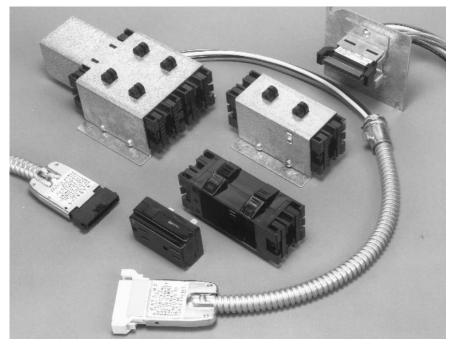
# Modular Power Distribution System



AMPINNERGY Style

The Modular Power Distribution System can be used to deliver power to the workstations in raised floor installations through AMP Access Floor Workstation Modules, Modular Office Systems Furniture Panels, and other methods as allowed by codes. It may also be used to power the overhead lighting fixtures.

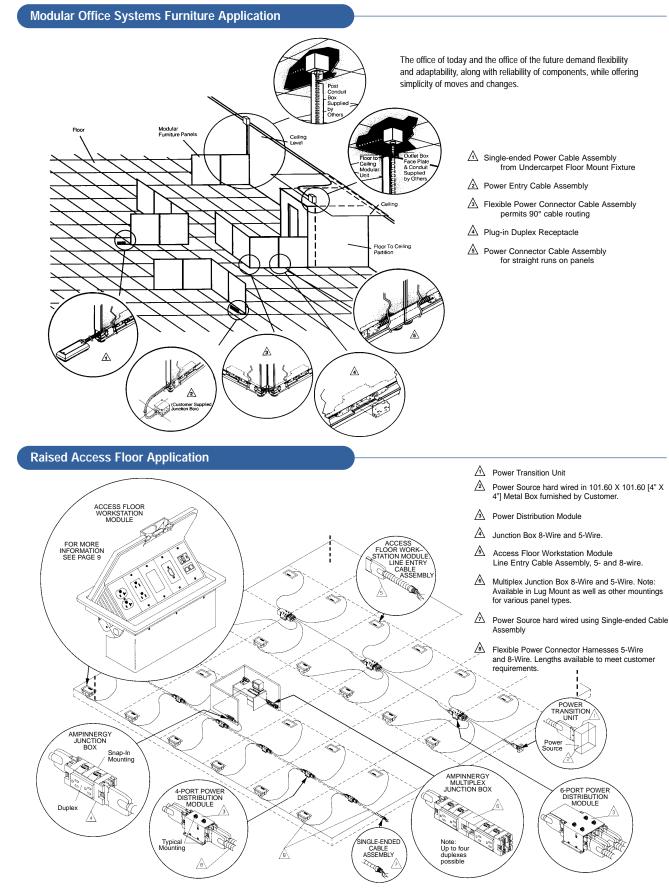
- Layout and planning Manual No. 124235 available for your CAD designer
- CAD layout and design services also available directly from AMP
- Contact AMP for Construction Specifications written in the Construction Specifications Institute (CSI) or Construction Specifications Canada (CSC) format.
- Listed under Underwriters Laboratories Inc. 183, 498, and 1286 standards
- Certified to Canadian Standards Association 22.2 No. 42 and 203 standards.
- Compatible with 1996 National Electrical Code Sections 604 and 605



The Modular Wiring System is available in 5-wire/3-circuit and 8-wire/4-circuit versions. The 5- and 8-wire versions have a 5.29 mm<sup>2</sup> [10 AWG] conductor (neutral) to accommodate higher currents due to triplen harmonics. The 8-wire configuration has a separate 3.32 mm<sup>2</sup> [12 AWG] neutral and isolated ground for the fourth circuit to allow an isolated, dedicated circuit for equipment sensitive to powerline noise.







Modular Power Distribution System – (AMPINNERGY Style)



# Common Components To Modular Office Systems Furniture and Raised Access Floor Applications

### **Cable Assemblies**

- Available in 5-wire or 8-wire
- Rated at 125/250 VAC
- Common neutral is 5.29 mm<sup>2</sup> [10 AWG] for the 5-wire 3 circuit configuration and 3.32 mm<sup>2</sup> [12 AWG] for the 4th circuit in the 8-wire configuration. All other conductors 3.32 mm<sup>2</sup> [12 AWG]
- Polarized and color-coded
  - (white housing = 5-wire) (black housing = 8-wire)

Two 5.29 mm<sup>2</sup> [10 AWG] Neutrals are available for 50/50 power on special order for all cable assemblies.

Cable Assemblies

8-Wire Power to Power

Note: Other lengths can be made available - Contact AMP



Power to Power



Power Entry



Power to Line

Leng	th
cm	inches
45.72	18
60.96	24
91.44	36
114.30	45
121.92	48
172.72	68
177.80	70
203.20	80
208.28	82
233.68	92
243.84	96
304.80	120
365.76	144
457.20	180
670.56	264
1524.00	600
1524.00	600
Additional Lengths Available	
	45.72 60.96 91.44 114.30 121.92 172.72 177.80 203.20 208.28 233.68 243.84 304.80 365.76 457.20 670.56 1524.00

#### 8-Wire Power Entry

8-Wire Power Entry					
555856-3*	121.92	48			
555856-8*	152.40	60			
555856-4*	182.88	72			
1-555856-1*	243.84	96			
558058-1 <sup>1**</sup>	1524.00	600			
	Additional Lengths Available				
406066-2***	<b>406066-2</b> *** 1066.80 420				
<b>406066-1</b> *** 1524.00 600					
569659-2 <sup>1***</sup>	243.84	96			
569659-1 <sup>1***</sup>	1524.00	600			
55862-1 <sup>1</sup>	112.96	48			
55862-2 <sup>1</sup>	1524.00	600			
with 90° conduit connector on black painted conduit					

#### 8-Wire Line Entry

557653-1	40.64	16

8-Wire Power to Line		
556731-8	91.44	36
556731-1	182.88	72

<sup>1</sup>Two 5.29 mm<sup>2</sup> [10 AWG] Neutrals are available for 50/50 power on special order for all cable assemblies.

n special order for all cable assemblies.

40.64 cm [16.00] Exposed Conductor

- \*\* 15.24 cm [6.00] Exposed Conductor
- \*\*\* 121.92 cm [48.00] Exposed Conductor



# Common Components To Modular Office Systems Furniture and Raised Access Floor Applications

5-Wire Power to Power		
	Leng	Jth
Part Number	cm	inches
3-556212-0	50.80	20
2-556212-0	60.96	24
3-556212-3	91.44	36
4-556212-7	118.11	46.5
1-556212-5	121.92	48
556212-8	172.72	68
1-556212-7	182.88	72
1-556212-0	233.68	92
5-556212-1	243.84	96
3-556212-1	304.80	120
2-556212-7	365.76	144
2-556212-3	457.20	180
1-556212-9	670.56	264
4-556212-8	1524.00	600

#### -Wire Power Entry 555858-3 121.92 48 555858-4 182.88 72 1-555858-2 243.84 96 555858-5 365.76 144 1-555858-3 609.60 240

5-Wire Line Entry		
557652-1	40.64	16
5 Wire Power to Line		
556730-2	335.28	132

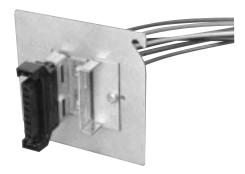
#### Note:

Lengths from 30.48 cm [12 inches] to 762.0 cm [300 inches] are available in 1.27 cm [1/2"] increments to 182.88 cm [72 inches], and 2.54 cm [1"] increments above 182.88 cm [72 inches].

#### **Power Transition Units**

- Provides interface for building power into System
- 4-inch faceplate equipped with one or two hard wired line connectors
- Available in 5-wire or 8-wire configuration
- Mates with Power Cable Assemblies (p. 24)
- Polarized
- Rated at 125/250 VAC

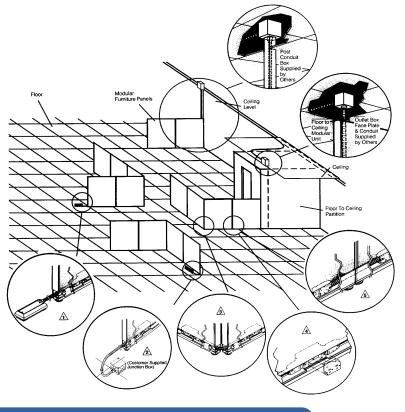
Part Number 556190-1 (5 Wire, 1 Line Connector) Part Number 556190-2 (5 Wire, 2 Line Connectors) Part Number 556191-1 (8 Wire, 1 Line Connector) Part Number 556191-2 (8 Wire, 2 Line Connectors)





The office of today and the office of the future demand flexibility and adaptability, along with reliability of components, while offering simplicity of moves and changes.

# Modular Office Systems Furniture Application



End Cap - Polycarbonate, 94V-0 rated, black for

8-wire box, white for 5-wire box

- Single-ended Power Cable Assembly from Undercarpet Floor Mount Fixture
- A Power Entry Cable Assembly
- A Flexible Power Connector Cable Assembly permits 90° cable routing
- A Plug-in Duplex Receptacle
- Power Connector Cable Assembly for straight runs on panels

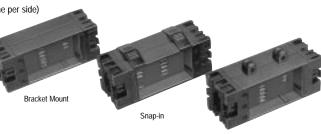
**NOTE:** Layout and planning manual **124235** available for your CAD designer.

#### **Junction Boxes**

Materials:

Housing - Polycarbonate, black, 94V-0 rated

Single Junction Box 2 Receptacles (one per side)



Lug Mount

Contacts - Copper alloy, selectively plated tin and silver, 0.00381 [.000150] min.

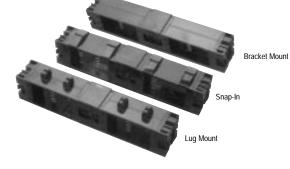
Rated - 125/250 volts, 20 amperes

·

Part Numbers		Single
5-Wire	8-Wire	Junction Box
556887-1	556888-1	Bracket Mount
556209-1	556124-1	Snap-In Mount
556217-1	556132-1	Lug Mount
557634-1	557635-1	Wide Lug Mount

Multiplex Junction Boxes





Part Numbers		Multiplex
5-Wire	8-Wire	Junction Box
556886-1	556946-1	Bracket Mount
555844-1	555843-1	Snap-In Mount
555848-1	555847-1	Lug Mount
-	557802-2	Tri-plex Lugless
_	557950-1	Quad-plex Lugless



## Modular Office Systems Furniture Application

#### Junction Box Raceway Mounting Brackets

These kits are used to retrofit the Modular Power Distribution System Junction Box in the raceways of existing modular furniture panels.



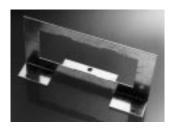
Steelcase 9000 Standard Bracket Part No. 556920-1 (fits 556887-1 and 556888-1) Multiplex Bracket Part No. 556944-1 (fits 556886-1 and 556946-1) Kit consists of a base, two brackets and two nuts.



AMPINNERGY Blank Faceplate Insert Part No. 558657 -1 Black -2 Almond -4 NEMA Gray



Bezel Part No. 557693-1



Steelcase Avenir Standard Bracket Part No. 569549-1 (fits 556209-1 and 556124-1)



Herman Miller Action Office I Standard Bracket Part No. 557737-1 (fits 556887-1 or 556888-1)



Herman Miller Action Office II Offset Bracket Part No. 558826-1 (fits 556887-1 and 556888-1) Kit consists of a base, two brackets and two nuts



Haworth Standard Bracket Part No. 557721-1 (fits 556887-1 or 556888-1)



Herman Miller Action Office I, for 60.95 cm [24"] Panel Bracket (fits 556887-1 and 556888-1) Kit consists of a base, two brackets



A Die Set (die punch) part no. BO-104-98 is available from: Barthelmes MFG Company 15 Cairn Street Rochester, NY 14611 (716) 328-8140

Part No. 558216-1 and two nuts

Herman Miller Action Office I Offset Bracket Part No. 558478-1 (fits 556887-1 and 556888-1) Kit consists of a base, two brackets and two nuts

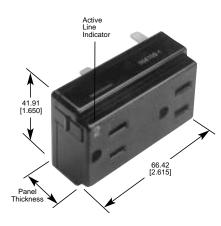
Recommended tooling to punch an opening in the raceway cover for the duplex receptacle: Hydraulic Tool/Adapter P/N 7904SB or 7906SB with Greenlee Adapter 60167. • Die Set (die punch) 1.50" x 2.75"

Available from: Greenlee Tool Company Subsidiary of TEXTRON Inc. 4455 Boeing Drive Rockford, IL 61109 or a local distributor



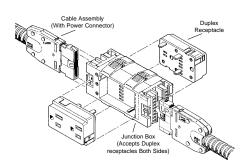
# Modular Office Systems Furniture Application

### **Duplex Receptacles**



#### Materials:

Housing and Cover - Polycarbonate, 94V-0 rated Contacts - Copper alloy, tin plated 0.00381 [.000150] min.



Rated	at	125	VAC
Nutcu	aı	120	VAC

- Meets NEMA 5-15R and NEMA 5-20R
- Available for any of the 4 circuits (3 circuits with 5wire)
- Available with standard ground or isolated ground
- Active line clearly indicated Isolated ground marked

- in orange
- Fully polarized and keyed
- Available in various panel thicknesses from 50.8 [2"] to 88.9 [3.5"]
- Colors other than black available on request

uplex Receptacles 15 Amps Part Number	Line	Panel Thickness (mm [inches])	Amps
556100-1	1	50.80 [2]	15
556101-1	2	50.80 [2]	15
556102-1	3	50.80 [2]	15
556103-1	4	50.80 [2]	15
556104-1	1G	50.80 [2]	15
556105-1	2G	50.80 [2]	15
556106-1	3G	50.80 [2]	15
556107-1	4G	50.80 [2]	15
556108-1	1	57.15 [2.25]	15
556109-1	2	57.15 [2.25]	15
556110-1	3	57.15 [2.25]	15
	4		
556111-1		57.15 [2.25]	15
556112-1	1G	57.15 [2.25]	15
556113-1	2G	57.15 [2.25]	15
556114-1	3G	57.15 [2.25]	15
556115-1	4G	57.15 [2.25]	15
556116-1	1	63.50 [2.5]	15
556117-1	2	63.50 [2.5]	15
556118-1	3	63.50 [2.5]	15
556119-1	4	63.50 [2.5]	15
556120-1	1G	63.50 [2.5]	15
556121-1	2G	63.50 [2.5]	15
556122-1	3G	63.50 [2.5]	15
556123-1	4G	63.50 [2.5]	15
558056-1	5G	63.50 [2.5]	15
406112-1	1	79.38 [3.125]	15
406113-1	2	79.38 [3.125]	15
406114-1	3	79.38 [3.125]	15
406115-1	4	79.38 [3.125]	15
406116-1	1G	79.38 [3.125]	15
406117-1	2G	79.38 [3.125]	15
406118-1	3G	79.38 [3.125]	15
406119-1	4G	79.38 [3.125]	15
406120-1	5G	79.38 [3.125]	15
406623-1	1	82.55 [3.25]	15
406624-1	2	82.55 [3.25]	15
406625-1	3	82.55 [3.25]	15
406626-1	4	82.55 [3.25]	15
406627-1	1G	82.55 [3.25]	15
406628-1	2G	82.55 [3.25]	15
406629-1	3G	82.55 [3.25]	15
406630-1	4G	82.55 [3.25]	15
406631-1	5G	82.55 [3.25]	15
406121-1	1	88.90 [3.5]	15
406122-1	2	88.90 [3.5]	15
406123-1	3	88.90 [3.5]	15
406124-1	4	88.90 [3.5]	15
406125-1	1G	88.90 [3.5]	15
406126-1	2G	88.90 [3.5]	15
406127-1	3G	88.90 [3.5]	15
406128-1	4G	88.90 [3.5]	15



# Modular Office Systems Furniture Application

**Duplex Receptacles** 

Duplex Receptacles 20 Amps

Part Number	Line	Panel Thickness (mm [inches])	Amps
406248-1	1	50.8 [2]	20
406249-1	2	50.8 [2]	20
406250-1	3	50.8 [2]	20
406251-1	4	50.8 [2]	20
406252-1	1G	50.8 [2]	20
406253-1	2G	50.8 [2]	20
406254-1	3G	50.8 [2]	20
406255-1	4G	50.8 [2]	20
406257-1	1	57.15 [2.25]	20
406258-1	2	57.15 [2.25]	20
406259-1	3	57.15 [2.25]	20
406260-1	4	57.15 [2.25]	20
406261-1	1G	57.15 [2.25]	20
406262-1	2G	57.15 [2.25]	20
406263-1	3G	57.15 [2.25]	20
406264-1	4G	57.15 [2.25]	20
406265-1	1	63.5 [2.5]	20
406266-1	2	63.5 [2.5]	20
406267-1	3	63.5 [2.5]	20
406268-1	4	63.5 [2.5]	20
406269-1	1G	63.5 [2.5]	20
406270-1	2G	63.5 [2.5]	20
406271-1	3G	63.5 [2.5]	20
406272-1	4G	63.5 [2.5]	20
406273-1	5G	63.5 [2.5]	20

Part Number	Line	Panel Thickness (mm [inches])	Amps
406226-1	1	79.38 [3.125]	20
406227-1	2	79.38 [3.125]	20
406228-1	3	79.38 [3.125]	20
406229-1	4	79.38 [3.125]	20
406230-1	1G	79.38 [3.125]	20
406231-1	2G	79.38 [3.125]	20
406232-1	3G	79.38 [3.125]	20
406233-1	4G	79.38 [3.125]	20
406234-1	5G	79.38 [3.125]	20
406632-1	1	82.55 [3.25]	20
406633-1	2	82.55 [3.25]	20
406634-1	3	82.55 [3.25]	20
406635-1	4	82.55 [3.25]	20
406636-1	1G	82.55 [3.25]	20
406637-1	2G	82.55 [3.25]	20
406638-1	3G	82.55 [3.25]	20
406639-1	4G	82.55 [3.25]	20
406640-1	5G	82.55 [3.25]	20
406235-1	1	88.90 [3.5]	20
406236-1	2	88.90 [3.5]	20
406237-1	3	88.90 [3.5]	20
406238-1	4	88.90 [3.5]	20
406239-1	1G	88.90 [3.5]	20
406240-1	2G	88.90 [3.5]	20
406241-1	3G	88.90 [3.5]	20
406303-1	4G	88.90 [3.5]	20

### Power Strip



- Power Connector allows connection to a junction box or power distribution module
- Power Strip is 60.95 cm [24"] long and contains 8, 15-amp convenience outlets
- Extruded channel is gray aluminum
- Available in Line 1 or Line 2.

Part No. 557958-1 (Line 1) 557958-2 (Line 2)

### Desktop Mount Outlets

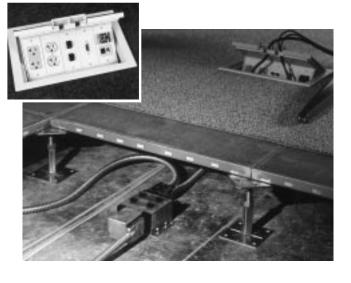


Desktop Mount Duplex Outlet (Gray) Part Number 556222-1 Desktop Mount Data Outlet Part Number 556263-1 (Gray)

Modular Power Distribution System – (AMPINNERGY Style)



# **Raised Access Floor Application**



# Modular Zone Wiring System

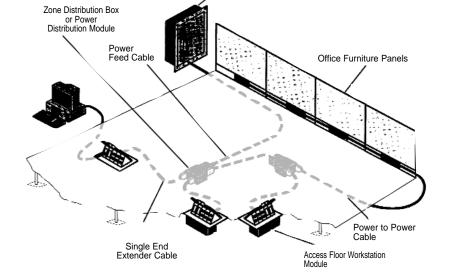
#### **Product Facts**

- Each zone supports up to 27 Workstations ■ Up to six (6) port Power Distribution
  - Modules 27 Access Floor Workstation Modules
  - with 2 Duplex Receptacles Four-to-six receptacles/circuit
- 12 Circuits
- Three may be dedicated Five and eight wire capability

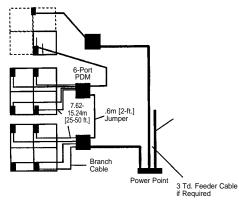
#### Features

- Reusable and reconfigurable Easy to install - reduced installation time and expense
- Allows for dedicated circuits
- Factory terminated cable assemblies
- Allows for circuit load balancing by simply changing the duplex receptacle
- Can be integrated with zone communication
- wiring Flexible cable saves installation labor up to

40% NOTE: Contact AMP for layout or design assistance.



Power Breaker Panel



Work Area Layout for Zone Wiring

10.67-15.24m [35-50 ft.] Power Feeder Cable

(AMPINNERGY Style)

Modular Power Distribution System –

Raised Access Floor Zone Wiring System All shaded/dashed items beneath raised floor

> Part Number 406023-1 10.67 m [35 ft] power feed cable Part Number 406023-2 15.24 m [50 ft] power feed cable

- Distributes power from panel board to work area
- Each of 3 ports provide general purpose or isolated ground 3 phase 125/250 VAC power via 5 or 8 wire connectors
- Factory assembled and tested
- No internal wiring connections to come loose
- Mounting legs secure box to floor



Modular Power Distribution System – (AMPINNERGY Style)



#### Power Distribution Modules



- Normally mounted on concrete floors but provided in Lug Mount version Junction Box to provide alternate mounting capability
- Splits a branch circuit into 3 or 5 directions
- Available in 4- and 6-Port module

\_

#### Standard Height (with lug mounts)

Part Number	Description	
556173-1	4 Port, 8-Wire	
556173-2	4 Port, 5-Wire	
556794-1	6 Port, 8-Wire	
556794-2	6 Port, 5-Wire	

#### Low Profile (without lug mounts)

Part Number	Description	
406478-1	4 Port, 8-Wire	
406478-2	4 Port, 5-Wire	
406221-1	6 Port, 8-Wire	
406221-2	6 Port, 5-Wire	

#### 8-Wire/27 Workstation Grouping/1 Zone

#### 5.95 Square Meters [8 ft x 8 ft] Workstation Area 50' = 15.24 m 32.33 m [106'-1"] 25' = 7.62 m 9.14m [3'] → 10' = 3.05 m 4G **4**G -4G **4**G 25 25 25;/ 25 (4G)-<sup>2<u>5'</u></sup> 25 25 25 4G25 (4G)-£G. 4G) ¥25<sup>-4G</sup> 4G 25 1/25,40 Ċ ₫G 25' 7.67 m [25'-2"] 10 (4G)-25 25 25 25' 10 (4G)\_25' 10' (4G)-(4G) (4G) 25<sup>,4G</sup> 4G 4G) 25 **4**G 25 25 25 25' 25 4G \_(4G) 4G 4G) 4Ĝ 25 50' 50 9.29 Square Meters [10 ft x 10 ft] Workstation Area ŧ 50' = 15.24 m 32.33 m [106'-1"] 35' = 10.67 m 25' = 7.62 m 4G 4G 4G 25' 25' -4G 10' = 3.05 m 25' 25' 25 (4G) (4G) (4G) (4G) 25 G 25 4G ,4G 25 25 -(4G 25' 25' 25 25 25' 9.50 m [31'-2"] 4G 25' 25' (4G) 25' (25' (4G) 25 50 G25 (4G) 50 25' (4G) **4**G 4G **4**G 25' \_4G 25 25 25 25 35 4G (4G (4G 4G 4G)

#### Components Required

Part Number	Description	Length m [ft.]	Quantity
406221-1	Power Distribution Module	—	6
(See page 33)	Access Floor Workstation Module (AFWM)	—	27
406066-1	Power Entry Cable Assembly (8-Wire)	15.2 [50]	2
406066-2	Power Entry Cable Assembly (8-Wire)	10.7 [35]	1
556127-1	Power/Power Cable Assembly (8-Wire)	7.6 [25]	30
556148	AFWM Line Entry Cable Assembly (8-Wire)	4.9 [16]	27

Power Panel

Power Distribution Module (6-Port)

(4G) Access Floor Workstation Module (2 thru 5 Gang)

----- Power Cable Assembly



# Non-Metallic Sheathed Cable Interconnections

NM Sheathed Cable Interconnections provide a fast and reliable way to permanently interconnect 3.23 or 2.07 mm<sup>2</sup> [12 and 14 AWG] circuits. They eliminate the need for junction boxes, covers, wire nuts, and box connectors.

NM Cable Splices and Tap use insulation displacement contacts and require no special tools for termination.

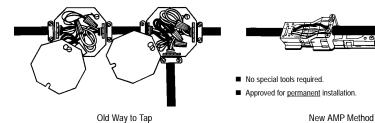
- Voltage rating: 300 VAC RMS
- Current rating: 20 amperes
- Temperature rating: 105°C
- Meets requirements of National Electric Code, articles 545, 550, 551 and 336-21 (Tap and 3 wire Interconnector).
- Listed by Underwriters Laboratories Inc., File No. E57250

Existing

Circuit

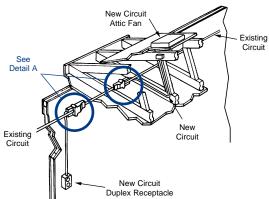
See

Detail A

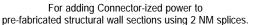


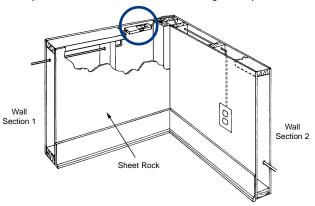


For adding an attic fan or duplex receptacle to an existing circuit.

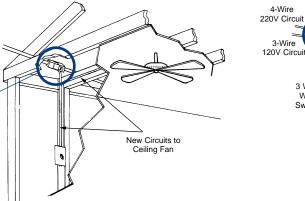


For adding a ceiling fan to an existing circuit.

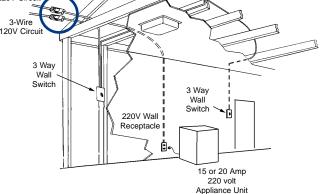




For interconnecting all electrical services in both halves of a mobile home using 2 NM splices



in both halves of a mobile home using 2 NM splices



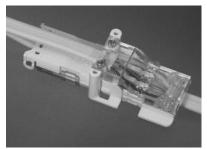
Note: NEC requires Connector to be secured to stud with screws or the NM Cable to be stapled within 12 inches of the Connector.

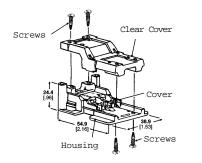
## Products and Services for Electrical Design

2 conductor & ground (3-wire) tap for tapping into 3.23 or 2.07 mm<sup>2</sup> [12 or 14 AWG] solid conductor 2conductor cable with ground cable.

Part Number 208294-3 (Qty 1 per bag) Note: Tap mates with 2 conductor & ground (3-wire) splice, P/N 207877-2, for complete tap assembly.

Instruction Sheet 408-6548

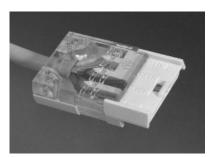


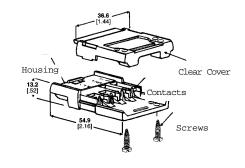


2 conductor & ground (3-wire) splice connector for interconnecting 3.23 or 2.07 mm² [12 or 14 AWG] solid conductor 2-conductor cable with ground. Part Number 207877-2 (Qty 1 per bag) **Note:** Two splice connectors are required for each interconnection. Instruction Sheet 408-7913 3 conductor & ground (4-wire) splice connector for interconnecting 3.23 or 2.07 mm<sup>2</sup> [12 or 14 AWG] solid conductor 3-wire cable with ground. Part Number 208169-2 (Qty 1 per bag)

Note: Two splice connectors are required for each interconnection.

Instruction Sheet 408-6571





# Flexible Conduit Connectors

- Rated 125°C [257°F]
- Fully grounded
- UL Listed for use on 9.53mm [3/8"] flexible conduit. File No. E60108
- Recognized under the Component
   Program of

Underwriters Laboratories, Inc. for use on 12.70mm [1/2"] flexible conduit. File No.

- E60108 ■ Designed to UL performance Std. 514B
- Certified by Canadian Standards

Association,

Report Nos. LR42374-X, and LR38656-1

Flexible Conduit Connectors are designed for connecting 9.53mm [3/8"] and 12.70mm [1/2"] trade size flexible conduit -"Greenfield" types - to electrical panels or boxes. They provide fast, reliable connectors in a a variety of applications.

Hinged

Housing

Cover

13.7 [0.54]

Connecting flexible conduit using AMP straight-thru or right angle connectors is easy. A connector is simply screwed onto the conduit until it stops, then the connector is snapped into the knockout hole of a panel or box. No screw clamps are needed to hold the conduit in the connector, and no locknut is needed to retain the connector in the panel or box.

Straight-Thru Connectors		Right-Angle Connectors	
Description	Part Number Description Part Num		Part Number
For Flexible Conduit		For Flexible Conduit	
9.53 mm [3/8"]	207370-1	9.53 mm [3/8"]	207508-1
12.70 mm [1/2"]	207373-1*	12.70 mm [1/2"]	207507-1*
12.70 mm [1/2"] * Not UL Listed	20/3/3-1^	12.70 mm [1/2"]	207507-1^

In the U.S.1-800-553-0938 Canada 905-475-6222 Mexico 525-729-0400 South and Central Americas 54-11-4733-2200 www.ampnetconnect.com e-mail: networking.help@tycoelectronics.com







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