

WIRELESS ELECTRIC EYES

Operation

Batteries

The electric eyes operate over 70 hours from a 9 volt alkaline battery (*use only alkaline batteries*). The **Power** lamp on the unit glows steadily while the battery is good and flashes when the battery is low.

To help detect an eye with a low battery, the **Allegro** timer in the announcer's booth *flashes the decimal point* on the time display when any electric eye in use has a low battery.

The electric eyes operate at least two hours after the *first* indication of low battery. **NOTE:** The two hour period is from the *first time* the low battery light begins flashing. If a unit with a low battery is turned off and then later turned back on, the lamp may glow steadily for some time before it starts flashing again. This does not mean there are two more hours of operation remaining at this point.

Once the **Power** lamp begins flashing, it is simplest to just replace the battery during the next break in your event – don't worry about trying to use the last few hours of the battery.

When storing the electric eyes for an extended period of time, always remove the batteries.

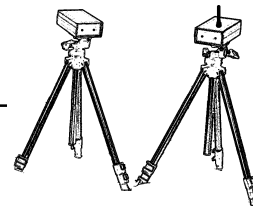
Placement of the Electric Eyes and Console

Placement of the electric eyes and the timer console in the arena and the announcer's stand can affect performance of the radio link. Note these guidelines:

- 1) Ensure an unobstructed line-of-sight between the antenna on the electric eye and the antenna on the timer console in the announcer's booth.
- 2) Position the timer console away from other electronic equipment and large metal objects.
- 3) The electric eye with the antenna should be at least ten feet away from the timer console.

Optical Interference from the Sun

When the electric eyes are setup with more than 100 feet between them, a late afternoon sun shining directly into the Photo-Receiver (the electric eye *with* the antenna) could reduce the working range between the eyes. A simple remedy is to swap the electric eyes with each other so that the sun shines into the face of the Photo-Transmitter instead (the electric eye *without* the antenna). Or, you can construct a shade for the Photo-Receiver – see a sample sun-shield to print and cut out on the web at: farmtek-fti.com/sunshield.htm.



Two Timers At Once

Two complete timers can be used at the same time to provide back-up for each other. However, when two Photo-Transmitters (the infrared light source) are on at the same time, they interfere with each other at the Photo-Receiver. To prevent problems, set up both complete timers, stacking the electric eyes on top of each other. However, *only turn on one of the* Photo-Transmitters. Both Photo-Receivers will “see” the beam, but since the beam is coming from just one Photo-Transmitter, there is no interference.

Note: Older wired electric eyes may not “recognize” the wireless Photo-Transmitter. In this situation, make

sure the one Photo-Transmitter that you turn on is the older, wired Photo-Transmitter – both the wired and wireless Photo-Receivers will recognize the older, wired Photo-Transmitter.

Two Wireless Timers at Once

If the two timers in use are both wireless timers, then in addition to the requirements already mentioned, make sure the two Photo-Receivers (the electric eye with the antenna) operate on *different* channels. The channel number used by the Photo-Receiver is stamped inside the battery compartment.

WIRELESS ELECTRIC EYES (Cont'd)

Electronic ID Code

Each wireless electric eye produced by FarmTek is permanently programmed with an electronic identification code. No two units have the same ID code. The ID code is transmitted along with other information whenever the electric eye beam is broken or restored. For a set of wireless electric eyes to work with a particular timer console, the timer console must know the ID code of the electric eye being used.

If you use a different set of electric eyes or a different timer console than usual, you must have the timer console “learn” the ID code of the electric eyes being used. You may also want to perform this procedure if your timer console and electric eyes no longer seem to work together.

Follow these steps to force the timer console to learn the ID code of the electric eyes being used.

1) Set up the electric eyes and the timer console for normal operation as per the **Barrel Racing** instruction card. (Note: The **Check Eyes** alignment indi-

cator on the timer console will not update until after the ID code has been set.)

- 2) On the timer console, press the **Eyes On/Off** button and *hold the button down* until a series of dashes (“-----”) is shown on the display.
- 3) Walk through the electric eye beam. When the beam breaks, the electric eye sends a message to the timer console. The timer console displays a four digit ID code for a few seconds, then the normal display is restored. That’s it! The timer is now ready for operation.

Note: If the dashes remain on the display, the timer console did not receive a transmission from the electric eye. Make sure the eyes are on and visually aligned, then walk through the beam again. If the timer still fails to receive an ID code, move the eyes closer to each other and closer to the timer console (try less than 100 feet).

FCC Information

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 when the equipment is operated in a residential installation. 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. 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, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and the receiver. (3) Consult the dealer or radio/TV technician for help.

CAUTION: Changes made or modifications not expressly approved by the party responsible for FCC compliance of this equipment could void the user’s authority to operate the equipment.