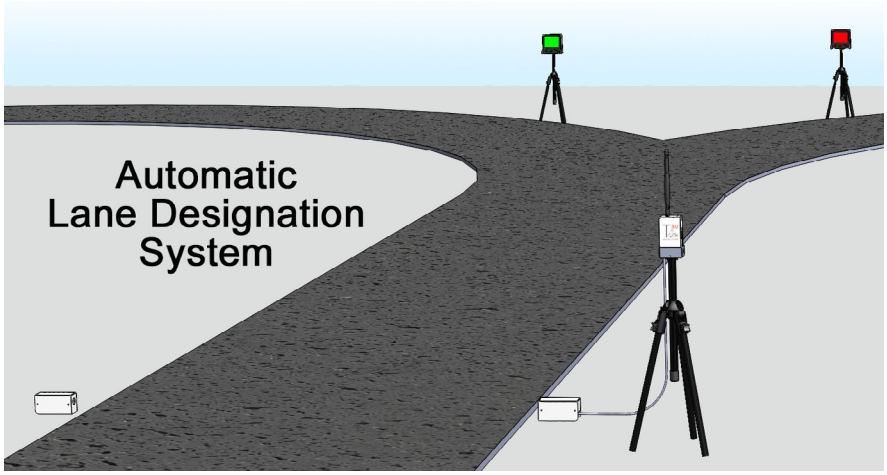
RACE AMERICA

INNOVATION. TECHNOLOGY. RELIABILITY.

Lane Designation System

Model 3700 series

Rev B1



RaceAmerica Corporation
62 Bonaventura Drive
San Jose, CA 95134
(408) 988-6188
www.raceamerica.com
info@raceamerica.com

Table of Contents

Figures

RACE AMERICA

INNOVATION. TECHNOLOGY. RELIABILITY.

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

THEORY OF OPERATION

The 3700 Series packages contain a single T-Link 3.0 Wireless Unit to detect a vehicle and control the lane lights on track. An infrared beam is placed across the entry lane using a 5140 Track Sensor and a 5050 Beam Emitter. The 5140 Track Sensor is hardwire connected to the T-Link 3.0 Wireless Unit. Model 6770 Safety Cube Lights are placed downtrack from the detection beam and function as lane color display indicators for the driver, When a vehicle is detected by the infrared beam, the T-Link will select a random lane and send color display signals to the 6770 Safety Cube lights for model 3700A systems. For model 3700B systems, The T-Link will send a single color signal to the 6770 for braking reaction. Cubes contain internal rechargable battery packs while the 3710 and 5050 have removable rechargable battery packs.

PACKAGE CONTENTS

Model 3700A Lane Select System

1	3710AW/AZ	Wireless T-Link 3.0
1	6763A	Cradle Mount for 3710
1	5140E	Track Sensor
1	5050C	Beam Emitter
1	05-5825	25ft interconnect cable
2	7540F	Protective Foam Stand
2	55-E670	Spare USB Rechargable Battery
2	6770B	Safety Light Cube
2	6762A	Universal Mount for 6770

Model 3701A Lane Braking System

1	3710AW/AZ	Wireless T-Link 3.0
1	6763A	Cradle Mount for 3710
1	5140E	Track Sensor
1	5050C	Beam Emitter
1	05-5825	25ft interconnect cable
2	7540F	Protective Foam Stand
2	55-E670	Spare USB Rechargable Battery
1	6770B	Safety Light Cube
1	6762A	Universal Mount for 6770

OPTIMIZER CODES

3700 systems utilize a wireless communications system preset at the factory. The 3710 T-Links and the 6770 Safety Cubes operate on the same Optimizer Code. If you own multiple systems, insure the Optimizer Codes of the T-Link and the Cubes match or they will not communicate as a system. Optimizer Codes are noted as a letterand number (i.e. C30, E475, D190, etc.). See Figures 4 and Figure 5 for location of the label.

CUBE IDS

The 3700A systems contain two 6770 Safety Cubes. Note one will be designated as ID G1 and the second cube designated as ID G2. This system requires one of each ID and placement of these can be on either lane. If

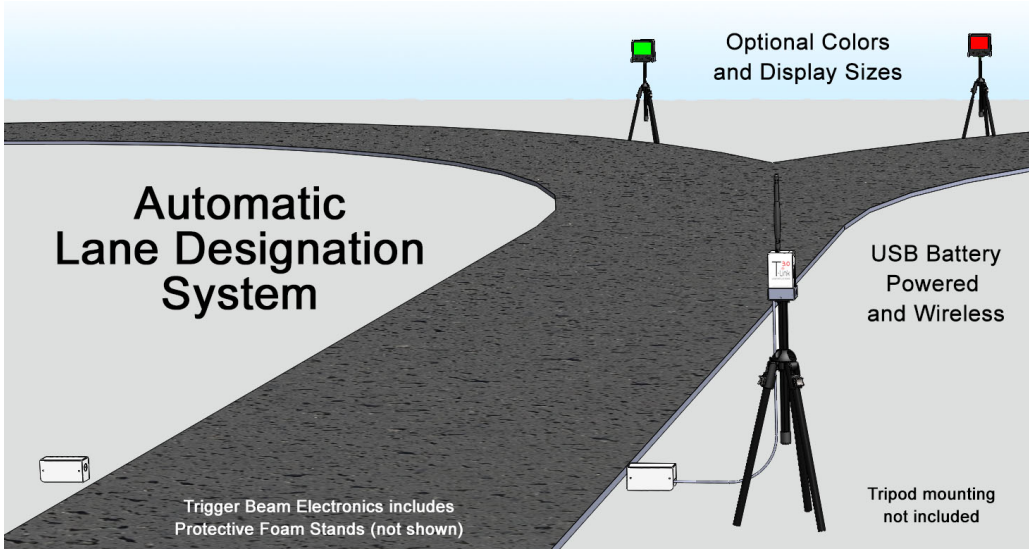


Figure 1 - Track layout

Figure 2 - Cradle Mount FOR 3710

you have backup Cubes, insure the system is operating with one of each ID code for proper system operation.

For 3700B systems, a single 6770 Safety Cube will contain the ID G1 for proper system operation. When using a 3700A system reconfigured to be a 3700B system, only the ID G1 cube is active.

Figure 3 - Universal Mount FOR 6770

SETUP & OPERATION

Insert the USB Rechagable Battery pack into the 5050 to power up the emitter. Place the 5140 and 5050 into the 7540 Protective Foan Stands. Connect the 05-5825 interconnect cable between th 5140 and the 3710 T-Link. Place the foam stands on either side of the lane with the 5050 Beam Emitter pointing at the 5140 Track Sensor. If you are mounting the T-Link or using a tripod, install the 6763A Cradle Mount (See Figure 2) and place the T-Link into the mount.

Attach the Universal Mounts for the Cubes (see Figure 3) to a structure or a tripod downtrack from the detection beam at a distance appropriate for the driver testing. Power on the Cubes and place them into the mount. When each cube powers on, they will alternate between green and red, then flash green 5 times for the ID G1 and flash red 5 times for the ID G2, then go out.

Power on the T-Link and note the LED light patterns. Initially the LED will alternate between fast flashed of red and green. Then the LED will turn red and flash yellow once or several times then go out. The number of yellow flashes is an indication of the current operating mode the 3700 system. The system is now ready for the first vehicle to pass through the detection beam.

When a vehicle passes through the detection beam, the cubes will display a color designated by the operating mode. For 3700A operating modes, the T-Link will select a random lane designation. The cubes will clear after 7 seconds and ready for the next vehicle.

OPERATING MODES

The 3700 ships with the customer selected operating mode sfrom the factory pre-configured. The operating mode can be changed with the purchase of a Mode Recinfigure Kit. This kit contains 5 configuration jumpers for the following modes:

1 - Lane Designation green/blank only displayed
2 - Lane Designation red/blank only displayed
3 - Lane Designation red/green displayed
4 - Lane Braking green only displayed
5 - Lane Braking red only displayed

Figure 4 - T-Link 3.0 power and external connections

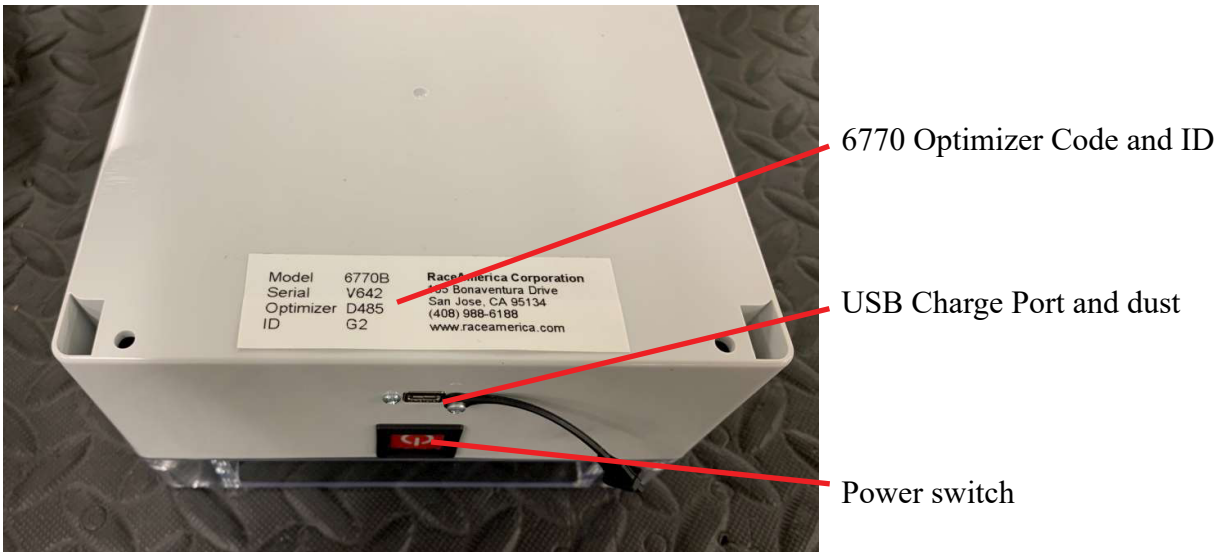


Figure 5 - Cube power and label

To reconfigure the T-Link operating mode, Power off the T-Link and disconnect the cable. Place the desired jumper into the T-Link and power it on. Note the number of yellow flashes during startup to indicate the current operating mode stored in the T-Link. The operating mode will be stored in the T-Link. Power off the T-Link and remove the jumper. Connect the interconnect cable to the T-Link and power it on. The yellow flashes will now indicate the current operating mode.

SPARE PARTS

Further to minimize operation interruptions, RaceAmerica recommends purchasing spare parts that could be damaged through normal use. Generally, cables, antennas, and batteries are considered to be consumables and are candidates for minimal spare parts levels. 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.

REVISION HISTORY

A - 03/2020 - Initial release