

# Special JIGS

## Executive test solutions

For applications such as testing the connectors on car motors, the Special JIG Design & Engineering Department from Equip-Test can offer you the right solution.



**SPECIAL JIGS FOR CABLE TEST**  
**HEAVY DUTY JIGS**  
**ESD JIGS**  
**JIGS FOR TV-DVD-AUDIO**  
**STEERING WHEEL JIGS**

# Executive test solutions

We from the **Equip-Test Group** are committed to excellence in testing. By providing executive **Test Solutions for Automotive, Electronics, Military, IT, Medical** and other industries, our company has achieved a stabile growth. Our young team of engineers, sales people and technicians is ready to fulfil our customer's needs in testing. We always supply high-quality products to ensure customer satisfaction!

Our core competences include the supply of **Test Probes, ICT Test Fixtures, Functional Test Fixtures, Manual JIGS, Test Modules** and **Assembly Fixtures** - or the manufacturing of precise customized parts made of aluminium, steel or special plastics according to the drawings and specifications of our customers.

We satisfy the following needs within the test environment:

1. Spring-loaded Test Probes and Receptacles: Standard and customized solutions



2. Manual JIGS: Customized with Test Probes



3. In-Circuit Test Fixtures



4. Functional Test Fixtures



5. Mass-Interconnect Solutions



6. Solder Paste Inspection Systems (SPI)



7. Automatic Optical Inspection Systems (AOI)



8. In-Line X-Ray Machines



9. Manufacturing Defect Analyzer Systems: MDA, Analog ICT



10. MDA – ICT – FCT in one system



11. Digital ICT Test Systems



12. Modular Functional Test Systems



13. Environmental Test Chambers



14. Electro-dynamic Vibration Test Systems



15. Drop Testers



16. Electrically operated Lifts



17. PCB Racks / Magazines



18. ESD / Non ESD Quality Gloves



19. Wire Rolls



20. Wire Wrapping Guns / Tools



# JIGS

This brochure shows you our ability in regard to manually operated **JIGS**. All the products used for testing that are shown in this catalog are designed and manufactured by Equip-Test!

In order to test different connectors on **Powertrain Products, PC-Boards, Cable Harnesses, Home Entertainment Products, White Goods** or other products, our team of engineers will design a user-friendly, high-quality and precise **JIG** for your needs!

The life-expectancy of a **JIG** during the test is much longer than when using standard connectors or their counterparts. Furthermore it is easy to repair and maintain should it be necessary to exchange individual parts such as Test Probes and Receptacles etc. or add or repair wire connections. For our **JIGS** we always use the most suitable **Test Probes**, which are then assembled precisely to match up to the contacts of the connectors and subsequently ensure reliable contacting and a good test. Our CNC machining shop is equipped with high-precision manufacturing and measuring machines to enable us to deliver high-quality **JIGS** to competitive prices and with short delivery times. Because the majority of our engineers and technicians are under 35 this ensures long-term stability and continuous support!

Equip-Test JIG's are mainly used in the industries listed below. This brochure groups the six different application areas as well as also presenting sections for **Spare Parts** and **Tools** as follows:

...AUTOMOTIVE

...HOME ENTERTAINMENT / TELECOMMUNICATION

...WHITE GOODS

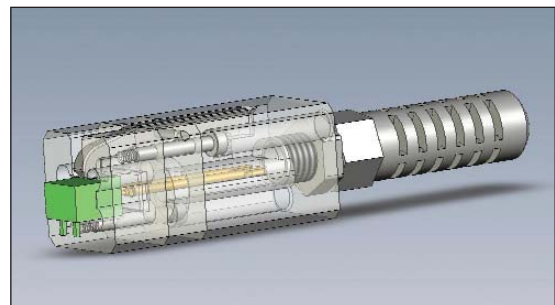
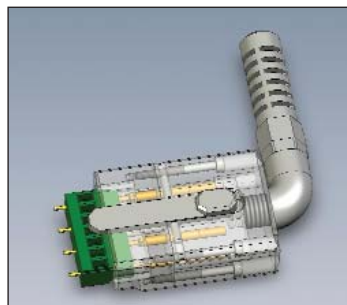
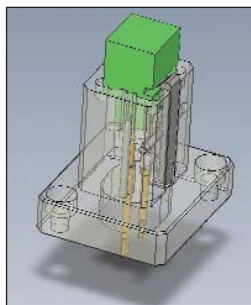
...COMPUTER / SERVER / WINCHESTER

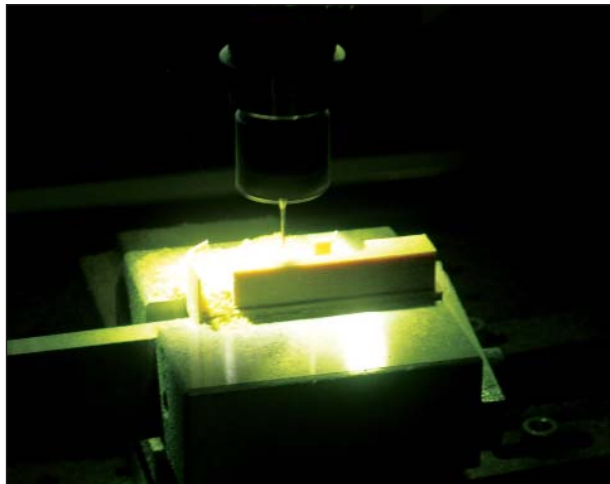
...OTHER

...CABLE – HARNESS MODULES

...TOOLS / SPARE PARTS

Should you have a need for the products we have in our catalog then don't hesitate to contact us under: [info@equip-test.com](mailto:info@equip-test.com)  
We will supply you with an excellent manually or pneumatically operated **JIG** to exactly meet your needs - and this to a competitive price!





# General Information

The following section highlights what information and data are needed to generate a quotation for our JIGS and Modules as well as describing the Workflow

## Necessary Data to generate a Quotation:

- ...Picture of the target product, which confirms the work place
- ...Picture of the part(s) which is/are in the Connector of the product
- ...Picture of the Connector, which clearly defines those contact terminals that need to be contacted/tested
- ...Confirmation of the Amps and Hz that must be measured with the **JIG**
- ...Confirmation of the length of the wire(s) required
- ...Confirmation should an interface need to be assembled to the other end. If so: please describe!
- ...Confirmation of the quantity of **JIGS** to be quoted.

## Necessary items to manufacture the JIG:

- ...CAD Drawings of Connector
- ...Sample Connector
- ...Test Specification

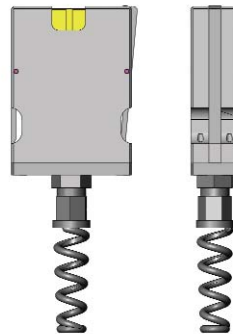
## Workflow with pictures:

- 1...Connector or Module, which is to be contacted/tested!
- 2...3D model designed by us, and which will be provided to customer prior to the order
- 3...Technical Drawing(s)
- 4...Machining of the **JIG**
- 5...**JIG** prior to implementation of the Test Probes
- 6...**JIG** after implementation of the Test Probes
- 7...**JIG** after wiring
- 8...Testing the product with the **JIG**

1.

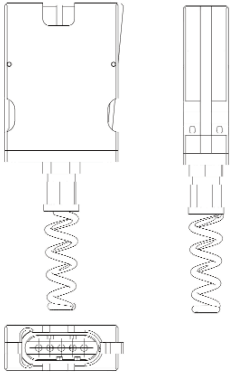


2.

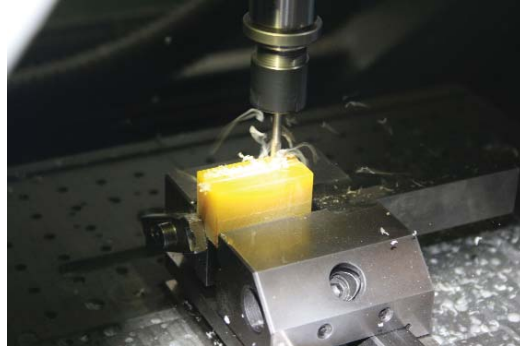




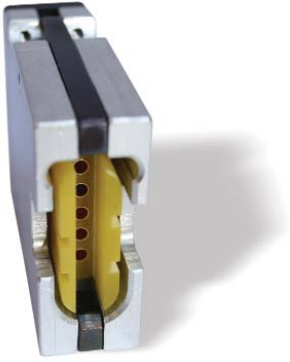
3.



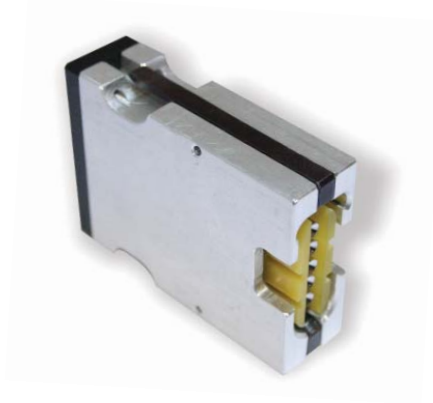
4.



5.



6.



7.



8.



# Automotive JIGS

The **JIGS** used in this section are mainly used in the production of engines, clutches, steering wheels, pumps, mirrors, lights, air conditioners etc. The purpose of their usage is to connect the connectors of these products via our **JIGS** and subsequently to make the necessary tests.

Our engineers always design the best possible **JIG** according to the local circumstances. Because the production environment is often not so clean, these products are made of materials, which are especially resistant to dust, grease, oil or other contaminants.

Note the following applications:

**JIGS for Engine Test**

**JIGS for Powertrain**

**JIGS for Air Conditioning**

**JIGS for Fuel Pumps**

**JIGS for Mirrors**

**JIGS for Lights**

**JIGS for Steering Wheels**

**JIGS for Seats**

JIGS for Engine Test



JIGS for Powertrain



- ✓ Test and Measurement
- ✓ ESD Solutions
- ✓ Cleanroom Products
- ✓ Soldering Equipment

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**JIGS for Fuel Pumps**



**JIGS for Lights**



**JIGS for Steering Wheels**



**JIGS for Seats**



**JIGS for Air Conditioning**



**JIGS for Mirrors**



# JIGS for testing Home Entertainment & Telecommunication Products

In the case of the need to make frequent contact to audio/video connectors such as **Cinch**, **Scart**, **USB**, **Antennas**, **Power Sockets**, **F-Connectors** and **PCIMCIA Slots** for devices such as **TV-sets**, **DVDs**, **Tuners**, **Decoders** and other **Home Audio Systems** etc. we can offer **Special JIGS** for single or simultaneous contact of a number of connectors.

We assemble special custom-designed **Test Probes**, which are precisely fitted to ensure exact and reliable contact. Depending on the demand, the **Test Probes** also have **Radio-frequency** capabilities.

The life-expectancy of a **JIG** during the test is much longer than when using standard connectors or their counterparts. Furthermore the **JIGS** are easy to repair and maintain should it be necessary to exchange individual parts such as **Test Probes** and **Receptacles** etc. or add or repair wire connections

Cinch test probe A



Cinch test probe B with receptacles



Scart JIG



Hand **JIG** for TV testing



**JIGS** for audio systems testing



Connecting **JIG** with fixture frame



# JIGS for white goods

Washing machines, microwave ovens, fridges and dishwashers etc. all have very similar types of connectors. These connectors are usually tested with counterparts, which are not durable and do not ensure safe and reliable testing. The simple reason being that the counterparts of connectors are produced for one-time assembly and remain like that for a long time. Perhaps disassembly happens once or twice in a life-time – for servicing etc.

The design of our **JIGS** for these types of connectors can be screwed onto the assembly table of these cable harnesses to enable a perfect test to be carried out – and this with the appropriate Test Probes chosen by our engineers for the best test results!

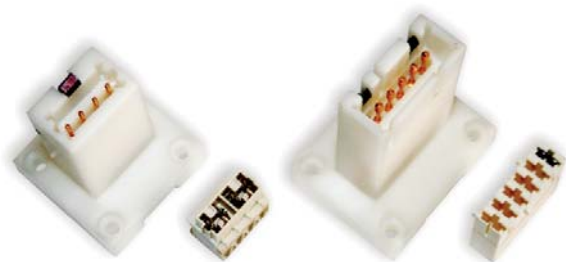
Here we test the continuity of cables with high amps and high voltage as well as the presence of the contact terminals inside the connectors.

Send your requirement **JIGS** to us, to enable improvement of your product quality!

## JIG for white goods testing



## JIG for white goods testing with connectors of washing machine



JIG for testing fine pitch connector with flat cable



JIGS for fridge testing



JIG with tooling pin



- Test and Measurement
- ESD Solutions
- Cleanroom Products
- Soldering Equipment

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# JIGS for other industries

Because different kinds of requirements come from different kinds of industries, **Equip-Test** can provide references to design and manufacture **JIGS** for the **Medical, Aircraft, Aerospace, Train** and **Military Industries**.

Laboratories have special requirements for **JIGS** used under extreme temperature and climate conditions.

We are able to provide special **JIGS** for the temperature range of  $-100^{\circ}\text{C}$  up to  $+200^{\circ}\text{C}$  **JIGS** – for usage in outdoor areas or in environmental test chambers etc..

**Equip-Test** has collected experience both in the field of testing and charging batteries used in mobile phones and other portable devices as well as in manufacturing **JIGS** for repair stations of mobile phones or other telecommunication devices.

**JIG** with connector in train industry



**JIG** for military





Aircraft application



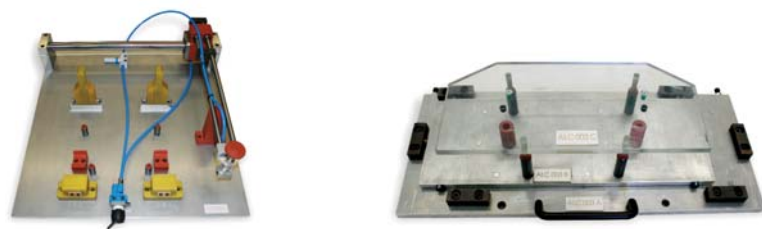
Testing connector on PCB



Special applications



Assembly JIGS



# Cable Harness Modules

The **Cable Harness Industry** is one of the key industry areas of **Equip-Test**, within which we have meanwhile built up a substantial amount of experience and expertise.

We focus on supplying high-quality **Modules** for testing the connectors on the harnesses and this at a competitive price. On the basis of our experience in this industry our customers can expect to be supplied with high-quality **Module Parts**, **Complete Modules**, **Test Probes** and **Accessories!**

Depending on the customer demands, we can supply modules made of plastic, glass-reinforced plastic, wood, aluminium or other base-materials.

The standard module sizes are 100 x 100mm or 50 x 100mm, but on customer request we can also design and manufacture customized sizes.

**Equip-Test** also supplies **Zero-Force Modules**, which are the perfect solution by large **Cable Harnesses** and ensure safe and fast replacement of wires and cables in a mass production environment.

We provide ergonomic and high-quality **Module Solutions** for the following main areas in the **Cable-Harness Testing Industry**:

- ...Clip-Test
- ...Push-back Test (zero force)
- ...Sealing and Continuity Test
- ...Short-Circuit and Push-back Test
- ...Colour & Code Identification Test
- ...Presence & Shape Test of Components and Pins
- ...Switch status and condition Test
- ...Module Parts and Release switch

Clip-Test



Push-back Module (zero force)



Sealing and Continuity Test



Short-Circuit and Push-back Test



Presence & Shape Test of Components and Pins



Module Parts and Release switch



- ✔ Test and Measurement
- ✔ ESD Solutions
- ✔ Cleanroom Products
- ✔ Soldering Equipment

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# Tools / Spare Parts

## Test Probes

Tooling Pins / Release Levers / Springs

Test Probe Insertion / Extraction Tools

Receptacle Insertion / Extraction Tools

Wire-Wrapping Tools

Cable Binders / Cable Sockets

Wires

Interface Connectors

Special Tools on customer request

## Test Probes



## Tooling Pins / Release Levers / Springs



## Test Probe Insertion / Extraction Tools



Receptacle Insertion / Extraction Tools



Wire-Wrapping Tools



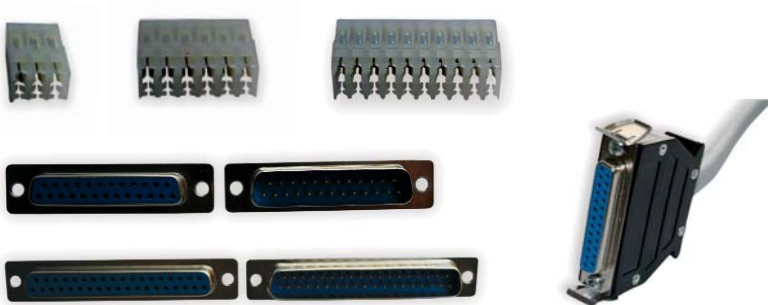
Cable Binders / Cable Sockets



Wires



Interface Connectors



Special Tools on customer request



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