

MINI-FIT, SR.™

High Current with Compact Size



Mini-Fit, Sr.™ — Introduction

The Mini-Fit, Sr. continues the tradition of the Mini-Fit Family of providing high current with compact size. While significantly larger than its relative, the Mini-Fit, Jr., it is very compact for its applications. In most applications, the Mini-Fit, Sr. offers the first real connector capability for its wire size and current rating. It allows the replacement of traditional lugs with a true interconnect capable of fully utilizing the current capabilities of the wire used. Designed and tooled in metric, the Mini-Fit, Sr. allows the user for the first time to have a complete family of products for both wire-to-wire and wire-to-board applications.

The unique polarization of the housings assures that unlike circuit sizes can not be accidentally cross mated and that like sizes can not be mated in any direction. The entire product line is molded on UL 94V-0 rated thermoplastic and the contacts are post plated tin/lead over nickel to eliminate bare edges. Available in both vertical (mating perpendicular to the board) and right angle (mating parallel to the board) versions, the printed circuit board headers are surface mount compatible and feature metal board retention clips, which can also be soldered to the printed circuit board. Four independent contact points provide a reliable contact interface and permit low engagement forces while maintaining a high normal force. The unique system design eliminates the traditional terminal locking tang, which is replaced with an internal primary lock in the housing, and a terminal position assurance (TPA) system which provides very high contact to housing retention forces.

SPECIFICATIONS AT A GLANCE

MATERIALS

Terminals:	Copper Alloy
Plating:	Tin/Lead over Nickel
Housing Plug / Receptacle:	Polyester
Housing Headers:	Glass-filled, 4/6 nylon

MECHANICAL

Contact Insertion Force:	5.0 kg max.
Contact retention to housing:	9.0 kg min.
Wire Pull-Out Force:	12 AWG - 31 kg
Durability:	30 cycles

ELECTRICAL

Current:	49A max.
Voltage:	250V
Operating Temperature:	— 40 to 105°C
Contact Resistance:	1 MΩ max.
Insulation Resistance:	1000 MΩ min.
Dielectric Withstanding Voltage:	2200V

REFERENCE INFORMATION

Packaging:	Reel (Terminal), Bag (Housing), Tray (Header)
Product specification:	PS-42815-0001
Designed in:	Millimeters

FEATURE

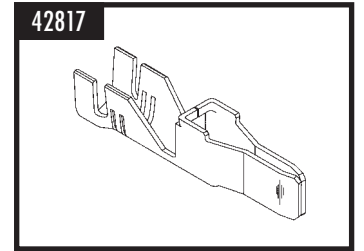
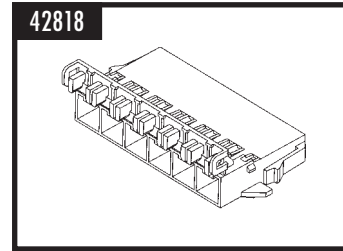
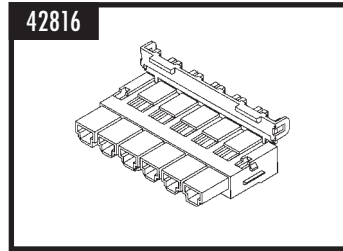
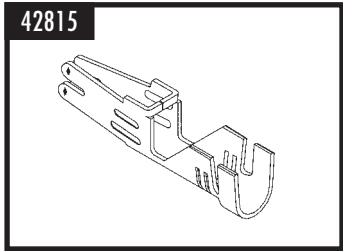
BENEFIT

- High current
- Crimp terminal accepts three wire gauges
- Dual beam female contact
- Fully polarized
- 10mm centerline
- 30% glass filled 4/6 nylon
- Positive Locks
- Terminal Position Assurance
- Three terminal tail lengths
- Metal retention clip soldering
- Wire-to-wire and wire-to-board
- Design flexibility
- Provides 4 points of contacts
Lower mating forces
Increased reliability
- Eliminates mismatching
- Small versus other high current connectors
- Surface Mount Compatible
- Prevents accidental disengagement
- Eliminates terminal backouts
- Offers flexibility on PCB design
- Header stays on PCB during process
- Broad design flexibility

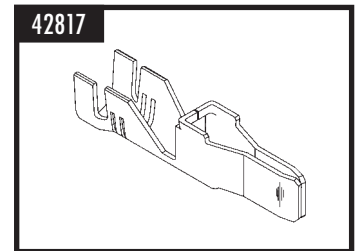
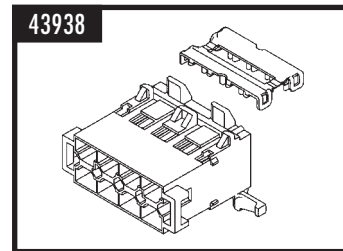
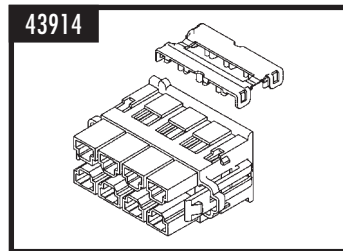
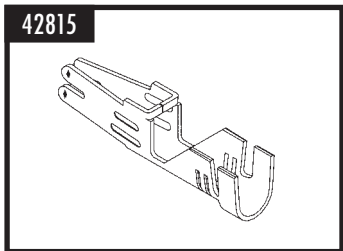


Mini-Fit, Sr.™ — High Current Power Connector System

SINGLE ROW (2-6)

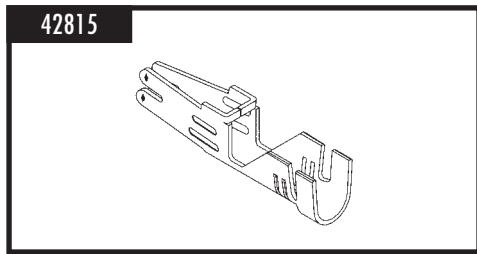


DUAL ROW (6-14)

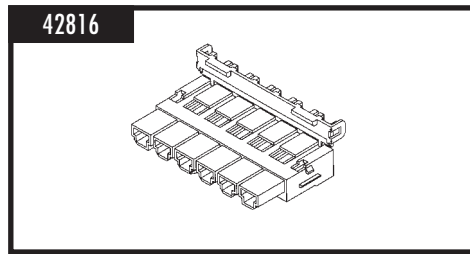


Wire-to-Wire

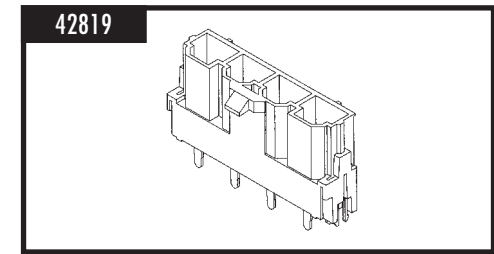
VERTICAL



Female Terminal

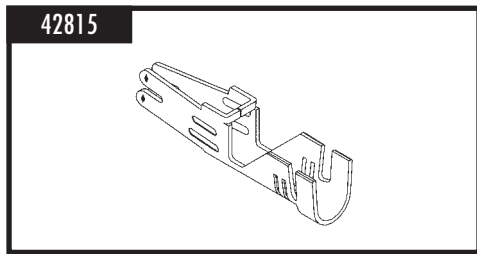


Receptacle

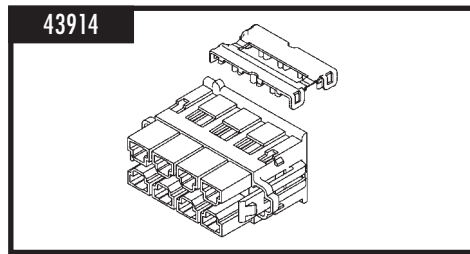


Metal Clip Mount SMC

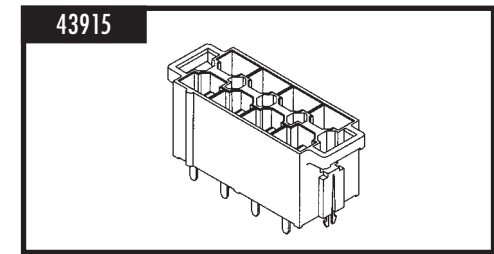
SINGLE ROW (2-6)



Female Terminal



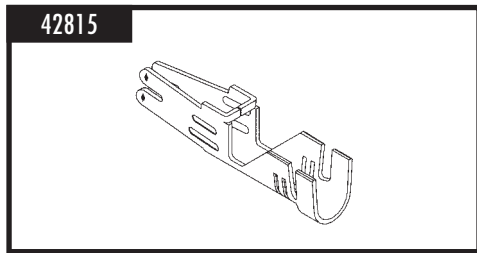
Receptacle



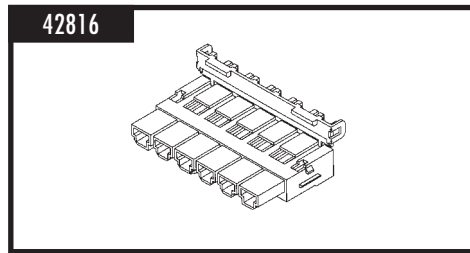
Metal Clip Mount SMC

DUAL ROW (6-14)

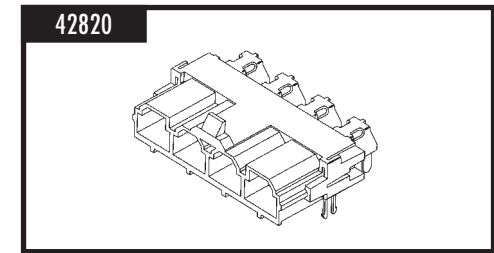
RIGHT ANGLE



Female Terminal



Receptacle



Metal Clip Mount SMC

SINGLE ROW (2-6)



Wire-to-Board

Mini-Fit, Sr.™ — Ordering Information

Description	Plating	Order No.	No. of circuits
WIRE-TO-WIRE			
SINGLE ROW			
Receptacle		42816-xx12	2-6
Panel Mount Plug		42818-xx12	2-6
DUAL ROW			
Receptacle		43914-11xx	6-14
Panel Mount Plug		43938-11xx	6-14
TPA		43980-10xx	6-14
WIRE-TO-BOARD (VERTICAL)			
SINGLE ROW			
Metal Clip Mount SMC	Tin/Lead over nickel	42819-xxx2	2-6
DUAL ROW			
Metal Clip Mount SMC	Tin/Lead over nickel	43915-11xx	6-14
WIRE-TO-BOARD (RIGHT ANGLE)			
Metal Clip Mount SMC	Tin/Lead over nickel	42820-xxx2	2-6

TERMINAL AND APPLICATION TOOLING						
Wire Size AWG	Female	Male	Mini-Mac Applicator	Mini-Mac Spare Tooling	Hand Crimper	Extraction Tool
10-12	42815-0011	42817-0011	63830-0100	63830-0170	63811-1600	63813-0400
8	42815-0031	42817-0031	63830-0000	63830-0070	63811-1500	63813-0400





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