

Keiron PRO Illuminator

Introduction

The Keiron PRO Illuminator contains a bright LED lamp which is wirelessly activated by another, paired Keiron PRO device. It is intended to be used to either alert or distract a shooter, or for low light training to simulate a situation where the shooter is suddenly faced with an unexpected bright light. (For example, simulating a situation where a building is being cleared at night and a suspect turns on the lights).

When it is activated, the light turns on for a pre-programmed period, then turns off and enters a pre-programmed reset period. During the reset period the unit is inactive. The light is off and the unit is not listening for any activation requests. After the reset period expires, the system is re-armed and again waiting to be activated. The reset period prevents undesired multiple activations, and allows training simulations to be created where various activities happen automatically, and also reset automatically waiting for the next shooter or range session

Both the on time and the reset period are programmable using the Keiron PRO Timer. The on time may be set from 1 to 250 seconds and the reset time may be set from 0 to 250 seconds. Other settings such as the channel selection and auto-power off settings are also programmable using a PRO Timer. This allows for fast set up time when changing a range layout, or reconfiguring a system. The Illuminator also offers manual cancellation of the activated or reset states by simply pressing the bottom button.

The Illuminator may be paired with any compatible Keiron PRO network device, such as a target, motion detector and / or remote control.

A standard 12 Volt, MR16 type LED lamp is used. These are commonly used in commercial and residential lighting and available just about anywhere in the world. Should the lamp ever need replacement, use only a 12V LED lamp up to 6 Watts. Never use a 30W or 50W halogen, as this will exceed the rating of the unit.

Placement Guidelines

This device may be placed either directly facing the user to deliberately create glare, or used to illuminate an area. It may be pointed at a reflective surface such as a wall or ceiling. Do not directly point the lamp at any Keiron Targets, nor against a reflective surface that will then in turn illuminate any targets. After placing the unit, test the operation and ensure it does not trigger any Keiron Targets. If it does, turn the unit or the targets slightly away from one another.

Examples of use:

1. Placing the unit nearby a partially hidden Target PRO will alert the shooter that there is a target to be engaged.
2. Placing the unit nearby or in front of and partially obscuring a Target PRO will alert the shooter that a target is to be engaged, and make it more difficult to engage.
3. The Illuminator can also be used to provide a distractive element, simulating a hostile with a torch / flashlight and blinding the shooter.

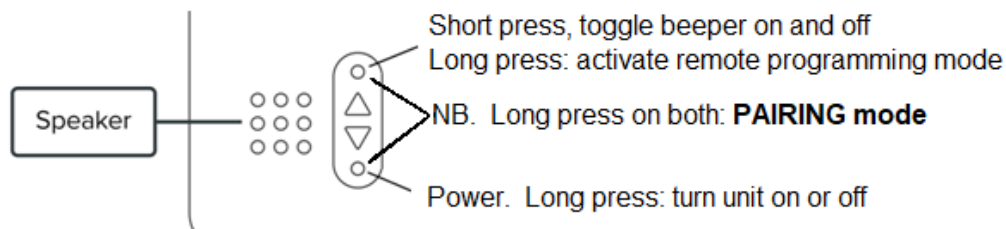
Auto Power OFF:

After no activity for a programmed period (default 1 hour), the unit will turn itself off automatically. The automatic turn off period may be set from 1 hour to 12 hours, via a remote command from a PRO Timer.

Controls:

There are only 2 switches (buttons) used to control the unit. Operation is straightforward and similar to other Keiron PRO accessories.

1. A long press on the bottom button turns the unit on or off. Once set up, that is typically the only button you will need to use.
2. A short press on the top button toggles the beeper on and off.
3. A short press on the bottom button cancels the current “on time” period or “reset period”, re-arming the Illuminator. If the unit is waiting to be activated the button is ignored.
4. A long press on the top button puts the device into programming mode.
5. A long press on both buttons puts the unit into pairing mode. Use this to pair the Illuminator with any other compatible Keiron PRO device such as a target or motion detector, and / or a Keiron Pro remote.



Operation Summary

The Illuminator is powered by a 12V wall plug power supply. Turn on the unit by long pressing the bottom button. After various internal system checks, the system is ready for use. A series of quick beeps will indicate successful initialisation.

If required, set the channel / system ID to include the unit in a logical Keiron PRO system. See the following section (Programming the Channel / System number) below for more detail.

The top button may be used to toggle the beeper on and off.

For first time use, or possibly when changing the range layout, the Illuminator will need to be paired with another Keiron PRO device that will be used to automatically activate the unit. It may also be paired to a Keiron PRO Remote control. Do this by following the instruction further down below in the Pairing section.

To power the unit off, long press the bottom button.

On startup, if a long beep followed by several short beeps are heard, then an error has occurred. The long beep alerts you to an error condition, and the number of short beeps signifies the error. Please see the errors section for more information.

Programming the Channel / System number

All Keiron PRO elements forming a logical system must be configured to be on the same channel / system number. This allows multiple systems to co-exist in one location, and ensures reliable wireless operation.

To program a channel / system number, place the Illuminator into remote programming mode by long pressing the top button. The beeper will chirp every second, indicating that the unit is waiting to be programmed. Using a PRO Timer, send the appropriate parameters, such as the channel, on-time, reset time, or the auto-off time.

Once the information is received, the system will beep to acknowledge, the appropriate configuration will take place and be saved, and normal operation is then resumed.

The remote programming mode may be cancelled by any button press. See PRO Timer for more information on sending commands to the Motion Detector via the on screen menu.

Audio Indication

A short press of the top button toggles the beeper on and off.

Pairing

A long press of both the top and bottom buttons (1 second) puts the Illuminator into a PAIRING mode.

In this PAIRING mode the beeper will chirp every second, indicating that the unit is waiting for an identification signal from another Keiron PRO device.

Now simply activate the other Keiron PRO device that you wish to use to activate / pair with the Illuminator, and the pairing process will be take place and be automatically saved.

Example – pair with Target PRO:

This example of pairing an Illuminator with a Target PRO shows the easy steps to perform:

1. Ensure the Target PRO to be paired with is turned on, and the Illuminator is turned on. The PRO Timer can be on but is not required.
2. Long press both buttons on the Illuminator at the same time, until you hear a beep (1 second). Release the buttons. You will hear a beep every second, showing the Illuminator is in pairing mode and waiting to be paired.
3. Shoot the Target PRO you wish to pair with the Illuminator and the ID of the target will be received and saved. The Illuminator will give a long beep and the continuous beeping will stop.
4. You are done. Now, when you shoot the Target PRO you just paired with, the Illuminator will turn on the light.
5. That concludes the example, more general detail underneath.

To pair with a motion detector, put the Illuminator into pairing mode and activate the motion detector by moving in front of it. It will send out it's signal, and it's ID will be received and saved.

To pair with a remote control, put the Illuminator into pairing mode and press the button on the remote that you wish to use to activate the device.

Once an identification signal is received, a long beep will be heard and the unit is ready for use. If an incompatible signal is received, the unit will beep error code 5.

NB. This Illuminator may be programmed to respond to 2 separate activators – either a target OR a motion detector OR some other device, AND a remote control. Should you wish to de-activate one of them, simply put the device into PAIRING mode by long pressing both buttons, and activate the saved device you wish to remove, and it will be removed. If changing the pairing from one device to another, there is no need to first delete the previous pairing.

Transmit Power:

There is no manual setting for this, as the Keiron PRO wireless radio protocol automatically adjusts the power output for best battery life and reliable operation.

Information Broadcast:

From version 1.2 of the software, the product will broadcast it's status when inserting batteries or when turning on. The serial number, battery voltage, software revision, active time and reset time is sent and may be displayed on a PRO Timer.

Error Indication:

Any errors that may occur are reported by beeping and flashing. To draw attention to the error, a long beep followed by a pause is first issued to alert the user to a problem, then the error code is beeped. This allows the user to take note that an error has occurred, and then count the beeps.

1 long beep: Power save timeout (turning off). After the set period of no activity elapses (default 1 hour), the unit will turn off to conserve power.

5 beeps: Invalid command received or invalid pairing. Resend from correct device.

6 beeps: TX failure. Contact supplier.

7 beeps: Radio fail (dead radio). Contact supplier.

8 beeps: Radio fail (alive, but unserviceable). Contact supplier.

9 beeps: Voltage regulation circuit unserviceable. Contact supplier.

Software revision:

1.0 Initial release

1.1 Added dual pairing ability. The Illuminator may be paired with a PRO Remote AND some other Keiron PRO device such as a target.

1.2 Added information broadcast capability and added new global zones for New Zealand and Australia to comply with local legislation for the radio / wifi component.

Known bugs:

None

Technical:

A 12V 2A "wall wart" power supply is included, but if required an alternative supply may be used. The DC plug is centre positive, and the power supply must be adequate to power the lamp. A quality 1A supply should be adequate, or for portable use, a 12V battery. Ensure the supply is "quiet" electrically.

The supplied LED lamp has a rated lifespan of around 30,000 hours. In normal use, being on for hours at a time, the rated lifespan is almost never achieved as cooling is often restricted and heat build up shortens the life of the lamp. In the Keiron application the lamp should last for many years, as the intermittent operation provides plenty of time for cooling and to keep the temperature down.