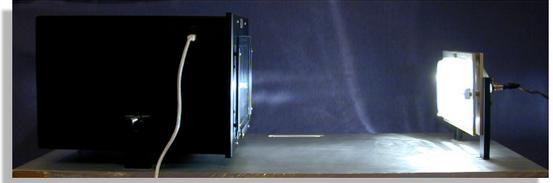# Osprey XT Headlamp Alignment System

The Osprey XT is the ultimate headlamp alignment system. Its multitude of user-centric features – user defined aim algorithms, user defined digital I/O, unlimited photo points and *more* – makes it very easy to use and very powerful.

THE SYSTEM

The system consists of a PC running the Microsoft Windows XP operating system, an aim head containing a high resolution color camera, an interface to external devices (such as PLCs) and a wireless keyboard with built-in mouse control. Since the system can be fully controlled using an external device, the keyboard can be kept stored away from the elements of the factory floor environment and only brought out for calibration and administration purposes. On the other hand, if an external controller is not used, the keyboard can be used to control the entire aim process. In addition, since the keyboard is wireless, it can be placed in a location that is most convenient to the aim station operator.

While the Osprey XT does support manual aim stations in which the station operator manually adjusts the lamps, it also supports fully automated electronic screwdriver control. Separate control is provided for horizontal and vertical adjustment. Furthermore, there are four control algorithms from which to choose to ensure that a proper alignment can be achieved in the shortest possible time.
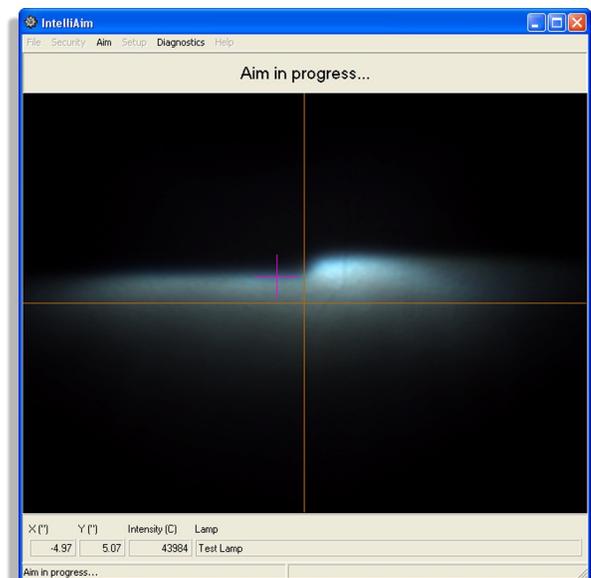
INTELLIAIM

IntelliAim intelligent headlamp alignment software is the control center of the Osprey XT headlamp alignment system. The main window clearly shows the status of the aim cycle along with a large beam pattern image. The main window can be set to any arbitrary size and the beam pattern image will always fill the entire center of the window. This provides maximum clarity to the aim station operator.

In addition to showing the aim cycle status, IntelliAim also controls the aim cycle and provides a means of configuring and calibrating the Osprey XT. There are numerous configuration options such as photo point color thresholds, aim algorithm parameters, aim thresholds and many more.

THE BEST CHOICE

With its many features, the Osprey XT is the ideal choice for all your headlamp alignment needs. It can be used to align lamps on a lamp manufacturing assembly line as well as on a vehicle manufacturing assembly line.

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A FEW OF THE MANY FEATURES	DESCRIPTION
Five built-in alignment methods	Each alignment method has user-defined parameters that allow it to be tweaked to the operator's exact preference.
Hot Zone	The aim point is the brightest portion of the beam pattern.
Visual/Optical	Vertical only visual/optical alignment.
Visual/Optical Plus™	Horizontal and vertical visual/optical alignment.
Fractional Zone	Traditional US low beam alignment.
Fog	For aiming fog lamps.
Custom alignment methods	Use the published development kit to create custom alignment algorithms. Typically the built-in alignment methods are sufficient, but if not, this feature guarantees there will never be a lamp that the Osprey XT cannot align. This development kit is available to all customers, but Dajac also provides custom algorithm creation services.
Photo points	Measure the intensity and color at any arbitrary point within the beam pattern. The alignment process can be setup to stop if any photo point is outside an acceptable intensity or color range. The acceptable ranges are user-defined and can be different for each photo point.
Lamp detection	Automatically detect, from the beam pattern, if the correct lamp is being aligned. This is very useful for lamps that are similar mechanically, but have different beam patterns. If the beam pattern is not correct, the alignment cycle will not proceed.
Alignment statistics	Data from each successful alignment is stored in a file. The file contents can be analyzed to extract alignment statistics.
Label printer support	Zebra label printers are supported. The ZPL II label definition is supplied by the user. This gives the user maximum control over the label content and layout.
Security	
Password protection	Users that need to modify the Osprey setup are given accounts with passwords.
User tracking	All modifications are logged for later review. This provides a trail to see who changed what and when they changed it.
Permission groups	Several permission groups exist (lamp setup, admin, misc. setup, etc.) and each user can be assigned to any number of them.
Electronic screwdriver control	Control two screwdrivers (horizontal and vertical) with any one of four built-in control algorithms. An auto reverse mode automatically reverses the screw rotation if it is detected to be moving the beam pattern in the wrong direction.
Control plug-in	Any arbitrary action can be defined by the user in a Microsoft Windows DLL. This DLL is then executed at specific points in the alignment cycle – before aim, after aim, etc.

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