MASTER IXH - BGA REWORK-System

HXFA.4085 MASTER IXH

Desktop IXH BGA Rework System with Convection Top Heater and large Infrared Bottom Heater. Robust, designed for production environments, extremely reliable and very easy to operate.

The IXH handles all types of SMD’s such as BGA / QFP / QFN / CSP. It performs all typical Rework process steps including component desoldering, component removal, site cleaning of residual solder, component replacement and component reflow.

Unique vision-free placement technology provided by STAR TOOLS ensures simple and reliable operation. Placement Tools never need calibration. The Hot Gas and Vacuum pens primarily used during the Rework process can also be used for a variety of heating and vacuum applications. EASY SOLDER rework software provides accurate control for the IXH, a Windows® based platform that provides all necessary tools for successful Rework including Auto-Profiler with profile analysis and real-time plotting along with file management and reporting plus more...

Features
- SMD Solder Unit
- Smart Fix 02/ IRF 02-2000 Watt 230 V AC
- PCB Magnet Holder 2 pcs, PCB Magnet Holder Rail 1 pcs
- Soldering Pen with 7 pin plug, Vac module for Hot Air, Stand for pens / magazin
- Easy Solder 05 eco (Licence ES, CD, cable, manual)
- Positioning arm SHP (xyzd-axis), Power Cord Europe
- Basic equipment Master IXH:
  - Soldering sucker Nozzle 1,4mm, 0,7mm, Soldering Nozzle 7mm, 4mm, Calibration Tool for Solder Pen dist, Fuse Set, Filter Set, O-Ring Set, Placement nozzle 0,7mm, 6,3mm, 10mm, SMD Transportation Device for Positioning Arm, Flux Crème lead free, Clean Pen, Allen Screw Driver 2,0 and 2,5mm, Residual Solder Removal for Vacuum Pen

Technical Data
- Power Consumption: 2500 VA
- Power Solder Pen: 300 W, 35 l/min
- Power Underheater: 500-2000 W, 4 x IR-lamps
- Effective heating area: 185 x 245mm²
- Recommended max. PCB size: 200 x 260mm²
- Temperature Sensor Input: 2 pcs. Type K
- Mains: 1Phase, 230VAC, fused 16A
- Pressurized air: 5-8 bar (0,6psi), Dry, Clean (40µ filtered) air consumption: 100 l/min
- Vacuum: Not required (generated by compressed air)
- Footprint: 660 x 360mm²
# MASTER IXH - BGA REWORK-System

## Scope of Delivery with MASTER IXH (HXFA.4085)

**EB16.0002**  
Soldering pen with 7 pin plug  
1 piece

**SF42.0002**  
Positioning arm SHP (xyzd-axis)  
Single Head Placer for HB 08  
1 piece

**SF03.0010**  
PCB Magnet Holder Rail 40.5mm  
for IR/IRD/IRH/FIF and DL/RD  
1 piece

**SF03.0004**  
PCB Magnet Holder 40.5mm  
for IR/IRD/IRH/FIF and DL/RD  
1 piece

**HXFA.0022**  
Basic equipment MASTER IXH  
1 piece

**LW40.0042**  
Placement Nozzle Star Tool 10mm  
for BGA >= 20mm and SHP  
1 piece

**LW40.0041**  
Placement Nozzle Star Tool 5mm  
for BGA >= 15mm and SHP  
1 piece

**LW39.1999**  
Star Tool set BGA  
7 pieces (15, 23, 27, 31, 35, 37.5, 40)  
1 piece

**LW39.1916**  
Star Tool BGA 15*15mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1901**  
Star Tool BGA 23*23mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1900**  
Star Tool BGA 27*27mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1906**  
Star Tool BGA 31*31mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1909**  
Star Tool BGA 35*35mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1910**  
Star Tool BGA 37,5*37,5mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1911**  
Star Tool BGA 40*40mm  
placement tool for ASP/SHP arm  
1 piece

**LW39.1912**  
Star Tool BGA 42,5*42,5mm  
placement tool for ASP/SHP arm  
1 piece

### Optional Extras

**LW40.1099**  
Solder Nozzle Set BGA  
7 pieces (15, 23, 27, 31, 35, 27.5, 40)  
1 piece

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Solder Vac Nozzle 1,4mm & 0,7mm, Soldering Nozzle 7mm & 4mm, Calibration Tool for Solder Pen, Fuse Set, Filter & O-Ring Set

Placement nozzle 0.7mm, 6.3mm, 10mm, SMD Transportation Device for Positioning Arm, Flux Crème lead free, Clean Pen, Allen Screw Driver 2.0 and 2.5mm, Residual Solder Removal for Vac Pen

Star Tools are available for many SMD sizes. Please contact MRTIN for more Info.
## Optional Extras

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF30.0004</td>
<td>PCB Support 40.5 1.5mm thickness</td>
<td>1 Pack (4 pcs)</td>
</tr>
<tr>
<td>SF30.0005</td>
<td>PCB Support 40.5 PCB=3mm (thickness)</td>
<td>1 Pack (4 pcs)</td>
</tr>
<tr>
<td>SF03.0014</td>
<td>PCB Magnet Holder Easy Lock 40.5 (snap)</td>
<td>1 piece</td>
</tr>
<tr>
<td>SF33.0010</td>
<td>PCB Magnet Holder Rail 40.5mm for IR/IRD/IRH/IRF/HIF and DL/RD</td>
<td>1 piece</td>
</tr>
<tr>
<td>SF01.0100</td>
<td>PCB Clip For Use With SF33.0010</td>
<td>1 piece</td>
</tr>
<tr>
<td>SF36.1003</td>
<td>PCB Fix Support 40.5 &quot;4 pin&quot; 350mm</td>
<td>1 piece</td>
</tr>
<tr>
<td>SF36.1001</td>
<td>PCB Flex Support 40.5mm &quot;10 pin l=440mm</td>
<td>1 piece</td>
</tr>
<tr>
<td>SF03.0019</td>
<td>PCB Clamping Holder 40.5 with 3 for mobile phone pbc</td>
<td>1 piece</td>
</tr>
<tr>
<td>LW10.0003</td>
<td>SMD Transportation Device for Positioning Arm</td>
<td>1 piece</td>
</tr>
<tr>
<td>HT00.0119</td>
<td>Flux Creme lead free 18g 0506 MA, no clean, REL0, with Brush</td>
<td>1 piece</td>
</tr>
<tr>
<td>HT00.0020</td>
<td>Brush for Flux Creme</td>
<td>1 piece</td>
</tr>
<tr>
<td>HT00.0019</td>
<td>Clean Pen for pads and IR Glass with 3 spare erasers</td>
<td>1 piece</td>
</tr>
<tr>
<td>HT00.0062</td>
<td>Kapton-Tape 19mm*5.5m</td>
<td>1 piece</td>
</tr>
<tr>
<td>PD91.0001</td>
<td>Foot Switch function start button</td>
<td>1 piece</td>
</tr>
<tr>
<td>HT00.0013</td>
<td>Sensor for Temperature K Type, D 0.1mm</td>
<td>1 piece</td>
</tr>
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<tr>
<td>DV15.0010</td>
<td>Solder Sucker Nozzle 1.4 mm, Standard Type</td>
<td>1 piece</td>
</tr>
<tr>
<td>DB15.0012</td>
<td>Placement Nozzle 0.7 mm</td>
<td>1 piece</td>
</tr>
<tr>
<td>DB15.0014</td>
<td>SMD Placement Nozzle, 6.3 mm with rubber</td>
<td>1 piece</td>
</tr>
<tr>
<td>DB15.0021</td>
<td>Fine Filter for Vacuum Pen</td>
<td>1 pack (6pcs)</td>
</tr>
<tr>
<td>DV15.0012</td>
<td>Solder separator for old solder standard type, 1.4 / 1.0 mm (with 5)</td>
<td>1 pack (20pcs)</td>
</tr>
<tr>
<td>DV15.0030</td>
<td>Flux filter for cooler of solder sucker nozzle</td>
<td>1 pack (40pcs)</td>
</tr>
</tbody>
</table>
The Vacuum Pen is a tool from MARTIN Rework Systems. It is a multi functional tool which can be used to remove residual solder or to handle SMD components.

To protect the system vacuum generator the Vacuum Pen is equipped with several filter stages. They separate out the liquid solder and flux fume from the gas. The schematic diagrams below show the filters and cleaning procedures.
## TECH INFO – VACUUM PEN

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<tr>
<td>DV15.0010</td>
<td>Solder Sucker Nozzle 1.4 mm, Complete Standard Type</td>
<td>1 piece</td>
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<tr>
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<td>Fine Filter for Vacuum Pen</td>
<td>6 pcs</td>
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<tr>
<td>DV15.0012</td>
<td>Solder separator for old solder Incl. 5 pcs filter net</td>
<td>1 pack 20pcs</td>
</tr>
<tr>
<td>DV15.0030</td>
<td>Flux filter for cooler of solder sucker nozzle</td>
<td>1 pack 40pcs</td>
</tr>
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STAR TOOL enables easy and vision-free placement of BGAs, QFPs and other surface mount devices for the Rework of even the most complicated and advanced PCBs.

STAR TOOL is easiest to use and simple in design, it has been proven in both production and development environments for many years. STAR TOOL technology an extremely robust and precise method used to align surface mount devices to PCB sites. Because of its unique mechanical approach, it never requires calibration or software driven controls.

Within 5 steps, operators are able to precisely place SMDs on PCBs with minimal training. Combined with the high performance MARTIN MASTER IXH REWORK system, complicated Rework is now made easy.

Step #1
Load Vacuum Pen with stencil attached into SHP manipulator arm

Step #2
Align stencil to pattern on PCB using manipulators XYZΘ knobs at SHP

Step #3
Install BGA to stencil. Vacuum holds the chip in place

Step #4
Align BGA to stencil outline

Step #5
Place BGA on PCB and switch vacuum off.

STAR TOOLS
STAR TOOLS are available for 7 different BGA sizes and cover almost the whole size spectrum.
## TECH INFO – STAR TOOL PLACEMENT

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