Laselec offers a complete range of equipment comprising a display device, CAM software and removable cable holding suction pads in various formats suitable for all types of harness.

- Higher productivity
- Optimum quality
- Flexibility
- Shop floor layout optimization

EasyWiring is the ideal solution for production and prototyping of electrical harnesses. This interactive harness assembly board replaces paper plans with a dynamic display of electrical harness assembly instructions. EasyWiring guides the operator throughout the entire production process.

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**Higher Productivity**

- Streamlines the production of new harnesses
- Reduced training time for cable operators thanks to clear instructions
- Quick access to necessary information

**Optimum Quality**

- Repeatable assembly methods due to predefined steps
- Reduction of human errors thanks to step-by-step assistance and visual aids
- Optimal traceability
- Validation and control of the complete assembly process

**Flexibility**

- Fixture can be easily repositioned for any harness
- Scalable and modular system

**Optimization of the Workshop Area**

- Capability of assembling hundreds of different harnesses on one system
- No more wooden boards to store

---

**Display Unit**

The display screen is protected by a polycarbonate or a safety tempered glass layer on which wire support accessories can be attached. It comes in two different formats: 75" and 86".

**Display unit properties**

<table>
<thead>
<tr>
<th>Modules</th>
<th>75&quot; PRO display</th>
<th>86&quot; PRO display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions - 1 module</td>
<td>L = 1650 mm</td>
<td>L = 1892 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
<tr>
<td>Dimensions - 2 modules</td>
<td>L = 3333 mm</td>
<td>L = 3820 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
<tr>
<td>Dimensions - 3 modules</td>
<td>L = 5016 mm</td>
<td>L = 5748 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
<tr>
<td>Dimensions - 4 modules</td>
<td>L = 6699 mm</td>
<td>L = 7676 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
<tr>
<td>Dimensions - 5 modules</td>
<td>L = 8382 mm</td>
<td>L = 9604 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
<tr>
<td>Dimensions - 6 modules</td>
<td>L = 10065 mm</td>
<td>L = 11532 mm</td>
</tr>
<tr>
<td></td>
<td>H = 928 mm</td>
<td>H = 1060 mm</td>
</tr>
</tbody>
</table>

- Maximum resolution
  - 1 to 4 modules = 4 K
  - 5 to 6 modules = HD
- Electrical supply
  - AC 100 - 240 V, 50/60 Hz
- Typical consumption
  - 220 W
- Operating temperature
  - 0-40°C
- Certifications
  - Safety
  - EMC
  - Energy saving
- Warranty
  - 2 years

**Connecting Several Modules**

Several modules can be connected together to create a larger system.

Up to 6 screens can be connected for tables up to 10 meters in length for 75" screens and 11 meters for 86" screens.

**Formboard footprint**

EasyWiring board footprint depends on the number (N) of modules:

<table>
<thead>
<tr>
<th>Modules</th>
<th>75&quot; screen</th>
<th>86&quot; screen</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>N x 1682</td>
<td>N x 1932</td>
<td>mm</td>
</tr>
<tr>
<td>Height</td>
<td>1710</td>
<td>1800</td>
<td>mm</td>
</tr>
<tr>
<td>Width</td>
<td>880</td>
<td>900</td>
<td>mm</td>
</tr>
</tbody>
</table>

Note: above specifications may vary depending on supplier.
Cable support accessories

Laselec offers a variety of fixtures for supporting wires and cables on the assembly board.

A lever-controlled suction cup guarantees a firm hold, fast implementation and high configuration flexibility.

The suction cups can support a vertical breakout force of:
- 3 to 4 kg for a suction pad 36 mm in diameter
- 9 kg for a suction pad 55 mm in diameter

Note: Laselec provides a design service to produce specific accessories according to your needs.

Barcode reader

By connecting the barcode reader to the system, barcodes printed on the cable can be validated. The barcode accessory helps reduce production errors, control the assembly process and provides optimal traceability.

Motorized stand module

75” and 86”

The Easywiring modules can be provided with a motorized frame that allows the positioning of display units to be adjusted:
- The board can be moved up or down
- The board can be rotated from vertical to horizontal

The sliding tray is also available for the optional motorized version.

Standard stand module

75” and 86”

The stand features a removable sliding tray for tools and accessories, etc., plus a table top area that holds the mouse and keyboard.

Upper frame

75” and 86”

The display screen, complete with polycarbonate protection layer or tempered safety glass, is available with or without the frame.

Double stand module

75”

This frame can support one screen on each side and saves floor space on the shop floor.

Easywiring additional features

With the “Touch mode”, the operator only needs to touch the extremity of the wire to identify it and display routing and pinning information directly on the EasyWiring harness assembly board.

With the “Continuity test mode”, the operator can perform a continuity test on a single connector during the harness assembly process and correct any errors directly on the assembly board.

By connecting all connectors to the EasyTouch Test Unit, a final test is completed on the entire harness and a traceable test report is generated.

Easycontrol makes EasyWiring software control even easier.

No need to move in front of the table to use the mouse or keyboard: the operator controls the assembly board directly from the Blue-tooth wristband unit.

EasyControl

Control is even easier

EASYTOUCH

EASYCONTROL

ACCESSORIES

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Computer hardware

The interactive table is controlled by a PC which is supplied with the machine.

Minimum requirement:
- Windows 10
- Min 8 Gb of RAM
- Intel Core i5 or similar
- SSD Disk 250 GB
- Graphics card with 4 mini DVI outputs

Data protection: an optional RAID 1 configuration helps to protect the system against drive failure and data loss.

SOFTWARE

EasyWiring Light software

EasyWiring Light is a manufacturing software which displays wiring plans in digital format (DXF).

The operator simply selects the harness to produce from the list and it will be displayed on a scale of 1:1 on the screen.

EasyWiring Interactive software

This software is a development of the EasyWiring Light software. The main features that have been added are interactivity, step-by-step operator guidance and traceability.

It consists of a supervision/preparation license for software programming and an interactive manufacturing license for operators.

SUPERVISION LICENSE

The supervision station allows the software to be programmed before the electrical harness is produced.

This station is connected to a server which centralises all information flows from supervision stations, cabling tables or cabling stations.

The supervision station allows the working methods and engineering departments to access the following menus:

- Data library: contains features of the tools used in production, electrical elements and cable holding accessories.
- Harness preparation process:
  - Management of plans in DXF format
  - Adding information on the DXF plan
  - Adding instructions
  - Definition of production process sequencing
- Metrology and tool management
- Management of operators/skills
- Production planning

Options

- Data visualisation: production/statistical indicators
- Data visualisation: traceability, non-conformance investigation
- Exporting data: production/statistical indicators
- Exporting data: traceability/non-conformance investigation
- Generating an EasyProd production file (for Laselec laser cutting and marking machines)
**PRODUCTION LICENSE**

Intended for operators to assemble the harness on an interactive table or on a workbench for certain steps, this license includes a local supervision module and a manufacturing module for the operator.

The local supervision module contains the supervision license functions as well as the following:
- Configuration of the harness assembly board: managing the dimensions of the drawing and the borders of the module.
- Display verification and scaling to ensure a ratio of 1:1.
- Choice of background and foreground colours.

The production module for cable operators includes all stages of electrical harness production defined by the working methods and engineering departments:
- Accessory (suction pads) positioning
- Cable routing
- Installation of special accessories (frets, ducts, clamping collars, labels, etc.)
- Quality control
- Connector manufacture: wire stripping, crimping contacts, plugging of contacts into the connector.

**MAINTENANCE CONTRACT**

The software support contract (including software updates) allows optimal use of the EasyWiring software thanks to the support team advices. You can benefit from the latest features with a new software version (Interactive) every quarter. Customers on support contracts benefit from priority processing of their requests.

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**EasyWiring softwares**

<table>
<thead>
<tr>
<th>Option/Production license</th>
<th>EAW Light</th>
<th>EAW Interactive*</th>
<th>EAW Interactive Premium*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display the DXF Drawing scale 1:1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manufacturing guidance (manufacturing steps/validation)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Automatic change of the DXF</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Displaying manufacturing instructions documents</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Displaying DXF drawing layers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cable routing</td>
<td>Option</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Accessory (suction pads) positioning</td>
<td>Option</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pose cable ties</td>
<td>Option</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manufacturing guidance for connectors and extremities</td>
<td>Option</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Automatic validation by Timer</td>
<td>Option</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Requires supervision/preparation license

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Headquartered in Toulouse, France, Laselec develops laser solutions for stripping and marking wires as well as interactive assembly boards for wire harness manufacturing.

Laselec is one of the leading companies in the world for the development and production of serial production machines and customized solutions for laser wire processing. The company meets all significant international quality standards in the aerospace industry and counts renowned aircraft manufacturers among its customers.

Having strived to be at the forefront of innovation and quality, its unique expertise and experience allows Laselec to manufacture the most efficient equipment available, while providing customers with low maintenance and operating costs.

Laselec has been part of Komax since 2017. The two companies have been working successfully together on various projects since then. Thanks to this partnership, Laselec’s solutions have increasingly found their way into other markets, such as the automotive and railway industry.