Red: that device stays quiet. The scoreboard speaker and the TV are unchanged.
ALSA output	Leave this blank unless the speaker is silent and you were given a device name to type here. Save, then use the test buttons.

- Test game timer sound and Test pitch / shot sound play the files you picked.
- A WAV file usually starts a little faster than an MP3.

Remote horn, buzzer, and lights

For an ESP relay on the same network. Turn Remote horn on. Enter the device IP and port (the box suggests port 80). Save IP & port, then Connect, then Test horn.

The status light and the line under the switch report whether a horn was found. Until Connect succeeds, Horn, Buzzer, Red, and Green stay hidden on sport control pages.

4. Three screens

Control	The operator page. Clock, score, and sport controls. One control or admin session at a time. See the next section.

- Red and Green pulse those light relays. They do not play a sound file.
- Show ads and Clear ads are always on this row. Horn, Buzzer, Red, and Green appear only after Setup shows the relay connected.

New game and new match

Most sports have New game or New match on that sport only. That clears that sport. It does not clear the others. Rugby has no New game button. Use the score buttons to correct it, or Return to main page if you intend to clear every sport.

6. Sports

Open the sport from the main page. Keep that control page open on the operator device. The TV at /display switches to this sport within about 2 seconds.

Basketball

Control /control. Display /display. Admin /admin.

Game clock and shot clock

- Preset buttons: 20, 12, 10, and 5. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 20:00 and stops it.
- Shot clock presets are 24 and 30 seconds. Or type seconds and press Set. Start and Stop. Reset sets the shot clock to 30 seconds and starts it.
- A second full-screen shot clock is /display/s. Its label, size, colors, and position are set in Admin under Remote shot clock.

Score, period, and stats

- New game clears the basketball game.
- Home and Guest: +1, +2, +3, −1, or type a score (0–999) and press Set.
- Possession: Left, Off, Right. Optional checkbox: Reset shot clock when Left or Right is pressed. That choice is stored in this browser.
- Quarter: + and −.
- Fouls: + and − for home and guest.
- Bonus: 0, 1, or 2 for each team.
- T.O.L (timeouts left): + and − for each team.

Volleyball

Control /volleyball/control. Up to 4 sets.

- New match clears scores, set boxes, and sets won, and returns to set 1.
- Preset buttons: 60, 25, and 15. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 60:00 and stops it.

- Current set: +1 and −1 for home and guest.
- End Set writes the current score into that set box, gives the set to the higher score, clears the rally score, and moves to the next set. It does not do this once a team has 3 sets, and it does not go past set 4.
- Set scores 1–4 can be edited by hand: H+, H−, V+, V−. The 0 button clears that set to 0–0. Sets at the bottom is sets won.

Badminton

Control /badminton/control. Up to 4 sets, plus a SET WON line.

- New match clears the match.
- Preset buttons: 60, 21, and 15. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 60:00 and stops it.
- T.O.L starts at 1 for each side. + and − keep it between 0 and 2. End Set puts T.O.L back to 1.
- Current set +1 / −1, then End Set. End Set stores the set, awards it if one side is ahead, clears the rally score, and advances until set 4.
- Set boxes 1–4 work like volleyball. SET WON is the match count.

Hockey

Control /hockey/control. The game-clock card shows a live display-clock readout.

Clock, score, period, shots

- Clock correction: type seconds, then − or +. This moves the game clock and every running penalty by the same amount. A penalty is not raised above its original length.
- Preset buttons: 20, 15, and 10. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 20:00 and stops it.
- New game. Score +1 and −1 for each team.
- Period + and −. Shots on goal + and − for each team.

Penalties

Each team has Player #, an infraction list, a time box, and Set.

- Time shortcuts: 2m, 4m, 5m, 10m. You can also type a time such as 2 min.
- Pick an infraction, or choose Custom and type one. Custom stays disabled until you pick it.
- Infractions: Boarding, Butt-ending, Charging, Checking From Behind, Cross checking, Delay of game, Elbowing, Fighting, High sticking, Holding, Hooking, Interference, Roughing, Slashing, Spearing, Tripping.

Running penalties: the first one added is at the top. Maximum 10 per team. Trash removes that row. Edit reopens player, infraction, and time. The penalty counts down only while the game clock is running.

Handball

Control /handball/control. Live display-clock readout, same clock correction as hockey.

- Preset buttons: 30, 20, 15, and 10. Those numbers are minutes.

- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 30:00 and stops it.
- New game. Team score +1 and −1.
- Players: 12 rows per team. Each row is a number (defaults to 1 through 12), a name, a goal count, and + / −. Changing a name or number saves when you leave the box. + or − on a player changes that player's goals and the team score by the same amount.
- Period + and −. Fouls + and − for each team.

Each team has Player #, an infraction list, a time box, and Set.

- Time shortcuts: 2m and 4m. You can also type a time such as 2 min.
- Pick an infraction, or choose Custom and type one. Custom stays disabled until you pick it.
- Infractions: 2-minute suspension, Direct 2-minute, 7-meter, Disqualification, Unsportsmanlike, Illegal substitution, Passive play.

Running penalties: the first one added is at the top. Maximum 10 per team. Trash removes that row. Edit reopens player, infraction, and time. The penalty counts down only while the game clock is running.

Soccer

Control /soccer/control. The clock counts up from 0:00 and keeps going past 45:00.

- Home and Guest name boxes, then Set.
- Presets 0, 15, 30, and 45 minutes, plus a typed time. Start and Stop. Reset returns the clock to 0:00 and stops it.
- Half: Half 1, Half 2, or OT.
- New game. Score +1 and −1.
- Shots + and −. C. Kicks (corner kicks) + and −. Each is home and guest.

Football

Control /football/control.

- Home and Guest names, then Set.
- Game clock presets 15, 12, and 5 minutes, plus a typed time. Start and Stop. Reset returns it to 15:00 and stops it. New game sets it to 15:00 and stops it.
- Play clock presets 40 and 25 seconds, or type seconds and Set. Start and Stop. Reset returns it to 40 seconds and stops it.
- Possession: Home, Guest, or None.
- New game. Score buttons +1, +2, +3, +6 and the same amounts minus, for each team.
- Down starts at 1 and stays from 1 to 4. + and − change it. To Go starts at 10 (1 to 99): type a value and Set, or use + and −. Ball On starts at 20 (1 to 50): type a value and Set.
- Quarter: 1st, 2nd, 3rd, 4th, OT.
- Timeouts start at 3 per team. The control page has a minus button only.
- A full-screen play clock is /football/display/s. Label it in that sport's Admin under Remote shot / play clock.

Rugby

Control /rugby/control. The clock card is labeled for 40-minute halves. There is no New game button on this page.

- Home and Guest names, then Set.
- Preset buttons: 40, 35, and 10. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 40:00 and stops it.
- Half: 1st, 2nd, or OT.
- Score, Rugby Union values on the card: +5 try, +2 conversion, +3 penalty or drop goal, +7 penalty try. Matching minus buttons take those points off. The page has one +3 button, not a separate drop-goal button.
- Yellow cards (sin bin): + and − for each team. This is a count. This page does not run a sin-bin clock.

Lacrosse

Control /lacrosse/control. Live display-clock readout and the same clock correction as hockey.

- New Game sets the period label back to Quarter, period 1, a 20:00 game clock, and a 30-second shot clock.
- Preset buttons: 20, 15, and 10. Those numbers are minutes.
- Type a time as M:SS and press Set. A number with no colon is read as minutes.
- Start and Stop. Reset returns this clock to 20:00 and stops it.
- Shot clock presets are 30 and 20 seconds. Set stores that length. Start and Stop. Reset returns to the last length you set, or to 30 seconds if you have not set one.
- Score +1 and −1. Shots + and −. Period + and −.
- OT switches the label to OT and sets the number to 1. Press OT again to return to period 1 with the label Quarter. While the label is OT, + and − change the OT number.
- Full-screen shot clock: /lacrosse/display/s

Each team has Player #, an infraction list, a time box, and Set.

- Time shortcuts: 2m, 4m, 5m, 10m. You can also type a time such as 2 min.
- Pick an infraction, or choose Custom and type one. Custom stays disabled until you pick it.
- Infractions: Holding, Warding, Offsides, Crease violation, Illegal pick, Pushing ball, Delay of game, Unsportsmanlike conduct.

Running penalties: the first one added is at the top. Maximum 10 per team. Trash removes that row. Edit reopens player, infraction, and time. The penalty counts down only while the game clock is running.

Wrestling

Control /wrestling/control. This sport's admin page has no team-logo upload and no sponsor banner.

- New match clears the match.
- Match #: type a value and Set. Period + and −. Weight: type a value and Set. The unit (kg or lbs) is chosen in Admin.
- Match timer presets are 2:00 and 1:00. Type M:SS and press Set. A number with no colon is read as minutes. Start and Stop. Reset returns the timer to 2:00 and stops it.
- Time advantage: +0.1, −0.1, or type a value and Set. Team with advantage: Home, Guest, or None.
- Wrestlers: type the home and guest names for this match and press Set.

- Match score: +1, +2, +3, −1 for each wrestler.
- Teams: type the school or club names and Set. The second score block is the tournament team score, with the same +1, +2, +3, −1 buttons. It is separate from the match score.

Baseball and slowpitch

Control /baseball/control. Slowpitch uses the same control layout. Its admin label on the pitch block says the pitch and field block is optional for slowpitch.

- New Game clears the count, bases, inning boxes, runs, hits, and errors.
- At bat: type the number. Ball + and − (the server keeps ball at 0–4). Strike + and − (0–3). Out + and − (0–3).
- Pitch timer: 20 or 15 seconds, Reset, Start, Stop.
- Base 1, Base 2, and Base 3 each toggle that base on or off.
- Inning runs: + and − change the current inning's box for home or guest. The label shows which inning. Next Inning advances the inning number (up to 20).
- Hits and Errors have + and − for each team.
- The Runs line is labeled auto and has no buttons. Adding an inning-box run does not change that Runs total in this version. The TV R column shows that Runs number.
- Team names: type and press Set Home or Set Guest. Upload Home Logo and Upload Guest Logo send a logo for that team.
- Full-screen pitch clock: /baseball/display/s and /slowpitch/display/s. The default label is SHOT CLOCK until you change Label text in Admin.

Pickleball

Control /pickleball/control. Five sets. There is no game clock.

- Title is optional. Type it and press Set. It can be up to 60 characters.
- New match clears scores, set boxes, and sets won, and returns to set 1.
- Current set score: +1 and −1. Reset on a team zeros that team's current score, that team's points in all five set boxes, and that team's sets won.
- End Set stores the set, awards it to the higher score, clears the rally score, and advances. It stops once a team has 3 sets, and it does not go past set 5.
- Serve: Switch swaps the serve between home and guest. Hide / Show turns the serve dot on or off. The dot starts on the guest side.
- Current set: +1, −1, and Reset. Reset returns the current set to set 1. It does not clear scores.
- Set boxes 1–5: H+, H−, V+, V−, and 0 to clear that box. Sets at the bottom is sets won.

7. Admin

From the control bar, open Admin. Sign in with the admin password. The session stays signed in on that browser. Display opens the TV page. Control returns to the operator page. Save stores colors, fonts, and logos so they survive a reboot.

Open the display in another tab before you change layout. Most color, size, and position fields apply as you change them. Team names use a Set button. The top Save button writes the saved copy.

On every sport except wrestling

- Board: display width and height, background, border on/off, border color, border thickness.
- Home and guest: team name, name color and size, score color and size, up/down and left/right position. Positive up/down moves the block down. Positive left/right moves it right.
- Font family: Arial, Helvetica, Impact, Verdana, Georgia, Times New Roman, Trebuchet MS, Courier New. Wrestling's list stops at Times New Roman.
- Game clock: running color, stopped color, size, border.
- Logo and score spacing: max logo width and height, gap from name to logo, gap from logo to score.

What each sport's admin adds

Basketball	Possession, quarter, bonus, fouls, T.O.L, shot clock, remote shot clock (/display/s), bottom stats.
Volleyball	Set boxes and logo spacing.
Badminton	Set boxes and T.O.L. Admin can hide T.O.L.
Hockey	Period, penalty table, shots.
Handball	Period, penalty table, fouls.
Soccer	Clock, half, shots, corner kicks, bottom-left and bottom-right blocks.
Football	Game clock, bottom row (timeouts, down, and related fields), play clock, possession arrows, remote play clock.
Rugby	Game clock, half under the clock, bottom row for yellow cards.
Lacrosse	Period, possession timer, remote shot clock, shots, penalty table.
Wrestling	Board, home and guest (match score and team score, separately), clock, period and time advantage, match number, weight. Weight unit is kg or lbs. No logos and no banner on this page.
Baseball	Title, at bat, ball, strike, out, pitch and field, remote shot clock, innings grid, teams and scores.
Slowpitch	Same as baseball. The pitch and field block is marked optional.
Pickleball	Title, serve dot, set boxes.

Remote shot / play / pitch pages use the label, colors, size, border, and nudge in that sport's Remote shot clock card. Hide screen border turns off the outer frame on that remote page only. The main display is unchanged.

8. Team logos and sponsor banner

Logos and the sponsor banner are part of the scoreboard display. They are not the advertiser slots in the next section.

Team logos

In Admin, Upload logo accepts PNG, JPEG, GIF, or WEBP. Click the Home or Guest box to pick a logo already on the scoreboard, or upload one from this device. Baseball and slowpitch also have Upload Home Logo and

Upload Guest Logo on the control page.

Wrestling admin does not have logo controls.

Sponsor banner

In Admin, Banner (sponsor): Show turns it on. Set border, border color, border thickness, background color, width, height, and position. Up/Down uses 0 as the top. Upload a banner, click the preview to pick one already on the scoreboard, or Clear to remove it.

Hockey and several other sports put the banner card lower on the admin page. The controls are the same. Wrestling has no banner card.

9. Advertisers

Open Advertisers from the main page. This is the sponsor overlay, separate from the banner inside the scoreboard.

Open TV display (new tab) opens /advertisers/show. Use that on the monitor while you place ads.

When ads appear

- Idle minutes before ads: after this many minutes with no control-panel button press, the overlay covers the live scoreboard. Default is 60. Use 0 to turn off idle ads only. Save idle minutes.
- Show ads on any sport control page forces the overlay on now.
- Clear ads takes that forced overlay off.

Time of day

- Show hides or shows the clock on the ad screen.
- − and + change the clock font size in pixels. The starting size is 80.
- Clock text color is a color picker.
- Up, Left, Right, and Down nudge the clock. The preview is a scaled 1920×1080 layout.

Six images and one web page

The page title says Ad slots (7). Slots 1–6 are pictures. Slot 7 is a web page. There is no upload on slot 7.

- Each slot has Hide / Show, a size in percent (− and +), and Up, Left, Right, Down. Nudge steps are 20 pixels. The line under the arrows shows the current offset.
- Slots 1–6: choose a PNG, JPEG, GIF, or WEBP. Empty slots say No image.
- Slot 7: paste an https address. Refresh every N minutes reloads it. 0 means reload only when ads show or the address changes.
- Viewport width and height are the pixel size on the TV. Use 0 and 0 to fill the ad slot.
- Page X and Page Y choose which part of the web page sits at the top-left of that view. Click the preview on the spot that should be that corner. Larger Page Y moves down the page.
- Layout W and Layout H are the page size before cropping. The form starts at 1920×1080.

Some sites refuse to be embedded. If the preview stays blank, that site is blocking the frame. The scoreboard

cannot override that.

10. Subscription expired

Setup shows the date the subscription is valid until. Refresh from monitor checks again.

If service is not renewed, the display shows Subscription expired and the board stays off until it is renewed.

The scoreboard has internet

Call or email Unified Score Systems. The challenge-key box will not unlock a scoreboard that can reach the service. Renewal has to be done for you.

The scoreboard has no internet

- Stay on the Subscription expired page.
- Call Unified Score Systems. That page says a challenge key unlocks the software for 2 weeks while the scoreboard is offline.
- Type the 16-digit key for this scoreboard. Dashes are added as you type. They are optional.
- Press Unlock scoreboard. A key from another scoreboard will not work.

Contact on that page: sales@unifiedscoresystems.ca and (306) 380-1620. The renewal email on that page is keys@unifiedscoresystems.ca.

11. Troubleshooting

Page will not open	Same network as the scoreboard. Use http://. Try :3000 on the address. On the setup Wi-Fi, use 192.168.4.1.
Browser switches to https	Type http:// again, or use a private window.
Setup Wi-Fi is missing	Wait a minute or two after the scoreboard is turned on, then look again for USS-Controller.
Will not join gym Wi-Fi	Use a 2.4 GHz network. At the scoreboard keyboard, press Ctrl+Shift+R. It reboots into Access Point USS-Controller, password 12345678. Then open http://192.168.4.1 and apply Client mode again.
Lost the address after Client mode	On the next power-on, the HDMI screen shows the controller IP for 10 seconds. Join the gym Wi-Fi and use that address. If the venue Wi-Fi never comes up, press Ctrl+Shift+R.
Horn buttons are missing	Setup: turn Remote horn on, save the IP and port, Connect, then Test horn. The relay must answer.
Horn is silent	Same steps. Check Local sound and the sound file you picked. If the speaker is still silent, ask for the ALSA output name and enter it on Setup.
TV is not fullscreen	Press F11, or turn on fullscreen under Scoreboard display. On the scoreboard itself, TV setup also does this. That button reboots.
Second tablet is blocked	One control session. Close the first page, wait about 45 seconds, or tap later on the lock message.

Scores vanished	Return to main page resets every sport. New game or New match resets that sport only.
Subscription expired, online	Call to renew. Do not use the challenge key.
Subscription expired, offline	Enter the 16-digit key for this scoreboard on that page.