



**Assembly Instructions**  
for  
**MiniMax™**  
Panel Mounted Receptacles

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## 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:

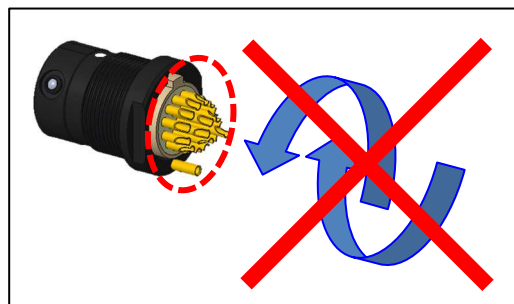
- Panel mounted receptacles: MR11WL / MR11WS / MR11WQ / MR12WL / MR12WS / MR12WQ



### 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

Date	Revision #	Author	Controller	Modification description
16.11.2020	1.0	SKE	SAI	New Document

## 3 Definitions and Acronyms

Text	Definition / Acronym
PCB	Printed Circuit Board
-	-
-	-

## 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**

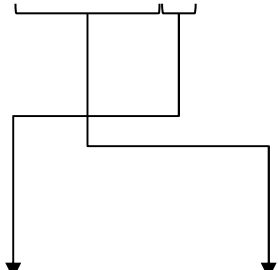





Table 1

Size	Body Style	Flat Spanner		Nut Driver with T-Handle		Single Sided Nut Driver		Torque [Nm]
								
		#1		#2		#3 <sup>a)</sup>		
		Size	Fischer P/N	Hex drive	Fischer P/N	Hex drive	Fischer P/N	
06	MR11WL / MR11WS / MR11WQ	8	TX00.008	7	TX00.383	12	TX00.386	1.0
	MR12WL / MR12WS / MR12WQ	10	TX00.010					
08	MR11WL / MR11WS / MR11WQ	10	TX00.010	7	TC00.007	12	TX00.385	1.5
	MR12WL / MR12WS / MR12WQ	12	TX00.012					

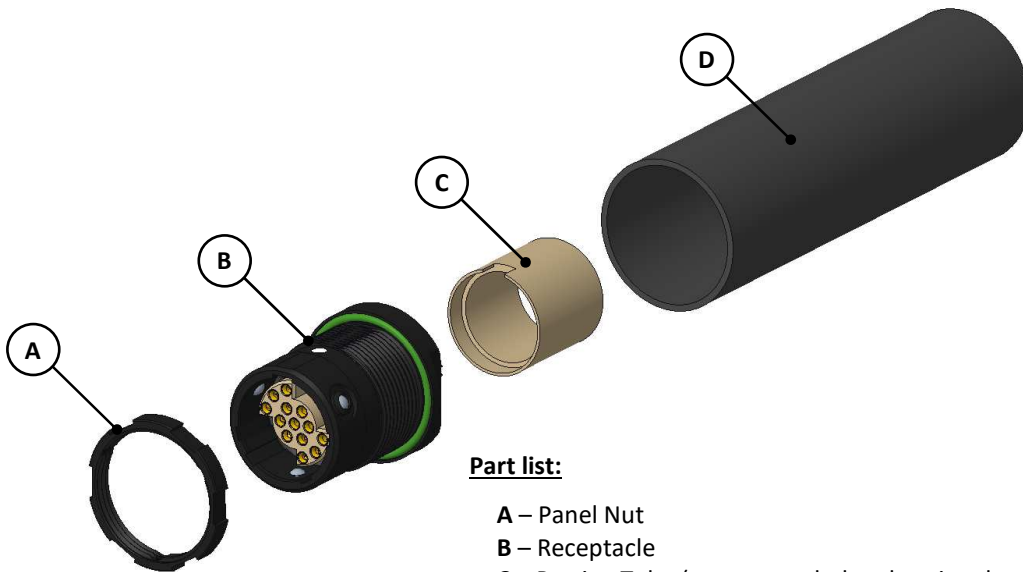
a) Use either #1 with #2 (Method A) or #3 with TX00.012 (Method B)

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.



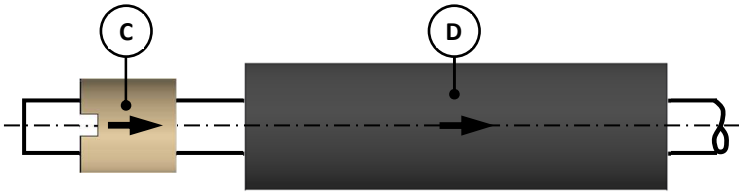
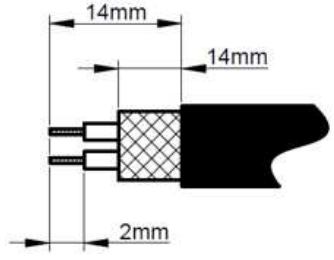
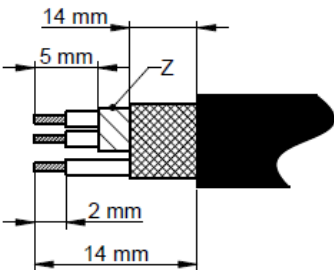
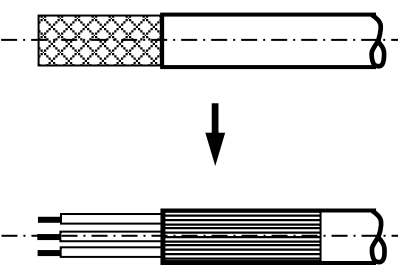
**Part list:**

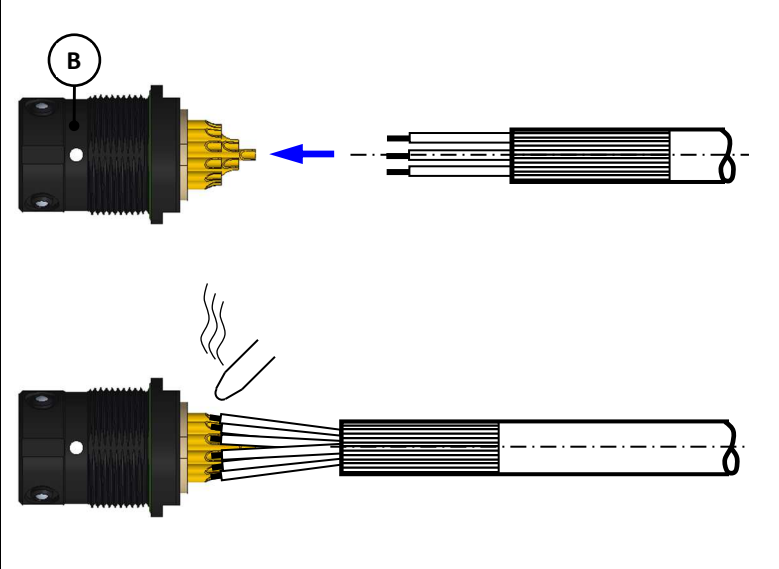

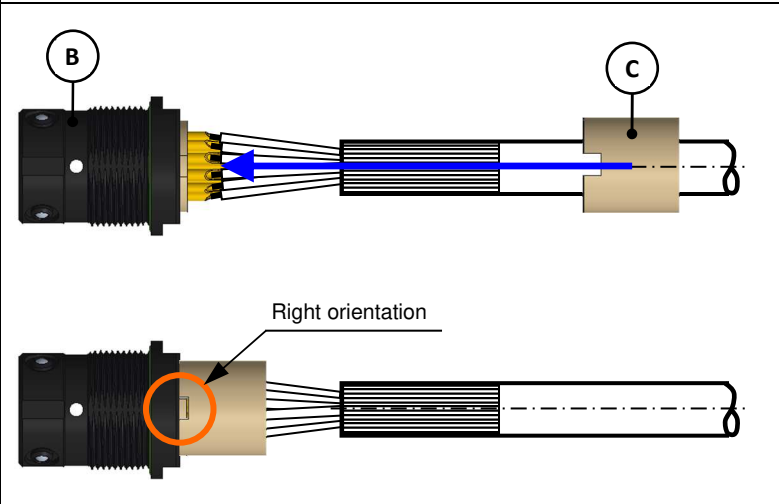
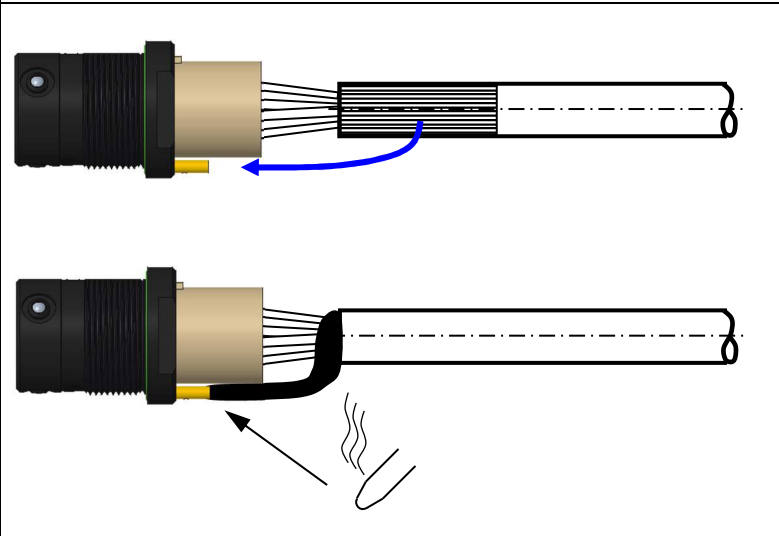

- A – Panel Nut
- B – Receptacle
- C – Potting Tube (recommended and optional; to be ordered separately)
- D – Heat-Shrink Tubing (optional; not delivered by Fischer Connectors)

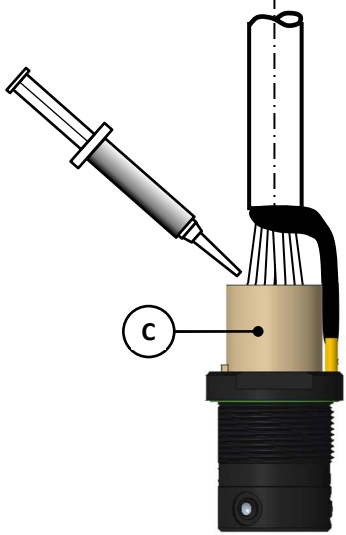
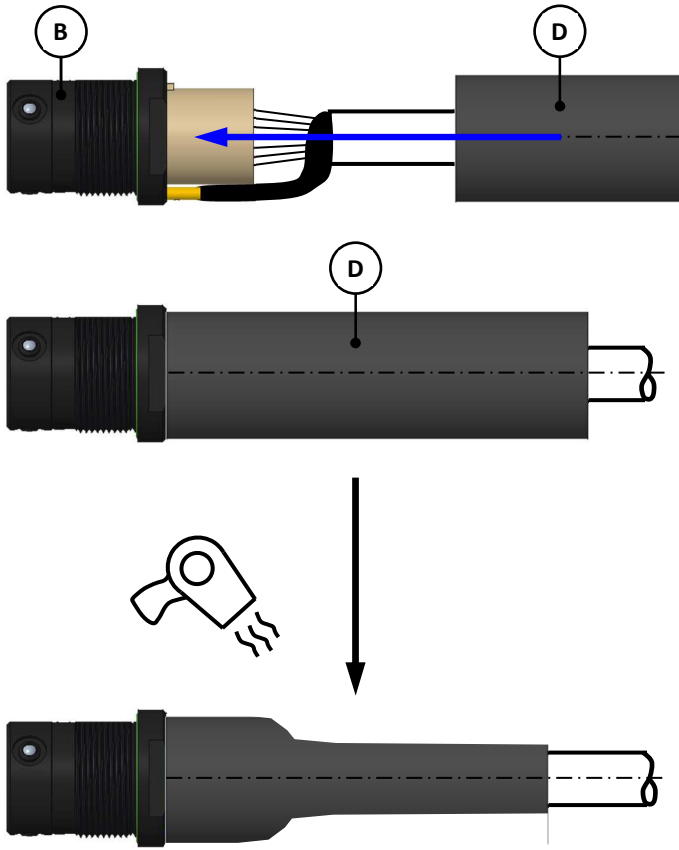

Note: C and D only for solder contact termination and assembly on cable

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

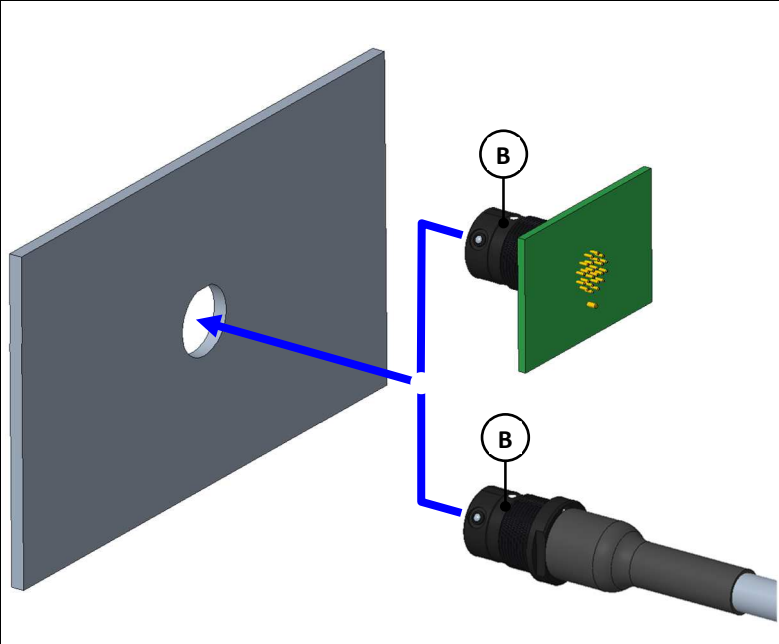

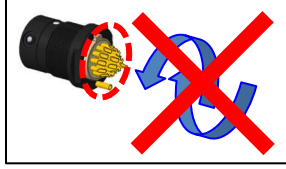




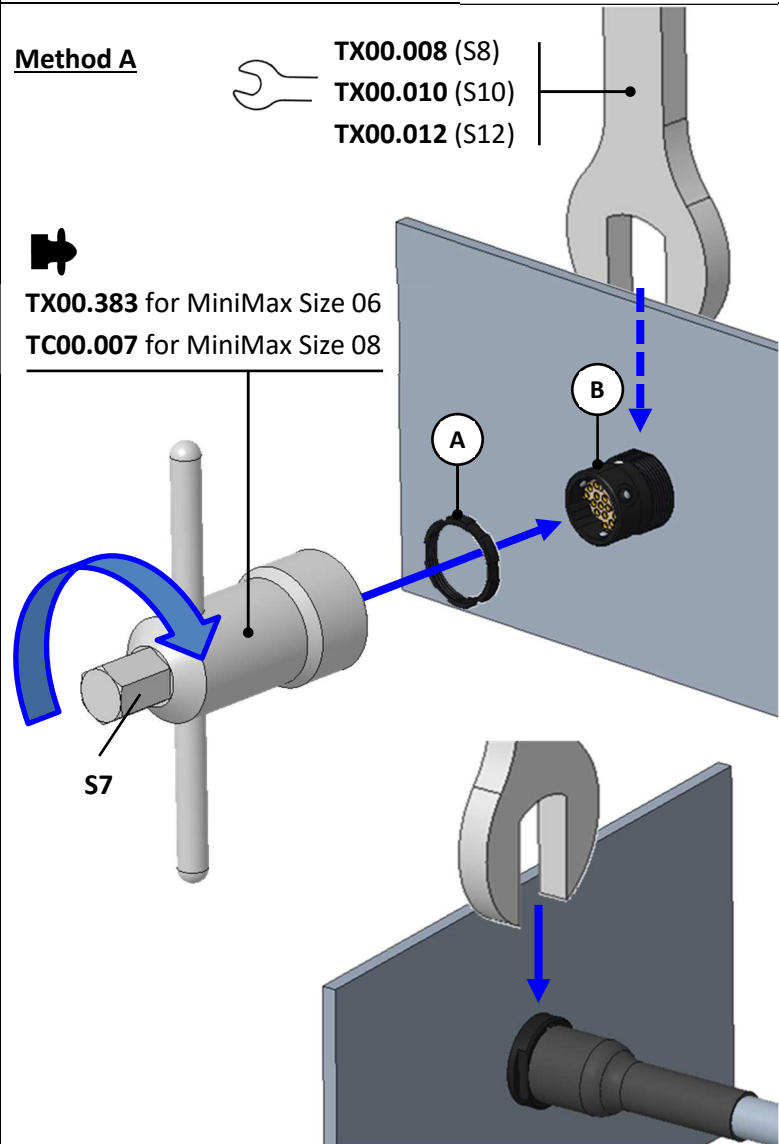
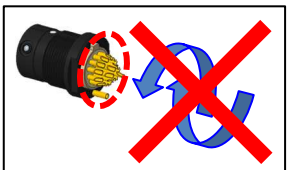


## 6 Cable Assembly

6.1 – Assembly Steps		
Picture	Process	Tools
	<p>Slide the following parts over the cable:</p> <ul style="list-style-type: none"> <li>• C – Potting Tube (recommended)</li> <li>• D – Heat-Shrink Tubing (optional)</li> </ul>	-
 <p>Specific for MiniMax™ Size 08 – 9-pin (USB3.0):</p>  <p>Z: Aluminum foils around twisted pairs.</p> <p><i>Please respect above dimensions for optimal high-speed data transmission.</i></p>	<p>Strip cable.</p> <p><i>Note: For representation purposes, the figures opposite are not to scale.</i></p>	Stripping Tool, Wire Cutter
	<p>Fold back cable shield over cable jacket</p> <p>Cover it with temporary adhesive tape to protect it</p>	-

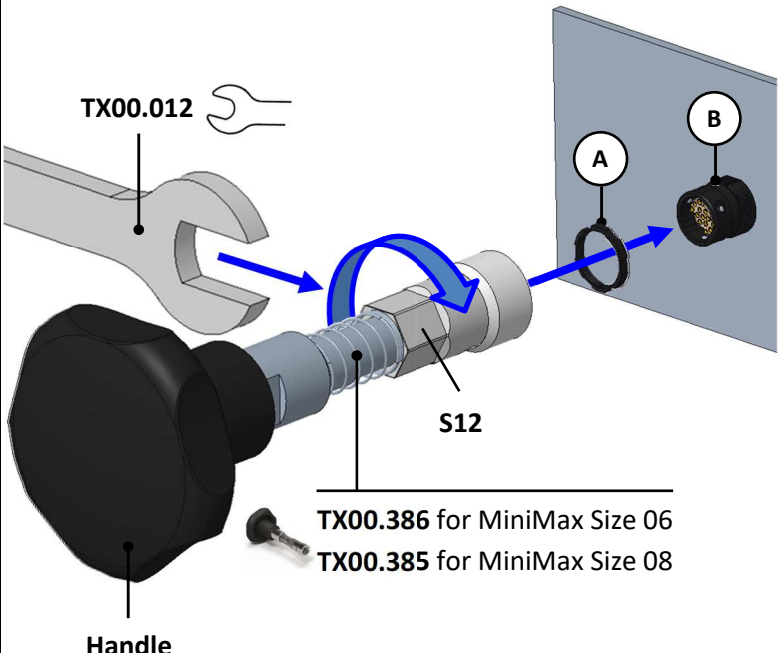
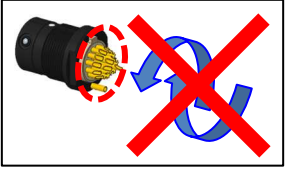


Picture	Process	Tools
	<p>Solder wires to  <b>B – Receptacle contacts</b></p>	<p>Soldering Iron</p> 
	<p>Slide  <b>C – Potting Tube</b>          against  <b>B – Receptacle</b></p>	<p>-</p>
	<p>Remove adhesive tape covering          cable shield</p> <p>Twist cable shield          strands          together</p> <p>Solder cable shield to receptacle          ground contact</p>	<p>Soldering Iron</p> 

Picture	Process	Tools
	<p>Slowly dispense potting material inside  <b>C</b> – Potting Tube</p> <p>Allow potting material to cure according to its specifications.</p> <p><i>Recommended potting material:                      Epoxy type: RS 851-044 <sup>(1)</sup></i></p> <p><i>1) Or equivalent.</i></p>	<p>-</p>
	<p><u>Optional</u></p> <p>Slide  <b>D</b> – Heat-Shrink Tubing                      against  <b>B</b> – Receptacle body</p> <p>Use heat gun to shrink  <b>D</b> – Heat-Shrink Tubing</p> <p>Continue until the wrap has                      been tightly secured.</p>	

## 7 Assembly on Panel

7.1 –Assembly Steps		
Picture	Process	Tools
	<p> <b>IMPORTANT NOTE:</b></p>  <p>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</p> <hr/> <p>Insert  <b>B</b> – Receptacle              through hole in panel</p>	<p>-</p>
<p><b>Method A</b></p> <p> <b>TX00.008</b> (S8)   <b>TX00.010</b> (S10)   <b>TX00.012</b> (S12)</p> <p> <b>TX00.383</b> for MiniMax Size 06  <b>TC00.007</b> for MiniMax Size 08</p> 	 <p>Screw  <b>A</b> – Panel Nut              on  <b>B</b> – Receptacle              by hand</p> <p>Tighten  <b>A</b> – Panel Nut              with Nut Driver              while holding flats on  <b>B</b> – Receptacle              with Flat Spanner              at recommended torque of:</p> <ul style="list-style-type: none"> <li>• MiniMax™ Size 06: <b>1.0 Nm</b></li> <li>• MiniMax™ Size 08: <b>1.5 Nm</b></li> </ul>	<p>Refer to              Table 1 in §4</p> <p> Nut Driver              with T-Handle</p> <p> Flat Spanner</p>



Picture	Process	Tools
<p><b>Method B</b> Recommended method when there is no access to the rear of the receptacle.</p> 	 <p>Screw A – Panel Nut on B – Receptacle by hand</p> <p>Insert Single Sided Nut Driver into B – Receptacle body</p> <p>by turning Handle carefully to engage tool into connector keyway.</p> <p>Tighten A – Panel Nut</p> <p>with Flat Spanner on hexagonal profile of Single Sided Nut Driver while holding firmly its handle.</p> <p>Recommended torque:</p> <ul style="list-style-type: none"> <li>• MiniMax™ Size 06: <b>1.0 Nm</b></li> <li>• MiniMax™ Size 08: <b>1.5 Nm</b></li> </ul>	<p>Refer to Table 1 in §4</p>  <p>Single Sided Nut Driver</p>  <p>Flat Spanner</p>