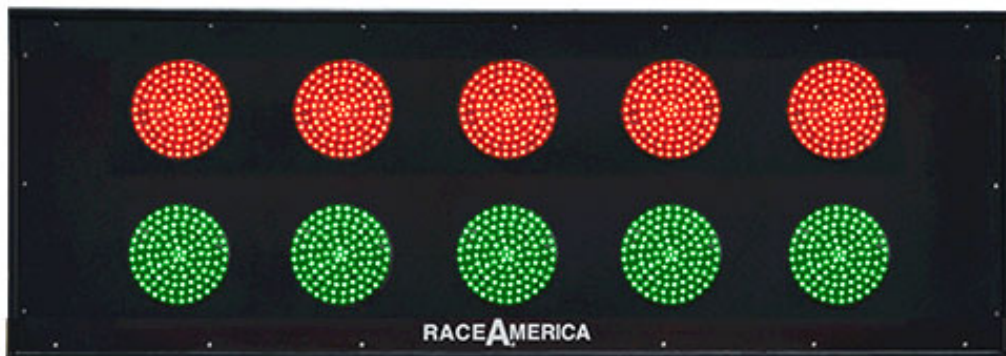




INNOVATION. TECHNOLOGY. RELIABILITY.

CIK-US Starting Light Owner's Manual

Model 6790G / 6790GH / 6790GW - Rev B1



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PRODUCT INFORMATION LINKS

RaceAmerica Website	www.raceamerica.com
RaceAmerica Online Store	store.raceamerica.com
Raceamerica Online Forum	www.raceamerica.com/forum
Product Warranty	www.raceamerica.com/legal.html
Service & Repairs	www.raceamerica.com/service.html
Technical Assistance	www.raceamerica.com/techcall.html
Owner's Manuals	www.raceamerica.com/prodpdf.html
Mounting Diagrams	www.raceamerica.com/mountpdf.html
Product Catalog	www.raceamerica.com/catalog.html

PRODUCT OVERVIEW

The Race Track Starting Light is a microprocessor controlled CIK-US-style overhead starting light system using the latest technology Ultra-Bright LEDs. The display is viewable at wide angles and in conditions from full sun to total darkness without adjustment.

NOTE: THIS PRODUCT USES ULTRA-BRIGHT LED TECHNOLOGY. DUE TO THE BRIGHTNESS LEVEL OF THIS DISPLAY, CARE SHOULD BE TAKEN, AS WITH ANY BRIGHT LIGHTING SOURCE, TO AVOID PROLONGED VIEWING AT CLOSE RANGE AND SHORT DISTANCES. AS WITH ANY BRIGHT LIGHTING SOURCE, VISION MAY BE AFFECTED SHORT TERM SIMILAR TO FLASHBULBS ON CAMERAS.

PACKAGE COMPONENTS

Each Race Track Starting Light package includes:

- 1 - Start Light Display (2 row by 5 lamp)
- 1 - Handheld Pushbutton (6790G)
- 1 - 6718 Hand Controller (6790GH)
- 1 - 6728 Hand Controller (6790GW/GZ)
- 1 - Owner's Manual

POWER REQUIREMENTS

The Race Track Starting Light powered by a 110VAC/230VAC AC Power Adapter. See POWER CONNECTIONS in this manual for wiring connections.

THEORY OF OPERATION

The Race Track Starting Light is a standalone STarting Lights system offering pre-programmed CIK-US-style starting sequences controlled by a handheld pushbutton from the gantry (6790G), a hardwired Handheld Controller (6790GH), or a wireless Hand Controller (6790GW/GZ). The Race Track Starting Light also offers manual

control of starting and test sequences based on model and hand controller.

The handheld pushbutton can initiate a sequence selected by the tower. The pushbutton can also abort the current running sequence and reset the starting light and clock..

START LIGHT SET-UP

The Race Track Starting Light is designed to mount using six 3/8in dia. mounting PEMs located on the backside of the start light. Mounting drawing is provided in this manual.

STEP 1 -

Familiarize yourself with the components pictured in this manual and how they interconnect. Note the larger 16-conductor connector on the bottom side of the start light to connect the hardwired hand controller (6790GH) or 4-conductor connector to connect the Handheld Pushbutton (6790G) after power is installed and prior to powering on the start light.

STEP 2 -

Power is connected to the Start Light through an integrated waterproof junction box. Power installation is covered later in this manual .

POWER-ON SELF-TEST

When power is applied to the start light, the power on selftest begins testing the internal control circuitry and providing a visual display for inspection. The selftest begins by illuminating each LED color lamp one at a time then advancing to the next lamp. The selftest continues by illuminating each LED lamp adding one additional lamp until all lamps are illuminated. All top RED lights illuminate then all bottom GREEN lights illuminate. The selftest goes blank and is ready for use.

HAND CONTROL FUNCTIONS

(Models 6790GH, 6790GW, 6790GZ) The hardwired and wireless Hand Controllers have six pre-programmed function buttons to control the start light as follows:

Standing Start - Each RED lamp will illuminate from left to right until all five columns of RED lights are illuminated, then all RED go out and all GREEN lamps illuminate after a random delay.

Solid Green - All lamps currently on are replaced by all GREEN lamps on.

Freeze Start - Rolling Start will stop and all RED lights currently illuminated will freeze on.

Rolling Start - All RED lights will illuminate at the same time. When ready, the operator can choose between turning all RED lamps off or all RED off plus all GREEN on.

Clear - All lights will turn off leaving the start light blank.

Flash Red - All RED lights will flashing on and off.

Battery Level - (6790GW and 6790GZ models) To display the battery level remaining in the Wireless Hand Controller, press and hold the CLEAR button, then press and release the FREEZE START button, then release the CLEAR button. The Charge Level remaining in the internal battery of the Wireless Hand Controller is displayed on the start light as follows:

100% - 51%	5 RED+GRN lights
50% - 20%	3 RED+GRN lights
less than 20%	1 RED+GRN light

The flexibility of the six unique functions enable the race track to decide how a Rolling Start light sequence will be constructed -- with all RED off to indicate start (press CLEAR) or all RED

off and all GREEN on (press SOLID GREEN) to indicate start.

Standing Start can be aborted by freezing the currently illuminated RED lamps (press FREEZE START) or clear the start light completely (press CLEAR).

Standing Start begin with each RED light illuminating until all 5 RED lights are on, then after a random amount of time, the RED lights go out and all GREEN lights illuminate.

PUSHBUTTON FUNCTIONS

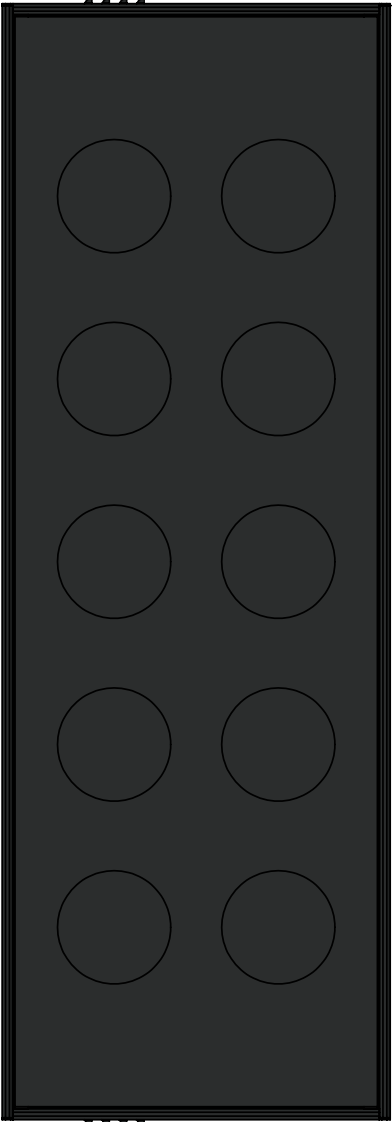
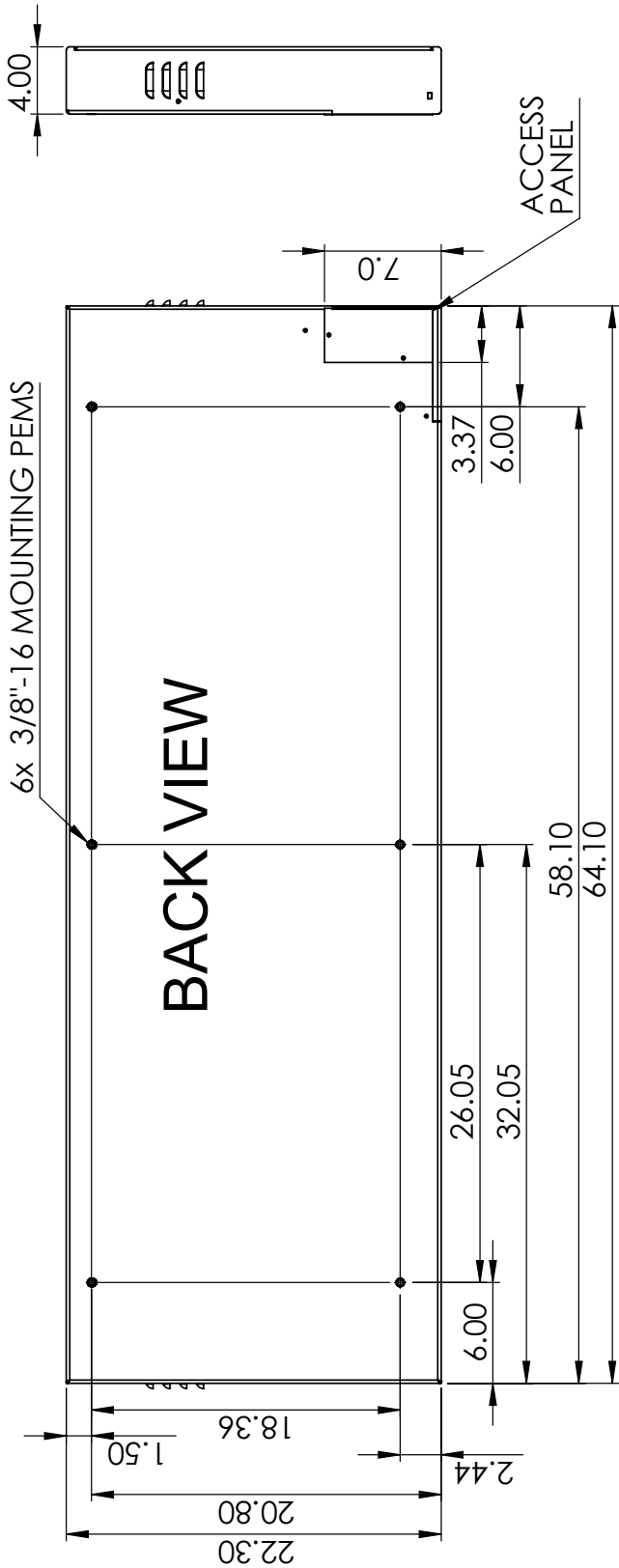
(Model 6790G) Press to begin the Standing Start sequence. Each RED lamp will illuminate from left to right. When all RED lamps are on, they will go out and all GREEN lamps will illuminate after a random amount of time.

To abort a start, press the handheld pushbutton during the RED lamp start sequence. All lamps go out. Press again to restart the sequence.



Figure 1 - Hand Controller

6790 START LIGHT ENCLOSURE
MOUNTING LOCATIONS



85-5150 D

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POWER CONNECTIONS



Figure 1
Power Box Cover on
rear lower right corner
of enclosure



Figure 2
Exposed Power
Box with rear panel
removed.

Power is supplied through the POWER INPUT box located on the backside bottom left rear corner. Models are available powered by either 110VAC/230VAC autoswitching.

Remove the Power Box access panel located at the lower right corner, rear of the enclosure to expose the Power Box (Figure 1). Loosen the four corner screws to expose the terminal strip connections (Figure 2).

AC power can be connected with an AC power cord using the watertight compression gland shown in Figure 3 using a standard 3-conductor power cord.

L = live or hot side of AC power

N = neutral side of AC power

G = ground lead of AC power

Power can also be conduit connected by installing a 1/2in (Figure 4) or 3/4 (Figure 5) by removing the compression gland. The 3/4" conduit fixture is connected to the matching hole in the cabinet metal. The compression gland can remain in place to provide a watertight connection.



Figure 3
AC power gland



Figure 4
AC power 1/2in



Figure 5
AC power 3/4in

MAINTENANCE

The Start Light requires minimal maintenance. To clean the front lens, use a non-abrasive cleaner on a soft cloth. This will keep the protective lens clean and maximize visibility and clarity of the lights. If the front lens is soiled with mud or dirt, gently remove the grit using a soft wet cloth being careful not to press when wiping to avoid scratching the polycarbonate material.

SPARE PARTS

RaceAmerica recommends a spare handheld pushbutton. Contact RaceAmerica for availability and pricing of spares items.

SUPPORT AGREEMENTS

Support agreements are available from RaceAmerica providing Telephone Assistance on technical issues and operational questions, repair and/or replacement of hardware failures, Software and Firmware updates and bug reporting. Contact RaceAmerica for more information and pricing of Support Agreements.