Sky-Fi Wireless Adapter (WA-1)
User Instructions

The Sky-Fi wireless adapter is easy to set up and requires no user intervention once set up.

One adapter will be connected to your CTS timer (System 6, for example), laptop running Synchronized Swimming meet management software (SynchroMM) or Pace Clock Controller (UPC-C). It will transmit scoreboard data (which includes shot clock data) to CTS wireless pace clocks/shot clocks or to another wireless adapter that is connected to a CTS LED numeric scoreboard, or to the DisplayLink computer for a video or matrix board.

Setting the Switches for Specific Applications

The configuration switches are labeled CONFIG. With the power off, set switches 1 and 2 according to what you want the wireless adapter to do:

Connected to	Function	Via	Switch 1	Switch 2
CTS timer, laptop, or Pace Clock Controller	Transmitting	RS232	Down	Down
LED Scoreboard, Pace Clock or Shot Clock	Receiving	RS485	Up	Up
DisplayLink computer	Receiving	RS232	Up	Down
LED numeric scoreboard without RS485 jacks	Receiving	RS232	Up	Down

Setting the Channel

The wireless adapter connected to your sending device must be set to the same wireless channel as the receiving device (which can be a wireless pace clock/shot clock, a wireless scoreboard, or another wireless adapter).

Using Multiple Wireless Adapters on Different Channels
If you are sending different data from two or more timers to separate scoreboards (for example, a water polo tournament with multiple games going on at once or a swim meet with multiple courses), choose channels that are as far apart as possible, and at least two apart.

With the power off, select the channel on a wireless adapter by setting switches 3, 4 and 5:

Channel	Switch 3	Switch 4	Switch 5
1	Down	Down	Down
2	Up	Down	Down
3	Down	Up	Down
4	Up	Up	Down
5	Down	Down	Up
6	Up	Down	Up
7	Down	Up	Up
8	Up	Up	Up

To select the channel on another product, such as a wireless pace clock/shot clock, see the manual for that product.

Mounting Considerations

The WA-1 wireless radio will transmit through non-metallic obstructions with minimal attenuation. Take care that when you mount the radio, you are not placing it in a location where a metal object will significantly block the line of sight from the transmitter to the receiver.

Many facilities place the WA-1 inside a scoreboard sign panel. To do this, enlarge the hole in the back of the sign panel enclosure to accommodate the data cable and the power cable.

At an outdoor installation, the sign itself is made of a Dibond, a metal bonded material. This means the antenna should be placed outside the enclosure. Use the antenna
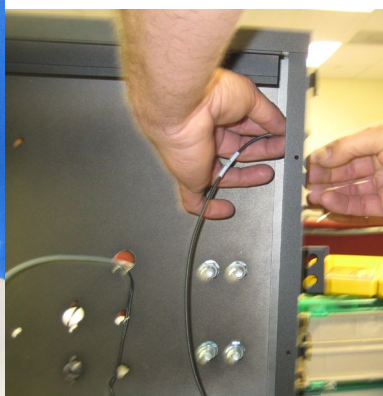
mounting extension cable (R-015-638), which is sold separately. Drill a 1/4" hole to mount the antenna outside the enclosure. Remove the nut and washer from the one end of the coaxial cable (R-015-638). Push this threaded end of the coaxial cable through the antenna hole from inside of the case. Secure it with the nut and washer from outside the case. You will need two 5/16" wrenches to do this. If the ¼" nut securing the coaxial cable to this fitting is loose, tighten it.

Antenna

Screw the antenna into the wireless adapter, and position it so that it is pointing up.

Plugging in

Connect your wireless adapter(s) to power as follows:

- o If connecting to an LED scoreboard, pace clock or shot clock, connect the scoreboard adapter's cord to the back or side of your scoreboard, in either of the RS-485 round 4-pin DIN jacks.
- o Turn on/plug in the scoreboard.
    - a. If the adapter's LEDs light up you will not need to use the power supply.
    - b. If the LEDs do not light, plug the power supply into the adapter, and to a wall outlet.
- o If connecting to another device (not an LED scoreboard, pace clock or shot clock) connect the power adapter to the wireless adapter and to AC power.

Use the correct data cable to connect the wireless adapter to the product you are using it with:
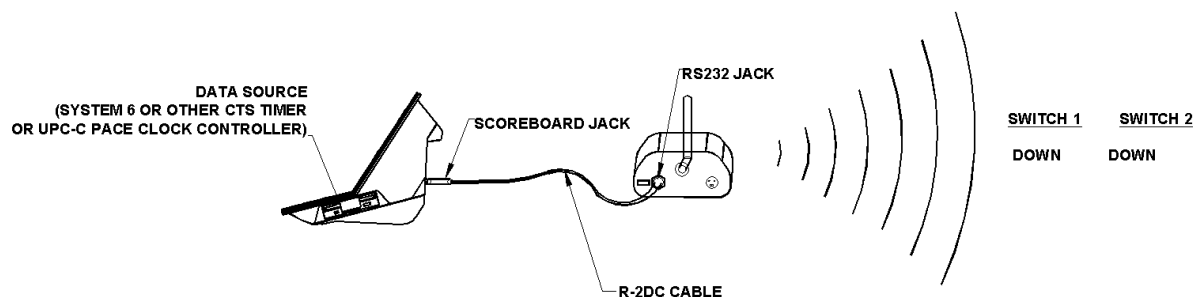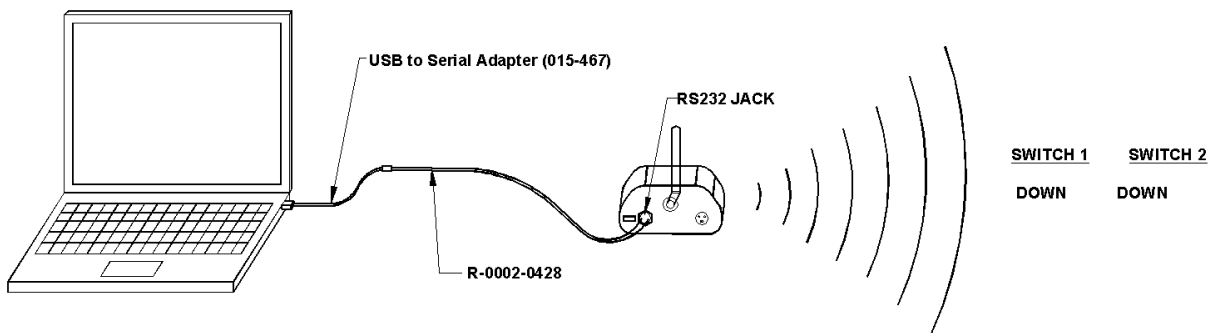
To send data from the:
- o System 6, other CTS timer, or Pace Clock Controller, use the R-2DC cable
- o Laptop running SynchroMM, use the R-0002-0428 cable & 015-467 USB to serial adapter, both of which must be ordered separately
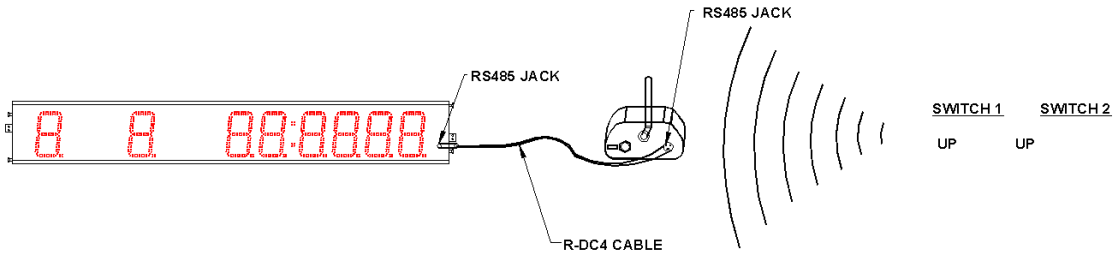
To receive data with:
- o LED Scoreboard, Pace Clock or Shot Clock, use R-DC4 cable
- o LED Numeric Scoreboard without RS485 jacks, use R-2DC cable
- o Video board or matrix display, connect the DisplayLink computer to the wireless adapter using R-0002-0428 cable. This cable must be ordered separately.
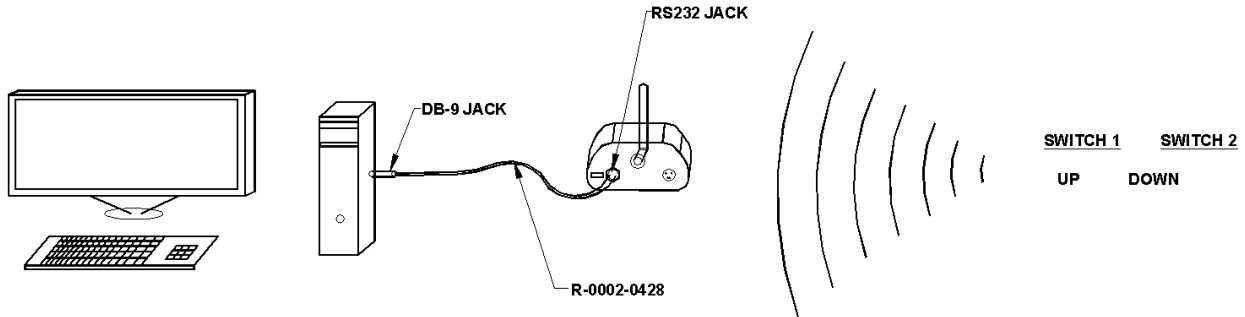
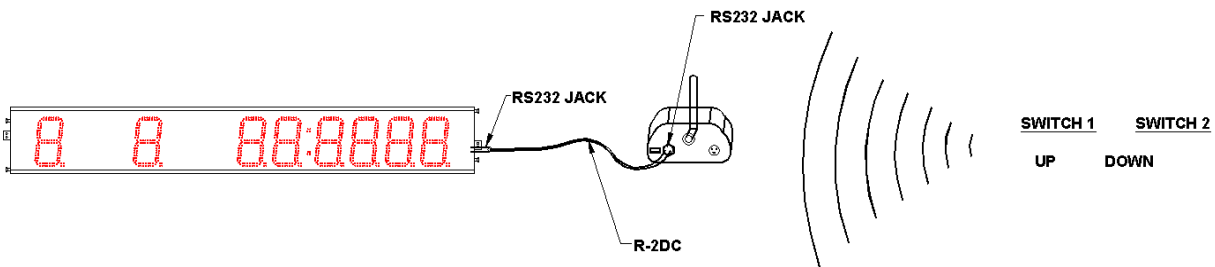TRANSMITTING (laptop running SynchroMM or CTS Sports Console:

RECEIVING (LED-R-style scoreboard):

RS485 JACK

RS485 JACK

SWITCH 1   SWITCH 2

UP   UP

R-DC4 CABLE

RECEIVING (DisplayLink Computer):

RS232 JACK

DB-9 JACK

SWITCH 1   SWITCH 2

UP   DOWN

R-0002-0428

RECEIVING (Numeric scoreboard without RS-485 jack):

RS232 JACK

RS232 JACK

SWITCH 1   SWITCH 2

UP   DOWN

R-2DC

FCC Compliance Statement for WA-1 Wireless Adapter

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.