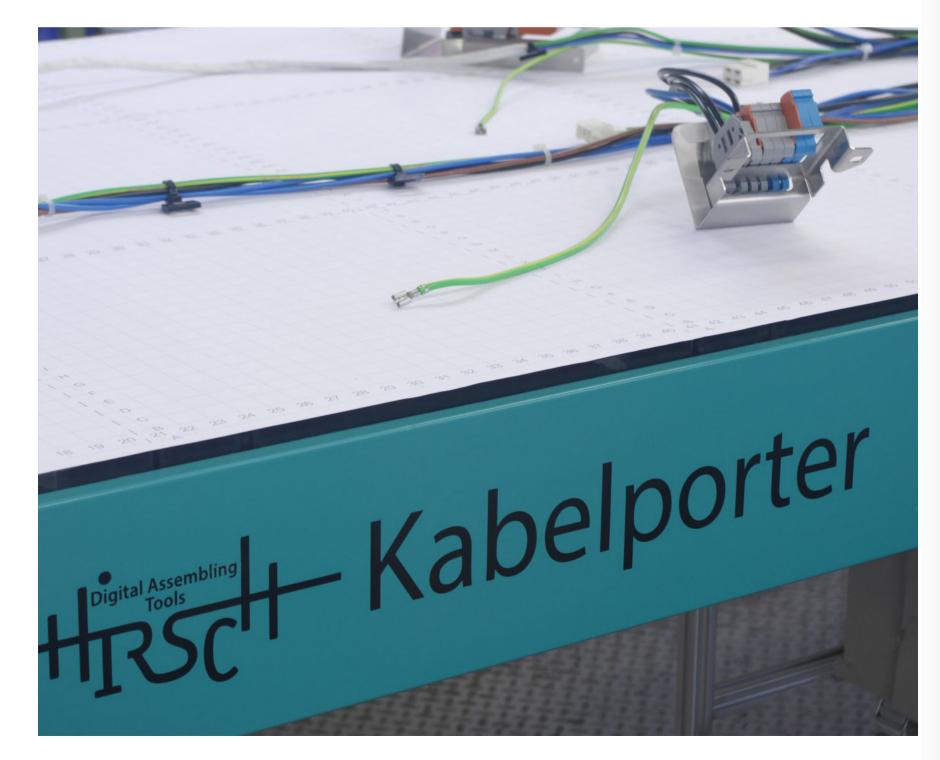




*** Kabelporter

Inhalt

Kabelporter – the efficient assembly board system	4
Devboard and Prodboard Assembly Boards	5
Devboard, flexible for quick setup	6
Setup for the pilot series	7
Production boards Prodboard	8
Prodboard, stable for long series production	9
Comparison of Devboard and Prodboard	10
Kabelporter Variants	11
Laser projection	12
Grid sheets	14



Kabelporter – the efficient assembly board system

Kabelporter is a stable basis for laying and binding wire harnesses.

The Kabelporter assembly board system is efficient for the full range from occasional small series to large series production in parallel on many assembly boards over many years at several production sites.

Kabelporter H is the system board for horizontal work.

Kabelporter V is for vertical and horizontal work. The assembly boards can be adjusted continuously from horizontal to 85°.

To suit the size of your wire harnesses, we supply Kabelporter in 3-foot or 5-foot increments with lengths from 3 feet = 915 mm to 9 feet = 8,235 mm.

Features:

- Covered cable routing of the measurement technology cables
- Connection of the cables from the laying boards on all four sides of the table
- Cable guide bracket
- Mounting frame for Kabelassistent
 W12 Controller and power supply unit
- Holder for emergency stop button under the assembly boards
- Fixed locking of the assembly boards
- Unlocking with one hand movement after removing the covers of the measuring equipment
- Electrical height adjustment via table columns
- Working height 780mm 1180mm

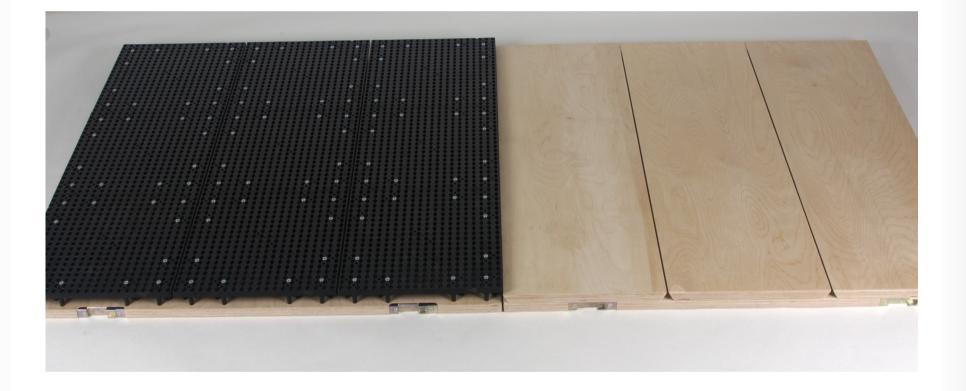


Devboard and Prodboard Assembly Boards

The system consists of an undertable with different assembly boards: Devboard and Prodboard.

Devboard and Prodboard have the same dimensions. Therefore, in the lifecycle of a wire harness, it is often not a question of which of the two is right, but rather which one fits best.

- Devboard, from Development Board, for quick assembly but with limited resilience
- Prodboard, Production Board, for the classic bolted construction, which requires more time, but forms the stable basis for years of production, even when the going gets rough.

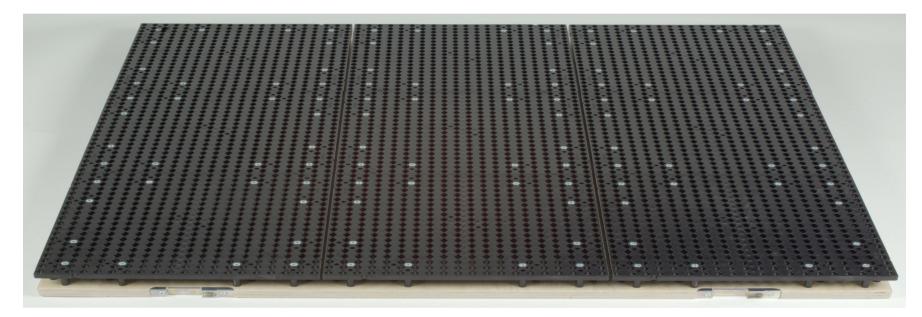


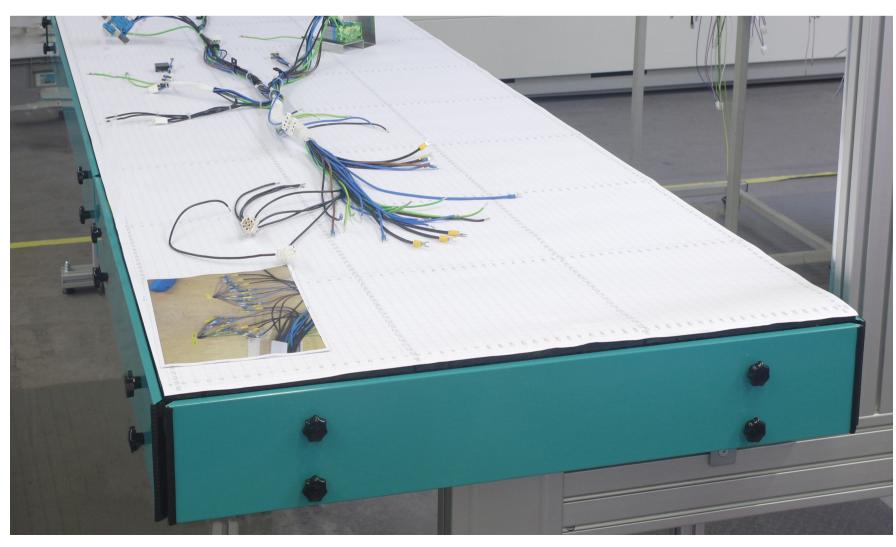


Devboard, flexible for quick setup

If you want to offer your customer the pilot series of a new product quickly and cost-effectively, the Devboard is ideal. Flexible assembly board for the shortest set-up times for frequently changing smaller series, suitable for Kabelporter H.

Item	Size	Devboard assembly boards	
1511-1033		Flexible assembly board for extremely short set-up times for frequently changing smaller series, 915 x 915 mm, 18 mm birch plywood, covered with Panduit® Quick-Build™, 2 grooves for measurement technology cables, 4 locks, suitable for Kabelporter H	
1511-1036		Flexible assembly board for extremely short set-up times for frequently changing smaller series, 915 x 1830 mm, 18 mm birch plywood, covered with Panduit® Quick-Build™, 5 grooves for measurement technology cables, 8 locks, suitable for cable porter H	





Setup for the pilot series

As soon as you have received the cutting list and the sample wiring harness from the customer, you start assembling the individual strands and setting up the Devboard at the same time.

To do this, equip the Kabelporter with the Devboards. Place a coordinate plot on the Devboards, on which you can easily sketch a laying plan later.

Lay out the sample wiring harness on the coordinate plot. Place the prepared measuring adapters and the guide elements on the Devboard through the coordinate paper. If something does not fit, you can easily reposition elements on the Devboard. Then connect the measuring adapters to the transfer modules of the measuring channels on the board using flat cables and connect free channels to each other using the next measuring adapter.

Once all the elements are arranged correctly, use a felt pen to write the name of the plugs or clamps and their connections to the transfer modules or to other measuring adapters by hand next to the measuring adapters. Also draw in the guide elements and cable ties. You can scan the resulting sketch of the laying plan or import it into a CAD drawing.

Once all the elements are arranged correctly, use a felt pen to write the names of the connectors or clamps and their connections to the transfer modules or other measuring adapters next to the measuring adapters. Also mark the guide elements and cable ties. You can scan the resulting sketch of the laying plan or import it into a CAD drawing. At the same time as setting it up on the assembly board, you can import the connection list into the Kabelassistent program.

As a final step, unplug the sample wiring harness from the mating connectors.

Open the wiring measurement page in the Kabelassistent. Now all you need to do is tap the mating connector contacts with a test probe in the suggested order. The Kabelassistent will then save the complete mating connector wiring on the assembly board with the measurement equipment.

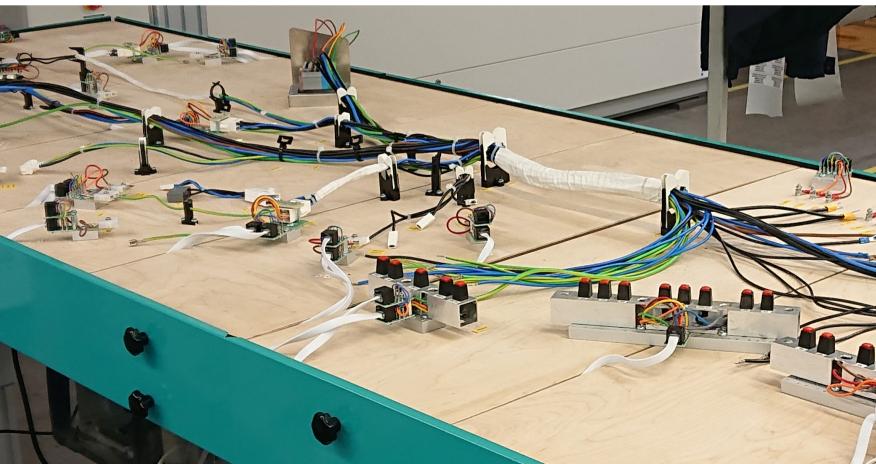
After measuring, start the laying in the Kabelassistent and reconnect the sample wiring harness. This step allows you to check whether the wiring of the sample wiring harness matches the connection list. This completes the assembly and you can start production of the pilot series.

Production boards Prodboard

For larger series, you need a robust Prodboard installation board. The external dimensions are identical to the Devboard, so you can copy the laying plan directly from the Devboard.

Item	Size	Prodboard assembly boards
1511-0033		Sturdy assembly board for large production quantities or heavy cables, 915 x 915 mm, 36 mm birch plywood, natural surface, 2 grooves for measuring technology cables, 4 locks, suitable for Kabelporter H
1511-0036		Sturdy assembly board for large production quantities or heavy cables, 915 x 1830 mm, 36 mm birch plywood, natural surface, 5 grooves for measuring technology cables, 8 locks, suitable for Kabelporter H





Prodboard, stable for long series production

For larger series, you need a robust installation board. We offer the Prodboard as a base. The external dimensions and cable slots are identical to the Devboard, so you can use the laying plan directly from the Devboard.

If you wrap the wire harnesses by hand, it is more practical if you mount the measuring adapters and the guide elements on spacer columns high enough for the rolls of wrapping material to fit through between the wire harness and the assembly board.

Depending on your requirements, you can unscrew the measuring adapters from the Panduit Quick-Build mounting plates and screw them to the Prodboard or you can build your own set of measuring adapters for production.

In this case, assembly with Kitconnect also saves you time compared to mounting mating connectors directly on the assembly board. You can have several employees assemble the set of measuring adapters at separate workstations at the same time without getting in each other's way.

You can also very quickly plug the cabling with the measurement technology back in as you had marked it on the laying plan.

To be able to quickly reconnect the assembly board after a change, label the ribbon cables of the measurement technology on the side of the transfer modules.

Comparison of Devboard and Prodboard

Version	Devboard	Prodboard
Covering	Panduit Quick-Build	Birch plywood 18 mm
Width	3 Fuß = 915 mm	3 Fuß = 915 mm
Length	3 feet = 915 mm 6 feet = 1830 mm 9 feet = 2745 mm 12 feet = 3660 mm	3 feet = 915 mm 6 feet = 1830 mm 9 feet = 2745 mm 12 feet = 3660 mm
Weight	16470 g	20270 g
Lock on Kabelporter table	yes	yes
Abstand Querschlitze für Messtechnik- Leitungen	300 mm	300 mm
Distance between cross slots for measurement technology cables	from above	from above
Advantages		
Time saving when assembling a new wiring harness	++	+
Tool-free setting up	++	-
Fast changeability	++	+
Complete reuse of all parts	++	++
Distance to the board for easy taping	++	0
Absorption of forces during laying and pinning	-	++
Service life	0	++
Material costs	0	+
Suitability for		
Small series	++	-
Pilot series	++	0
Years of series production	0	++
Temporary setup for production peaks	++	0
Spare parts production after end of series	++	0

Kabelporter Variants

Item	Kabelporter type	Number of table columns
1512-0206	Kabelporter H table for horizontal work with assembly boards 6 x 3 feet wide	with 2 table columns
1512-0209	Kabelporter H table for horizontal work with assembly boards 9×3 feet wide	with 2 table columns
1512-0409	Kabelporter H table for horizontal work with assembly boards 9×3 feet wide	with 4 table columns
1512-0212	Kabelporter H table for horizontal work with assembly boards 12 x 3 feet wide	with 2 table columns
1512-0312	Kabelporter H table for horizontal work with assembly boards 12 x 3 feet wide	with 3 table columns
1512-0421	Kabelporter H table for horizontal work with assembly boards 21 x 3 feet wide	with 4 table columns
1512-1206	Kabelporter V table for horizontal and vertical work with assembly boards 6 x 5 feet wide	with 2 table columns
1512-1209	Kabelporter V table for horizontal and vertical work with assembly boards 9 x 5 feet wide	with 2 table columns

At the touch of a button, your employees can adjust the height of the assembly board to a comfortable and variable working height. This increases the motivation and health of your employees. The height of the assembly board ranges from 780 mm to 1,180 mm.



In the working position, Kabelporter is stable on its feet. When you fully retract the feet, Kabelporter moves onto its transport legs and stands on smooth-running castors. You can now easily move it around and divide up your production area for optimum material flow.

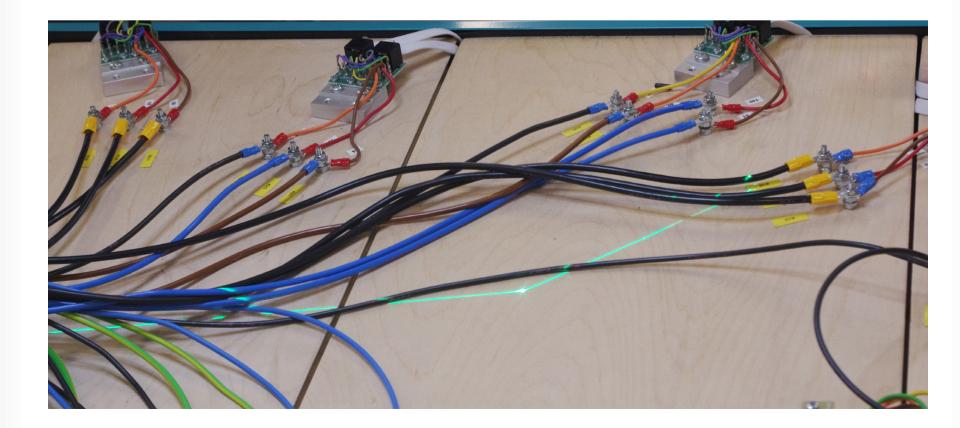


Laser projection

We supply projection systems as attachments to match the Kabelporter. We mount MediaLas ILP722 projectors with installed modules for red and green on the projection traverse. These projectors provide highly visible laying lines even under bright lighting on the assembly board. Not only on the smooth surface but also on already laid wires. This means that the Kabelassistent can give your employees clear instructions for the Install-By-Light and Connect-By-Light. Because the projection traverse is firmly screwed to the table frame of the Kabelporter, the scale remains constant when the employees change the working height of the assembly boards. Even when moving the Kabelporter, the projector always remains correctly aligned with the assembly board.

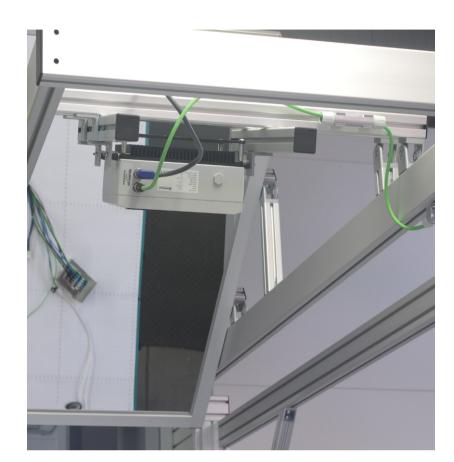
If the projection system is too high for the ceiling height or lighting strips in your production rooms, we offer a variant with projection via a mirror. We install special surface mirrors to prevent disturbing double images. The reflective surface is hard and therefore scratch-resistant. They are easy to clean. The back of the mirror is covered with a splinter protection film.

We equip projection systems from 12 feet with two projectors and two mirrors if the overall height must remain limited. The two projectors share the projection surface on the assembly board.



Laser projection shows your employees the path of the strands and also additional information such as cable ties on the assembly board.







Grid sheets

The grid sheet helps you to copy and archive assembly boards.

Ideally, you should place a grid sheet on the Devboard when you set up an assembly board for a new wiring harness for the first time.

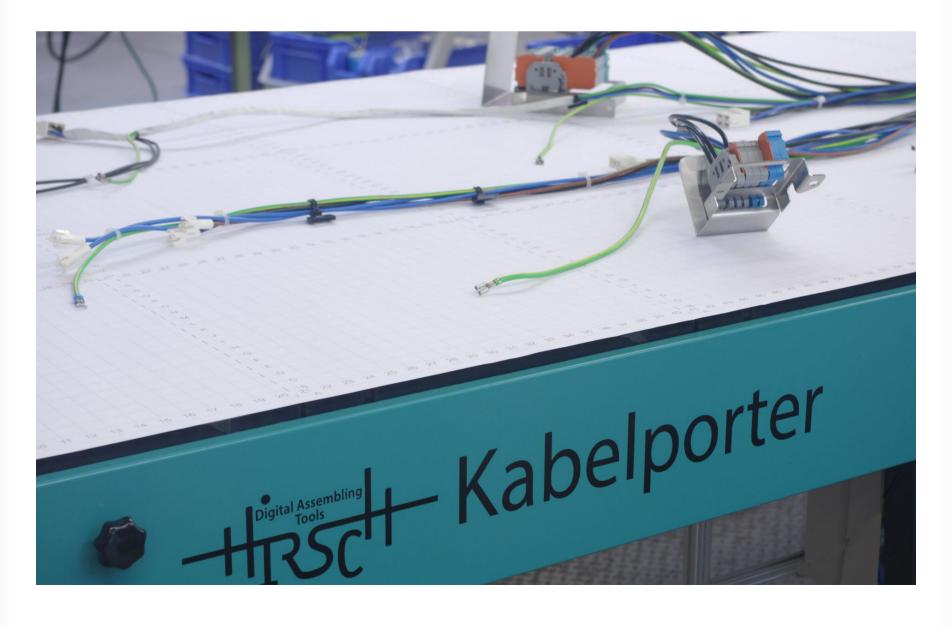
When setting up, mark the positions of all guide elements and mating connectors.

When you dismantle the assembly board on the Devboard, you can scan the grid sheet and then archive it, print it out or use it as the basis for a CAD drawing.

Even if you are assembling the first wiring harness directly on a Prodboard, it is advantageous to lay a laminated grid sheet beforehand.

This gives the assembly board a well-protected and easy-to-clean surface. To create a drawing, you can simply read off the position of the guide elements and mating connectors from the printed co-ordinates.

You can obtain ready-printed grid sheets from us or download them free of charge. You can either plot the downloaded grid sheets yourself or order printouts, possibly laminated, from a repro service, which will also scan grid sheets and print out edited copies for you.



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