

User manual for R2021 and R2022 wireless display with 7” or 24” high digits.



The wireless display includes a battery pack with integrated battery charger for connecting to a Jugs SI radar gun.

Whats Included

The following items are included with each wireless radar gun display.

- Display with 7 inch or 24 inch high digits can display speeds from 0 to 199. It includes an integrated battery charger and wireless receiver.
- Battery pack with integrated battery charger and wireless transmitter and connector to connect to the Jugs SI radar gun.
- Wall transformer to charge the battery inside the display.
- Wall transformer to charge the battery inside the battery pack with built in transmitter.

Operation

When the display is not used for extended periods of time, the internal batteries will slowly discharge over time.

- Set the display in the field where it is convenient for easy viewing. It is best to have the radar gun in a line of sight between the display and the radar gun.
- Push and hold the ON button on the rear of the unit for at least 2 seconds. The display should show a test pattern when turning on.
- Inspect the connector on the radar gun to insure that no pins are bent or broken.
- Attach the Jugs SI radar gun to the DB9 (9 pin connector) on the battery pack. Be very careful to not bend the pins when making the connection.
- Tighten the 2 thumb screws. This will keep the connector securely attached to the battery pack.
- The radar gun display should come on and show “C” in the display.
- Test the connection. Thump the tuning fork supplied with the radar gun and place it in front of the radar gun. The display should show the speed value represented by the tuning fork on both the radar gun display and on the large remote display.
- You are now ready for the game or other activity.
- When finished for the day, re-connect both the display and battery pack to the wall transformer and connect the wall transformer to AC power when not in use.

Storage

When the display is not used for extended periods of time, the internal batteries will slowly discharge over time.

- It is very important to not permit the Gell Cell batteries used inside these displays to completely discharge. The battery life will be shortened significantly if they are allowed to completely discharge.
- When the displays are NOT being used, it is best to keep both the display and the battery pack plugged into the charger. The batteries cannot be over charged. The battery charger is an intelligent battery charger that maintains a trickle charge to keep the batteries at full charge, but shuts off when necessary to prevent any possibility of over charging.
- Your display will always be ready for use and should be

able to run all day on a single charge.

Display Specifications

- Controls: Two buttons. One button is used to turn the power on and also to generate a test pattern on the display. The other button is used to turn the display off.
- Indicators: LED indicators to indicate charging and charge status.
- RS-232 Connector: RS-232 serial data connector so the display can be used as a wired display.
- TX-422 Connector: RS-422 serial data connector to transmit serial data to other displays or to a computer.
- RX-422 Connector: RS-422 serial data connector receive serial data from another display or radar gun with RS-422 port.
- Data rate: 1,200 baud on the serial port when used as a wired display.
- Battery: Dual 6 volt, 7AH gell cell batteries.
- Power requirements: 12-15VAC input or 15-18VDC input.
- Current consumption: Up to 2.75A with all segments on. Minimum current 80mA with power on and all segments off. Consumes a quiescent current of 125uA with power off.
- Dimensions: 30" x 36" x 3". Overall dimensions including feet 32" x 36" x 3".
- Weight of display: 1LB.

Battery Pack Specifications

- Indicators: LED indicators to indicate charging and charge status.
- RS-232 Connector: RS-232 serial data connector so the display can be used as a wired display.
- TX-422 Connector: RS-422 serial data connector to transmit serial data to other displays or to a computer.

- RX-422 Connector: RS-422 serial data connector receive serial data from another display or radar gun with RS-422 port. (Not on all models)
- Data rate: 1,200 baud on the serial port between the radar gun and the battery pack / wireless transmitter.
- Battery: 12 volt, 4AH gell cell battery.
- Power requirements: 12-15VAC input or 15-18VDC input.
- Current consumption: Up to 0.85A when the radar gun is taking a speed measurement. Consumes a quiescent current of 50mA with power on. Consumes a quiescent current of 1uA with power off.
- Dimensions: 6" x 6" x 6".
- Weight of display: 1LB.

Wireless Transmitter/Receiver Specifications

- Operating Frequency band: ISM 2.4GHz frequency.
- Number of channels: Configured as a single channel. Expandable for up to 16 direct sequence channels on special request.
- RF Data rate: 250,000 bps wireless transmission.
- Transmit power: 2mW
- Receiver sensitivity: -96dBm
- Power consumption: Receive current 40mA, Transmit current 40mA.
- International Standard:
- Agency Approvals for the United States (FCC Part 15.247): OUR-XBEE or OUR-XBEE2
- Agency Approvals for Canada (IC): 4214A-XBEE or 4214A-XBEE2
- Agency Approvals for Europe (CE): ETSI
- Operating temperature: -40c to +85c
- Antenna type: Integrated whip.