Assembly Instructions
for
MiniMax™
Panel Mounted Receptacles
1 Introduction

This document describes the assembly steps for connecting a cable to the MiniMax™ receptacle and for securing the receptacle to the device panel.

It covers the following range of connector body styles:


**IMPORTANT NOTE:**
Do not apply torque between the contact terminations and the receptacle body before it is fully assembled in the device as it may damage the receptacle.

Take special care when handling the cable or PCB after connection to the receptacle, and when securing the receptacle to the device panel.

Please read these instructions thoroughly before starting assembly.

2 Document History

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision #</th>
<th>Author</th>
<th>Controller</th>
<th>Modification description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.11.2020</td>
<td>1.0</td>
<td>SKE</td>
<td>SAI</td>
<td>New Document</td>
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</table>

3 Definitions and Acronyms

<table>
<thead>
<tr>
<th>Text</th>
<th>Definition / Acronym</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB</td>
<td>Printed Circuit Board</td>
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</tbody>
</table>
4 Tools Required

- Cutter
- Wire Cutter
- Stripping Tool
- Soldering Iron
- Heat shrink Heat Gun (optional)
- Flat Spanners: see below
- Nut Driver with T-Handle: see below
- Single Sided Nut Driver: see below

Connector (example):

MR11WL08 0019 BK1 E1AS

<table>
<thead>
<tr>
<th>Size</th>
<th>Body Style</th>
<th>Flat Spanner</th>
<th>Nut Driver with T-Handle</th>
<th>Single Sided Nut Driver</th>
<th>Torque [Nm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>#1</td>
<td>#2</td>
<td>#3 a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>size</td>
<td>Fischer P/N</td>
<td>hex drive</td>
<td>Fischer P/N</td>
</tr>
<tr>
<td>06</td>
<td>MR11WL / MR11WS / MR11WQ</td>
<td>8</td>
<td>TX00.008</td>
<td>7</td>
<td>TX00.383</td>
</tr>
<tr>
<td></td>
<td>MR12WL / MR12WS / MR12WQ</td>
<td>10</td>
<td>TX00.010</td>
<td>7</td>
<td>TC00.007</td>
</tr>
<tr>
<td>08</td>
<td>MR11WL / MR11WS / MR11WQ</td>
<td>10</td>
<td>TX00.010</td>
<td>7</td>
<td>TX00.012</td>
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<tr>
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<td>MR12WL / MR12WS / MR12WQ</td>
<td>12</td>
<td>TX00.012</td>
<td>7</td>
<td>TC00.007</td>
</tr>
</tbody>
</table>

a) Use either #1 with #2 (Method A) or #3 with TX00.012 (Method B)

All dimensions are in millimeters.
5 Connector Parts

5.1 - Designation of all Connector Parts

The part designations and symbols below will help follow the assembly steps.

A – Panel Nut
B – Receptacle
C – Potting Tube (recommended and optional; to be ordered separately)
D – Heat-Shrink Tubing (optional; not delivered by Fischer Connectors)

Note: C and D only for solder contact termination and assembly on cable

Note: Illustrations are approximations and for demonstration purposes only. The actual geometry will vary by size and body style.
## 6 Cable Assembly

### 6.1 – Assembly Steps

<table>
<thead>
<tr>
<th>Picture</th>
<th>Process</th>
<th>Tools</th>
</tr>
</thead>
</table>
| ![Diagram](image1.png) | Slide the following parts over the cable:  
  • C – Potting Tube (recommended)  
  • D – Heat-Shrink Tubing (optional) | - |
| ![Diagram](image2.png) | Strip cable.  
*Note: For representation purposes, the figures opposite are not to scale.* | Stripping Tool, Wire Cutter |
| ![Diagram](image3.png) | Fold back cable shield over cable jacket  
Cover it with temporary adhesive tape to protect it | - |

Specific for MiniMax™ Size 08 – 9-pin (USB3.0):

Z: Aluminum foils around twisted pairs.

*Please respect above dimensions for optimal high-speed data transmission.*
<table>
<thead>
<tr>
<th>Picture</th>
<th>Process</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Picture" /></td>
<td><strong>Solder wires to</strong> B – Receptacle contacts</td>
<td>Soldering Iron</td>
</tr>
<tr>
<td><img src="image2.png" alt="Picture" /></td>
<td><strong>Slide</strong> C – Potting Tube against B – Receptacle</td>
<td>-</td>
</tr>
<tr>
<td><img src="image3.png" alt="Picture" /></td>
<td><strong>Remove adhesive tape covering cable shield</strong>&lt;br&gt;<strong>Twist cable shield strands together</strong>&lt;br&gt;<strong>Solder cable shield to receptacle ground contact</strong></td>
<td>Soldering Iron</td>
</tr>
<tr>
<td>Picture</td>
<td>Process</td>
<td>Tools</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>-------</td>
</tr>
</tbody>
</table>
| ![Picture](image1.png) | Slowly dispense potting material inside  
**C** – Potting Tube  
Allow potting material to cure according to its specifications.  

*Recommended potting material:  
Epoxy type: RS 851-044 (1)*  
1) Or equivalent. |

| ![Picture](image2.png) | Optional  
Slide  
**D** – Heat-Shrink Tubing against  
**B** – Receptacle body  
Use heat gun to shrink  
**D** – Heat-Shrink Tubing  
Continue until the wrap has been tightly secured. | - |
# 7 Assembly on Panel

## 7.1 – Assembly Steps

<table>
<thead>
<tr>
<th>Picture</th>
<th>Process</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image.png" alt="Diagram" /></td>
<td>IMPORTANT NOTE: Do not apply torque between the contact terminations and the receptacle body before it is fully assembled in the device as it may damage the receptacle.</td>
<td>-</td>
</tr>
<tr>
<td>Insert B – Receptacle through hole in panel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Method A

- **TX00.008 (S8)**
- **TX00.010 (S10)**
- **TX00.012 (S12)**

**TX00.383** for MiniMax Size 06

**TC00.007** for MiniMax Size 08

- **S7**

**Screw**

A – Panel Nut on

B – Receptacle by hand

**Tighten**

A – Panel Nut

with Nut Driver

while holding flats on

B – Receptacle

with Flat Spanner

at recommended torque of:

- **MiniMax™ Size 06:** 1.0 Nm
- **MiniMax™ Size 08:** 1.5 Nm

Refer to Table 1 in §4

- **Nut Driver with T-Handle**
- **Flat Spanner**
**Method B**  
Recommended method when there is no access to the rear of the receptacle.

<table>
<thead>
<tr>
<th>Process</th>
<th>Tools</th>
</tr>
</thead>
</table>
| Screw  
A – Panel Nut  
B – Receptacle by hand  
Insert Single Sided Nut Driver into  
B – Receptacle body  
by turning Handle carefully to engage tool into connector keyway.  
Tighten  
A – Panel Nut  
with Flat Spanner on hexagonal profile of Single Sided Nut Driver while holding firmly its handle.  
Recommended torque:  
• MiniMax™ Size 06: **1.0 Nm**  
• MiniMax™ Size 08: **1.5 Nm** | Refer to Table 1 in §4  
Single Sided Nut Driver  
Flat Spanner |

*TX00.012* for MiniMax Size 06  
*TX00.385* for MiniMax Size 08  
*S12*