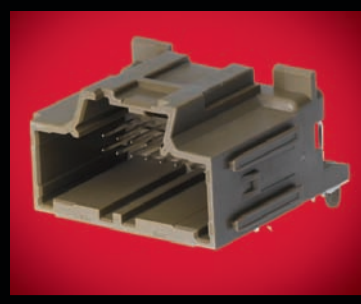


Stac64™

Unsealed Connector System

molex®

Applications

To address the growing electronic device requirements within today's vehicles, Molex has developed a modular 0.64, 1.50 and 2.80mm (.025, .059 and .110") terminal header system. The Stac64 connection system allows OEM and device manufacturers greater design flexibility to support both low-level signal requirements as well as power applications upwards of 30.0A. The Stac64 system allows automotive manufacturers to use header assemblies as stand-alone components, to gang multi-bay headers together to support a large range of signal and power needs for devices and modules.

The standard product line based on the 0.64mm (.025") terminal includes: 8-, 12-, 16- and 20-circuit connectors in both vertical and right-angle headers supporting low-level signal requirements. An additional 10-circuit 'power pocket' version, supporting power applications for 1.50 and 2.80mm (.059 and .110") terminal systems, is available in vertical and right-angle configurations.

This Stac64 is a standard product system based on USCAR-2 Class II mechanical and electrical performance characteristics for unsealed connector applications. The connectors mate to existing wire-harness connectors designed to the USCAR/EWCAP industry footprints.

The Stac64 standard product offering is currently tooled in high cavitation and is fully validated at the single and multi-bay levels. This greatly reduces time-to-market by completely eliminating the need for additional tooling. For additional information visit: http://www.molex.com/link/stac64.html

Driver Interface

– Door Lock Switches
– Window Switches
– HVAC
– Power Seats
– Heated Seats
– Instrument Clusters

Lighting/Mirrors/Safety

– Dome Lighting
– Interior Lighting
– Rearview Mirrors
– Side Mirrors
– Safety Cameras

http://www.molex.com/link/stac64.html

Infotainment

– Radios
– Amplifiers
– Speakers
– Navigation
– Telematic Devices
– Driver Entertainment (audio players)
– DVD Players
– LVDS Displays

Stac64 Unsealed Configurations

Receptacles and Terminals

PCB Headers

Serviceability

Crimp Tooling

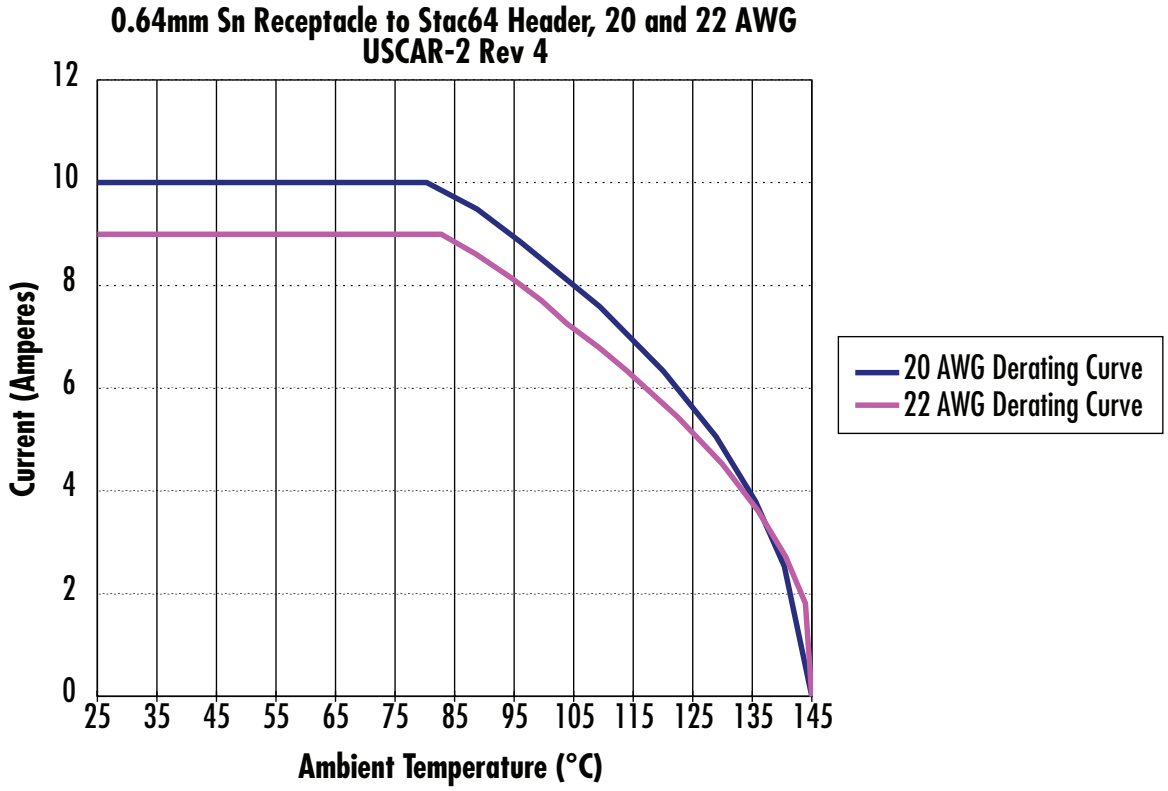
Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Stac64™
Unsealed Capabilitites

Description	Signal	Power
Operating Temperature Range (USCAR Class III)	105˚C	
Current Carrying Capacity (See Derating Curves below)	0.64mm (.025"): 10.0A	1.50mm (.059"): 20.0A 2.80mm (.110"): 30.0A
Terminal Pitch (Matte Seal Product)	2.54mm (.10")	1.5: 3.50mm (.138") 2.8: 5.25mm (.207")
Connector System Retention (Main Latch) USCAR Requirement: Exceeds spec. (more than 2x)	110N (24.7 lb) avg	
Terminal Retention (to Connector) USCAR Requirement: Exceeds spec. (more than 2x)	90N min. (20.2 lb) min	90N (20.2 lb) min
Polarization Feature Effectiveness	120N (27.0 lb) min	220N (49.51 lb) min
Vibration Performance (USCAR-2 Rev. 5) Random "On-Body" Profile	0.64: 20 milliohms max.	1.5: 10 milliohms max. 2.8: 5 milliohms max.
(USCAR-2 Rev. 5) Mechanical Shock		

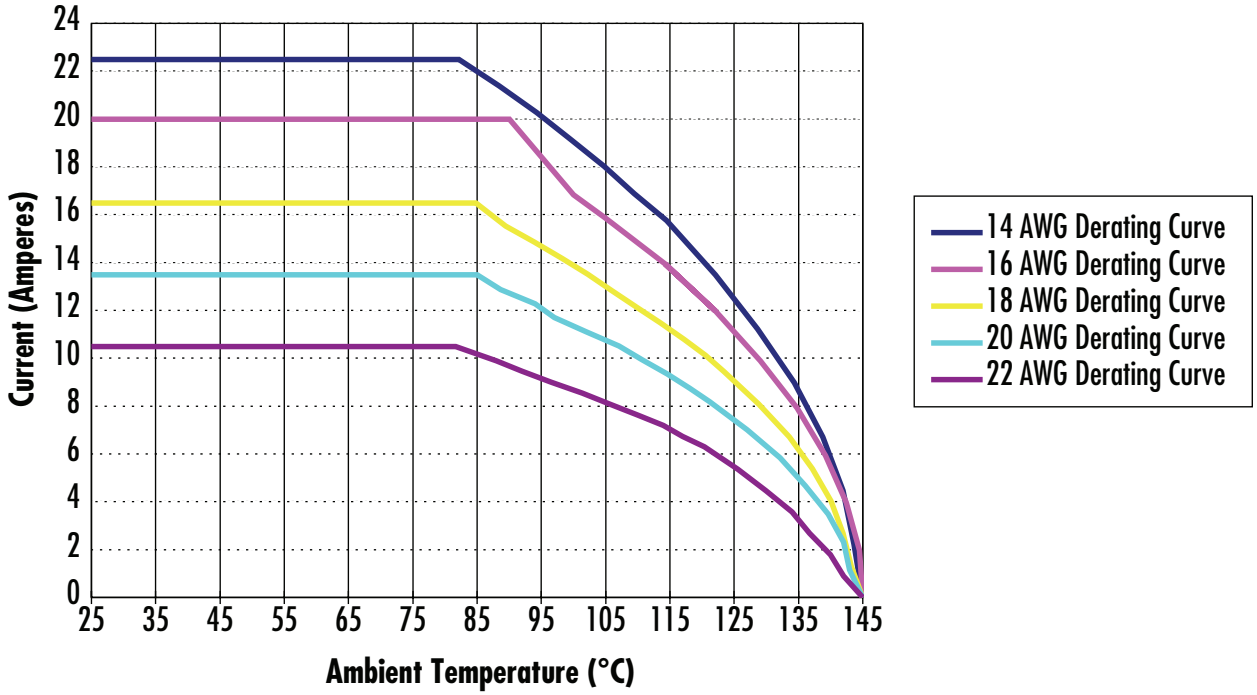
Note: Product Specification PS-34729-100 and PS-31372-100 available on molex.com
Electrical requirements validated to USCAR-21 and USCAR-2

Stac64™
Current Carrying Capacity Curves

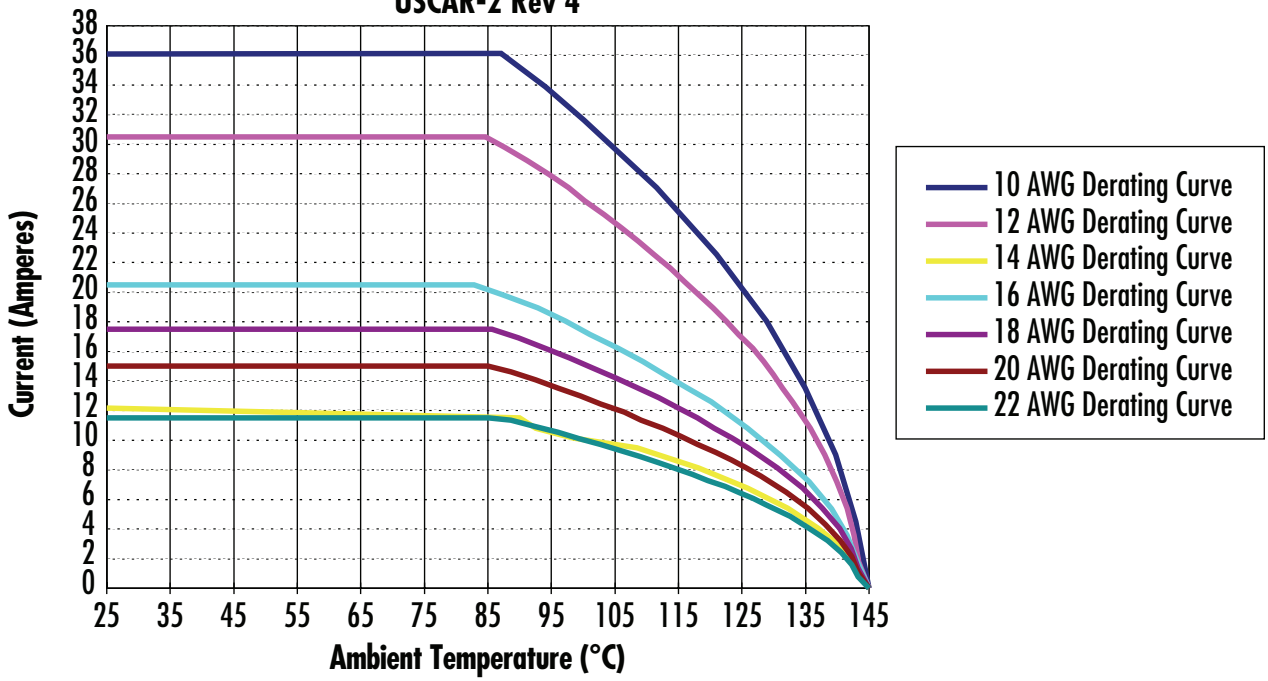


Stac64™
Current Carrying Capacity Curves

1.50mm 0.30mm Sn Receptacle to Stac64 Header, 14 to 22 AWG
USCAR-2 Rev 4

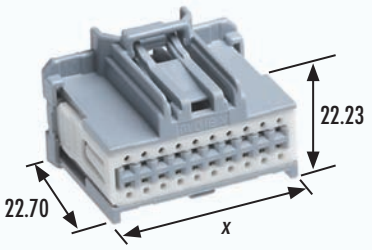


2.80mm Sn Receptacle to Stac64 Header, 10 to 22 AWG
USCAR-2 Rev 4



2.54mm (.100") Pitch Stac64™ Signal Receptacle

34729
Female



Features and Benefits
- Pre-assembled TPA to receptacle housing shipped as single assembly provide applied labor and cost savings

Reference Information
Packaging: Female Receptacle Connectors—Bulk Pack
Mates With: Series 34690, 34691 male unsealed headers
Use With Terminals:
0.64mm (.059") female—Series 34803
Designed In: Millimeters

Electrical
Voltage: 500V max.
Current: 0.64mm (.025")—10.0A max.
Contact Resistance: 0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical
Connector Retention (Primary latch): 110N (24.7 lb) min.
Contact Retention to Housing:
0.64mm (.025")—75N (16.9 lb) min. with TPA,
30N (6.7 lb) without TPA
Contact Insertion Force Into Housing: 30N (6.7 lb) max.
Connector Audible Feedback: 7dB over ambient
Durability: 10 milliohms max.—10 cycles
TPA Insertion Force: 60N (13.5 lb) max.
TPA Extraction Force: 60N (13.5 lb) max.
Thermal Shock (Class 2, 100 cycles):
0.64mm (.025")—20 milliohms max.
Vibration/Mechanical Shock (electrical):
0.64mm (.025")—20 milliohms max.
Temperature/Humidity (electrical):
0.64mm (.025")—20 milliohms max.
High Temperature Exposure (electrical):
0.64mm (.025")—20 milliohms max.
Mating Force: 60N max.

Physical
Harness Housings: Glass filled PBT
TPA: 15% glass filled polyester

Circuit Size	Order No.	Polarization Option	Color	Assembly Features	Comment	Connector Length (Dimension "X")
8	34729-0080	A	Black	Housing and TPA Assembly	0.64mm (.025") terminal size USCAR receptacle connectors	14.76
	34729-0081	B	Grey			
	34729-0082	C	Brown			
12	34729-0120	A	Black			19.84
	34729-0121	B	Grey			
	34729-0122	C	Brown			
16	34729-0160	A	Black			24.92
	34729-0161	B	Grey			
	34729-0162	C	Brown			
20	34729-0200	A	Black			30.00
	34729-0201	B	Grey			
	34729-0202	C	Brown			
	34729-0203	D	Green			

Note: All dimensions in millimeters.

0.64mm Terminal

34803
Female

Features and Benefits
- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Sealed and unsealed versions
- Lead free

Reference Information
Packaging: Terminals—Reel
Mates With: Series 34690, 34691
Used With: Series 34729
Designed In: Millimeters

Electrical
Voltage: 500V max.
Current: 0.64mm (.025")—10.0A max.
Contact Resistance: 0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

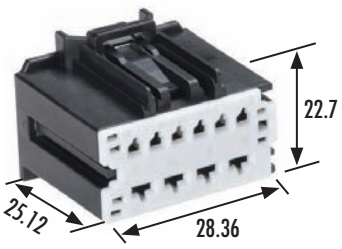
Mechanical
Wire Pull-Out Force:
20 AWG—75N (16.9 lb) min
22 AWG—50N (11.2 lb) min

Physical
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel
Insulation Diameter: 1.85 to 1.30mm (.073 to .051")
Wire Gauge: 0.85 to 0.22mm^2 (20 to 24 AWG)

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
34803-0213	34803-0211	Tin	22 AWG
34803-0214	34803-0212		20 AWG

Stac64™ Hybrid Receptacle

31372



Features and Benefits

- Pre-assembled TPA to receptacle housing shipped as single assembly provide applied labor and cost savings

Reference Information

Packaging: Female Receptacle Connectors—Bulk Pack
Mates With: Series 34695, 34696 male unsealed headers
Use With Terminals:
1.50mm (.059") female—Molex 33012-2001, -2002, -2003, -3001, -3002, -3003
2.80mm (.110") female—Tyco and Yazaki
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—20.0A max.
Contact Resistance: 2.80mm (.110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Mating Force: Less than 75N (16.9 lb)
Connector Retention (Primary latch): 110N (24.7 lb) min.
Contact Retention to Housing: 2.80mm (.110")—90N (20.2 lb) min. with TPA, 60N (13.5 lb) without TPA
1.50mm (.059")—85N (19.1 lb) min. with TPA, 45N (10.1 lb) without TPA
Contact Insertion Force Into Housing: 30N (6.7 lb) max.
Connector Audible Feedback: 7dB over ambient
Durability: 10 milliohms max.—10 cycles
TPA Insertion Force: 60N (13.5 lb) max.
TPA Extraction Force: 60N (13.5 lb) max.

Physical

Harness Housings: glass filled SPS/nylon blend
TPA: 15% glass filled polyester

Circuit Size	Order No.	Polarization Option	Color	Comment
10	31372-1000	A	Black	1.50 and 2.80mm (.059 and .110") terminal size hybrid receptacle connectors
	31372-1100	B	Grey	

Note: All dimensions in millimeters.

1.50mm MX150™ Terminals

33012/33001

Female

Features and Benefits

- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Sealed and unsealed versions
- Lead free

Reference Information

Packaging: Reel
Mates With: Series 34695 and 34696
Use With: Stac64™ Series 31372
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Wire Pull-Out Force:
14 AWG—180N min. (40.5 lb) min
22 AWG—70N min. (15.7 lb) min
Mating Force: 3.0N (0.7 lb) avg
Unmating Force: 3.0N (0.7 lb) avg
Normal Force: 6.0N (1.3 lb) avg

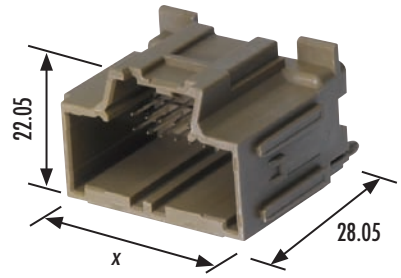
Physical

Contact: Copper Alloy
Plating: Tin
Wire Gauge: 2.00 to 0.35mm² (14 to 22 AWG)
Insulation Diameter: 2.70 to 1.20mm (.106 to .047")

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
33012-2001	33012-3001	Tin	14 to 16 AWG
33012-2002	33012-3002		18 to 20 AWG
33012-2003	33012-3003		22 AWG

2.54mm (.100") Pitch Stac64™ Signal Header

34690
Vertical Single-Bay



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Mates With: Series 34729
Designed In: Millimeters
Packaging: Tray or Tube

Electrical
Voltage: 500V max.
Current: 10.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical
Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
15N (3.4 lb) min.

Physical
Header Housings: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

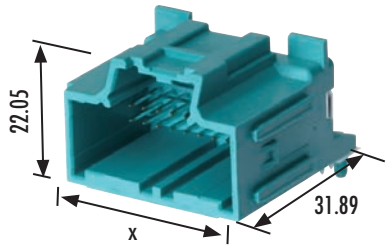
Circuit Size	Connector Length	Order No.	Polarization Option	Color	Packaging
8	18.80	34690-0080	A	Black	Tray
		34690-0081	B	Grey	
		34690-0082	C	Brown	
12	23.88	34690-0120	A	Black	
		34690-0121	B	Grey	
		34690-0122	C	Brown	
16	28.96	34690-0160	A	Black	
		34690-0161	B	Grey	
		34690-0162	C	Brown	
20	34.04	34690-0200	A	Black	
		34690-0201	B	Grey	
		34690-0202	C	Brown	
		34690-0203	D	Green	

Circuit Size	Connector Length	Order No.	Polarization Option	Color	Packaging
8	18.80	34690-9080	A	Black	Tube
		34690-9081	B	Grey	
		34690-9082	C	Brown	
12	23.88	34690-9120	A	Black	
		34690-9121	B	Grey	
		34690-9122	C	Brown	
16	28.96	34690-9160	A	Black	
		34690-9161	B	Grey	
		34690-9162	C	Brown	
20	34.04	34690-9200	A	Black	
		34690-9201	B	Grey	
		34690-9202	C	Brown	
		34690-9203	D	Green	

Note: All dimensions in millimeters.

2.54mm (.100") Pitch Stac64™ Signal Header

34691
Right Angle Single-Bay



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Mates With: Series 34729
Designed In: Millimeters
Packaging: Tray or Tube

Electrical
Voltage: 500V max.
Current: 10.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical
Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
15N (3.4 lb) min.

Physical
Header Housings: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

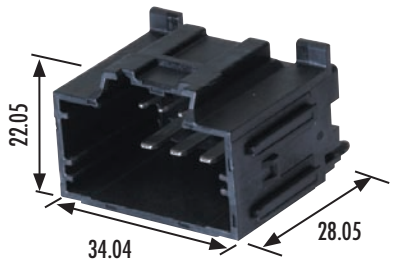
Circuit Size	Connector Length (Dimension "X")	Order No.	Polarization Option	Color	Packaging
8	18.80	34691-0080	A	Black	Tray
		34691-0081	B	Grey	
		34691-0082	C	Brown	
12	23.88	34691-0120	A	Black	
		34691-0121	B	Grey	
		34691-0122	C	Brown	
16	28.96	34691-0160	A	Black	
		34691-0161	B	Grey	
		34691-0162	C	Brown	
20	34.04	34691-0200	A	Black	
		34691-0201	B	Grey	
		34691-0202	C	Brown	
		34691-0203	D	Green	

Circuit Size	Connector Length (Dimension "X")	Order No.	Polarization Option	Color	Packaging
8	18.80	34691-9080	A	Black	Tube
		34691-9081	B	Grey	
		34691-9082	C	Brown	
12	23.88	34691-9120	A	Black	
		34691-9121	B	Grey	
		34691-9122	C	Brown	
16	28.96	34691-9160	A	Black	
		34691-9161	B	Grey	
		34691-9162	C	Brown	
20	34.04	34691-9200	A	Black	
		34691-9201	B	Grey	
		34691-9202	C	Brown	
		34691-9203	D	Green	

Note: All dimensions in millimeters.

Stac64™ Power Header

34695
Vertical Single-Bay Hybrid



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- Pre-assembled, linear Mylar PC tail alignment strip for right-angle headers reduces PCB packaging complexity and provides space savings
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Mates With: Series 31372
Designed In: Millimeters
Packaging: Tray or Tube

Electrical

Voltage: 500V max.
Current: 1.50mm (.059")—20.0A max.
2.80mm (.110")—30.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.

Physical

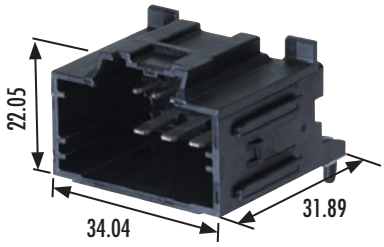
Header Housings: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color	Packaging	Assembly Features	Headers
10	34695-0100	A	Black	Tray	Housing and Blades Assembly	Power
	34695-0101	B	Grey			
	34695-9100	A	Black	Tube		
	34695-9101	B	Grey			

Note: All dimensions in millimeters.

Stac64™ Power Header

34696
Right Angle Single-Bay Hybrid



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Packaging: Tray or Tube
Mates With: Series 31372 female connectors
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 1.50mm (.059")—20.0A max.
2.80mm (.110")—30.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.

Physical

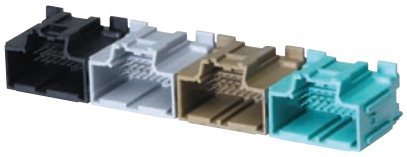
Header Housings: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color	Packaging	Assembly Features	Headers
10	34696-0100	A	Black	Tray	Housing and Blades Assembly	Power
	34696-0101	B	Grey			
	34696-9100	A	Black	Tube		
	34696-9101	B	Grey			

Note: All dimensions in millimeters.

Stac64™ Multi-Bay Headers

34707
Vertical Ganged Multi-Bay



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Packaging: Male Headers—Tray or Tube
Mates With: 34729 and 31372
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—20.0A max.
0.64mm (.025")—10.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.
0.64mm (.025")—15N (3.4 lb) min.

Physical

Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
0.64mm (.025") pins—Copper Alloy
Plating:
Overplating—Tin
Underplating—Nickel

2-Bay

Order No.	Bay A			Bay B		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34707-2000	20	0.64 mm	A	20	0.64 mm	B
34707-2002			C			D
34707-2012	10	Hybrid	A			C
34707-2022	20	0.64 mm	C	10	Hybrid	A
34707-2030	10		B			
34707-2040	12		A	12	0.64 mm	B
34707-2050	20			16		A

3-Bay

Order No.	Bay A			Bay B			Bay C		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34707-3010	20	0.64mm	A	8	0.64mm	A	16	0.64mm	A
34707-3020	16		B			B	20		B
34707-3021	10	Hybrid	A	20		C			D
34707-3030	12	0.64mm							

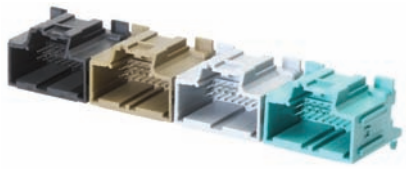
4-Bay

Order No.	Bay A			Bay B			Bay C			Bay D		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34707-4000	20	0.64mm	A	20	0.64mm	B	20	0.64mm	C	20	0.64mm	D
34707-4010	12					A	8		A	16		A

Note: See sales drawings on molex.com for specific header configurations

Stac64™ Multi-Bay Headers

34708
Right Angle Ganged Multi-Bay



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Packaging: Male Headers—Tray or Tube
Mates With: Series 34729 and 31372
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—20.0A max.
0.64mm (.025")—10.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.
0.64mm (.025")—15N (3.4 lb) min.

Physical

Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
0.64mm (.025") pins—Copper Alloy
Plating:
Overplating—Tin
Underplating—Nickel

2-Bay						
Order No.	Bay A			Bay B		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34708-2000	20	0.64 mm	A	20	0.64 mm	B
34708-2002			C			D
34708-2010	12		A	10	Hybrid	B
34708-2012	10	Hybrid		20	0.64 mm	C
34708-2020				16		A
34708-2022	20	0.64 mm	C	10	Hybrid	
34708-2030	10	Hybrid	B			
34708-2040	20	0.64 mm	A	8	0.64 mm	
34708-2050				16		
34708-2060	10	Hybrid	B			
34708-2070	16	0.64 mm	A	12		
34708-2080				16		B

3-Bay									
Order No.	Bay A			Bay B			Bay C		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34708-3010	20	0.64mm	A	20	0.64mm	B	16	0.64mm	A
34708-3020	10	Hybrid					20		C
34708-3021						C			D
34708-3030	16	0.64mm		12		A	10		A
34708-3040	20			8					
34708-3050	10	Hybrid		16		B	16		C
34708-3060	16	0.64mm		20		C	20		D
34708-3070	20					B	10		A
34708-3080	12			12			16		

4-Bay												
Order No.	Bay A			Bay B			Bay C			Bay D		
	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option	Circuit Size	Type	Polarization Option
34708-4000	20	0.64mm	A	20	0.64mm	B	20	0.64mm	C	20	0.64mm	D
34708-4010	12			12			16		A	8		A
34708-4020	16		B	8					C	12		C

Note: See sales drawings on molex.com for specific header configurations

Stac64™ Signal Receptacle Serviceability

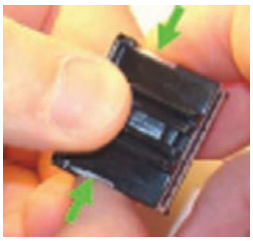
Connector Assembly

- Connectors shown with TPAs in seated condition. For shipment the TPA position will be in a pre-seated condition.

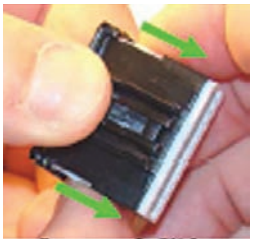
TPA "Lift to Pre-Lock"

- TPA must be in pre-lock position to populate the connector. If during shipping the Connector TPA moves from its pre-lock position, simply squeeze both sides of the TPA and slide it up. The TPA will snap into pre-lock position.

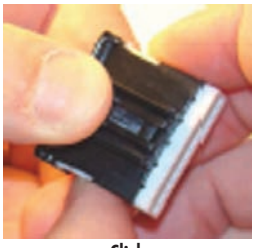
If the TPA or housing is damaged in any way do not use the connector!!!



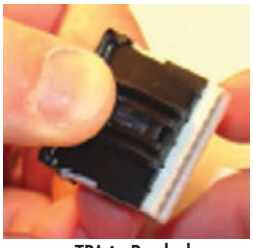
Squeeze



Squeeze and Slide



Click



TPA in Pre-lock

Terminal Installation

- With TPA still in pre-lock position, orient terminal to rear of connector as shown below. Grip the wire no less than 1.25" from the terminal insulation crimp and insert through the appropriate circuit opening. If resistance is encountered, retract the terminal and adjust the angle of insertion. Continue inserting the terminal until it stops and locks up on the lock finger with an audible click.

TPA must be in Pre-Lock Position to Populate Connector

Push

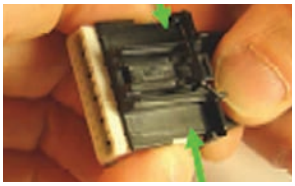
Click

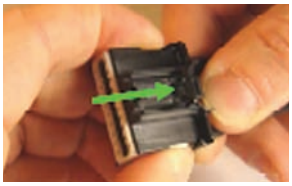
Pull

Seating the TPA

- With the receptacle terminals fully installed, the TPA can be seated into its final lock position by squeezing both sides of the TPA evenly, then sliding the TPA toward the housing until it comes to a stop flush to the top of the connector housing.

Push uniformly on TPA sides to fully seat.



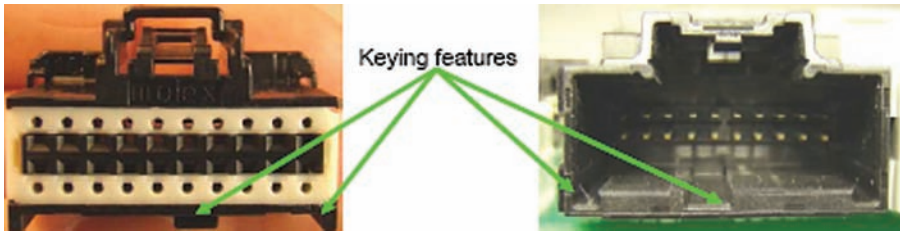


Stac64™ Signal Receptacle Serviceability

Connector Mating

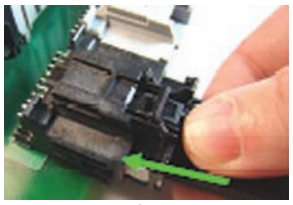
Connector Mating

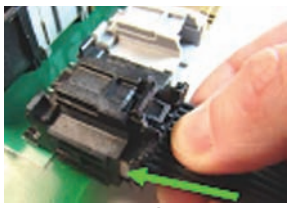
- Note and align connector keying features, from receptacle connector to Mating header.



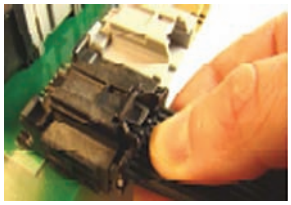
Mating Procedure

- Begin mating procedure by sliding the receptacle connector assembly into the header assembly, pressing firmly until an audible click is heard.


Align


Push

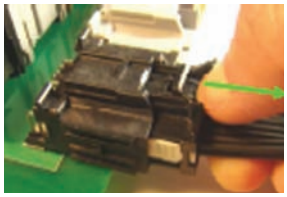

Click


Pull

Un-mate procedure

- To un-mate the connectors, push connector together to unload the latch system. Than depress the latch with your thumb (step1). Continue to depress the latch, and gently pull apart connector assemblies (step 2).


Step 1

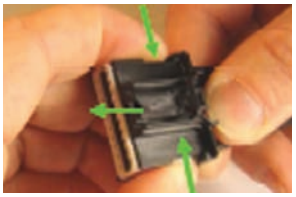

Step 2

Stac64™ Signal Receptacle Serviceability

Connector Servicing

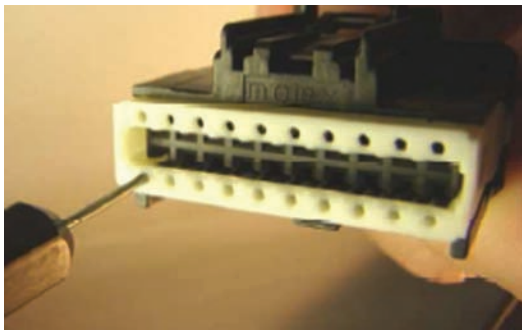
Terminal Servicing

- Squeeze and slide the TPA away from the housing. TPA will snap into the pre-lock position. With the TPA in pre-lock use the designated service tool, push through the service hole to disengage the lock finger. Push straight until reaching a hard stop. Once the Lock finger is disengaged, gently pull on the wire to release the terminal.



Squeeze and slide

TPA in pre-lock



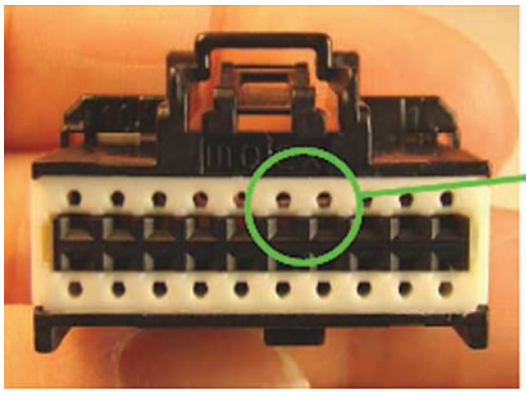
Servicing terminal

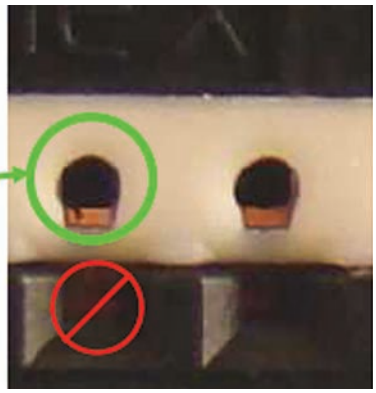
Pull on wire

Section 5: Service Instructions

Electrical Probing, Continuity Checking

- The preferred method of probing; use the Probe opening for receptacle terminal to check for electrical continuity.





Never probe in terminal contact area
Use the designated access point.

Electrical Continuity Check List

- Probe pin recommendations:

1. When testing the connector for continuity it is imperative that you do not damage the terminals!
2. Pogo pins should be checked for damage or sticking several times a shift. This should assure containment if an issue is found.
3. First a visual inspection of all the pins for damage should be performed.
4. Next a testing block should be used to depress all the pogo pins up into the barrel. If there is a bent or sticking pin, it should remain stuck in the barrel of the pogo pin.
   A damaged or stuck pin should be replaced before any additional testing is performed.

- Probing damage can occur:

1. If a sharp ended probe is inserted into the contact of the terminal it may damage the plating and increase contact resistance
2. If an oversized diameter probe is inserted into the terminal, this will overstress the beam in the terminal. This will create an environment for intermittent connections, and increased contact resistance.
3. If a probe is inserted into the connector on an angle or off center it may damage the terminal, and or the connector.

Stac64™ Signal Receptacle Serviceability

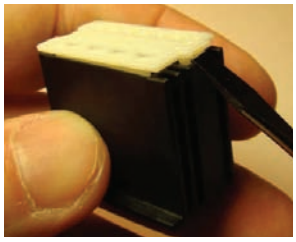
Connector Assembly

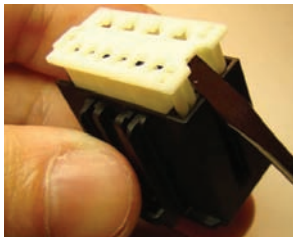
Connectors shown "As Shipped"

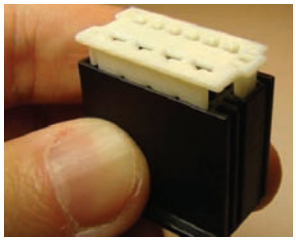
- Connector Position TPAs shown in "as shipped" condition (pre-lock). The TPA must remain in the pre-lock position until all circuits are loaded.

TPA "lift to pre-lock"

- TPA must be in pre-lock position to populate the connector. If during shipping the Connector TPA moves from its pre-lock position, slide a small screwdriver under the edge of the TPA on one side. Using the blade of the screwdriver, gently push TPA upwards. Repeat this on the opposite side. TPA will snap into pre-lock position.





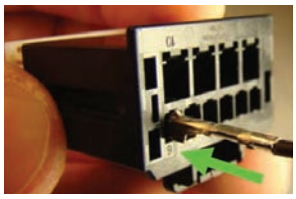


TPA in Pre-lock

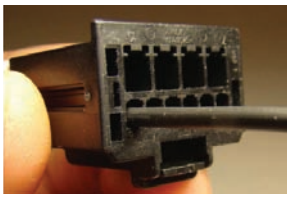
TPA must be in Pre-Lock Position to Populate Connector

Terminal Installation: 1.50mm

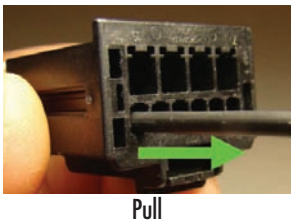
- With TPA still in pre-lock position, orient terminal to rear of connector as shown below. Grip the wire no less than 1.25 inches from the terminal insulation crimp and insert through appropriate circuit opening. If resistance is encountered, retract the terminal and adjust the angle of insertion. Continue inserting the terminal until it stops and locks up on the lock finger with an audible click.



Push



Click



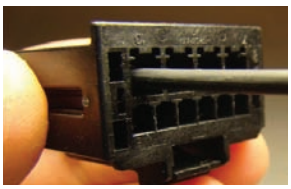
Pull

TPA must be in Pre-Lock Position to Populate Connector

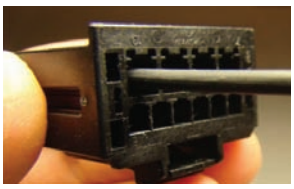
Terminal Installation: 2.80mm

- Installation for 2.80mm terminals is the same as above.

Push



Click



Pull

Stac64™ Signal Receptacle Serviceability

Connector Assembly

Seating the TPA

- With the receptacle terminals fully installed, the TPA can be seated into its final lock position by applying an even force to the TPA surface until it comes to a stop, with an audible click.

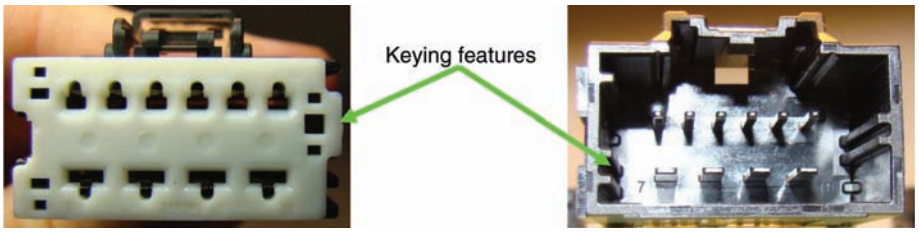
Push uniformly on TPA main surface only to fully seat.



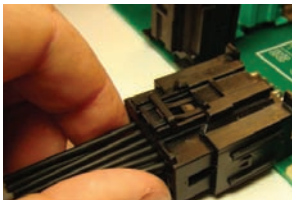
Click

Connector Mating

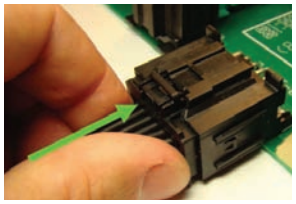
- Note and align connector keying features, from receptacle connector to Mating header.



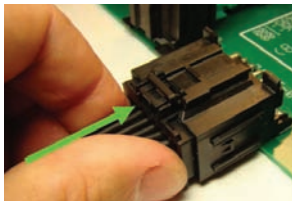
- Begin mating procedure by sliding the receptacle connector assembly into the header assembly. Press firmly until you hear an audible click.



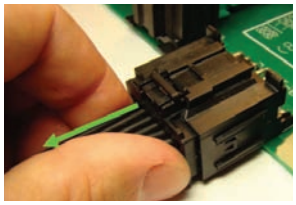
Align



Push



Click

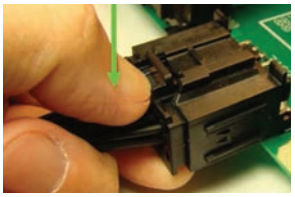


Pull

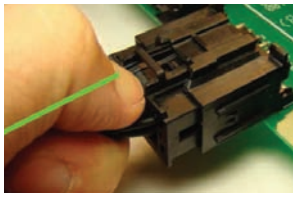
Stac64™ Signal Receptacle Serviceability

Un-mate procedure

- To un-mate the connectors, push connector together
  to unload the latch system. Then depress the latch with your thumb (Step1). Continue to depress the latch, and gently pull apart connector assemblies (Step 2).



Step 1

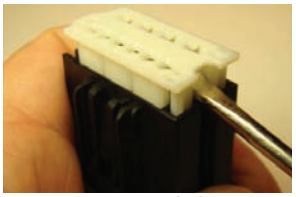


Step 2

Terminal Servicing

- Slide small screwdriver under the edge of the TPA on one side. Using the blade of screwdriver, gently push TPA upwards. Repeat on opposite side. TPA will snap into the pre-lock position.

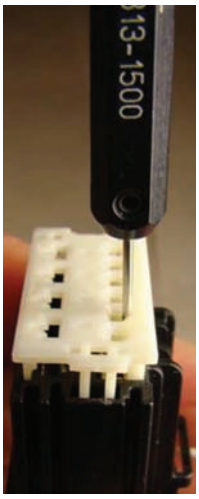
Step 1

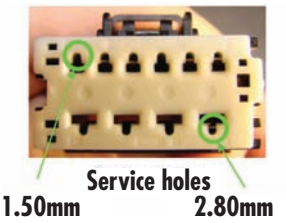


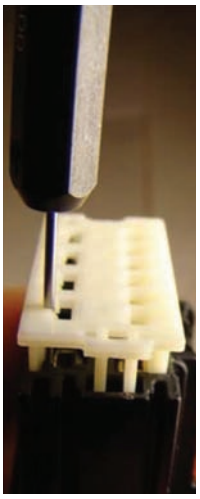
TPA in pre-lock

Terminal servicing (continued)

- With the TPA in pre-lock, use the designated service tool Molex Part Number 63813-1500 to push through the service hole to disengage the lock finger. Push straight until reaching a hard stop. Once the lock finger is disengaged, gently pull on the wire to release the terminal.



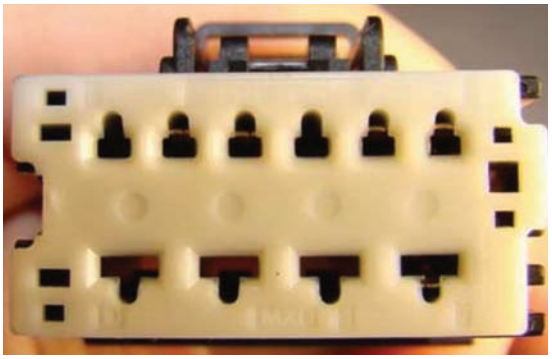




Stac64™ Signal Receptacle Serviceability

Electrical Probing, Continuity Checking

- Preferred method of probing: use the Probe opening for receptacle terminal to check for electrical continuity.



Never probe in terminal contact area. Use the designated access point.

Electrical Continuity Check List

- Probe pin recommendations:

1. When testing the connector for continuity it is imperative that you do not damage the terminals!
2. Pogo pins should be checked for damage or sticking several times a shift. This should assure containment if an issue is found.
3. First a visual inspection of all the pins for damage should be performed.
4. Next a testing block should be used to depress all the pogo pins up into the barrel. If there is a bent or sticking pin, it should remain stuck in the barrel of the pogo pin. A damaged or stuck pin should be replaced before any additional testing is performed.

- Probing damage can occur:

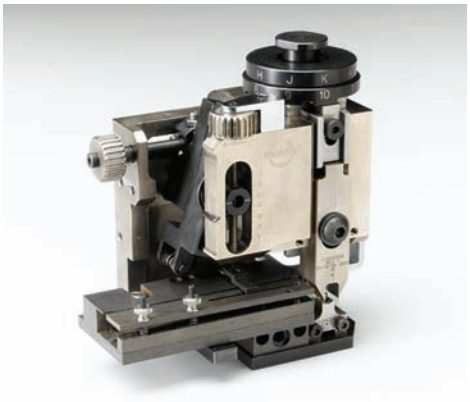
1. If a sharp ended probe is inserted into the contact of the terminal it may damage the plating and increase contact resistance.
2. If an oversized diameter probe is inserted into the terminal, this will overstress the beam in the terminal. This will create an environment for intermittent connections, and increased contact resistance.
3. If a probe is inserted into the connector on an angle or off center it may damage the terminal, and or the connector.

0.64 and 1.50mm Crimp Tooling

Hand Tool

Application Tooling

Dimensions: Height: 152.00mm (6.00")
Width: 132.00mm (5.346")
Depth: 101.00mm (4.00")
Weight: Gross: 5.4kg (12 lbs.)
Unpacked: 4.1kg (9 lbs.)
Mechanics: Stroke: 28.50 and 41.30mm (1.125 and 1.625")
Shut Height: 135.8mm (5.346")
Processing Capability: 2500 terminations per hour, depending on operator's skill and application



Mechanical - Applicator

0.64 mm Female Terminal

Order No. (Right Payoff) B Wound	Order No. (Left Payoff) D Wound	Plating	Wire Gauge	Hand Crimp Tool	Applicator	Extraction Tool
34803-0213	34803-0211	Tin	22 AWG	63819-3700	63901-0100	63813-4300
34803-0214	34803-0212		20 AWG	63819-3800	63901-0300	
34803-0213	34803-0211		0.22 mm^2	63819-3700	63901-0100	
			0.35 mm^2			
			0.30 mm^2			
34803-0214	34803-0212		0.50 mm^2	63819-3800	63901-0300	
			0.75 mm^2			
			0.85 mm^2			

Note: Complete Applicators come with the perishable tooling loaded into the applicator.
See Crimp specification on molex.com for specific wire types.

1.50 mm Female Terminal

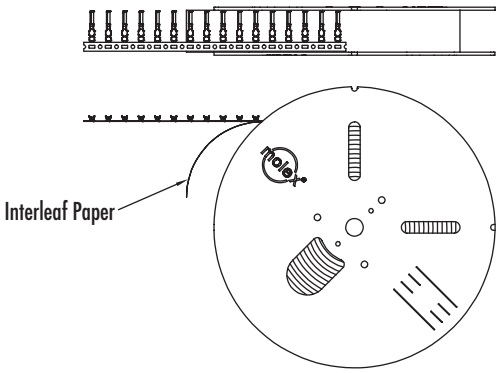
Order No. (Right Payoff) B Wound	Order No. (Left Payoff) D Wound	Plating	Wire Gauge	Hand Crimp Tool	Applicator (D Wind Only)	Extraction Tool
33012-2003	33012-3003	Tin	22 AWG	63811-6000	63900-1000	63813-1500
33012-2002	33012-3002		20 AWG		63900-0900	
			18 AWG		63900-0800	
33012-2001	33012-3001		16 AWG	63811-5900	63900-0700	
			14 AWG			
33012-2003	33012-3003		0.35 mm^2	N/A	N/A	
			0.50 mm^2	63811-6200	63900-1000	
33012-2002	33012-3002		0.75 mm^2		63900-0900	
			1.00 mm^2	63811-6100	63900-0800	
33012-2001	33012-3001		1.50 mm^2		63900-0700	

Note: To use applicators, D Wound terminals must be used.
Complete Applicators come with the perishable tooling loaded into the applicator.

Terminal Payoff Directions

Direction B

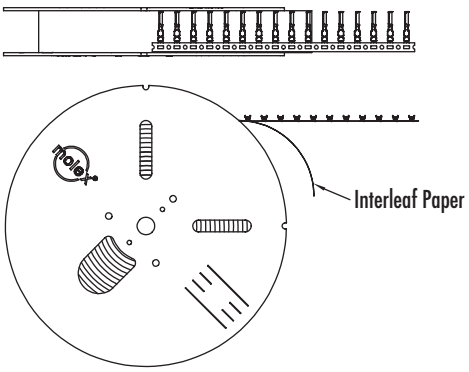
Right Payoff with Paper Interleaf (Right to Left)



Use with Molex Hand Tools

Direction D

Left Payoff with Paper Interleaf (Left to Right)



Use with Molex Hand Tools and Molex Applicators

www.molex.com/link/stac64.html

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