

FarmTek

Sport Timing Specialists

Polaris

Fast CAT Timer

(Long Range Curtains)

Operating
Instructions

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Light Curtains

A pair of light curtains (one with an antenna, one without) form a curtain of light between them when placed across the track. The maximum optical range between the curtains is about 20 feet. The curtains *with* the antenna are linked (ID'd) to a specific system. The curtains *without* antennas are interchangeable with any system without having to re-ID.

The metal light curtains can be used along with older style sensor pairs as long as the same type of sensors is always used across from each other (e.g., a pair of metal curtains across from each other, or a pair of PVC curtains across from each other).

The light curtains run from a single 9v alkaline battery for about 30 hours. The power lamp at the top of the light curtain unit glows steadily while the battery is good and flashes when the battery is low. The light curtains operate about 1-2 hours after the *first* indication of low battery.

The power switch is the red button located next to the battery holder. Press in and release to turn the light curtain on, press in and release to turn the light curtain off

Polaris Timer Console

The *Polaris* timer console is powered by four AA alkaline batteries. The timer runs 50 to 60 hours on a new set of batteries. Turn the timer off before changing batteries and always replace all four batteries at the same time.

To check the battery level, follow these steps:

- 1) Press SETUP to access setup functions.
- 2) Press NEXT CHOICE until Check Battery is displayed (just one or two presses).
- 3) Press ENTER to show remaining battery life.
- 4) Press SETUP to return to normal operation.

Keep in mind that when the console is first turned on after being off for a while (e.g., overnight), the reported battery level is artificially high for the first half-hour or so of use.

Low Battery Warning

A low battery icon is flashed in the upper right corner of the **Status Display** when about 2 hours of console battery life are left.

Equipment Care

Rain / Water

The light curtains are water resistant, however, after use in the rain, wipe off water before laying them in the case or removing the batteries. Avoid pressing in on the dark lens openings. Once home, remove the curtains from the case and let them dry out a few days in an air-conditioned or heated area.

All other equipment *is not water resistant*. The console can be operated inside a clear plastic bag if required. Always allow damp equipment to dry for several days in an air conditioned or heated area.

Storage

Always remove batteries from all equipment after each use.

Radio Channel

Ideally, multiple systems operating in the same area should be on different channels (frequencies). The channel number can be found on the back of the light curtain with the antenna as a single digit: 0, 1, 2 or 3.

Instructional Video

Use your phone or tablet to scan this QR-code to watch a video about how to setup and align the light curtains. If you can't scan the QR-code, visit "farmtek.net/lrc_video" to watch the video. It is important to watch this video as these instructions are not provided in this manual.



Setup Procedure for a Trial

Fast CAT is timed using the "Sprint/General" event in the Polaris timer console. The event is configured to start with curtain #1 and stop with curtain #2.

With the standard antenna on the light curtain, radio range from either curtain to the Polaris console is typically 250-350 feet. If starts or stops are sometimes missed from the more distant light curtain, moving the Polaris console in between the start and finish lines (e.g., half way down the track) reduces the radio range to as little 150 feet each way. External antennas are available to provide 700-900 feet of range if needed. Contact us for more information.

- 1) Install four AA batteries into the Polaris timer console as labeled. Turn on the timer console using the slide switch located at the upper right corner of the timer.
- 2) Install batteries, turn on the light curtains, and connect the curtains to tripods as covered in the instructional video.
- 3) Place a set of curtains at the start line and align the curtains as detailed in the instructional video. Repeat this for the finish line.
- 4) Pass your hand through the start and finish beams. The green light on the curtain with the antenna should flicker to red and then go back to green as your hand goes through the beam. Verify that the Polaris timer console is receiving a signal from the light curtains as detailed below.

Verifying Beam Alignment on the Console

The bottom right corner of the status display on the Polaris timer console shows the alignment status of the light curtains. When a curtain pair is aligned, its number is displayed (1 or 2). If not aligned, or while the beam is broken, "x" is shown.

Alignment	Display Shows
Curtains aligned	Eye #1 \cong
Curtain #2 not aligned (or beam broken)	Eye #1 x

If the console does not update these indicators when the beams are broken, then radio messages from the light curtains are not being received by the console. In this case, check and see if the indicators update with the console closer to light curtains – about ten feet or so. If the indicators still don't update, follow the procedure later in this manual for programming the light curtain ID codes into the console.

Timer Operation

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| <p>1) When the beam across the start line is broken, the timer automatically begins timing from zero – there is no need to reset the timer. Additional breaks of the start beam are ignored once the timer is running.</p> | <p>2) When the beam across the finish line is broken, the timer stops timing and shows the final time. Additional breaks of the finish beam are ignored until the timer is started again by the start beam. That's it – the timer is ready for the next run.</p> |
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Additional Start/Stop Options

<p>In addition to starting the timer with Curtain #1 and stopping the timer with Curtain #2, the timer provides several other “electric eye” combinations as shown to the right.</p> <p>To select a different electric eye combination:</p> <ol style="list-style-type: none"> 1) Press SETUP to access Setup options. 2) Press NEXT CHOICE once so Set Eye Usage is displayed, then press ENTER. 3) Press NEXT CHOICE to scan through the available eye combinations as shown to the right. Press ENTER when the desired eye combination is displayed. <p><u>Note:</u> An asterisk (*) is displayed next to the currently active eye combination.</p>	Timer Display	Timer Action
	Start #1, Stop #2	Start with Eye #1, Stop with Eye #2
	Start #2, Stop #1	Start with Eye #2, Stop with Eye #1
	Start1/2 Stop2/1	Start with either eye, stop with the opposite eye
	Any Start/Stop	Start with either eye, stop with either eye
	Breakout Timer	Time difference between steer and rider for roping.
	Speed Gate	Speed between Eye #1 and Eye #2
Winning Lane	Start with either eye, stop with the opposite eye, indicate which eye started the timer (winning lane)	

Useful Features

Manual Start/Stop

The START/STOP button starts and stops the timer just as if the light curtain had been broken.

Accidental Beam Break

If the timer stops accidentally stops during the middle of a run, *the dog can still be accurately timed*. Pressing the RESTART button resumes timing as if the timer had never been stopped. As long as RESTART is pressed before the run is completed, the time is not lost. (Note: The Polaris timer console beeps whenever the beam is broken to alert you if the timer happens to stop during the middle of a run.)

Locking Out the Light Curtains

The light curtains can be temporarily disabled by pressing the EYES OFF button. "Off" is flashed over the alignment display while the curtains are disabled. To re-enable the light curtains, press the EYES ON button.

Previous Time Recall

Use the PREV and NEXT keys to scan back and forth through previous times. The previous time display is removed after about ten seconds, or by pressing any other key. You may view a previous time even while the timer is running.

Split Times

In addition to the various combinations of Eye #1 and Eye #2 for starting and stopping the timer detailed on the previous page, the timer can also work with up to two more eyes for providing split times. As split times occur, they are displayed on the bottom display while the main time display continues to run. If a scoreboard is connected, the split time is displayed for an interval you can specify before the display returns to showing the running time.

The split-time eyes are designated Eye #3 and Eye #4. Options for controlling split time functions are in the Split Times menu. To access the Split Times menu, follow these steps:

- 1) Press SETUP to access Setup options.
- 2) Press PREV CHOICE until Split Times is displayed, then press ENTER.

You can then scroll through the Split Times options by pressing the NEXT CHOICE key:

Timer Display	Function
Set Eye #3 ID	Program Eye #3 into timer
Set Eye #4 ID	Program Eye #4 into timer
Print Times ON/OFF	Controls whether split times are printed on the printer
Save Times ON/OFF	Controls whether split times are saved in memory
1 or 1+ Splits/Eye	Allow just one or allow multiple splits per eye per run
Hold for 1/3/5/10s	Choose the amount of time a split time is displayed on the scoreboard

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