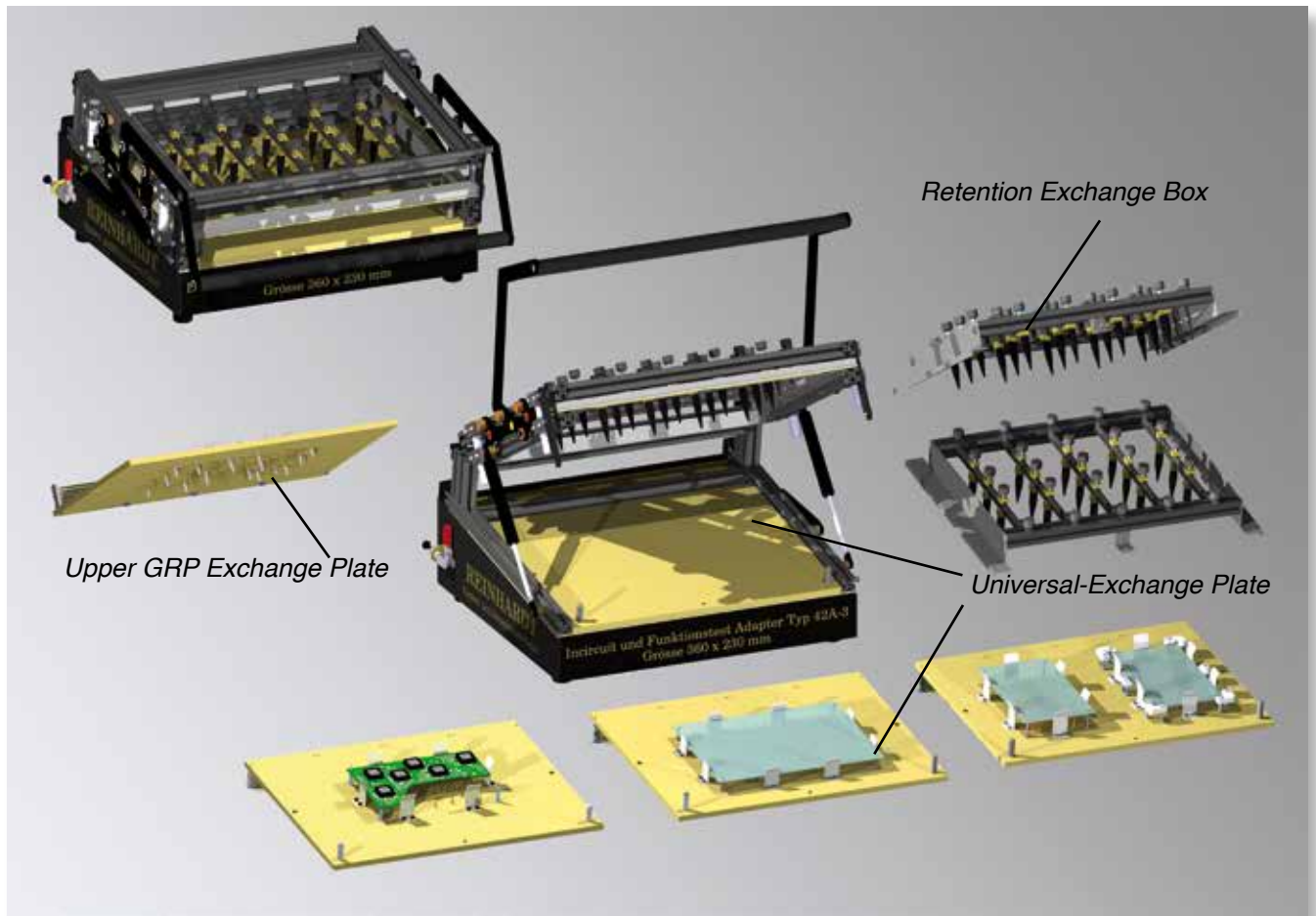


# REINHARDT

## System- und Messelectronic GmbH

### Accessories and Spare Parts for REINHARDT-Test Fixtures



#### Type 42 Manual Fixture

Manual retention fixture with sloping working area, 4 linear guidings and hinged upper part (machine part), for more than 1,000 spring contact pins at up to 2,000 N pressure force, exchangeable retention box incl. 15 retention pins mounted to 5 receiver rails, and exchange plate

The lower universal exchange plate is only inserted; the upper exchange plate can easily be exchanged for another GFK exchange plate or for a retention box for polarity or IC-polarity test. The complete retention unit can be opened so that there is optimum access to the exchange box from below.

#### Technical Data:

Shift: 26 mm

Working area: 360 x 230 mm

Overall dimensions of the universal exchange plate GFK 380 x 297 x 8 mm

Overall dimensions of the upper plate SMT Version 3.0: 380 x 297 x 8 mm

Maximum component height: with retention box 45 mm without pocket  
with upper plate: 15 mm without pocket

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Type 40A Pneumatic Fixture (Machine part)** – Type 40A desk fixture with sloping working area, for a maximum 1,000 standard spring contact pins (about 2,000 N pressure force), with power supply, two-stage retention (In-circuit and Function test), exchangeable retention box incl. 15 retention pins mounted to 5 receiver rails, freely adjustable pneumatic retention device and exchange plate

**Technical Data:**

Shift: In-circuit test: 20 mm, Functional test 13 mm

Compressed air, not lubricated, 6 bar, 5 Micron

Working area: 360 x 230 mm;

Overall dimensions of the universal exchange plate GFK: 380 x 297 x 8 mm

Overall dimensions of the upper plate SMT Version 3.0: 380 x 297 x 8 mm

Maximum component height: with retention box 45 mm without pocket  
with upper plate: 15 mm without pocket



**Type 52L Manual Test Fixture** for large PCBs – This fixture was designed for an ATS-KMFT 670 with expansion rack and max. 2,000 N. Because of its working area 670 x 462 mm it can be used for very large PCBs such as e. g. backplanes. The exchange plate is contacted in up to 3 rows of 7 connectors each so that up to 1,344 connections to the basic fixture are possible by one plug-in procedure. On the rear, there is the SR18VG REINHARDT-interface for up to 2 x 18 multi-way connectors (64-way).

**Technical Data:**

Working area: 670 x 462 mm

Overall dimensions of the plate 699 x 529 x 8 mm



**Type 82C Manueller Desk Fixture** – This manual desk fixture with sloping working area is designed for an ATS-KMFT 670 with expansion rack. This fixture with 4 linear guidings is used for max. 2,000 N. The upper part can be opened. On the rear there are up to two (optional) REINHARDT-SR18VG-interfaces for up to 2 x 18 multi-way connectors. The exchange retention box comes with 18 retention pins which are mounted to 6 receiver profiles. Working area of the exchange plate is 480 x 320 mm.

**Technical Data:**

Working area: 480 x 320 mm

Maximum component height: with retention box 45 mm without pocket  
with upper exchange plate 15 mm without pocket



**Type 62L Manual Fixture** – This fixture has a horizontal working area and was developed for an ATS-KMFT 670 with expansion rack. The fixture with 4 linear guidings is used for max. 2,000 N. On the rear there are two REINHARDT-interfaces SR18VG for up to 2 x 18 multi-way connectors. The exchange retention box comes with 15 retention pins which are mounted to 5 receiver profiles.

**Technical Data:**

Working area: 360 x 230 mm

Maximum component height: with retention box 45 mm without pocket  
with upper exchange plate 15 mm without pocket

Shift: 26 mm

# Accessories and Spare Parts for REINHARDT-Test Fixtures



## **Type 100B Manual Fixture**

With 95x95 mm working area and overall dimensions of 230x130x145 mm, this is our smallest fixture. It is designed for small test items with up to 300 spring contact pins at up to 600 N pressure force and comes with 6 bow retention devices. A 64way connector on the rear is used as interface.

### Technical Data:

Maximum component height:   with retention box 34 mm without pocket  
  with upper plate: 15 mm without pocket



**Type 127 Manual Fixture** with horizontal working area and 4 linear guidings for max. 500 contact pins with up to 1,000 N pressure force, working area 191.5x172 mm, overall dimensions 217.6x230 mm, with lower exchange plate incl. 2 96way interchange connectors (max. 8), retention exchange box with 4 rails and 12 retention pins

### Technical Data:

Working area 191.5x172 mm  
Overall dimensions of the plate 217.6x230x8 mm  
Maximum component height:   with retention box 45 mm without pocket  
  with upper plate 15 mm without pocket



**Type 147 Manual Retention Fixture** with horizontal working area and 4 linear guidings, for max. 800 spring contact pins with up to 1,600 N pressure force, with exchange plate incl. 4 96way interchange connectors (max. 8), retention exchange box with 5 receiver rails and 15 retention pins

### Technical Data:

Working area 360x230 mm  
Overall dimensions of the universal exchange plate GFK 380x297x8 mm  
Maximum component height:   with retention box 45 mm without pocket  
  with upper plate 15 mm without pocket



**Type 242 Manual Retention Fixture** for max. 1,000 contact pins with up to 2000 N pressure force; retention box incl. 15 retention pins mounted to 5 receiver rails, exchange plate; 18VG-interface for max. 18 connectors, 4 64way connectors incl. interface angle

### Technical Data:

Working area 360x230 mm  
Overall dimensions of the plate 380x297x8 mm  
Maximum component height:   with retention box 45 mm without pocket  
  with upper plate 15 mm without pocket



**Desk Fixture Box**, incl. 4 connectors  
for KMFT 470/670 system family

**Desk Fixture Box 127**, horizontal working area, with lower exchange plate, overall dimensions 217.6x230 mm, incl. 2 96way interchange connectors  
for ATS-UKMFT 627

**Desk Fixture Box 147**, horizontal working area, with lower exchange plate, overall dimensions 380x297x8 mm; incl. 4 96way interchange connectors  
for ATS-UKMFT 627

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Interface Box 85 mm** Universal interface box 85 mm deep, incl. 4 male multiway connectors and 8 female multiway connectors (64pol., top), one side REINHARDT-interface 18 VG; the aluminium plate on the opposite side accommodates special connectors of the customer for system family ATS-ICT 450, ATS-KMFT 470, ATS-KMFT 670, ATS-MFT 500 and ATS-MFT 480

Front



**Interface Box 165 mm deep**, incl. 4 male multiway connectors and 8 female multiway connectors (64pol., top), one side REINHARDT-interface 18 VG, opposite side aluminium plate for system family ATS-ICT 450, ATS-KMFT 470, ATS-KMFT 670, ATS-MFT 500 and ATS-MFT 480

Rear



**Converter and Ranging Box 85 mm** with interface on both sides, incl. 8 male connectors and 16 female connectors, 8 of them are on top of the unit (64pol.) for connecting a REINHARDT-universal fixture for ATS-ICT 450, ATS-MFT 500 or ATS-MFT 480 to ATS-KMFT 670

Front



**Converter and Ranging Box 165 mm**, ca. 165 mm deep, with interface on both sides, incl. 8 male connectors and 16 female connectors, 8 of them are on top of the unit (96pol.) for connecting a REINHARDT-universal fixture for ATS-ICT 450, ATS-MFT 500 or ATS-MFT 480 to ATS-KMFT 670

Rear



**Type 41 Fixture Box** for function test for ranging test system pins to the various types of test items, with 4 male connectors (test system side) and 8 female connectors (64pol.), ranging module equipped with 4 connectors, swivel mechanism for holding the test item, not wired for system family ATS-KMFT 470/670, MFT 480 and MFT 500



**Ranging Module 41** Ranging module for fixture type 41, Interface Box and Converter and Ranging Box incl. 4 connectors



# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Electric Circle Marker** The electric circle marker engraves a circle of 2 mm diameter into the PCB. It requires 6–12 VDC for control. With a fixing angle the circle marker can be secured at the retention exchange box for REINHARDT-fixtures.



**AKK 4.0 Pneumatic Cable Clamp** with 24 VDC magnetic valve, cable cross sectional area 0.14 mm<sup>2</sup> to 4 mm<sup>2</sup>, compressed air 6 bar, dimensions without magnetic valve: 14 mm wide, 27 mm high, 57 mm long, ca. 250 mm compressed air hose, 4 mm diameter, and connector plug Festo KS-1/4-S



**Pneumatic Actuator 15 N with Pressure Regulator** Pneumatic actuator 15–20 N with 10 mm shift and 3/2 way valve, 24 V, incl. supply connector, 500 mm compressed air hose, compressed air 6 bar, pressure regulator and connector plug Festo KS-1/4-S, incl. fixing angle for securing it at the retention exchange box for REINHARDT-fixtures



**Electronic Actuator M12** for operating keys and switches with 12.7 mm shift (programmable in 180 steps), compression force 6 N, I<sup>2</sup>C-Bus controlled; connection pins 5V, SCL, SDA, MCLR and GND, codeable addresses: 48, 50, 52, 54; for mounting into the test fixture



**DrehgeberMod** Electronic rotation unit for potentiometers, switches, rotary position transducers etc. 400 steps per rotation with reference position, resolution per step 0,9 °, holding torque 15 N/cm, control via I<sup>2</sup>C-Bus, supply voltage 5 VDC, max. 1 A; for mounting into the test fixture



**Pneumatic Contact Pin** for mounting into the fixture, outer diameter without receptacle 3 mm, 5.5 mm in state of rest, working height 12 mm, incl. clamp socket with soldering terminal and push-on receptacle, without magnetic valve, no compressed air feed, max. operating pressure 6 bar



**Spring Switch Contact Pin** – an extra receptacle is not necessary, outer diameter 2.35 mm

# Accessories and Spare Parts for REINHARDT-Test Fixtures

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50 pcs high-quality spring contacts **100 mil tip**, 2N, already in wire wrap receptacles, oriented in one direction in a plastic box, for fast loading of the feeder

50 pcs high-quality spring contacts **100 mil crown**, 2N, already in wire wrap receptacles, oriented in one direction in a plastic box, for fast loading of the feeder



50 pcs high-quality spring contacts **75 mil tip**, 2N, already in wire wrap receptacles, oriented in one direction in a plastic box, for fast loading of the feeder

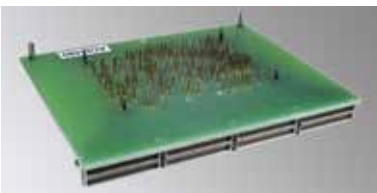
50 pcs high-quality spring contacts **75 mil crown**, 2N, already in wire wrap receptacles, oriented in one direction in a plastic box, for fast loading of the feeder



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**Exchange Fixture Plate GRP Yellow** for universal fixture, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors type R, with 5 connector fastener blocks Vers. 2 and fittings. The exchange plate can hold test pins (up to 300) and connectors.

For exchange plate fixtures Type 10, Type 15-p, Type 30, Type 32, Type 42, Type 42A, Type 45A, Type 145B, Type 46D and Type 6



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**Exchange Fixture Plate GRP Green** for universal fixture, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors type R, with 5 connector fastener blocks Vers. 2 and fittings. The exchange plate can hold more than 300 test pins and connectors.

For exchange plate fixtures Type 10, Type 15-p, Type 30, Type 32, Type 42, Type 42A, Type 45A, Type 145B, Type 46D and Type 62



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**Exchange Fixture Plate GRP 82 green** for fixture Type 82C, working area 480x320 mm, overall dimensions of the plate 500x400x8 mm, incl. 4 connectors type R with 5 connector fastener blocks Vers. 2 and fittings. The exchange plate can hold more than 300 test pins and connectors.

For exchange plate fixture Type 82C



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**Exchange Fixture Plate 147 GRP Yellow** for fixture Type 147, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors and fittings. The exchange plate can hold test pins (up to 300) and connectors, incl. acrylic needle cover.

**Exchange Fixture Plate 147, GRP green**, for fixture Type 147, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors and fittings. The exchange plate can hold test pins (more than 300) and connectors, incl. acrylic needle cover

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Exchange Fixture Plate 242, GRP Yellow**, for fixture Type 242, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors and fittings. The exchange plate can hold test pins (up to 300) and connectors, incl. acrylic needle cover.

**Exchange Fixture Plate 242, GRP Green**, for fixture Type 242, working area 360x230 mm, overall dimensions of the plate 380x297x8 mm, incl. 4 connectors and fittings. The exchange plate can hold test pins (more than 300) and connectors, incl. acrylic needle cover.



**Exchange Fixture Plate 52 GRP Green** for fixture Type 52, working area 670x462 mm, overall dimensions of the plate 699x529x8 mm, incl. 4 connectors and fittings. The exchange plate can hold spring contact pins and connectors. for fixtures Type 52 and 52L



**Exchange Fixture Plate GRP 25/125/127** – Exchange plate GRP (yellow) for fixtures Type 25, 125, 127 and ATS-UKMFT 625/627, working area 191.5x172 mm, overall dimensions of the plate 217.6x230x8 mm, incl. 2 connectors and fittings. The exchange plate can hold spring contact pins and connectors.



**Exchange Fixture Plate GFK 105** –Exchange plate GRP (yellow) for fixture Type 105, working area 100x172 mm, overall dimensions of the plate 119x230x8 mm, incl. one 64pole connector. The exchange plate can hold spring contact pins (max. 200) and connectors.

**Exchange Fixture Plate GFK 100** – Exchange plate GRP (yellow) for fixture Type 100, working area 95x95 mm, overall dimensions of the plate 104x134x8 mm, incl. one 64pole connector. The exchange plate can hold spring contact pins (max. 200) and connectors. (no picture)

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Upper Plate SMT Yellow V 3.0** (Picture on the left) GRP exchange plate for probes for unsoldered pins and/or polarity probes and for up to 300 spring contact pins, incl. 12 pcs plastic retention screws M4 x 40 mm and 2 collecting bolts, for Type 40A, Type 42A, Type 45A, Type 145B-2 and Type 62, overall dimensions 380x297 mm

**Upper Plate SMT Yellow for Fixture Type 147** GRP exchange plate for probes for unsoldered pins and/or polarity probes and for up to 300 spring contact pins, incl. 12 pcs plastic retention screws M4 x 40 mm, 2 collecting bolts, overall dimensions 380x297 mm **(no picture)**



**Upper Plate SMT 82** GRP exchange plate (green) for fixture type 82 for probes for unsoldered pins and/or polarity probes and for more than 300 spring contact pins, incl. 30 pcs plastic retention screws M4 x 40 mm, 2 collecting bolts, overall dimensions 500 x 400 mm

**Upper Plate SMT GRP green V 3.0** (Picture left) for probes for unsoldered pins and/or polarity probes and for more than 300 spring contact pins, for Type 40A, Type 42A, Type 42B and Type 62, overall dimensions 380 x 297 x 8 mm

**Upper Plate SMT GRP green for Fixture Type 147** for probes for unsoldered pins and/or polarity probes and for more than 300 spring contact pins, incl. 12 pieces plastic retention screws M4 x 40 mm, 2 collecting bolts, overall dimensions 380 x 297 mm **(no picture)**



**Upper Exchange Plate 52 SMT, V 1.0** for Type 52 and Type 52L, for probes for unsoldered pins and/or polarity probes, overall dimensions 699x489x8 mm



**Upper Exchange Plate 25 SMT** (GRP, yellow) for probes for unsoldered pins and/or polarity probes, for fixture Type 25, incl. 12 pieces plastic retention screws M4 x 40 mm, overall dimensions 217.6x230x8 mm **(no picture)**

**Upper Exchange Plate 125 SMT (picture on the left)** for probes for unsoldered pins and/or polarity probes for fixture Type 125, Type 127 and ATS-UKMFT 625/627, incl. 12 pieces plastic retention screws M4 x 40, overall dimensions 217.6x230x8 mm



**Upper Exchange plate 105 SMT** for probes for unsoldered pins and/or polarity probes for fixture Type 105, overall dimensions of the plate 119x230x8 mm, incl. 9 plastic retention screws M4 x 40



# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Fixture Exchange Plate Brace 343** for universal exchange plate with overall dimensions 380x297x8 mm, incl. 4 hexagonal head bolts M4x25 and 4 oval head screws with cross recess, L: 343 mm, H: 30 mm, T: 6 mm

**Fixture Exchange Plate Brace 453** for universal exchange plate with overall dimensions 500x400x8 mm, incl. 5 hexagonal head bolts M4x25 and 5 oval head screws with cross recess, L: ca. 453 mm, H: 30 mm, T: 6 mm



**Retention Exchange Box 4-3** (black) with 5 longitudinal arms and knurled screws and 15 bow retention devices and knurled screws for fixtures Type 40A V2.0, 42A V2.0 and Type 45A V2.0, overall dimensions 420x299 mm



**Retention Exchange Box 42A-3** (black) with 5 longitudinal arms and knurled screws and 15 bow retention devices and knurled screws for fixtures Type 42A-3 and Type 62-3, overall dimensions 420x299 mm



**Retention Exchange Box 82** with 6 longitudinal arms with knurled screws and 18 bow retention pins with knurled screws, overall dimensions 541.5x402 mm, for Type 82C for easily adjusting the retention pin positions from above



**Retention Exchange Box 6** with 6 longitudinal arms and 36 retention pins for exchange plate fixture Type 52 and Type 52L



**Retention Exchange Box 145**  
Retention exchange box with 5 longitudinal arms and 15 retention devices for fixture 145A-2 and 145B-2  
for easily adjusting the retention pin positions from above



**Retention Exchange Box 147**  
Retention exchange box with 5 longitudinal arms and 15 retention devices for fixture Type 147 and Type 242  
for easily adjusting the retention pin positions from above

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Retention Exchange Box 125** Retention exchange box with 4 longitudinal arms and 12 retention pins for fixture 125B-2, 125A-2 and 125H; for easily adjusting the retention pin positions from above

**Retention Exchange Box 105** Retention exchange box with 3 longitudinal arms and 9 retention devices for fixture 105B-2 and 105A-2; for easily adjusting the retention pin positions from above (**without picture**)



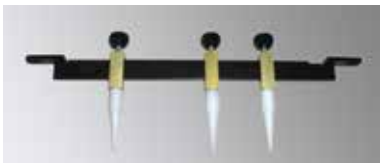
**Retention Exchange Box 127**  
Retention exchange box with 4 longitudinal arms and 12 retention devices for fixture Type 127, Type 125HV, ATS-UKMFT 625 (4 linear guidings) for easily adjusting the retention pin positions from above



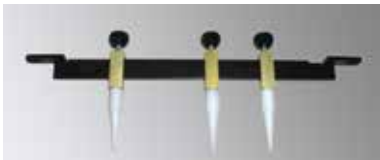
**Receiver Angle 4-3** Receiver angle for retention device incl. 3 retention pins with knurled screws and 2 slot nuts M4, **255 mm long**, can be built into the retention exchange box 4-3 and into the retention exchange box 4-2. The receiver angle can be set at an angle of up to 20° for easily adjusting the retention pin positions and the receiver profile from above. For fixtures Type 40A, 42A, 145, 147 and 242



**Receiver Angle 82** Receiver angle incl. 3 retention pins with knurled screws and 2 slot nuts M4, **355 mm long**, can be built into the retention exchange box 82. The receiver angle can be set at an angle of up to 20° for easily adjusting the retention pin positions and the receiver profile from above. For fixture Type 82C



**Receiver Angle 105-125** Receiver angle incl. 3 retention pins with knurled screws and 2 slot nuts M4, **206 mm long**, can be built into the retention exchange box 105B-2, 105A-2, 125B-2, 125A-2 and 125H. The receiver angle can be set at an angle of up to 20° for easily adjusting the retention pin positions and the receiver profile from above.



**Receiver Angle 125HV-127-627** Receiver angle incl. 3 retention pins with knurled screws and 2 slot nuts M4, **184 mm long**, can be built into the retention exchange box 125HV, 127 and ATS-UKMFT 625 (4 linear guidings). The receiver angle can be set at an angle of up to 20° for easily adjusting the retention pin positions and the receiver profile from above.

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**64way Universal Fixture Cable T1** (flat ribbon cable AWG28 about 38 cm long, with two insulation displacement sockets and one fixture interface connector (male connector DIN 41612, type R), completely confectioned and tested) for REINHARDT-test fixtures



**64way Universal Fixture Cable T1 Crimp** with two 64way female connectors with AWG22-crimp cable, about 38 cm long and one fixture interface connector (male connector DIN 41612, type R), completely confectioned and tested) for REINHARDT-test fixtures



**96way Universal Fixture Cable T1/96** (flat ribbon cable AWG30 about 38 cm long, with two insulation displacement sockets and one fixture interface connector (male connector DIN 41612, type R), completely confectioned and tested) for REINHARDT-test fixtures



**96way Universal Fixture Cable T1 Crimp** with two 96way female connectors with AWG22-crimp cable, about 38 cm long, and one fixture interface connector (male connector DIN 41612, type R), completely confectioned and tested) for REINHARDT-test fixtures



**64way Universal Fixture Cable T2** (64way flat ribbon cable AWG28 with three insulation displacement sockets and 2 fixture interface connectors (male connector DIN 41612, type R), completely confectioned and tested) for REINHARDT-test fixtures



**Extension cable 96, 38 cm long** 96way flat ribbon cable AWG30 with 2 insulation displacement sockets and 1 straight A/C converter board for 1:1-connection, completely confectioned and tested



**Fixture Cable V4** for connecting 1–4 VMX8 high voltage measuring matrix boards in the test fixtures, A-series, e.g. Type 40A, Type 42A, Type 45A  
Up to 4 high voltage measuring matrix boards are led to one connector for the exchange plate; for ATS-KMFT 670 and PCMFT 620



**Fixture Cable V2** Adapterkabel V2 for connecting 1–2 VMX8 high voltage measuring matrix boards in the test fixtures, A-series, e.g. Type 40A, Type 42A, Type 45A  
Up to 2 high voltage measuring matrix boards are led to one connector for the exchange plate; for ATS-KMFT 670 and PCMFT 620



**Fixture Cable LMX670** Fixture cable LMX670-4 for connecting a LMX670-4 or LMX670-8 power matrix boards in REINHARDT test fixtures for ATS-KMFT 670

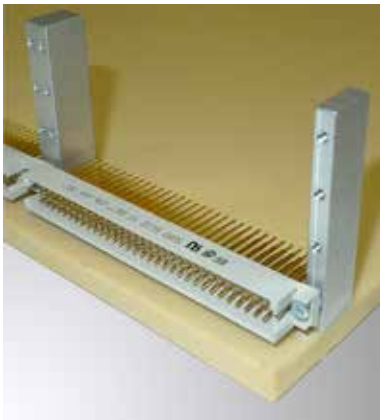
# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Fixture Cable HSM f** for connecting a HSM high voltage-stimulus matrix in the test fixtures, A-series, e.g. Type 40A, Type 42A, Type 145A for ATS-KMFT 670



**Fixture Cable AC670** Fixture cable AC670 for connecting an AC470 or AC670-board in the REINHARDT-test fixture for ATS-KMFT 670



**Connector Fastener Block Vers. 2 Outside (narrow) – Set (2 pcs)** for mounting up to 4 rows, incl. 4 raised countersunk screws M2.5x8mm incl. screwlock which fix the connectors at the fastener block and 2 fixing screws M2.5x12mm which fix the block on the GRP-exchange plate

for mounting 64- or 96way male multipoint connectors Type R

**Connector Fastener Block Vers. 2 Inside (wide) Vers. 2 – Set (3 pcs)** for mounting up to 4 rows, incl. 24 raised countersunk screws M2.5x8mm incl. screwlock which fix the connectors at the fastener block and 3 fixing screws M4x12mm which fix the block on the GRP-exchange plate

for mounting 64- or 96way male multipoint connectors Type R



**Female Connector 64 Wrap** – 64way female multipoint connector with wrapped cables AWG 30, ca. 400 mm long.

This female connector is plugged onto the male connector 64 of the GRP-Universal exchange plate and reduces your work on the wiring between device under test and fixture.



**Female Connector 96 Wrap** – 96way female multipoint connector with wrapped cables AWG 30, ca. 400 mm long.

This female connector is plugged onto the male connector 96 of the GRP-Universal exchange plate and reduces your work on the wiring between device under test and fixture.



**Male Connector 96 Gilded C** 96way male connector, wire wrap, type C (cross-drilled), gilded on both mating areas, for the interface of the universal fixture (towards test system) for fixtures type 40A, 42A and 62L – **until 06/2016**



**Male Connector 96 gold R** 96way male connector, wire wrap, type R (face drilled), gilded on both mating areas, for universal fixture interface (to test system side) and for the exchange plate of the universal fixture, from 11/2012 with connector fastener block Vers. 2



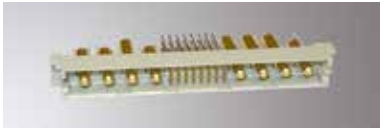
# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Female Connector 96 gilded C** 96way female connector, wire wrap, type C (face drilled), gilded, also wire wrap post, for the test system interface



**High Current Contact Socket** – female connector type C with 8 high current contact sockets and 24 common contacts e.g. for mounting on the REINHARDT-LMX670 board (test system side)



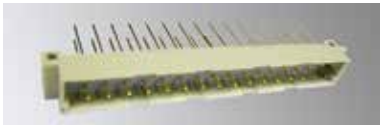
**High Current Pin Contact** – male connector Type R with 8 high current pin contacts and 24 common contact pins for mounting on the exchange plate and on the REINHARDT-test fixture (to the test system side) e.g. fixture Type 62C, for connecting the LMX670 board



**High Current Pin Contact** – male connector Type C with 8 high current pin contacts and 24 common contact pins for mounting on the test fixture e.g. fixture Type 42 until 5/2016 (not exchange plate), is required when the LMX board is used



**HV-Connector 32 R** 32way high voltage connector, type R, for universal exchange plate and fixture interface to test system, e.g. Type 40A/B, Type 42A/B, Type 45A/B)



**HV-Connector 32 C** 32way high voltage connector, type C (cross-drilled)



**HV-Socket 32** 32way high voltage socket, type C (cross-drilled) for the universal exchange plate interface in the test fixture, e.g. Type 40A/B, Type 42A/B, Type 145A



**Connector CA 6LD** 6pole linesocket straight CA 6 LD, female, max. 250 V, max. 10 A



**Connector 10** 10way power connector

**Cover for 10way Connector** Cover for 10way power connector

# Accessories and Spare Parts for REINHARDT-Test Fixtures



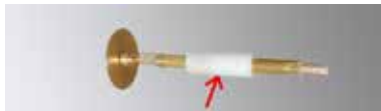
**HTS-Connector** – Set of HTS10-fixing angles incl. 10pole power connector (will be mounted to the universal exchange plate – for Type 42A Vers. 2.0 and Type 40A only)



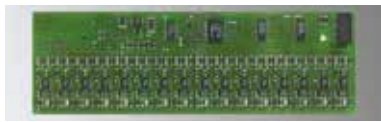
**HTS-Socket** – Set of HTS10-fixing angles incl. 10pole power socket (will be mounted on the fixture – for Type 42A Vers. 2.0 and Type 40A only)



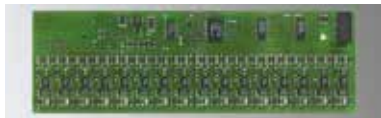
**Probe for SMT Solder Defect or Polarity Test**, diameter 2.4, 5, 7, 10, 13, 20, 30 mm (Please indicate the requested diameter when you order) incl. NF cable



**Spacing Piece** for fixing the distance of the probe for SMT solder defect test and polarity test



**Board Polarity** –Board with 16 channels for discerning polarity of capacitors, without cabling



**Board 16 Channels for SMT Solder Defect Test**



**Reference Pin 3 – Set (5 pcs)** spring suspended, for collector drillings from 1.7 to 4.7 mm, diameter of the plate drilling 5 mm, tolerance +0.0/-0.05 mm



**Reference Pin 4 – Set (5 pcs)** spring suspended, for collector drillings from 4.4 to 7.7 mm, diameter of the plate drilling 5 mm, tolerance +0.0/-0.05 mm

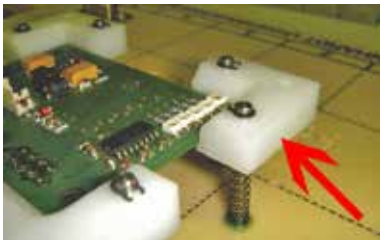


**Board Centring and Guiding – Set (5 pcs)** for the PCB-contours



**Guiding Angle – Set (5 pcs)** for placing the board easily in the fixture, incl. 10 screws M3x6 mm

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Guiding Edge** spring-suspended, for the outer edges of the PCB, for centring and guiding the board



**Guiding Brinck**, spring-suspended, for straight outer contours of PCBs for centring and guiding the board



**Retention Pin 10x45 mm – Set (10 pcs)** with cage nut for fixture Type 13, Type 25, Type 40, Type 42, Type 45 and Type 52



**Plastic Retention Screws** M4x40 white, nut M4, set of 10 pieces



**Plastic Retention Pin 15.5** plastic retention pin 15.5 mm long, incl. fixing screw M3x 12, set of 10 pieces

**Plastic Retention Pin 17** plastic retention pin 17 mm long, incl. fixing screw M3x 12, set of 10 pieces

**Plastic Retention Pin 18.5** plastic retention pin 18.5 mm long, incl. fixing screw M3x 12, set of 10 pieces

**Plastic Retention Pin 20** plastic retention pin 20 mm long, incl. fixing screw M3x 12, set of 10 pieces

**Plastic Retention Pin 26** plastic retention pin 26 mm long, incl. fixing screw M3x 12, set of 10 pieces

**Plastic Retention Pin 28** plastic retention pin 28 mm long, incl. fixing screw M3x 12, set of 10 pieces

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Bow Retention Pin 45 – Set (5 pcs)** with 45 mm long plastics retention pin, complete with knurled head screw, for fixture types 40A, 42A, 42C, 45A, 62C, 62L, 82C, 105A/B-2, 125A/B-2,H; 127, 145A/B-2, 147



**Set of Changers Lightweight GRP (t=4)** for changing the exchange plates GRP more comfortably



**Reinforced Set of Changers Type 42 (t=6)** for changing and inserting the exchange plates for fixture type 42A version 2.0 more comfortably (recommended for an exchange plate which holds more than 10 connectors)



**Grip for Push Rod – Set (2 pcs)** – spare part for fixtures Type 9 to Type 62 (not Type 52 and 82C) and ATS-UKMFT 616/627



**Screw M5 – Set (2 pcs)**, total length 16,6 mm, with lateral Allen screw, interior Allen wrench 3 mm, incl. slot nut M5, for locking fixtures Type 105, Type 125, Type 145, Type 40A, Type 42A, Type 46D, Type 62C, Type 62L and Type 82C



**Closing Clasp for Type 42A-2, Type 40, Type 62 and Type 82**, total length ca. 149 mm, without securing material – two of these locks/clasps are required per fixture

**Closing Clasp for Type 42A-3**, total length ca. 109 mm, without securing material – two of these locks/clasps are required per fixture

**Closing Clasp for Type 52**, without securing material – two of these locks/clasps are required per fixture

**Closing Clasp for Type 147 and Type 127**, total length ca. 129 mm, without securing material – two of these locks/clasps are required per fixture



# Accessories and Spare Parts for REINHARDT-Test Fixtures



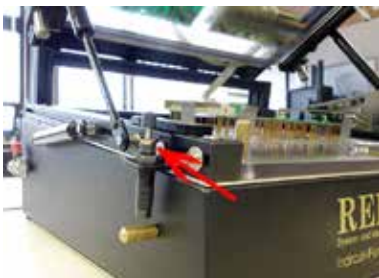
**Add-on Kit for Contacting from below and above** for fixture Type 42A incl. securing material

Note: only for fixtures with an operating lever which is tapered at the front



**Safety Lock** – device for fixture type 42A-2 and type 42A-3, electromagnetic operation, 12V DC,  $\pm 20\%$ , max. 450mA, incl. mounting plate and securing material

prevents unintentional or unauthorised opening of the fixture and avoids possible risks of injuries, when voltages are applied to the DUT or the destruction of the DUT, when the fixture is opened during the test procedure

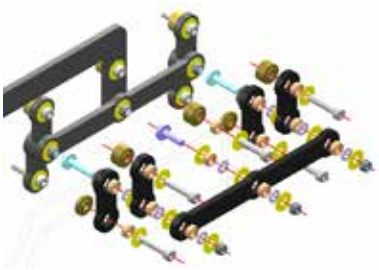


**Set of Buffers Type 42 Retrofit Kit**

Set of buffers – powerstop for softened closing of the fixture for fixture Type 40, 42A-2, 42A-3, 62, 82C incl. fixing angles and screws with slot nuts

**Set of Buffers Type 147 Retrofit Kit**

Set of buffers – powerstop for softened closing of the fixture for Fixture Type 147 incl. fixing angles and screws with slot nuts



**Conversion Kit For Ball Bearings Pivots Type 42-62 KH** for fixture Types 42A, 62L, short lever, consists of 1 set of turned parts (62 components) and 26 ball bearings 10/5/4

# Accessories and Spare Parts for REINHARDT-Test Fixtures

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## **Gas Strut 50N No. 082406 – Set (2 pcs)**

LA 227 mm, wearing part for fixture Type 105B, 125B, 145B

## **Gas Strut 50N No. 082473 – Set (2 pcs)**

LA 265 mm, wearing part for fixture Type 25A, 43A and 45A (top)

## **Gas Strut 75N No. 294945 – Set (2 pcs)**

LA 265 mm, wearing part for fixture Type 42A3 (top)



## **Gas Strut 100N No. 082414 – Set (2 pcs)**

LA 227 mm, wearing part for fixture Type 40, Type 42, Type 40A and Type 42A

## **Gas Strut 150N No. 082422 – Set (2 pcs)**

LA 227 mm, optional reinforcement for increased load, for exchange plate fixture Type 40A and Type 42A

## **Gas Strut 100N No. 082570 – Set (2 pcs)**

LA 306 mm, wearing part for fixture Type 45A (bottom) and Type 52



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**Manual Tool for Pressing in Spring Contacts 100 mil**, thread version, for System for Building Fixtures Vers. 1.0

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**Base Body for Insertion Head 100 mil or 75 mil** for AAE-CNC2 Fixture Production System



**Insertion Head 100 mil** without base body, for manually pressing in spring contact pins, for Equipment 2.0 for manually pressing in spring contact pins and for Fixture Production System AAE-CNC 2

**Insertion Head 75 mil** without base body, for manually pressing in spring contact pins and for Fixture Production System AAE-CNC 2

**Universal Insertion Head** without base body, manual, for receptacles only



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**Base body for Insertion Head 100 mil bzw. 75 mil**, for manually pressing in spring contact pins, for Equipment 2.0 for manually pressing in spring contact pins

# Accessories and Spare Parts for REINHARDT-Test Fixtures



**Manual Tool for Pressing in Reference Pin 3 and Reference Pin 4**



**Manual Tool for Pressing in Spring Contacts** incl. receptacle, 100 mil – one piece



**Equipment for manually pressing in spring contacts Vers. 2.0, XYZ** Equipment for manually pressing in spring contacts 100 mil, 75 mil, 50 mil incl. receptacle into the fixture exchange plate and guiding device for creating angular threads for guiding PCBs, travel X-axis 390 mm, Y-axis 310 mm, cradle for REINHARDT-Universal exchange plate with overall dimensions 380x297x8 mm

**Drill, 46 mm** total length, Ø 1.70 mm, 1/8"-shaft, for drilling holes for additional spring contact pins Ingun 100 mil with our system for building fixtures at a later time (The pins are placed manually).

**Drill, 46 mm** total length, Ø 1.75 mm, 1/8"-shaft, for drilling holes for additional spring contact pins IDI 100 mil with our system for building fixtures at a later time (The pins are placed manually).

**Drill 1.75 1/8"** Twist drill, solid carbide drill, Ø 1.75 mm, shaft 1/8", total length ca. 38 mm, for drilling holes of 1/10"-contact pin receptacles IDI



**Drill 1.70 1/8"** Twist drill, solid carbide drill, Ø 1.70 mm, shaft 1/8", total length ca. 38 mm, for drilling holes of 1/10"-contact pin receptacles Ingun

**Drill 1.33 1/8"** Twist drill, solid carbide drill, Ø 1.33 mm, shaft 1/8", total length ca. 38 mm, for drilling holes of 75 mil-contact pin receptacles Ingun

**Drill 0.98 1/8"** Twist drill, solid carbide drill, Ø 0.98 mm, shaft 1/8", total length ca. 38 mm, for drilling of 50 mil-contact receptacles IDI

**Drill 5.0 1/8"** VHM-drill sold carbide drill, Ø 5.0 mm, shaft 1/8", total length ca. 38 mm, for drilling holes of e.g. reference pin 3

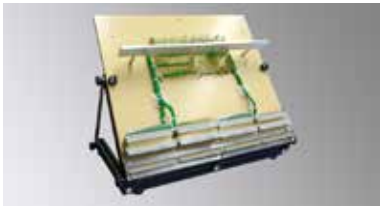
**Milling cutter 3 mm** for Fixture Production System, 3 mm, shaft 1/8 "



**Starterkit for building fixtures manually**, consisting of:

1 ergonomic frame for holding the fixture plate 380x297x8 mm, 1 base body (manual) for insertion head, 1 insertion head 100 mil, 1 insertion head 75 mil, 6 guiding angles with 6 sets of screws, 4 guiding edges, 2 guiding brinks, 4 female connectors 96 wirewrap, 4 reference pin 3, 1 reference pin 4, 1 manual tool for pressing in reference pin 3, 3 with 50 crowns 100 mil (total 150) in receptacles, 5 boxes with 50 tips 100 mil each (total 250) in receptacles, 1 box with 50 tips 75 mil in receptacles, 20 contact pins tips 50 mil, 20 receptacles 50 mil, 2 drills 1.70 mm for standard 1/10" (100 mil)-pin receptacles, 2 drills 1.32 mm for 75 mil-pin receptacles, 2 drills 0.98 mm for 50 mil-pin receptacles, 1 adjustable twisting pliers for screwing in taps, 1 drill 3.0 mm for guiding edge, 1 drill 5.0 mm for reference pin 3, 1 drill 2.5 mm for tapping threads 3, 1 manual deburrer, 1 machine screw tap M3 for guiding angles, 1 guide for tap, 5 ml Loctite 222

# Accessories and Spare Parts for REINHARDT-Test Fixtures



## WireWrap-Frame

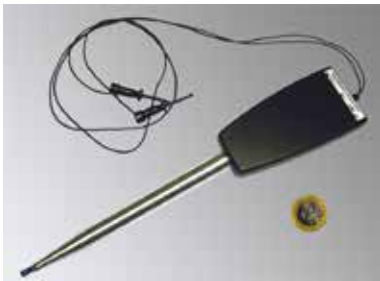
Ergonomic frame for holding the fixture plate with the overall dimensions 380 x 297 x 8 mm; protects the spring contact pins and the upper side of the fixture plate in wiring

**Exchange plate, connectors etc. are not included!**



**Test Fixture Wire Finder TFWF 96** for individual fixture wiring, in case you have to duplicate a fixturing or want to use already existing test point designations for the RMX-measuring matrix channels. In this case you have to wire the contact pins to certain RMX-channels and wire both ends of the wrap-connection to the correct positions: The cable of a RMX-measuring matrix wiring is touched with the search probe and the respective RMX-channel is shown on the display.

For that you connect the TFWF 96 Test Fixture Wire Finder to the connector of the first RMX-measuring matrix and then touch any wire end with the search probe. The resp. channel is shown on the display and you only connect the wire with the respective contact pin.



## Short Finder Probe SFP 37

Inductive short finder for localising faults on loaded PCBs, incl. 3.7 V Li-Ion accu with up to 1,000 mAh for up to 7 hours use, connection clips and charger



## AAE-CNC 2 Semi-automatic Fixture Production System

CNC-drilling center (desk-top unit, travel x: 395 mm, y: 300 mm, usable placing area x: 395 mm, y: 244 mm; drilling machine, hard- and software for controlling the CNC-machine, device for automatic picking and placing of the receptacles and spring contact pins, drills, clamping device for the bed-of-nails plate/exchange plate of the fixture), security switch, wiring, magazine (100 mil crown, 100 mil tip and 75 mil tip) for 625 receptacles incl. spring contact pins, dust hood, suction device (without vacuum-cleaner). For building fixtures you need the software for taking over Gerber data.

unsuitable for the exchange plates of fixture types 52 and 82

**Underframe for AAE-CNC 2 Semi-automatic Fixture Production System** incl. 4 bases adjustable in height, about 770 mm wide, 835 mm deep, 805 mm high