



**HEADLAMP ALIGNER
MODEL HLA2400
CALIBRATION MANUAL**

**TES1301/B
June 2005**

IMPORTANT

Every reasonable effort has been made to ensure that information within these Operating Instructions is correct at the time of release, but Crypton cannot accept responsibility for any errors that may occur.

The information in these Operating Instructions is subject to change without notice, and does not represent a commitment on the part of Crypton.

Service & Warranty

The reliability of this equipment is fully supported by Crypton. Please refer to the section titled 'After Sales Service' for full details.

Software Licence

Further to our general Terms & Conditions of Sale, the software described in these Operating Instructions is furnished under the following Software Licence Agreement:

1. Licence: You may use the program on the machine provided. You may not copy, duplicate or transmit the program in any form, in whole or in part, without the express prior written permission of Crypton.
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4. In no event will Crypton be liable to you for any incidental or consequential damages, including lost profits, business operation and the like, arising out of the use or inability to use this program

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INTRODUCTION

The Headlamp Aligner HLA2400 is designed to check the setting of main and/or dipped beams of cars, motorcycles and commercial vehicle headlamps.

This calibration procedure will allow the checking and adjustment of the aligner box on the pillar and positioning of the reference screen.

Details of site and equipment calibration are described for both installation and routine recalibration.

SAFETY

Read and fully understand these safety instructions before using the aligner or laser level

Do not allow unauthorised operators to use this equipment

Tests may be performed where vehicle are moving, only perform calibrations in a safe area.

DO NOT look directly into the laser beam and beware of reflections. The laser power is low enough not to cause any permanent damage but avoid excessive exposure.

Do not perform calibrations in direct sunlight .

INSTALLATION PROCEDURE

When first installed the site must be checked for level by the installer or builder and a level certificate completed as required by VOSA.

A copy of a suitable certificate blank will be found at the end of this manual.

Once the floor is verified for level, the rails are fitted and then a full calibration of the HLA2400 must be performed and a calibration certificate issued before the equipment can be used for legislative testing.

TEST EQUIPMENT - LASER LEVEL

The laser level used for calibration must be mounted on a stand at about 800 mm from the ground and have a UKAS calibration certificate that verifies its level setting to better than 0.5mm per metre.

Laser power must not exceed 1mW so that unit can be safely used without wearing protective goggles.

LOCATION OF LASER

Calibration should be performed with the laser positioned 3 metres from the aligner in the position normally occupied by the vehicle under test. This will ensure that the aligner lens and screen are correctly positioned in relation to local floor level.

CALIBRATION CHECKS & ADJUSTMENT

Track condition and box position

Before attempting the optical alignment checks, ensure the aligner is free to move on its rails and that the box set horizontal. Roll the unit fully left/right on its rails and check that the wheels run free and the tracks are undamaged.

Look into the top of the box and check the setting of the spirit level mounted inside. If this does not read exactly level then loosen the clamping bolt that holds the box onto the pillar and reposition the box until the correct horizontal reading is obtained. Lock up the clamping screw and recheck the setting after adjustment.

Now check the level of the rails by observing the spirit level inside the box as the aligner is moved. Position the aligner at one end of the travel and put the box about 1 metre above the floor level, check spirit level indicates a true horizontal. Carefully move the unit to the other end of the track while observing the spirit level. If the reading deviates significantly from the horizontal, the track is damaged and needs realigning.

SCREEN POSITION

Position the laser about 3 metres from the aligner lens as described above, switch on the beam and ensure the laser is set level.

Ensure the spirit level in the aligner box is indication exactly level.

Locate the aligner box at the correct vertical height so that the laser beam is positioned at the centre of the lens - move the body sideways so that the laser spot is coincident with the notch in the metalwork.

Move the whole aligner left/right until the beam is in the centre on the lens. This can be done by looking at the lens surface.

Look into the top of the box and observe the location of the laser spot. It should be in the centre of the screen. It may be necessary to rotate the pillar slightly to get the correct position left/right on the screen.

If the spot is not in the centre of the screen, carefully remove the top plastic window and loosen the screws that hold the screen in place. Move the screen until the spot is in the correct central location and check the

horizontal location of the screen by rotating the box. Do this by releasing the pillar lock and rotating the whole box. Ensure that the laser spot follows the horizontal centre line from left to right. If the spot does not coincide with this line then the screen is tilted, loosen the screens, reposition and check again until correct.

COMPLETION

Refit the top plastic window and recheck.

Switch off laser and repack level.

DOCUMENTATION

Copy the approval certificate blank at the end of this manual and fill in all details to provide a record of the calibration for the customer.

Fill in the standard 'Recalibration due' label with all the appropriate details: Calibration date, Recal date, Certificate No. and Equipment serial No.

Then apply label to unit - this will provide sufficient details to allow replacement certificates to be created, if required in the future, without the need to store copies.

RECALIBRATION DATE

The calibration must be repeated every 12 months if the unit is being used for MOT purposes.

CALIBRATION CERTIFICATE	
Issued by CRYPTON	
DATE OF ISSUE	CERTIFICATE No
.....	SPR

Page 1 of 1 pages.

CRYPTON

Bristol Road, Bridgwater, Somerset, TA6 4BX.

Tel: 01278 436200 Fax: 01278 450567

Approved Signatory	
Number	
Name (PRINT)	
Signature	

	Type of Unit.	Serial No.	Cal' Procedure
1	HLA2400		TES1301

The above unit meets the operational and calibration requirements of the calibration procedure stated, all instruments used in the calibration are traceable to national standards.

LOCATION DETAILS	
Name	
Address	
Postcode	
VTS No.	

2	Recalibration due before end	Signed
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(c) Copyright of this certificate is owned by CRYPTON, and may not be reproduced other than in full, except with the prior written approval of the Applications Director, or Managing Director

SITE CALIBRATION CERTIFICATE	
Issued by CRYPTON	
DATE OF ISSUE	CERTIFICATE No
.....	SPR

Headlamp Aligner Site level calibration certificate

LOCATION DETAILS	
Name	
Address	
Postcode	
VTS No.	

We hereby certify that the floor in the area of the Headlamp aligner has been checked for level in accordance with the VI requirements and is within the specified limits of +/- 2mm

Company: Address: Tel:	Approved Signatory	
	Number	
	Name (PRINT)	
	Signature	

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AFTER SALES SUPPORT & HELPLINES

SERVICE/REPAIRS

There are no user serviceable parts inside the CAS2 or DMM. If the unit requires attention or repair please return it to the address below, ensuring that you provide all information requested.

Service Centre
CRYPTON
Crypton Technology Business Park
Bristol Road
Bridgwater
SomersetTA6 4BX
Tel: 01278 436225
Fax: 01278 450567
Email: support@cryptontechnology.com

Please include the following:

- Name of person returning the unit
- Name, address and telephone number of garage/organisation
- Full description of the problem

The returned unit will be examined and the sender notified of the cost before any repair work is undertaken.

TECHNICAL INFORMATION

Crypton provide information and contracts covering:

- Fault code information
- Diagnostic information
- Car data
- Software support contracts & updates
- Accessories

AFTER SALES SERVICE

Apart from the routine maintenance and adjustments stipulated in this manual the equipment must not be tampered with in any way. All further servicing must be carried out only by an engineer from an Authorised Agent. Failure to observe these conditions will invalidate the Guarantee.

ON-SITE SERVICE / OVERHAUL / SPARE PARTS

If you require a Service Engineer to attend ON SITE, either due to an equipment fault, or for machine calibration, or if the equipment covered by this manual requires to be sent back for factory overhaul, or if you need spare parts, please contact our Product Support Helpline at the following number.

Tel: +44(0)1278 436225 Fax: +44(0)1278 450567

OVERSEAS

Service abroad is provided by the agent from whom your equipment was purchased.

FULLY COMPREHENSIVE AFTER-SALES SERVICE

Call Crypton Helpline for details of local service agents.
+44(0)1278 436225



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