

# E60

## ROTARY LASER LEVEL

### QUICK START INSTRUCTION MANUAL



# Introduction

<b>Purchase</b>	<p>Congratulations on your purchase of an Imex E60 Rotary Laser. These lasers have been designed for the professional and incorporate the latest laser technology with a robust and simple construction for years of trouble-free use.</p> <p>This manual contains important safety directions as well as instructions for setting up the product and operating it. Read carefully through the User Manual before you switch on the product.</p>
<b>Product Identification</b>	<p>The serial number of your E60 is indicated on the base of the laser level. Please keep this recorded in your manual and always refer to this information, should you need to contact your Imex distributor.</p> <p>Serial number:.....</p>
<b>Validity of this manual</b>	<p>This manual applies to the Imex E60 laser and contains instructions required to operate this laser at a basic level. For more information: <a href="http://www.imexlasers.com">www.imexlasers.com</a></p>

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# 1. Instrument Overview

## 1.1 E60 Laser Unit



## 1.2 LR1 Laser Detector



## 2. Directions of Use

### 2.1 Set Up

Location	<ul style="list-style-type: none"><li>• Place the E60 on stable surface.</li><li>• Keep the location clear of possible obstructions that could block or reflect the laser beam.</li><li>• When working in a very dusty environment place the E60 up-wind so the dirt is blown away from the laser.</li></ul>
Setting up on a Tripod	<ul style="list-style-type: none"><li>• Extend tripod legs to desired height and open far enough apart to ensure the tripod is stable</li><li>• Attach the E60 securely to the tripod supplied attaching the 5/8 tripod bolt to the tripod mount at the base of the laser.</li><li>• Secure the tripod on extremely windy days.</li></ul>

### 2.2 Power On/Off

Powering On	<ul style="list-style-type: none"><li>• Press the power button to turn on the E60</li><li>• If set within the 5° self-levelling range, the E60 will self-level, and the laser head will start to spin and emit a rotating laser beam.</li><li>• If the unit is bumped or senses interference the laser head will stop spinning and re-level. Once unit has re-levelled the laser head will begin to spin again, emitting a level line</li><li>• <b>Warning</b> - If the unit has been bumped or moved and the laser recommences spinning the instrument may not be at the original level position. Please recheck you RL/datum point.</li></ul>
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### 2.3 Tilt Warning System (TWS)

Description of TWS Mode	<p>To prevent the possibility of the E60 giving a different reading than is expected due to a knock or the laser being moved by a third party the TWS function can be used and will prevent the unit re-levelling and spinning in the event of a knock or movement.</p>
Using TWS Mode	<p>Press the TWS button (TWS on/off) to turn on the TWS. When activated the LED indicator will light.</p> <p>When the TWS is activated on the E60, if the unit is knocked or interfered with, the laser will stop spinning and the TWS indicator light will flash. The laser will then need to be reset by the operator, before the laser will begin to spin again.</p> <p>To reactivate TWS, press the TWS button again, and the laser will re-level and begin to spin again. It is advised to check RL/Datum point when unit re-levels.</p>

## 2. Directions of Use continued:

### 2.4 Using Your Detector

#### **Detector Operation**

- Power the detector on by pressing the power button. The speaker will beep once to indicating the unit is operating
  - The LCD screen will display the battery level, detection mode and speaker display
  - Press the Course/Fine button to switch between course or fine detection mode
  - Move the detector into the path of the laser beam
  - The direction of the arrows on the LCD screen to indicate the position of the laser beam. The detector will emit a constant beep and LCD will show horizontal line once the level position is located
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## 3. Batteries

#### **General**

The E60 is supplied with 4x AA 1.5V Alkaline batteries

The LR1 Receiver is supplied with 1 x 9V battery

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**Battery Placement** When putting battery into the laser unit, please ensure correct polarity of terminals.

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## 4. Laser Accuracy

### General

The Imex E60 is calibrated at point of manufacture and re checked prior to despatch to  $\pm 3\text{mm}/30\text{m}$ . It is the responsibility of the user to follow operating instructions and to periodically check the accuracy of the laser. If your E60 requires adjustment, then please contact your nearest dealer

### 4.1 Checking the accuracy

#### Accuracy check steps

Step	Description
1.	 30m Place the E60 on a flat, level surface or tripod approximately 30m from a wall.
2.	Align the first axis so that it is square to the wall. Allow the E60 to self-level completely and it will begin to rotate.
3.	Mark the position of the beam on the wall. (centre of the point)
4.	Very carefully rotate the laser on the tripod $180^\circ$ and allow it to rotate and self-level.
5.	Mark the position of the beam on the wall. (centre of the point) if different from the original mark.
6.	Align the second axis so it is flat to the wall by carefully rotating the laser on the tripod by $90^\circ$ . Allow the E60 to self-level completely.
7.	Mark the position of the beam on the wall. (centre of the point) if different from the previous marks.
8.	Very carefully rotate the laser on the tripod $180^\circ$ and allow it to rotate and self level.
9.	Mark the position of the beam on the wall. (centre of the point) if different from the previous marks.



The E60 is within accuracy if the four marks are within 6mm from the centre (6mm max extreme edges) at 30m

## 5. Care and Maintenance

### Transport

When transporting the E60 always ensure that it is carried in the original foam lined carry case.

Never transport the unit loose in your vehicle as the shock and vibration will affect the accuracy and could knock it out of calibration.

### Storage

If the unit is to be transported overseas by sea or air it is the operator's responsibility to ensure the correct procedures are adhered to for transporting batteries.

Ensure the unit is stored within the recommended temperatures of -10°C to +50°C After long periods of storage check the charge of the batteries

Always clean the unit before storing. Even if the unit is in regular use.

If the unit has been used in damp weather ensure it is dried prior to placing it back in its carry case. It is important to keep the carry case dry to prevent any ingress of moisture.

## 6. Laser Specification

Specification	
Operating Range	400m diameter with detector
Accuracy	±3mm/30m
Self –levelling range	± 5°
Rotation Speed	600 rpm
Laser	635nm Class 2
IP Rating	IP54
Power	4 x AA 1.5v Dry cell batteries
Working time	Approx 20 hours
Working temperature	-20°C - +45°C (-40°C - +70°C storage)
Unit weight	1.5kgs

