

Wireless Judging

2.4 GHz Frequency



User Guide

F961 Rev. 201106



Colorado
TIME SYSTEMS®

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CE

Declaration of Conformity Wireless Judging System 2.4 GHz

Manufacturer:

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Telephone No. +1 (970) 667 1000

Products:

Wireless Judging System 2.4 GHz
Model Numbers: WIO-003, WJT-003

The undersigned hereby declares, on behalf of Colorado Time Systems, Loveland, Colorado, USA, that the above-referenced products, to which this declaration relates, are in conformity with the provisions of:

- Council Directive 2002/95/EC (January 27, 2003) on the Restriction of Hazardous Substances, RoHS
- Council Directive 2004/108/EC (December 15, 2004) on Electromagnetic Compatibility, EMC
- Council Directive 2006/95/EC (December 12, 2006) on Low Voltage Equipment Safety

The Technical Construction File required by this Directive is maintained at the corporate headquarters of Colorado Time Systems, Loveland, Colorado, USA.

Date: 6/20/2011

Michael Medina-Brodsky
Quality Manager
Colorado Time Systems

Any changes made to this document without authorization from the CTS Quality Manager will void the declaration.

FCC Compliance Statement for WJT-003

Containing FCC ID: OUR-XBEE-PRO

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Unauthorized modifications or changes made to this device not expressly approved by the party responsible for compliance voids the user's authority to operate the equipment.

FCC Compliance Statement for WIO-003

Containing FCC ID: OUR-XBEE-PRO

The RF module (FCC ID: OUR-XBEE-PRO) contained within this device complies with the rules set forth in Part 15 by the Federal Communications Commission. Operation is subject to the following conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.
3. An approved antenna must be directly coupled to the module's RP-SMA connector.
4. The module must not be modified in any way. Coupling of external circuitry must not bypass the provided connectors.
5. The antenna used for this transceiver must not be co-located or operating in conjunction with any other antenna or transmitter.

Any changes or modifications could void the user's authority to operate the equipment.

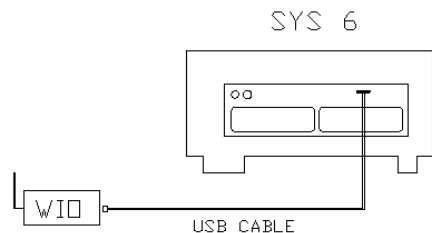
Wireless judging makes it possible for judges to send scores to the sports console without cables on the deck, and without anyone having to write down the scores and enter them manually into the console. There are two parts to wireless judging: the wireless interface (WIO), which is connected to the sports console, and the wireless judging terminals (WJTs), which communicate wirelessly with the WIO.

Set up

WIO

System 6 (requires Diving ver. 1.218 or higher) and Laptop (requires Wireless Synchro Software):

1. Install antenna
2. Connect WIO to timer/laptop with USB cable
3. Go into Diving on System 6, or go into Wireless Synchro software to set further options, including channel.
4. Set WJTs to same channel as WIO.

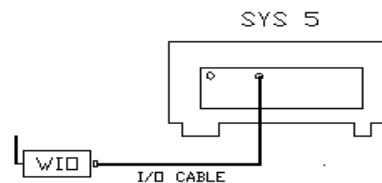


The wireless judging system at 2.4 GHz frequency supports 12 wireless channels for Diving on the System 6 and Wireless Synchro MM.

To run simultaneous events, use separate CTS timers or separate laptops, each connected to a WIO by USB cable. Set them to different wireless channels, at least 2 channels apart (for example, Event 1 on Ch 1, Event 2 on Ch 3, Event 3 on Ch 5 and Event 4 on Ch 7). Set the WJTs to match the associated WIO for the event they are judging.

System 5:

1. Install antenna.
2. Connect WIO to timer with standard CTS IO cable.
3. Channel will be 1; set the WJTs to channel 1.



WJT

Turn on each WJT with the power button (between the CHANGE and MENU buttons)

- Press Enter to accept settings as they are, or
- Press Clear to change JT ID#, then press Enter

Set the JT ID# for each WJT on a panel to a separate number (1 through 99) for standard judges. JT ID#0 is reserved for the referee in Diving. Once the JT ID is set, if you need to change the channel, use the MENU key to enter the menu and do so. The channel on the WJT must match the associated WIO. The menu also has options for setting the backlight and contrast levels for the WJT's display.

Each WJT requires 2 AA batteries, which will provide regular use of about 6 hours. Your WJT includes two battery placeholders. When using 2 batteries, install the batteries in the section marked "Required," and install the battery placeholders in the other section. This

will prevent the batteries from shifting if the WJT is dropped. For extended use (up to 12 hours), use 4 AA batteries (and no battery placeholders).

Operation

WIO

All functions of the WIO are controlled through the sports console for diving, or through the Wireless Synchro MM software for synchronized swimming.

WJT

Judge Instructions

Use number keys to enter the score. For example, press 6 for a score of 6.0, or 65 for a score of 6.5. Press Enter to send the score.

CHANGE lets you request to change a score you have already sent when used with a System 6 or Synchro MM (not supported on the System 5). If granted, the “Change Requested” text and your previous score will disappear. Enter new score and press Enter.

STATUS shows the JT ID#, battery level and status of the wireless connection with the WIO.

MENU allows you to change the JT ID#, the channel, and the backlight and contrast levels for the display. Judges can set the backlight and contrast levels to their individual preferences. Judges should not change the JT ID# or channel without the approval of the timing console or Synchro MM operator. All these changes will be saved when the unit is turned off.

In Diving, if the System 6 operator has chosen to show it, your WJT display will show the diver number, dive number and DD for the current dive.

In Synchronized Swimming, your WJT will show the routine number, judge number, and which score to enter next.

Referee Instructions (Diving only)

On the System 6, you have the option of using a referee’s console. To designate a WJT as the referee’s console, set it to JT ID# 0.

The MENU, CHANGE and STATUS keys function the same way on the referee’s console as on a standard WJT, and are described above.

The display on the referee’s console will show the judges scores as they come in. If the System 6 operator has chosen to show it, it will also show the diver number, dive number and DD for the current dive.

Only the referee’s console has the ability to declare a balk or failed dive and send it to the System 6.

BALK: Use this key to declare a balk and send the 2-point deduction to the System 6. Scores from all judges will be collected and the System 6 will automatically calculate the 2-point deduction.

FAIL: Use this key to declare a failed dive and send that information to the System 6. In this case, no scores will be accepted from any other WJTs, and all scores will be set at 0.0.

Maintenance and Troubleshooting

Care when not in use

When not in use, turn off the WJTs. Many facilities use rechargeable batteries, and recharge the batteries between events. Store the WIO and WJTs in a dry, safe location.

Updates

Your wireless judging system has the capability to be updated via a PC with a USB port and a firmware uploader file from the customer service section of our website, coloradotime.com. Follow the instructions that are automatically downloaded with the firmware uploader file. Make sure that the batteries in the WJTs are at 75% or higher, and that you update the WJTs first, and then the WIO.

Troubleshooting

Troubleshooting should be done by the timing console or Synchro MM operator, not by individual judges.

If the WJTs are not responding, check that they are set to the same channel as the corresponding WIO.

If they are responding sporadically, check the following:

- 1) Try different channels for the wireless judging system. You may be experiencing outside interference on some channels.
- 2) If you are running more than one event, make sure each system is at least 2 channels from the other systems (see Set up on page 5 for details).



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