



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:

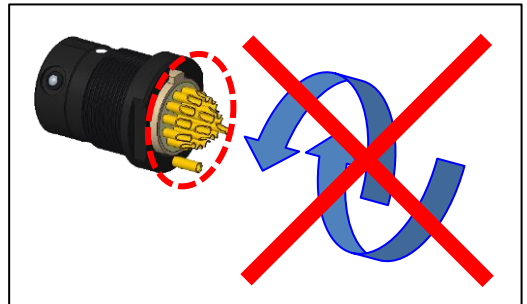
- Panel mounted receptacles: MR11WL / MR11WS / MR11WQ / MR12WL / MR12WS / MR12WQ

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
11.11.2021	1.1	NCT	SKE	Add Size 10

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

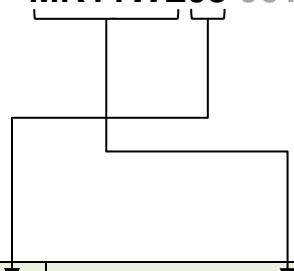





Table 1

Size	Body Style	Flat Spanner		Nut Driver with T-Handle		Single Sided Nut Driver		Torque [Nm]
								
		#1		#2		#3 ^{a)}		
		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					
10	MR11WL / MR11WS / MR11WQ	12	TX00.012	7	TX00.403	12	TX00.412	2.0
	MR12WL / MR12WS / MR12WQ	14	TX00.014					

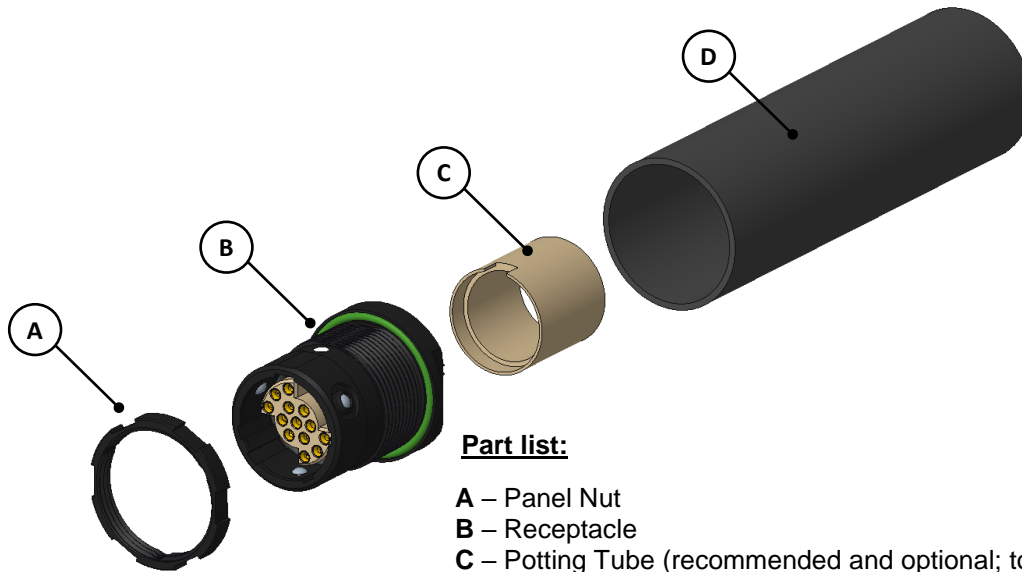
a) Use either #1 with #2 (Method A) or #3 with TX00.012 (Method B)

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.



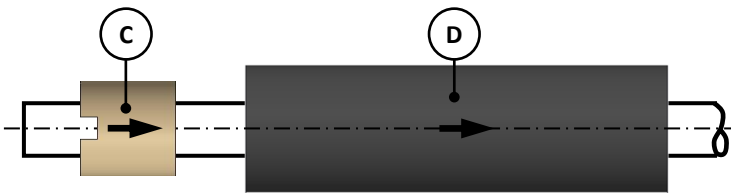
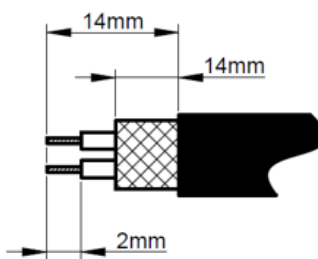
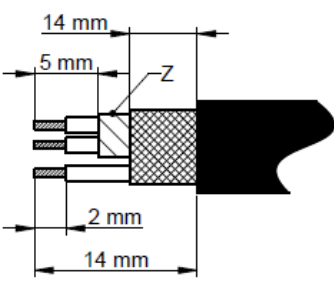
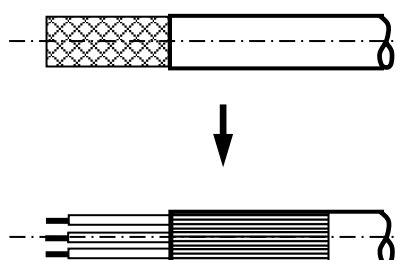
Part list:



- 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)

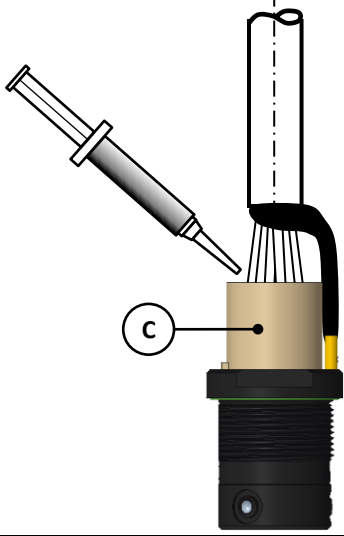
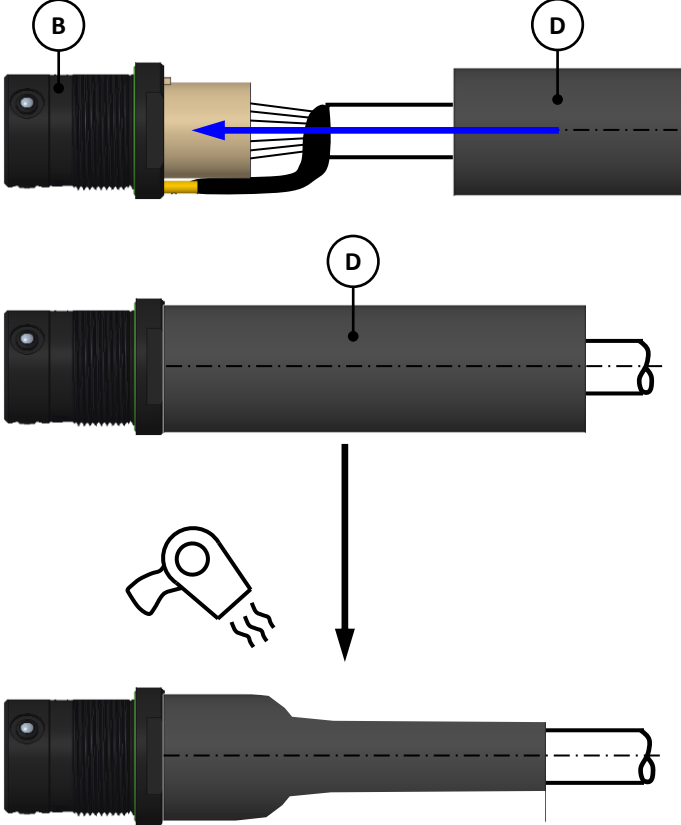

Note: **C** and **D** only for solder contact termination and assembly on cable

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

6 Cable Assembly

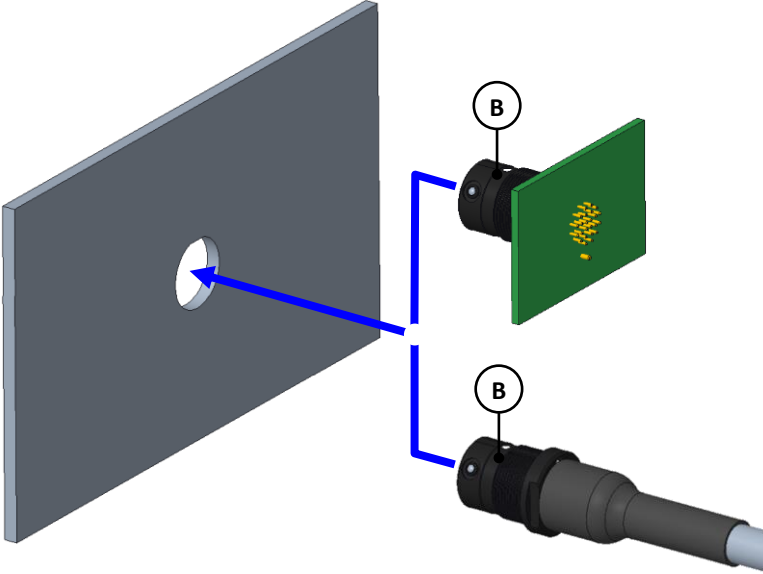

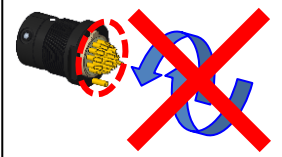
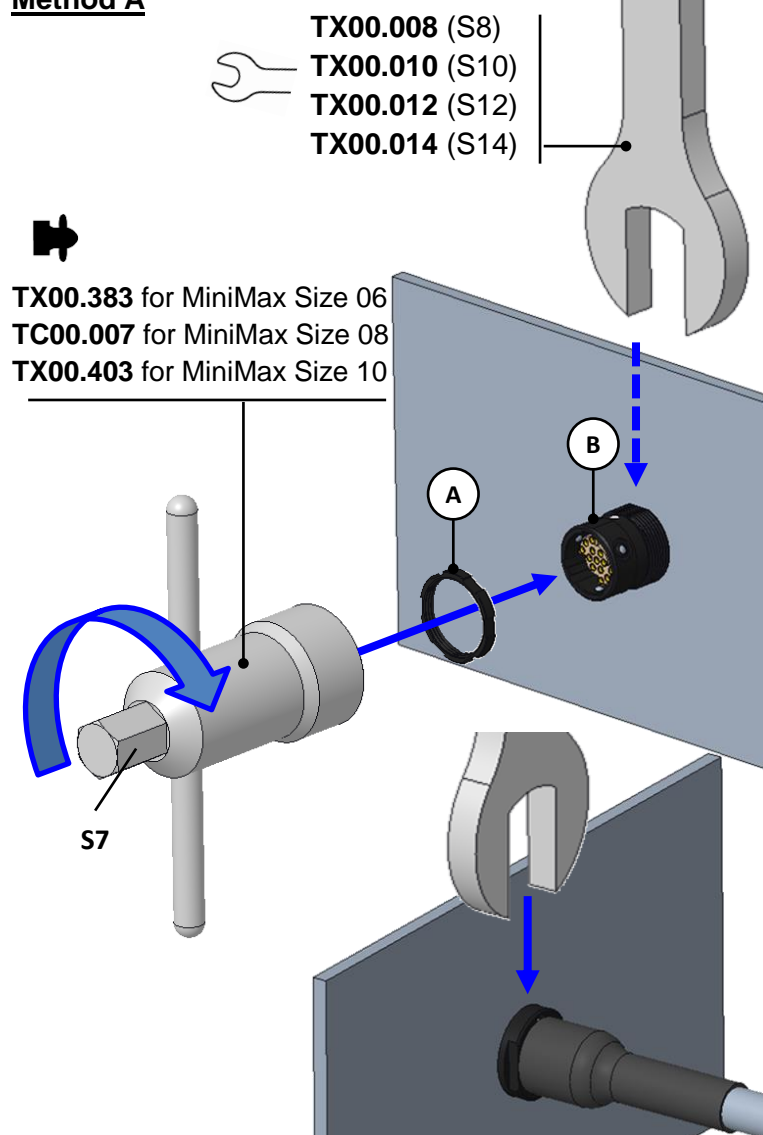




6.1 – Assembly Steps		
Picture	Process	Tools
	Slide the following parts over the cable: <ul style="list-style-type: none"> • C – Potting Tube (recommended) • D – Heat-Shrink Tubing (optional) 	-
 <p>Specific for MiniMax™ Size 08 – 9-pin (USB3.0): Size 10 – 12-pin (USB3.0):</p>  <p>Z: Aluminum foils around twisted pairs.</p> <p><i>Please respect above dimensions for optimal high-speed data transmission.</i></p>	Strip cable. <i>Note: For representation purposes, the figures opposite are not to scale.</i>	Stripping Tool, Wire Cutter
	Fold back cable shield over cable jacket Cover it with temporary adhesive tape to protect it	-

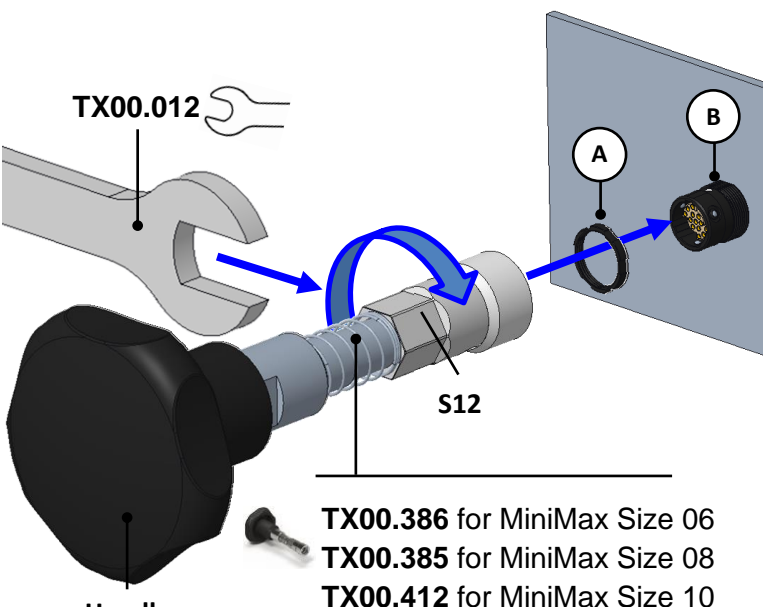
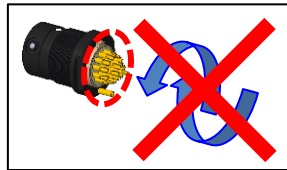


Picture	Process	Tools
	<p>Solder wires to B – Receptacle contacts</p>	<p>Soldering Iron</p> 
	<p>Slide C – Potting Tube against B – Receptacle</p>	<p>-</p>
	<p>Remove adhesive tape covering cable shield</p> <p>Twist cable shield strands together</p> <p>Solder cable shield to receptacle ground contact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

Picture	Process	Tools
	<p>Slowly dispense potting material inside C – Potting Tube</p> <p>Allow potting material to cure according to its specifications.</p> <p><i>Recommended potting material: Epoxy type: RS 851-044 ⁽¹⁾</i></p> <p>1) Or equivalent.</p>	<p>-</p>
	<p><u>Optional</u></p> <p>Slide D – Heat-Shrink Tubing against B – Receptacle body</p> <p>Use heat gun to shrink D – 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>IMPORTANT NOTE:</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> <p>Insert B – Receptacle through hole in panel</p>	<p>-</p>
<p>Method A</p> <p>TX00.008 (S8) TX00.010 (S10) TX00.012 (S12) TX00.014 (S14)</p>  <p>TX00.383 for MiniMax Size 06 TX00.007 for MiniMax Size 08 TX00.403 for MiniMax Size 10</p> <p>S7</p>	  <p>Screw A – Panel Nut on B – Receptacle by hand</p> <p>Tighten A – Panel Nut with Nut Driver while holding flats on B – Receptacle with Flat Spanner at recommended torque of:</p> <ul style="list-style-type: none"> • MiniMax™ Size 06: 1.0 Nm • MiniMax™ Size 08: 1.5 Nm • MiniMax™ Size 10: 2.0 Nm 	<p>Refer to Table 1 in §4</p>  <p>Nut Driver with T-Handle</p>  <p>Flat Spanner</p>

Picture	Process	Tools
<p>Method B Recommended method when there is no access to the rear of the receptacle.</p>  <p>TX00.012</p> <p>S12</p> <p>Handle</p> <p>TX00.386 for MiniMax Size 06 TX00.385 for MiniMax Size 08 TX00.412 for MiniMax Size 10</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"> • MiniMax™ Size 06: 1.0 Nm • MiniMax™ Size 08: 1.5 Nm • MiniMax™ Size 10: 2.0 Nm 	<p>Refer to Table 1 in §4</p>  <p>Single Sided Nut Driver</p>  <p>Flat Spanner</p>