

Scoreboard Operator's Instructions

MPCX2 Pitch Count Control



Since 1934

Retain this manual in your permanent files

These Instructions are for the Following Models:

LED models:

PCD-A
PCD-08
PCD-10
PCD-16
PCD-18

Thank You

Thank You for choosing NEVCO. We appreciate your business.

The following instructions will help you become familiar with the operation and features of the scoreboard system.

Please take a few minutes to study this manual, and to practice with the control.

If you ever have any questions or comments, please call or email us.

NEVCO GUARANTEE

To view or receive the most recent copy of the Guarantee, please visit our website, www.nevco.com
or call 1-618-664-0360

NEVCO, Inc.
301 East Harris Avenue
Greenville, IL 62246-2151 USA

USA TOLL-FREE 800-851-4040
CANADA TOLL-FREE 800-461-8550
International Telephone: +1-618-664-0360

Website: www.nevco.com
Email: info@nevco.com



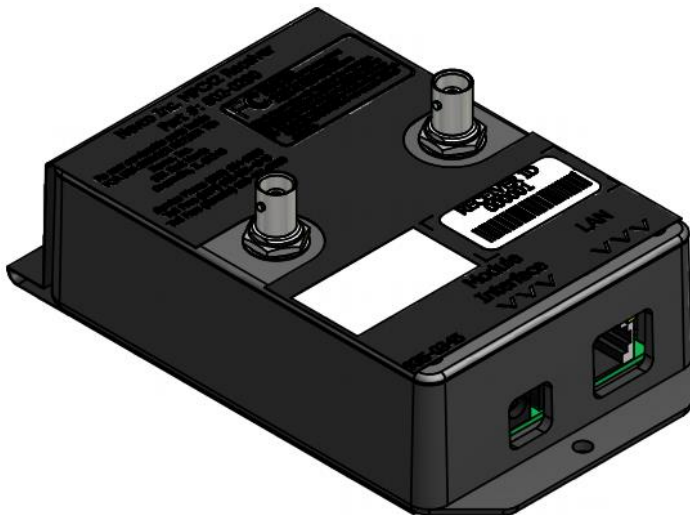
MPCX2 PITCH COUNT CONTROL (front view)



MPCX2 CONTROL (rear view)



MPCX2 Receiver for use with outdoor x6xx and indoor x7xx scoreboards.



MPCX2 Receiver for use with scoreboards that pre-date x6xx outdoor and x7xx indoor scoreboards. (Boards that have coax input only)

NOTE: *This version can also be used in addition (but not simultaneous operation) to a W6 system for dual operation by connecting the W6 receiver or wired coax of the MPC-5/6 connection to the coax input of the X2 receiver.*

TABLE OF CONTENTS

STARTUP GUIDE.....	2
TO START A NEW GAME	2
TO ADD TO THE PITCH COUNT.....	3
TO CLEAR THE PITCH COUNT WHEN A NEW PITCHER ENTERS THE GAME	3
KEYBOARD FUNCTIONS	4
GREETING SCREEN.....	4
MAIN SCREEN	5
OPTIONS MENU	6
<i>Standard Options.....</i>	<i>6</i>
<i>Advanced Options.....</i>	<i>7</i>
<i>Setting Scoreboard Model</i>	<i>7</i>
MPCX2 CONTROL / RECEIVER SETUP PROCEDURE.....	8
TROUBLESHOOTING CHART	12

STARTUP GUIDE

Note: It is assumed here that the control has been configured for the correct scoreboard type and the control has been linked to the desired receiver(s). Both functions are explained in the setup guide that comes with a new control (See the MPCX2 Control / Receiver setup procedure below for more information). It is assumed that the receiver is powered ON. It is assumed that the MPCX2 Pitch Count control is being used with a MPCX2 Baseball control.

To Start a New Game

It is assumed that all appropriate (Baseball) controls are ON and the main screen is displaying. Before the Pitch Count control being used in conjunction with them is powered on. Use the appropriate manuals for each control.

Press



The control will display a greeting while it establishes communications with its receiver(s). (Up to 20 seconds).

Note: *v01.00 for example, indicates the software version of the control*

MPCX2 v01.00
2.4 GHz

Scanning

Next the display will show the pitch count for both pitchers in the game.

Note: The cursor indicates the active function.

Pitch Count
Home: _ Guest:

Press



The control will display

Press the



key to clear the Home team's pitch count.

and / or

Press the



key to clear the Guest team's pitch count.

Clear (Home)
Clear (Guest)

Press the top left blank key to return to the main screen.

Pitch Count
Home: _ Guest:

You are now ready for the game to begin.

To add To The Pitch Count

Press



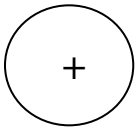
or



to select the team as necessary.

Pitch Count
Home:12 Guest:14

Then press



to add to the count.

Pitch Count
Home:12 Guest:15

To Clear the Pitch Count When a New Pitcher Enters The Game

Press



The control will display

Clear (Home)
Clear (Guest)

Press the

or



keys to clear the team's pitch count.

Press the top left blank key to return to the main screen.

Note: *In this example the guest pitch count was cleared.*

Note: *Both the Home and Guest pitch counts can be cleared at the same time.*

Pitch Count
Home:12 Guest: 0

Please consult the following sections of this manual for more details, functions, and features

KEYBOARD FUNCTIONS

GREETING screen

MPCX2 v01.00
2.4 GHz

Scanning

GREETING

When the control is Powered ON, the greeting showing the **type of control, the software version, and the frequency it is broadcasting**. It will then display **scanning** for the remaining time until the control establishes communications with its receiver(s). (May take up to 20 seconds)

Accessed
by
pressing

ON/OFF

ON/OFF

When you are done using the control turn it OFF to conserve batteries by holding down the OFF key for 2 seconds.

Note: *In multiple controller setups. Verify that the second to last controller is powered off before powering off the last controller so that the receiver gets the power off command.*

Note: Always power ON the receiver(s) (scoreboard(s)) first, and wait a few seconds for the receiver(s) to initialize (red LED illuminates) before powering ON the control. If the control is already ON, turn it OFF, wait a few seconds, and then turn it back ON.

Note: If, when the main screen appears, it shows Home 00 and Guest 00 and the scoreboard remains dark and does not respond to the control, then the receiver was not found. Power the control OFF, make sure all associated receivers are powered ON, and power on the control again. Please allow time for each control to complete its powering ON process (main screen appears) before turning ON another control.

Pitch Count
Home: 00 Guest:00

Note: If the scoreboard fails to respond to the control, power the control OFF, wait a few seconds, and then try again. Please allow time for each control to complete its powering ON process (main screen appears) before turning ON another control.

MAIN screen

Pitch Count
Home: _ Guest:

MAIN

The main screen shows the number of pitches thrown by both pitchers that are currently in the game. The cursor indicates the currently selected team. Use the HOME or GUESTS keys to select the team, then, use the “+” or “-” keys to change its value and send it to the scoreboard. You should keep this screen displayed during the game.

Accessed
by
pressing

HOME

or

GUESTS

Use the “Home” or “Guests” keys to select the team whose data you want to change.

HOME

Pitch Count
Home: 18 Guest:21

GUESTS

Pitch Count
Home: 18 Guest:21

+

-

Use the “+” or “-” keys to change the data for the selected feature.

Pitch Count
Home: 18 Guest:22

Options Menu

Several option settings are available to fine tune the scoreboard system to your needs. These settings are saved in the control. They are remembered even if the control is turned OFF or the batteries removed. When a control turns ON the scoreboard, these settings are sent to the scoreboard and are used to define how it operates. This allows each coach or group to have their own control with its unique option choices, thus eliminating the need to set up the options every time the scoreboard is used. For example, Brightness (Baseball – day time) (Soccer – night time).

It is also possible to use more than one control to operate the scoreboard. For instance, the Time can be controlled by one person while someone else operates the rest of the scoreboard with another control.

Standard Options

OPTIONS

The options key can be used to access the following features. Each press of the options key moves you to the next option screen.

Note: In this illustration the cursor indicates the default factory settings.

Note: You can return to the main screen at any time by pressing PERIOD / SCORE.

Clear (Home)
Clear (Guest)

Allows you to clear Home and/or Guest Pitch Count.

Brightness
(+)HIGH (-)LOW

Allows you to select the Brightness Level of the scoreboard. (High or Low)

Battery Level
L>>>>>>>>>>>H

Reports the condition of the batteries in the control.

Note: “Low Battery!!!” Will display when it is approaching time to change batteries. When 0 bars of battery life are left the batteries must be replaced immediately.

Signal Strength
L>>>>>>>>>>>H

Allows you to check signal strength when connected to a receiver.

Used as an indication of reliability of communications.

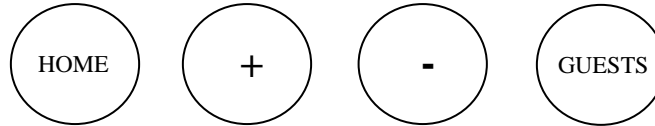
Affected by distance, battery condition, obstructions and signal interference.

Advanced Options

Enter Code to Change Settings

This menu option allows you to access settings that affect how the control operates. Generally, these settings need not be changed and should only be changed by an experienced operator or under direction from the Nevco Service Department.

Press the following key sequence:




- Segment timer - (Segment time) (+) (-) (Auto Horn)
- Shot Clock/Pitch Time/Delay Of Game - (Reset 1) (+) (-) (Reset 2)

to gain access to the following additional menu items.

Or

Press the OPTIONS key to return to the main screen.

Link Menu Press (+)

This menu option allows the user to add a receiver ID, delete a receiver ID, and to view the status of which ID's are programmed and enabled or disabled. Press the  button to scroll through the different link menus.

Please refer to sections "Mating a New Control to Receiver(s)" and "Adding, Deleting or Enabling/Disabling Receiver ID's" for detailed instructions.

Add a Rec ID Press (+)

Delete a Rec ID Press (+)

View Rec ID's Press (+)

Setting Scoreboard Model

A circular button labeled OPTIONS.

The next press of the options key will display one of the following screens. It indicates which of the scoreboard model series the control is currently configured to operate. Use the "+" key to toggle thru the scoreboard models. Press the OPTIONS key again to exit the options routine. **The last scoreboard series displayed will become the new control configuration.**

Scoreboard Model

Refer to the Scoreboard Model table found below for the appropriate scoreboard model to be used with your scoreboard.

MPCX2 Control / Receiver setup procedure

Before using the MPCX2 control it must be mated to the receiver(s) and set for the model of scoreboard that you wish to operate.

Mating a New Control to Receiver(s)

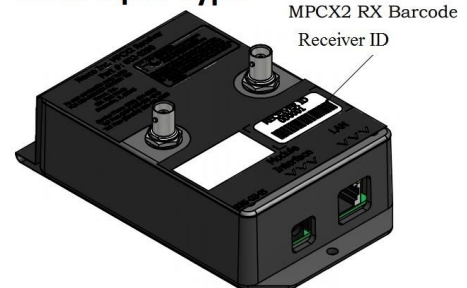
- Step 1. Record the receiver(s) ID's located on the receiver box before installation for future reference. Multiple receivers can be used with multiple controllers all on the same network.
- Step 2. Install the receiver(s) into the scoreboard and power up the receiver(s) that are to be used.
- Standard Installation – Uses the RJ12 output of the receiver.
 - Rain Type Box Installation – Uses the coax output of the receiver and a 9VDC power supply.

Record Receiver ID's Here

Standard Type



Coax Input Type



- Step 3. Wait approximately 15 seconds after the receiver has been turned on before turning on the MPCX2 controller in order to allow enough time for the receiver to be initialized.

- Step 4. Insert the batteries included with the MPCX2 control or turn the control ON by pressing

ON/
OFF

The display will read:

Enter Rec ID:
000000

- Step 5. Enter in the receiver ID's located on the receiver box using the controller keypad buttons (Options) (NEXT) to move the cursor and (+) or (-) to increment or decrement each digit.

When done press the (BACK) button in the lower left corner.

- Step 6. The screen will then prompt with.

Reset Now?
(+)NOW (-)LATER

- Step 7. Pressing (+) will reset the controller. Pressing (-) will allow additional receiver ID's to be entered into the controller and will display the message.


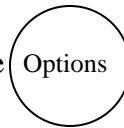
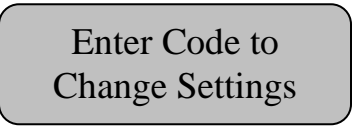

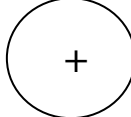
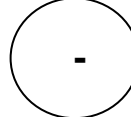

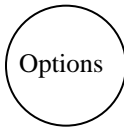
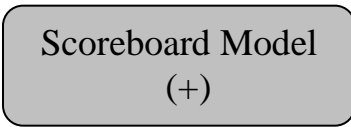


Add Another?
(+)YES (-)NO

- Step 8. If additional receivers are to be added then select (+) and repeat steps 5 through 6. If additional receivers do not need to be added then select (-) and the controller will be reset.

Setting the Control for Your Model of Scoreboard

This procedure is not necessary if you have one of the following models:

1500, 1510, 1530, 1535, 1550, 1600, 1610, 1630, 1635, 1650, 1000, 1010, 1030, 1035, 3500, 3502, 3504, 3514, 3515, 3516, 3520, 3525, 3534, 3550, 1632, 9605, 9505, 9715, 9515, 3400, 3402, 3404, 3414, 3415, 3416, 3425, 3434, 9405, 9550, SCD-5, SCD-7, S60-LED, S60, SCD-4. And for any sport except Soccer: 2700, 2710, 2715, 2740, 2750, 2760, 2770, 2775, 2600, 2610, 2615, 2640, 2650, 2670, 2675, 2500-D, 2500, 2500-A4-D, 2500-A4, 2540, 2540-A4, 2550-D, 2550, 2560, 200, 230, 9510, 9715, 9515, 9710, 2400, 2400-A4, 2440, 2440-A4, 2450, 2460, 9410

- Step 1. Turn the control on by pressing 
- Step 2. Press the  button until the display reads 
- Step 3. Enter the “Code” with the buttons in the sequence
- a. Segment timer - (Segment time) (+) (-) (Auto Horn)    
 - b. Shot Clock/Pitch Time/Delay Of Game - (Reset 1) (+) (-) (Reset 2)
- Step 4. Continue pressing the  button until the display reads 
- Step 5. Press the  key to select the scoreboard model shown in the table below.
- Step 6. Press the  key to exit the menu.

Multiple Receivers and Controllers

Both multiple controllers and receivers can be on the same network.

Multiple Controllers

For example, one person with a controller can control Game Time and another person with a separate controller can control Game Score of the same game on the same scoreboard. Multiple controllers can be used for any combination of game data.

If a second controller is powered on after the first powered on controller has been initialized, then the second controller will be configured with the same Scoreboard Model described in the “Setting the Control for Your Model of Scoreboard” section.

Multiple Receivers

Multiple receivers can be used on the same network. One example could be separate scoreboards for the same game or in the case of basketball one receiver controls the scoreboard while other receiver(s) control the shot clock(s).

MPCX2 Control	Scoreboard Model	Screen to Select
Football	3500, 3502, 3504, 3514, 3515, 3516, 3520, 3525, 3534, 3550, 1632, 9605, 9715, 9505, 9515, 3400, 3402, 3404, 3414, 3415, 3416, 3425, 3434, 9405	Type A (+)
	7504, 7505, 7516, 7520, 7524, 7525, 7530, 9505, 9515, 7404, 7405, 7416, 7424, 7425, 7430, 9405, 3600, 3602, 3604, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3625, 3634, 3650, 3655, 3656, 3658, 7604, 7614, 7624, 7605, 7615, 7625, 7616, 7620, 7630, 7631, 7632	Type B (+)
	All 36XX, 76XX, and 86XX boards	X6XX (+)
	3680, 3685, 3688, 7680, 7685 (Reorders Intelligent Caption to Ball On, Down, To Go, Quarter)	X6XX Legacy (+)
Soccer	1515, 9505, 9515, 1615, 1632, 9605, 9715, 1415	Type A (+)
	1520, 1525, 9505, 9515, 1620, 1625, 9605, 9715, 1020, 1025, 9405, 9410	Type B (+)
	3502, 3504, 3514, 3515, 3516, 3520, 3525, 3534, 3550, 3555, 9605, 9505, 9715, 9515, 3402, 3404, 3414, 3415, 3416, 3425, 3434, 3455, 9405	Type C (+)
	7504, 7524, 9505, 9515, 9605, 9715, 7404, 7405, 7424	Type D (+)
	7604, 7605, 7614, 7615, 7616, 7620, 7624, 7625, 7630, 7631, 7632, 3600, 3602, 3604, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3625, 3634, 3650, 3655, 7505, 7516, 7520, 7525, 7530, 9505, 9515, 9715, 7405, 7416, 7425, 7430, 9405, 9410, 3680, 3685, 3688, 7680, 7685, 8601, 8602	Type E (+) Supports Intelligent Captions
	200, 230, 24xx, 25xx, 26xx, 27xx, 9510, 9515, 9710, 9715	Type F (+)
	3656, 3657	Type G (+) Supports Intelligent Captions
	4455, 4465, 4755, 4555, 4565, 4765	Type H (+)
SCD / DGT / PCD	SCD-5, SCD-7A, SCD-T7A, SSC-7, SSC-T5, SSC-T9, S60-LED, S60, SCD-4	Shot Clock (+)
	DGT-6	Delay Of Game (+)
	DGT-5, DGT-2, 3020	Legacy DOG (+)
	SEG-14, SEG-18	Segment Timer (+)
	9520, 9620	Pitch Timer (+)
Tennis	9550 Set one control to each of 6 courts => 9650 Set one control to each of 6 courts => 9651B 9652B	Standard Current Court: 1 New Court: 2

MPCX2 Control	Scoreboard Model	Screen to Select
Baseball	1000, 1010, 1030, 1035, 1500, 1510, 1530, 1535, 1550	Standard (+)
	1003, 1006, 1503, 1506, 1508, 1540, 1603, 1604, 1606, 1608, 1609	Score by Inn (+)
	1020, 1025, 1515, 1520, 1525, 9505, 9515, 9605, 9715	With Timer (+)
	1615, 1620, 1625, 1632, 3656, 3680, 3685, 3688, 7616, 7680, 7685, 8601, 8602	X6XX Timer (+)
	1600, 1609, 1610, 1630, 1635, 1640, 1650, 3656, 3680, 3685, 3688, 7680, 7685, 8601, 8602	X6XX Standard (+)
Pitch Count	PCD-(A, 08, 10, 16, 18) With Models 1000, 1010, 1030, 1035, 1500, 1510, 1530, 1535, 1550	Standard (+)
	PCD-(A, 08, 10, 16, 18) With Models 1003, 1006, 1503, 1506, 1508, 1540, 1603, 1604, 1606, 1608, 1609	Score by Inn (+)
	PCD-(A, 08, 10, 16, 18) With Models 1015, 1020, 1025, 1515, 1520, 1525, 9505, 9515, 9605, 9715	With Timer (+)
	PCD-(A, 08, 10, 16, 18) With Models 1615, 1620, 1625, 1632, 3656, 3680, 3685, 3688, 7616, 7680, 7685	X6XX Timer (+)
	PCD-(A, 08, 10, 16, 18) With Models 1600, 1609, 1610, 1630, 1635, 1640, 1650, 3600, 3656, 3680, 3685, 3688, 7680, 7685	X6XX Standard (+)
Basketball, Volleyball, Wrestling, or Hockey	No setting required	Type A (+)
Segment Timer	27xx, 26xx, 25xx, SEG-14, SEG-18, 9710, 9510, 200, 230, SSC-7, SSC-T5, SSC-T9, SCD-7A, SCD-T7A, SCD-T5, SCD-5, SCD-4, 9715, 9515, S60-LED, S60, 4755, 4555-D, 24xx, 9410,	Type A (+)
	3500, 3502, 3504, 3514, 3515, 3516, 3520, 3525, 3534, 3550, 36xx, 1632, 9605, 9505, DGT-6, DGT-5, 9405, 3020, 3400, 3402, 3414, 3415, 3416, 3425, 3434, 3455, 9515, 9715	Type B (+)
	36xx, 76xx, 7504, 7505, 7516, 7520, 7524, 7525, 7530, 9605, 9505, DGT-6, DGT-5, 9405, 7404, 7405, 7416, 7424, 7425, 7430, DGT-2, 9515, 9715	Type C (+)
	1520, 1525, 1515, 9505, 1620, 1625, 1615, 9605, 9715, 9405, 9515	Type D (+)
	SEG-14 and SEG-18 Segment Time only	Type E (+)
	SEG-14 and SEG-18 Segment Number only	Type F (+)
	All X6XX boards with timers	X6XX (+)

TROUBLESHOOTING CHART

Problem	Cause		Solution
Scoreboard will not turn ON when control is turned ON	Receiver not working or receiver/scoreboard not powered up		Cycle power to receiver/scoreboard
Control continues to search after an unusually long time	Control signal weak	Battery level low	Replace batteries
	Check signal strength (see Options menu)	Control in a poor location	Make sure the control is in clear line of sight of the scoreboard
			Move closer to scoreboard
Data won’t change on control	Control is linked to extra unwanted receivers or wanted receivers are not powered ON.		Use the Options Menu to check the receivers the control is linked to and the receivers on its list.
Control display shows incorrect information	Control is not linked to this scoreboard		Find and use the control for this scoreboard.
Cannot turn the time ON			Link the control to this scoreboard or group (see Options Menu)
	Didn’t sync up		Power control OFF, then ON
Control is ON but scoreboard/timer is OFF (data is changing on control)	No power to scoreboard		Check all switches, breakers, and fuses
	Bad connection between Receiver and scoreboard module		Check all cables and connections
Scoreboard/timer is ON but does not respond to control	Control and receiver are not communicating		Turn control OFF, then ON to establish communications
My control will not operate scoreboard (Out of Range)	Poor connection with bad line of sight to the scoreboard or distance is too great.		Return to a closer location with direct line of sight and verify Signal Strength. If that does not work then cycle power to controller
I cannot set the time	The time is running		Stop the time first
Cannot turn the time ON	Time at 0.0 and set to count down		Set some time on the clock
Scoreboard is ON – Control is OFF	Batteries were removed while scoreboard ON		Install batteries -- power ON
	Batteries were completely discharged while scoreboard is on		Cycle power at scoreboard
Not all controls of a multi-control scoreboard system will operate the scoreboard	Multiple controllers were powered on at the same time and not all connected		Power cycle the controllers that are not operating the scoreboard.
Scoreboard connected to MPCX2 is displaying data in the wrong places, incorrect data, or horn constantly sounds.	Control is not configured for correct scoreboard model series		Reconfigure the control (see options menu)

If the problem persists please contact the Nevco Service Department.

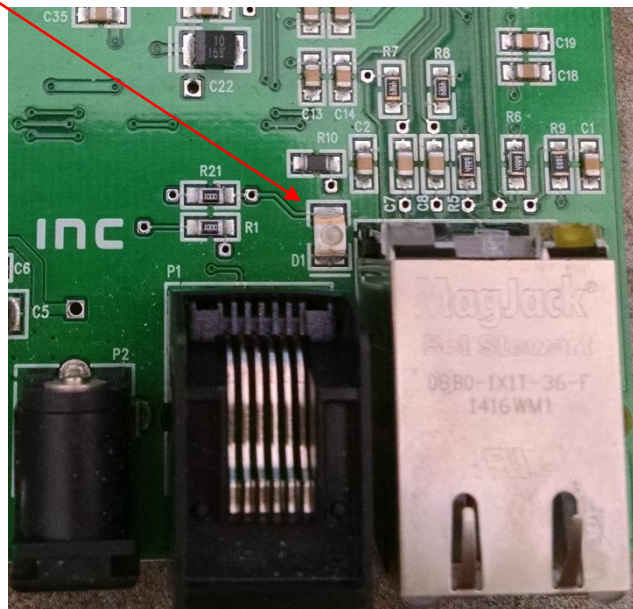
800-851-4040

LED STATUS

The receiver has a red status LED next to the RJ12 and Ethernet jack. It can be used to diagnose the status of the MPCX2 receiver.

LED Status	MPCX2 Connection Status
Solid On	The receiver is powered on, but a connection attempt has not yet been made, or a connection attempt was unsuccessful.
Blinking Fast (multiple times a second)	The receiver is in the network and connected. The receiver may appear to not be blinking due to it blinking very quickly. If the receiver is connected to Scorbitz through the Ethernet jack, then it will blink more visibly.
Blinking Slow (approximately once a second)	The receiver is not connected but connection attempts are being made. Each slow blink is a connection attempt. If the receiver is intended for the network and it is flashing slowly but never connects then verify that the receiver list in the MPCX2 control is correct.
Solid Off	The receiver is not powered on. It is also possible that the receiver is powered on but for some reason the LED has been turned off. If this is suspected to be the case then cycle power to the receiver and the LED should turn on after a brief delay.

MPCX2 receiver status LED



RECEIVER IDENTIFICATION ON POWERUP

On powerup the receiver connected to the OCM will identify itself by flashing from the most significant 2 digit numbers to the least significant 2 digit numbers. For example, a receiver with ID 123456 will flash 12, 34, and then 56 on power up. This is used to distinguish which X2 receiver is connected to which OCM's without having to open up the scoreboard.

Features

MPCX2 Control:

- Small and light weight (fits in or clips to pocket)
- Electronic Team Name and Caption Support
- Tactile confirmation of key pressed
- High visibility transfective display
- Convenient wireless operation
- Built in wireless signal strength meter
- Power conservation circuitry
- Built in battery meter
- Long battery life
- Uses inexpensive, readily available AA batteries
- Sealed keyboard
- No slip grip
- Ergonomic single hand operation
- Internal antenna
- Mate multiple controls to same scoreboard
- Operate multiple scoreboards
- Retrofits to existing wired installations

Specifications

Size:

Approximately 3¼" x 5½" x 7⁄8"

Weight:

5½ oz. (including batteries)

Keypad:

12 keys

Display:

32 character LCD

Power requirements:

Two AA cells (included)

Operating distance:

1000 feet (Clear line of sight)

Receiver Output:

One BNC connector (2 loads with up to 1000 ft. coax each)

Operating temperature:

0°F to 150°F

Certifications:

FCC part 15 Class B

CE

RoHS

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/ TV technician for help.

The user is cautioned that changes and modifications made to the equipment without the approval of Nevco could void the user's authority to operate this equipment.

This class B digital apparatus meets all requirements of the Canadian Interference- Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.