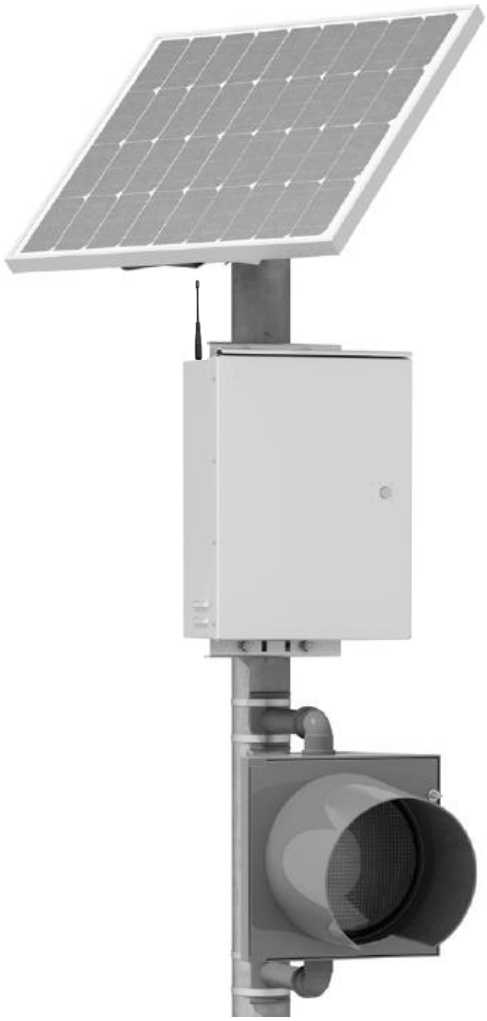
R247-G with Wireless Control

USER MANUAL SUPPLEMENT



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90469 Rev B - Road Holding Position Light

Contents

1.0 Safety & Usage

The following symbols indicate important safety warnings and precautions throughout this manual:

WARNING indicates that serious bodily harm or death may result from failure to adhere to the precautions.

CAUTION indicates that damage to equipment may result if the instructions are not followed.

NOTE suggests optimal conditions and provides additional information.

1.1 Wireless Precautions

Keep the Handheld Controller at a distance of at least 3 ft. (1 m) from the antennas of lights or other Handheld Controllers. It transmits a powerful radio signal that could damage sensitive receiver circuitry if operated at close range.

1.2 Warranty Disclaimer

This manual will familiarize you with the features and operating standards of the product. Failure to comply with the use, storage, maintenance, or installation instructions detailed in this manual could void the user warranty.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Installation work must be done by a qualified person(s) in accordance with all application local codes and standards.

1.3 Recycling

This product may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. In order to avoid release of such substances into the environment, we encourage you to recycle the product in an appropriate way that will ensure most of the materials are reused or recycled. Check your local municipality for electronics recyclers.

1.4 Abbreviations

The following is a list of abbreviations used in the description of this product:

FAA	United States Federal Aviation Administration
FHWA	Federal Highways Administration
HHC	Handheld Controller

ITE	Institute of Transportation Engineers
MUTCD	Manual on Uniform Traffic Control Devices
OBUI	Onboard User Interface
VTSCH	Vehicle Traffic Control Signal Heads

1.5 Limitations of scope

- This manual supplement provides an overview of the Flash Technology Road Holding Position Light with wireless remote control.
- This manual is supplemental to the general user manual and is not intended as a replacement. Consult the general user manual for all other aspects of setup, operation, maintenance and troubleshooting.
- This manual supplement provides rudimentary information for the Flash Technology aviation products wireless Handheld Controller as it applies to the Road Holding Position Light only. Consult the Handheld Controller manual for all other aspects of operation, maintenance and troubleshooting.

2.0 Theory of operation

The Road Holding Position Light is a solar-powered vehicle traffic flashing beacon system designed to provide continuous 24-hour visual warning of mandatory roadway stop points and hazards. The beacon provides an on-off flash pattern compliant with U.S. Federal Highways Administration, Manual on Uniform Traffic Control Devices (MUTCD). The beacon also complies with the Institute of Transportation Engineers, Vehicle Traffic Control Signal Heads (VTCSH) requirement for beam shape and chromaticity.

Note:
This system has been factory-configured to meet the VTCSH requirement for light output intensity: 365 candelas

The Road Holding Position Light is designed to operate continuously 24-hour per day. The product described herein has been fitted with a 900 MHz radio receiver, which can provide on-off control of the system or temporary timed 15-minute on cycles. See section 5.0 of this document for a table describing wireless control states and operational modes.

3.0 Product Set-up

Please refer to the user manual for complete product set-up and product warnings

3.1 Antenna Installation

The control cabinet has been furnished with a replaceable whip style antenna.

Locate the antenna inside the cabinet and install it on the exterior of the control cabinet as shown.

3.2 Mechanical Arrangement and Mounting

Note:
Consult the product user manual for an overview of mechanical components and general guidelines on system mounting and electrical connectivity.

Note:
For wireless operation, line-of-sight is required between the Handheld Controller and the receiving antenna on the system cabinet. The final physical arrangement of the control cabinet, solar panel, beacons and signage should not impede line-of-sight between the location of the Handheld Controller and receiving systems.

Failure to provide line-of-sight between transmitting and receiving antennas may result in unreliable system control

4.0 Product Configuration

This product has been configured for wireless on-demand activation, however, the product can also be operated manually and can be configured to work autonomously 24 hours per day.

4.1 Wireless Control

For wireless control, the system will need to be configured as an R829 product. See user manual excerpt below:

Note:
Please consult the product user manual for instructions for using the on-board user interface (OBUI) and the complete list of user programmable settings.

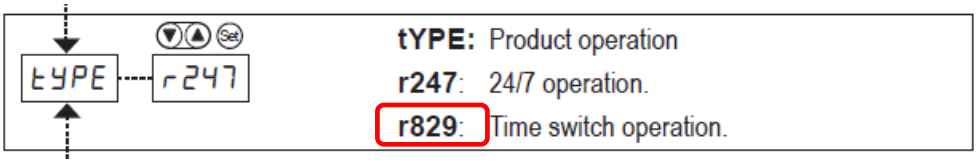

Figure 2. OBUI Detail

4.1.1 Grouping

The system can be assigned to one of 8 individual groups or “channels” on the Handheld Controller.

Please consult the appendix of the Handheld Controller manual for the location of the grouping button and the following manual for complete information on assigning products to individual groups for wireless control

Note:
This product has been factory-set to respond to group #1 as a default.

4.2 Non-Wireless Control

For non-wireless 24-7 operation, see user manual excerpt below for configuration:

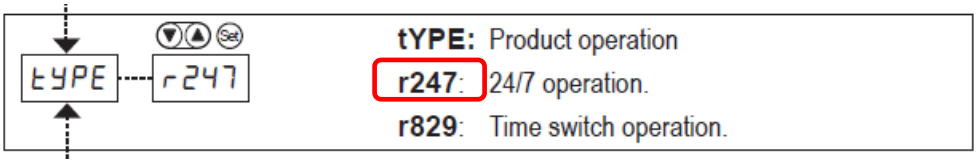

Figure 3. OBUI Detail

Note:
When the system is configured for non-wireless 24-hour continuous operation, the system will no longer respond to commands sent by the wireless controller.

4.3 Beacon Intensity Settings

This product has been sized and configured for sustainable 24-hour operation at ITE intensity for RED LED traffic beacons – 365 candelas (Current setting of 220mA on the OBUI).

Note:
If higher intensities are required either for 24-hour or temporary system activations, please consult Flash Technology prior to making intensity adjustments.

Increasing beacon output intensity may result in either unsustainable operation or a reduction in usable battery life.

5.0 System Activation

5.1 Wireless Control

Please consult the Handheld Controller user manual for complete instructions regarding the use of the wireless controller.

When configured for wireless operation and when operated with the Handheld Controller, the system can be used in one of two ways:

- **Autonomous Mode:** The system once activated will remain active with the beacons flashing indefinitely until the system receives a “Lights Off” command from the Handheld Controller.
- **Temporary Mode:** The system once activated will remain active with the beacons flashing for 15 minutes, after which, the system will automatically turn the beacons off, unless, the system recieves a “Lights Off” command from the Handheld Controller in the interim.

Note:
In wireless mode, when activated by the Handheld Controller, the system will flash the beacons at the intensity that was preset through the system OBUI:

- **The Handheld Controller sends on/off commnands only.**
- **Beacon intensity cannot be adjusted using the Handheld Controller**

The following table lists the applicable Handheld Controller commands and the resulting system response:

Handheld Controller (HHC) Command	Beacon Intensity	System Response	Comments
Auto Low	Factory Setting	24 hr. continuous	Factory preset or OBUI setting
Auto Med	Factory Setting	24 hr. continuous	Factory preset or OBUI setting
Auto High	Factory Setting	24 hr. continuous	Factory preset or OBUI setting
Auto Low IR	-	-	Not Used
Auto Med IR	-	-	Not Used
Auto High IR	-	-	Not Used
Auto Low Flash	-	-	Not Used
Auto Med Flash	-	-	Not Used
Auto High Flash	-	-	Not Used
Auto Low IR Flash	-	-	Not Used
Auto Med IR Flash	-	-	Not Used
Auto High IR Flash	-	-	Not Used
Temp Low	Factory Setting	15 min. -> OFF	Factory preset or OBUI setting
Temp Med	Factory Setting	15 min. -> OFF	Factory preset or OBUI setting
Temp High	Factory Setting	15 min. -> OFF	Factory preset or OBUI setting
Temp Low IR	-	-	Not Used
Temp Med IR	-	-	Not Used
Temp High IR	-	-	Not Used
Temp Low Flash	-	-	Not Used
Temp Med Flash	-	-	Not Used
Temp High Flash	-	-	Not Used
Temp Low IR Flash	-	-	Not Used
Temp Med IR Flash	-	-	Not Used
Temp High IR Flash	-	-	Not Used
Emergency	-	-	Not Used
Standby	-	-	Not Used
Lights Off	-	Output off	Beacons “OFF” all other system functions remain active.
Grouping	-	Product listens for group commands for 5 min.	Used for assigning a system or systems to unique control group.
DIAGNOSE 0	-	-	Not Used
DIAGNOSE 1	-	-	Not Used
DIAGNOSE 2	-	-	Not Used
DIAGNOSE 3	-	-	Not Used

Handheld Controller (HHC) Command	Beacon Intensity	System Response	Comments
DIAGNOSE 4	-	-	Not Used
DIAGNOSE 7	-	-	Not Used
DIAGNOSE 9	-	-	Not Used

Table 1. System Commands and Functions

5.1.1 Handheld Controller Key Sequences

The following are key sequences for applicable operating modes with wireless control

- Temporary Operation (15 minutes):

  System ON:

  TEMP -> LOW, MED or HIGH -> ENTER

  System OFF:

  LIGHTS OFF -> ENTER

- Continuous Operation:

  System ON:

  AUTO -> LOW, MED or HIGH -> ENTER

  System OFF:

  LIGHTS OFF -> ENTER

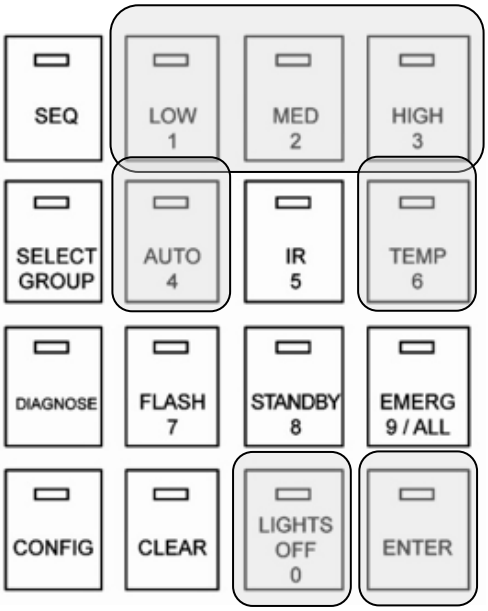

Figure 4.Handheld Controller Keypad

5.2 Non-Wireless Control

If continuous 24-hour operation without wireless control is required, set the product type through the OBUI to “r247” as per section 4.2 above.

Note:
When the product is configured in this manner, the beacon will beacon to flash once power is connected to the system.

6.0 Appendix

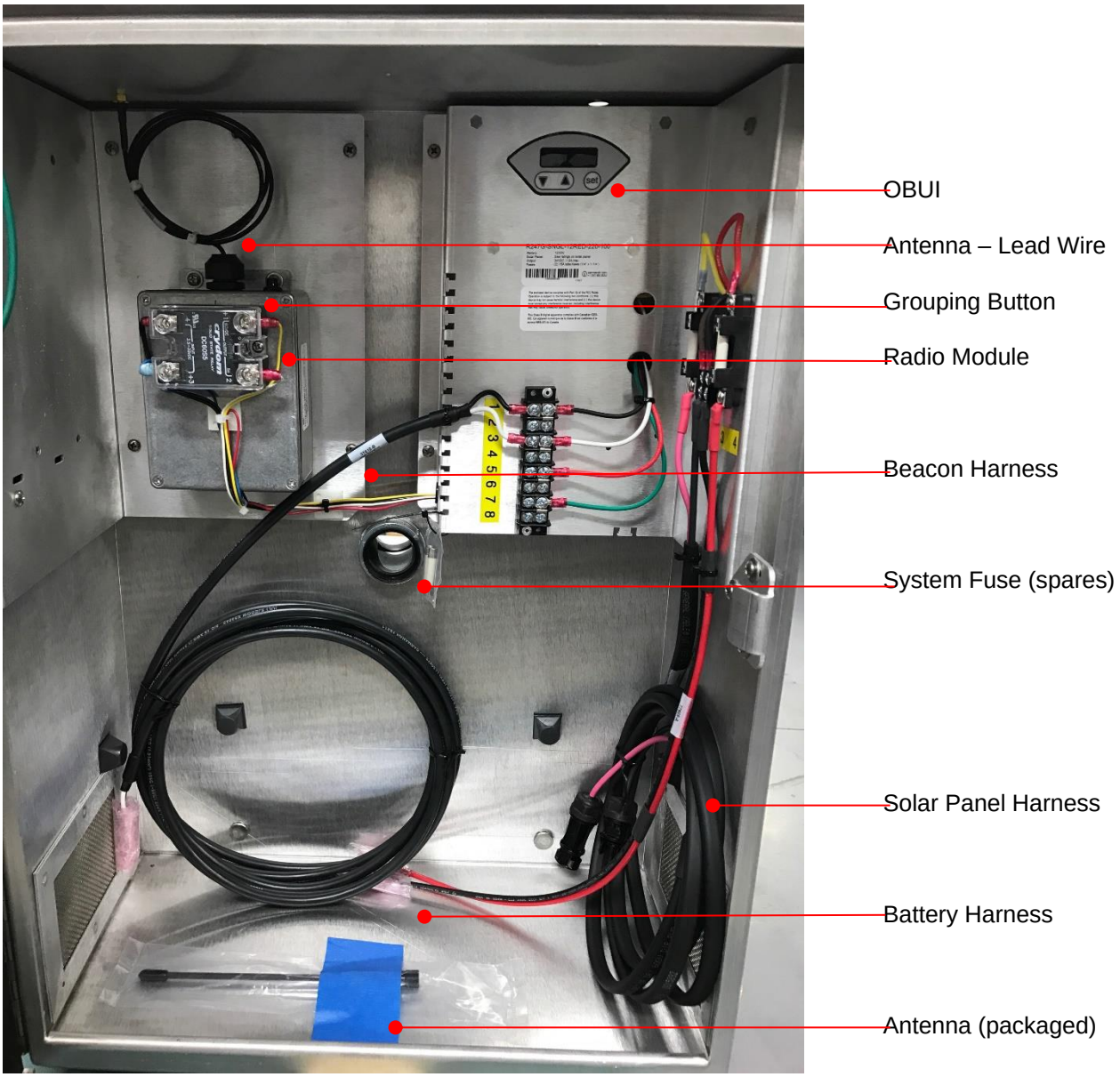

Figure 5. Control Cabinet – Interior Detail

7.0 Product Support

This product is covered by the Flash Technology warranty. Visit flashtechnology.com for additional information.

Before contacting Flash Technology's customer service department, please have the serial number of your product available, a brief description of the problem, as well as all details of the installation and recharging efforts (if applicable).

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