RC Model Boat Racing

Specifications

Starting clock for the RC Model boat racing. This clock is mounted any where from 25' to over 100' away. It could possibly be mounted on a float in the water. This clock is used to control racing events (radio control model boat racing). The KP219A Remote control operates all functions of the system.

Equipment:

The system includes the following equipment.

- Large LED display with a 900MHz wireless receiver. Model number depends on digit size.

- Large HORN that is connected to the display.

- KP219A Remote control Keypad with 900MHz wireless transmitter.

Display specifications:

This system uses a single display where the heat number and Time alternates on the display.

- In the enclosure will be a 3 digit display. This will be the race timer. When the timer is counting down, it will show the time. It needs to countdown in minutes and seconds to 0.00

- When the timer is not running. The display will show the Heat Number. The heat is advanced automatically after the previous heat starts. Manual mode is available also.

- The overall dimensions will be approximately 32 inches wide and 14 inches high for a display with 10 inch high digits.

- There will be one short cable coming out the rear of the unit to connect to a 12 volt car battery.

- A second short cable will come out of the display to connect to the horn.

- The horn dimensions are 4" by 12". The horn is approximately 10" deep.

NOTE: Displays are available with 10", 15" and 24" digits.

Installation

- Mount the large LED display securely to a platform.

- Mount the horn to the platform.

- Connect the leads from horn to the horn connections on the large LED display.

- Connect a car battery or other 12VDC power source to the power connections on the large LED display.

- Test the system operation by operating the timer from the wireless keypad to insure that everything functions properly.

Heat Number/Power Buttons

These buttons change the heat number and turn the power on and off.

- **Score-R**. Manually Advance heat number.

- **Knob**. Turn the knob to manually change the heat number up or down.

- **Score-Reset**. Reset the heat number to 000.

- **On**. Power ON button.

- **Off**. Power OFF button. Press and hold to turn the power off.

NOTE: After pressing the Score Reset, turning the knob will change the heat number.

NOTE: KP219A. When the KP219A keypad is running on batteries, it will automatically turn off after several minutes of non-use. To wake up the keypad, tap the ON button. You may need to tap the ON button several times to get the keypad to wake-up.

Timer Buttons

These buttons operate the timer functions.

- **Run.** The timer run button starts or resumes the timer.

- **Pause.** The timer pause button pauses the timer.

- **Preset 1.** The timer preset 1 button sets the timer to the preset time and put the timer into count down mode. It can optionally automatically start the count down timer.

- **Preset 2.** The timer preset 2 button sets the timer to the preset time and put the timer into count down mode. It can optionally automatically start the count down timer.

- **Preset 3.** The timer preset 3 button sets the timer to the preset time and put the timer into count down mode. It can optionally automatically start the count down timer.

NOTE: After pressing Pause, turning the knob will change the preset time.

Operation

- Press the **PRESET 1** button to preset the timer to the desired count down time "`2:30`".

- Press the **PRESET 2** button to preset the timer to the desired count down time "`1:00`".

- Press the **PRESET 3** button to preset the timer to the desired count down time "`0:30`".

- Pressing the **Run/Pause** button will start the timer counting down.

- Pressing the **Run/Pause** button while the timer is running pauses the timer.

- At anytime, one of the other preset buttons can be pressed. It will automatically start counting down from the stored preset time.

- If the " `F5` " option is enabled, at 10 seconds, the horn generates a short beep every second until the timer reaches "`0:00`".

- At "`0:00`" the horn sounds for one second. The heat number "`032`" will be advanced at this time.

- When clock reaches "`0:00`", the heat number is displayed.

Installation

Connect the large horn to the horn connector on the display.

Connect the large LED display to a 12 volt car battery or 12 volt DC power supply. Be sure that the red lead is connected to the battery positive terminal and the black lead is connected to the battery negative terminal.

Install batteries in the KP219A remote keypad or power the keypad from AC power using the provided wall transformer.

Setting up the display. Mount the display securely where it is easy to see.

Connect the horn to the connector on the rear panel of the display.

First Time Setup

Press and hold the **Run/Pause** button until the display shows " `FF` ". Then tap the "**Select**" button several times until " `rr` " appears, turn the **knob** to change the value.

Set Relay mode to single relay beep on timer zero. Setup " `r07` "

Then tap the "**Select**" button several times until " `EE` " appears, turn the **knob** to change the value.

Set Number of display digits to 3. Setup " **E3** "

Press and hold the **Run/Pause** button until the display shows " **FF** ". Turn the **knob** to change the value.

Setup the timer stop mode to display the heat number when the timer reaches zero. There are two options:

1. The timer changes to Heat number. Beep a single long beep at timer zero. Setup " **F4** "

2. The timer changes to Heat number. Beep each second for the last 10 seconds before the timer reaches zero and a single long beep at timer zero. Setup " **F5** "

Press and hold the **Up/Down** button until the display shows " **bb** ". Turn the **knob** to change the value.

Set Beep mode to beep on start and a single long beep when the timer reaches zero timer zero.   Setup " **b05** "

When done use the **Reset** button to exit setup.

Note: The " **F4,F5,b05** " setting are stored as part of the Presets, so set this before you store new presets.

Setup the presets (factory default). You can change the presets to the values you need.

- Set preset 1 to " *2:30* "

- Set preset 2 to " *1:00* "

- Set preset 3 to " *0:30* "

Setting up the stored presets.

- Press the **Preset 1** button. The currently stored time " *2:30* " will be displayed. If auto-run is enabled, the timer will automatically start counting down.

- If the timer is running, press the **Run/pause** button to pause the timer.

- Turn the **knob** to select the desired time.

- If you want the timer to automatically start running, press the **Run/pause** button to start the timer running.

- Press and hold the **Preset 1** button until the display blinks a dash " **-** " in the right digit. The new time is now stored.
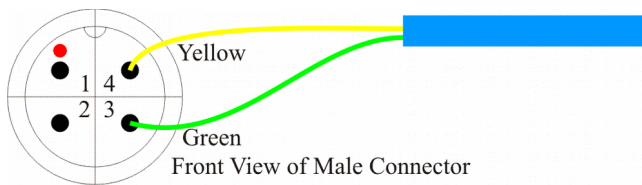
- Repeat the above procedure for the other presets.

Wiring

There are two connectors on the rear of the display. Both connectors are wired in parallel. You may use one 4 conductor cable and connect to one of the connectors or you may use two 2 conductor cables wired appropriately and connect the battery to one connector and the horn to the other connector.

Connect the large horn to the horn connector on the display.
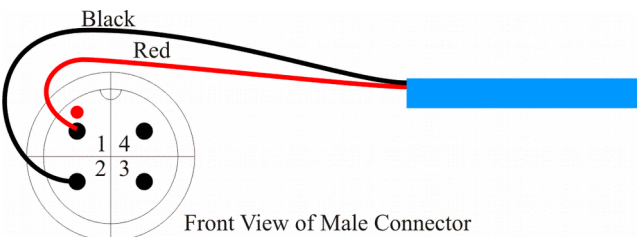
Wiring connections for horn.

- Pin 3 – **Green** +12 volts to Horn.
- Pin 4 – **Yellow** or **White** Ground to Horn.

Front View of Male Connector

Connect the large LED display to a 12 volt car battery or 12 volt DC power supply. Be sure that the red lead is connected to the battery positive terminal and the black lead is connected to the battery negative terminal.
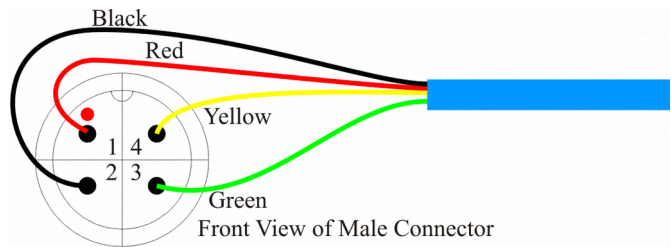
Wiring connections for power.

- Pin 1 – **Red** +12 volts from battery.
- Pin 2 – **Black** Ground from battery.

Front View of Male Connector

Using a single connector for both the power and the horn. Wiring connections for power and horn.

- Pin 1 – **Red** +12 volts from battery.
- Pin 2 – **Black** Ground from battery.
- Pin 3 – **Green** +12 volts to Horn.
- Pin 4 – **Yellow** or **White** Ground to Horn.

Front View of Male Connector

For more information, contact:
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