Electrical Wire Connectors and Tools

The best connectors do more than fit your application; they also fit your hand, and they feel good to use. At 3M, we design connectors that are as comfortable and easy to use as they are dependable. Our complete line provides a wide range of connector choices. Simply choose the connector that fits your personal preference, as well as the application. We give you plenty of choices.



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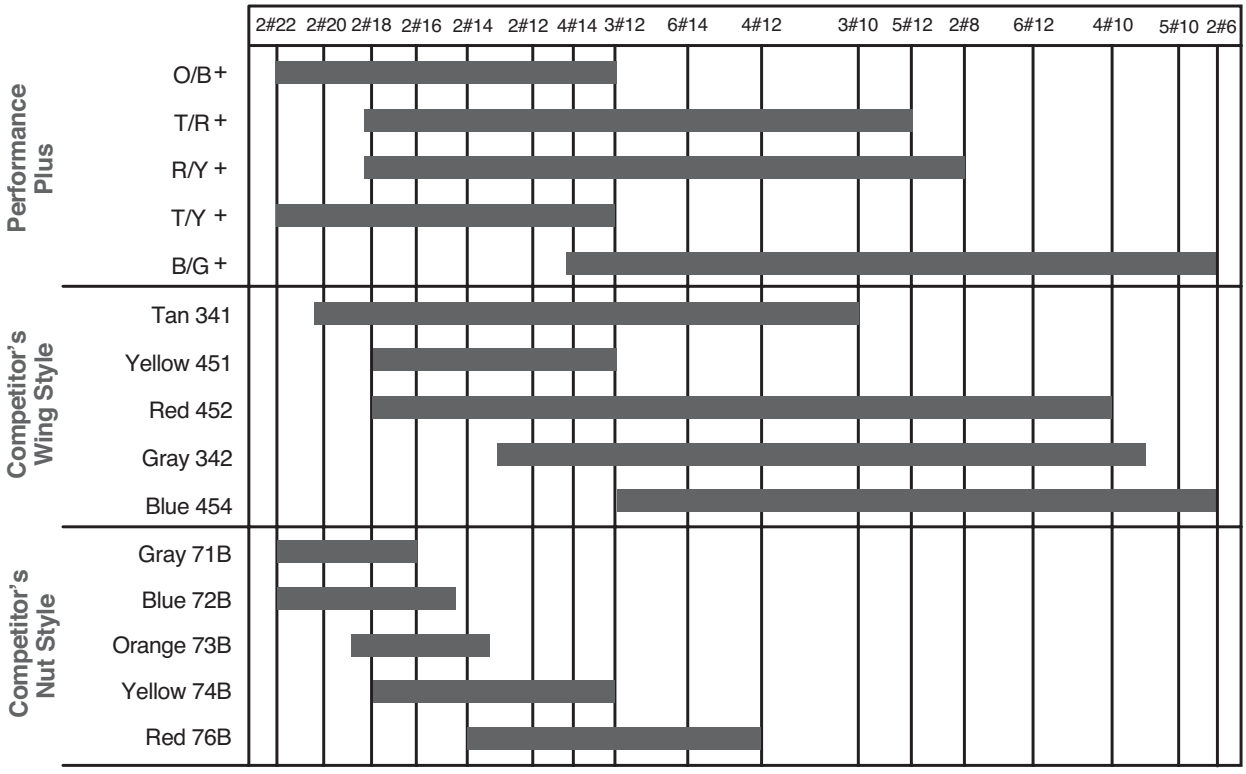
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SPRING CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
3M™ PERFORMANCE PLUS WIRE CONNECTORS (T/R+,T/Y+, O/B+, R/Y+, B/G+)		
Wires feed deeper	Increases level of pull-out	Security
Wide wire ranges	Three connectors replace seven	Saves time and cost effective
Flexible skirt	Covers overstripped wires	Safety
New internal design	Smoother and faster installation	Improves quality and saves time
3M ELECTRICAL SPRING AND GROUNDING CONNECTORS (312, 412, 512, 512G)		
Hard shell	Easy to grip	Easy to use
Wings	Easy to turn	Easy to use
3M HIGHLAND™ WIRE CONNECTORS (H-29, H-30, H-31, H-33, H-35)		
Low price	Economical	Cost effective

Wire Range for 3M Performance Plus Wire Connectors



3M™ Performance Plus Wire Connectors

Because of their increased wire range, just three 3M™ Performance Plus Wire Connectors handle the work of eight standard connectors. O/B+ replaces the orange, blue and gray wire connector style connectors, as well as 70% of the yellow wire connector and wing style connectors. R/Y+ replaces both red and yellow wing style connectors. B/G+ covers both the large blue and gray connectors.

This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

A Better Bite for a Better Connection. 3M™ Performance Plus Wire Connectors O/B+, R/Y+ and B/G+ now have a better bite. Wires feed into the connector more easily, improving the security of the connection and increasing the level of pull out.

New Design Allows Easier Installation. We have modified the internal design of the O/B+, R/Y+ and B/G+ wire connectors. Installation is smooth, fast and easy on the hands.

Flexible Skirts Provide Safety. The flexible skirts on the O/B+, R/Y+ and B/G+ wire connectors make the workplace a safer environment. The flexible skirt provides protection against potential shock situations.

Connection Type	Wire
Connector Style	Twist On
Flame Retardant	Yes
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature	221°F (105°C)
RoHS 2011/65/EU	No
Agency Approval	



	B/G+BOX	B/G+JUG	O/B+BOX	O/B+JUG
				
UPC	054007-43150	054007-43151	054007-43152	054007-43153
Color	Blue/Gray	Blue/Gray	Orange/Blue	Orange/Blue
Conductor Size	14–6 AWG	14–6 AWG	22–12 AWG	22–12 AWG
Connectors per Carton	50	250	100	500
Connectors per Case	500	2000	1000	10,000

	R/Y+BOX	R/Y+JUG	R/Y+KEG
			
UPC	054007-43154	054007-43155	051128-57943
Color	Red/Yellow	Red/Yellow	Red/Yellow
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG
Connectors per Carton	100	500	-
Connectors per Case	1000	4000	17,000

3M™ Wire Connectors for Residential



Specifically created for the residential markets, the T/R+ replaces the yellow, tan and red connectors in the majority of field applications. T/Y+ replaces the yellow, orange, blue and gray wire nuts in most applications. Use the 412 (tan) connector for wire combinations from 2 #20 to 3 #10 AWG. This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

Connection Type Wire
Connector Style Twist On
Flame Retardant Yes
Maximum Voltage Rating 600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU No

	T/R+BOX	T/R+JUG	T/R+KEG	T/Y+BOX
				
UPC	051128-54454	051128-54455	051128-54456	051128-55218
Color	Tan/Red	Tan/Red	Tan/Red	Tan/Yellow
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG	22–12 AWG
Agency Approval	UL SA CE	UL SA CE	UL SA CE	UL SA CE
Connectors per Carton	100	750	-	100
Connectors per Case	1000	6000	25,000	1000

	T/Y+JUG	T/Y+KEG	412-BOX	412-BULK
				
UPC	051128-55219	051128-58623	051128-54451	051128-54452
Color	Tan/Yellow	Tan/Yellow	Tan	Tan
Conductor Size	22–12 AWG	22–12 AWG	22–10 AWG	22–10 AWG
Agency Approval	UL SA CE	UL SA CE	UL SA	UL SA
Connectors per Carton	500	-	100	500
Connectors per Case	10,000	40,000	1000	10,000

3M™ Wire Connectors for Residential (continued)

	412-JUG	412-KEG
		
UPC	051128-55695	051128-54453
Color	Tan	Tan
Conductor Size	22–10 AWG	22–10 AWG
Agency Approval	UL, CSA	UL, CSA
Connectors per Carton	500	-
Connectors per Case	4000	20,000

3M™ Scotchlok™ Electrical Spring Connectors 312, 512 and 512G

The quick-spin, wing-torque design of 3M™ Scotchlok™ Electrical Spring Connector 312 and 512 is easy on your fingers. The day's last connection will feel almost as good as the first. Generous expansion room accommodates a wide range of solid or stranded wire. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 AWG, and the 512 (red) connector for 2 #18 to 5 #12 AWG. The 512G (green) is used for grounding connections.

Connection Type Wire
Connector Style Twist On
Maximum Voltage Rating 600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU Yes
Country of Origin MADE IN USA

	312-BOX	312-BULK	312-KEG	512-BOX
				
UPC	054007-08159	054007-08160	051128-56280	054007-08161
Color	Yellow	Yellow	Yellow	Red
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG	22–8 AWG
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval	UL, CSA, IEC	UL, CSA, IEC	UL, CSA, IEC	UL, CSA, IEC
Connectors per Carton	100	500	-	100
Connectors per Case	1000	10,000	25,000	1000

3M™ Scotchlok™ Electrical Spring Connectors 312, 512 and 512G (continued)

	512-BULK	512-KEG	512G-BAG	512G-POUCH
				
UPC	054007-08162	051128-56281	054007-50232	051128-59098
Color	Red	Red	Green	Green
Conductor Size	22–8 AWG	22–8 AWG	14–10 AWG	14–10 AWG
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval				
Connectors per Carton	500	-	500	-
Connectors per Case	10,000	25,000	10,000	100

3M™ Highland™ Wire Connectors

3M™ Highland™ Wire Connectors make it quick and easy to match the right connector to the size of the wire. The shells are designed to withstand temperatures up to 221°F (105°C). Highland color-coded wire connectors are UL Listed, CSA Certified, and work equally well with either solid or stranded wire.



Connection Type Wire
Connector Style Twist On
Flame Retardant No
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU Yes
Agency Approval

	H-29-BIN	H-29-BOX	H-30-BIN	H-30-BOX
				
UPC	054007-43134	054007-43133	054007-43123	054007-43122
Color	Gray	Gray	Blue	Blue
Conductor Size	22–16 AWG	22–16 AWG	22–16 AWG	22–16 AWG
Maximum Voltage Rating	300 V	300 V	300 V	300 V
Connectors per Carton	-	100	-	100
Connectors per Case	1000	1000	1000	1000

3M™ Highland™ Wire Connectors (continued)

	H-30-KEG	H-31-BIN	H-31-BOX	H-31-BULK
				
UPC	054007-43124	054007-43119	054007-43117	054007-43118
Color	Blue	Orange	Orange	Orange
Conductor Size	22–16 AWG	18–14 AWG	18–14 AWG	18–14 AWG
Maximum Voltage Rating	300 V	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	500
Connectors per Case	10,000	1000	1000	10,000
	H-31-KEG	**H-33-BIN**	**H-33-BOX**	**H-33-BULK**
				
UPC	054007-43120	054007-43137	054007-43136	054007-43138
Color	Orange	Yellow	Yellow	Yellow
Conductor Size	18–14 AWG	18–12 AWG	18–12 AWG	18–12 AWG
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	500
Connectors per Case	10,000	1000	1000	5000
	H-33-KEG	**H-35-BIN**	**H-35-BOX**	**H-35-BULK**
				
UPC	054007-43139	054007-43141	054007-43140	054007-43142
Color	Yellow	Red	Red	Red
Conductor Size	18–12 AWG	18–10 AWG	18–10 AWG	18–10 AWG
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	250
Connectors per Case	5000	1000	1000	2500

3M™ Wire Connector Drivers WCD

These application tools for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, T/R+ and T/Y+, 3M™ Electrical Spring Connectors 312 and 512, and 3M™ Scotchlok™ Wire Connectors Y, R, and G quickly spin on the connector and position the wire bundle in the box. The WCD-H driver is a hand driver and the WCD-P driver is a power driver that fits a standard chuck.

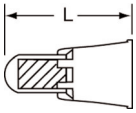
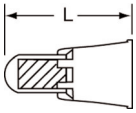
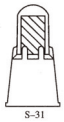
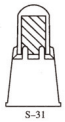
	WCD-H	WCD-P
		
UPC	054007-49948	054007-49919
Product Name	3M™ Hand Wire Connector Driver WCD-H	3M™ Power Wire Connector Driver WCD-P
Description	Hand driver for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, 3M™ Scotchlok™ Wire Connectors Y, R, G, and 3M™ Electrical Spring Connectors 312 and 512.	Power driver using a standard chuck, drill or screw driver for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, 3M™ Scotchlok™ Wire Connectors Y, R, G, and 3M™ Electrical Spring Connectors 312 and 512.
Case Qty.	10	10

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11 and S-31

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11-A and S-31-A make fast work of splicing 22 to 10 AWG copper conductors. Smooth flared entry makes wire insertion fast — simply twist conductors together and crimp. The S-11-A and S-31-A are insulated, closed-end crimp sleeve connectors with a copper insert. The rugged and resilient nylon insulator allows these connectors to be used in light fixtures, appliances and other electrical OEM applications.

Connector Style	Crimp Sleeve
Insulation Material	Nylon
Barrel Style	Insulation Grip
Terminal Type	Closed End
Terminal Style	Copper
Flame Retardant	No
Maximum Voltage	600 V
Operating Temperature	221°F (105°C)
RoHS 2011/65/EU	Yes



	S-11-A(BOXED)	S-11-A(BULK)	S-31-A(BOXED)	S-31-A(BULK)
				
UPC	051128-58997	051138-98052	051128-58996	051138-98044
Conductor Size	22–16 AWG	22–16 AWG	18–10 AWG	18–10 AWG
Length	0.83" (21,1 mm)	0.83" (21,1 mm)	1.00" (25,4 mm)	1.00" (25,4 mm)
Cu Solid/Stranded Wire Combinations	2–5 #22; 1–4 #22 with 1–2 #20; 1–3 #22 with 1 #18; 1 #22 with 1 #16; 2–3 #20	2–5 #22; 1–4 #22 with 1–2 #20; 1–3 #22 with 1 #18; 1 #22 with 1 #16; 2–3 #20	1 #22 with 1 #12 or #10; 1 #22 with 2 #14 or #16; 1 #22 with 1 #20 with 1 #12 or #14;1 #22 with 1 #18 with 1 #12 or #14; 1 #22 with 1 #16 with 1 #12 or #14;1 #22 with 1 #14 with 1 #12; 1–2 #20 with 1–2 #14; 1–2 #20 with 1 #12; 1 #20 with 1 #10; 1 #20 with 1 #16 with 1 #12; 1 #18 with 1 #14; 1 #18 with 1 #12; 1 #18 with 2 #16; 1 #18 with 1 #16 with 1 #12 or #14; 1 #16 with 1 #12 or #14; 3 #16; 1 #14 with 1 #12;2 #14	1 #22 with 1 #12 or #10; 1 #22 with 2 #14 or #16; 1 #22 with 1 #20 with 1 #12 or #14;1 #22 with 1 #18 with 1 #12 or #14; 1 #22 with 1 #16 with 1 #12 or #14;1 #22 with 1 #14 with 1 #12; 1–2 #20 with 1–2 #14; 1–2 #20 with 1 #12; 1 #20 with 1 #10; 1 #20 with 1 #16 with 1 #12; 1 #18 with 1 #14; 1 #18 with 1 #12; 1 #18 with 2 #16; 1 #18 with 1 #16 with 1 #12 or #14; 1 #16 with 1 #12 or #14; 3 #16; 1 #14 with 1 #12;2 #14
Connectors per Carton	100	-	50	-
Connectors per Case	500	10,000	500	5000

3M™ Scotchlok™ IDC Pigtail Connectors

3M™ Scotchlok™ Self-Stripping, Moisture Resistant Electrical Pigtail Connector 314 provides a moisture-resistant seal. The 3M™ Scotchlok™ Electrical Connector IDC 314U is a self-stripping, flame retardant, electrical pigtail connector for dry environment applications. The 3M™ Scotchlok™ Electrical Connector IDC 316-IR provides a moisture-resistant seal and are recommended for use with low energy underground circuit wires, sprinkler systems, landscape lighting or other moisture-resistance wires for applications of less than 30 V. Its sealant is a mineral oil-based grease.

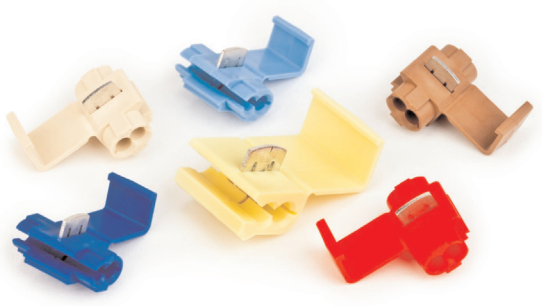


Connection Type	Pigtail
Connector Style	Insulation Displacement
Flame Retardant	Yes
Operating Temperature	221°F (105°C)
Recommended Crimping Tool	3M™ Crimping Tool No. E-9BM
RoHS 2011/65/EU	Yes

	314-BIN	314-BOX	314U-BOX	314U-BIN
				
UPC	054007-09231	054007-09230	054007-09232	054007-09233
Color	Blue	Blue	White	White
Conductor Size	22–14 AWG	22–14 AWG	22–14 AWG	22–14 AWG
Max. Insulation O.D.	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Agency Approval	UL CSA	UL CSA	UL CSA	UL CSA
Connectors per Carton	-	50	50	-
Connectors per Case	1000	500	500	1000

	316-IR BAG	557-BOX	557-BULK
			
UPC	054007-50419	054007-21494	054007-21502
Color	Black/White	Red	Red
Conductor Size	22–16 AWG	22–16 AWG	22–16 AWG
Max. Insulation O.D.	0.155" (3,9 mm)	0.120" (3,05 mm)	0.120" (3,05 mm)
Agency Approval	UL	UL CSA	UL CSA
Connectors per Carton	30	100	500
Connectors per Case	300	1000	5000

3M™ Scotchlok™ IDC Double Run or Tap Connectors



The 3M™ Scotchlok™ Electrical Connector IDC 560 and 560N electrically connect a (tap) wire end to a through (run) wire and insulate the connection. They are used for tap and parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 564 electrically connects two through (run) wires and insulates the connection. It is used for parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 560B electrically connects a (tap) wire end to a through (run) wire and insulates the connection. For general-purpose electrical connections on auto, boat, van or trailer. Used for tap and parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 905 and 905N electrically connect a (tap) wire end to a through (run) wire and insulate the connection. Suitable for low-voltage accessories such as radios, stereo speakers, tape decks and CB radios. Used for tap, in-line parallel and pigtail splicing.

Connection Type	Double Run or Tap
Connector Style	Insulation Displacement
RoHS 2011/65/EU	Yes

	560-BOX	560-BULK	560B-BOX	560B-BULK
				
UPC	054007-00839	054007-00840	054007-20090	054007-20181
Color	Light Blue	Light Blue	Blue	Blue
Conductor Size	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str
Maximum Insulation Outside Diameter	0.145" (3,68 mm)	0.145" (3,68 mm)	0.145" (3,68 mm)	0.145" (3,68 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	194°F (90°C)	194 °F (90 °C)
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval	UL, CSA	UL, CSA	UL	UL
Connectors per Carton	100	500	100	500
Connectors per Case	1000	5000	1000	5000

3M™ Scotchlok™ IDC Double Run or Tap Connectors (continued)

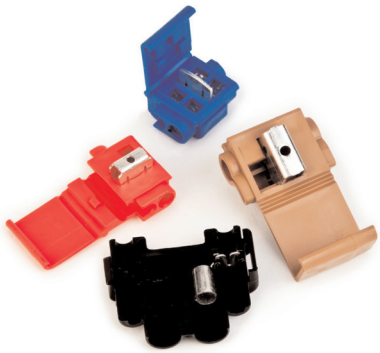
	560N-BULK	562-BOX	562-BIN	564-BULK
				
UPC	054007-09513	054007-11032	054007-11040	054007-06118
Color	Brown	Yellow	Yellow	White
Conductor Size	18–16 AWG / 14 AWG Str	12 AWG / 10 AWG Str	12 AWG / 10 AWG Str	18–14 AWG
Maximum Insulation Outside Diameter	0.145" (3,68 mm)	0.190" (4,82 mm)	0.190" (4,82 mm)	0.145" (3,68 mm)
Operating Temperature	221°F (105°C)	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	Yes	Yes	No
Agency Approval	UL, CSA	UL	UL	CE
Connectors per Carton	500	100	-	500
Connectors per Case	5000	1000	1000	5000

	905-BOX	905-BULK	905N
			
UPC	054007-06128	054007-06129	054007-06124
Color	Red	Red	Red
Conductor Size	Tap: 22–18 AWG Run: 18–14 AWG	Tap: 22–18 AWG Run: 18–14 AWG	18–22 AWG
Maximum Insulation Outside Diameter	Tap: 0.110" (2,79 mm) Run: 0.145" (3,68 mm)	Tap: 0.110" (2,79 mm) Run: 0.145" (3,68 mm)	0.145" (3,68 mm)
Operating Temperature	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	No	No	No
Agency Approval	CE	CE	N/A
Connectors per Carton	50	500	500
Connectors per Case	500	5000	5000

3M™ Scotchlok™ IDC Run and Tap Connector

Electrically connects a (tap) wire end to a through (run) wire and insulates the connection. Designed for control circuit wiring, fixture wiring, appliance wiring, signal and PA systems, and automotive/boat/RV wiring.

Connection Type	Run and Tap
Connector Style	Insulation Displacement
Recommended Crimping Tool	3M™ E-9BM or 9" Linemans Pliers
RoHS 2011/65/EU	Yes



	558-BOX	558-BULK	567-BOX
			
UPC	054007-14861	054007-14879	054007-14887
Color	Red	Red	Brown
Max. Recommended Voltage Rating	600 V	600 V	600 V
Conductor Size (Tap)	22–16 AWG	22–16 AWG	Tap: 18–14 AWG Run: 12–10 AWG
Maximum Insulation Outside Diameter	0.120" (3,1 mm)	0.120" (3,1 mm)	Tap: 0.145" (3,7 mm) Run: 0.190" (4,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Flame Retardant	Yes	Yes	Yes
Agency Approval	UL SA	UL SA	UL SA
Connectors per Carton	100	-	100
Connectors per Case	1000	5000	1000

	567-BIN	804-100/BAG	804-BOX
			
UPC	054007-14895	054007-50188	054007-06134
Color	Brown	Blue	Blue
Max. Recommended Voltage Rating	600 V	600 V	600 V
Conductor Size (Tap)	Tap: 18–14 AWG Run: 12–10 AWG	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str
Maximum Insulation Outside Diameter	Tap: 0.145" (3,7 mm) Run: 0.190" (4,8 mm)	0.145" (3,7 mm)	0.145" (3,7 mm)
Operating Temperature	221°F (105 °C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	Yes	Yes
Agency Approval	UL SA	UL	UL
Connectors per Carton	-	100	25
Connectors per Case	1000	1000	250

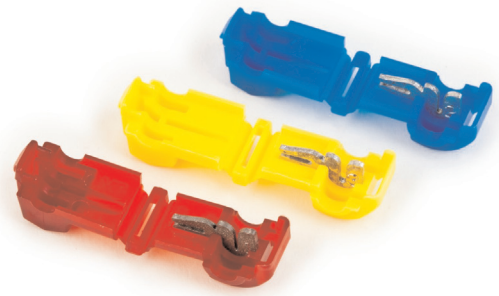
3M™ Scotchlok™ IDC Run and Tap Connector (continued)

	804-BULK	901-BOX	901-BULK
			
UPC	054007-06135	054007-06106	054007-06107
Color	Blue	Black	Black
Max. Recommended Voltage Rating	600 V	32 V	32 V
Conductor Size (Tap)	18–16 AWG / 14 AWG Str	18–14 AWG	18–14 AWG
Maximum Insulation Outside Diameter	0.145" (3,7 mm)	0.145" (3,7 mm)	0.145" (3,7 mm)
Operating Temperature	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	No	No
Agency Approval	UL	-	-
Connectors per Carton	500	50	500
Connectors per Case	5000	500	5000

3M™ Scotchlok™ T-Tap Connector

Use 3M™ Scotchlok™ Self-Stripping Electrical Tap Connectors 951, 952 and 953 to electrically tap into a wire in mid-span without cutting or stripping the wire. Connector then mates with a .250" (6,35 mm) male tab, making a reusable quick-connect wiring termination.

Connection Type T-tap
Connector Style Insulation Displacement
RoHS 2011/65/EU Yes
Agency Approvals UL CSA



	951X-BOTTLE	951K-BULK	952X-BOTTLE
			
UPC	054007-12312	054007-12313	054007-08427
Conductor Size	22-18 AWG	22-18 AWG	18-14 AWG
Flame Retardant	Yes	Yes	Yes
Maximum Insulation Outside Diameter	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Connectors per Carton	50	-	50
Connectors per Case	500	1000	500

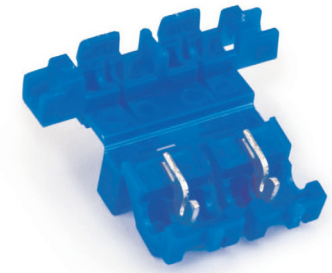
3M™ Scotchlok™ T-Tap Connector (continued)

	952K-BULK	953X-BOTTLE	953K-BULK
			
UPC	054007-08428	054007-12314	054007-12315
Conductor Size	18-14 AWG	12 AWG	12 AWG
Flame Retardant	Yes	Yes	Yes
Maximum Insulation Outside Diameter	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Connectors per Carton	-	50	-
Connectors per Case	1000	500	1000

3M™ Scotchlok™ Fuse Holder

The 3M™ Scotchlok™ Fuse Holder 972 is used to install a blade-type automotive fuse between power source and device.

Terminal Type	Fuse
Connection Type	Wire
Connector/Connector Tool	Connector
Connector Style	Insulation Displacement
Insulation Material	Polypropylene
Flame Retardant	No
RoHS 2011/65/EU	Yes



Order No.	UPC	Color	Conductor Size	Maximum Insulation Outside Diameter	Operating Temperature	Connectors per Carton	Connectors per Case
972X-A-BOX	051128-57558	Blue	18–14 AWG (0,75 - 1,5 mm²)	0.150" (3,8 mm)	194°F (90°C)	25	250
972-A-BULK	051128-57557	Blue	18–14 AWG (0,75 - 1,5 mm²)	0.150" (3,8 mm)	194°F (90°C)	-	1000

3M™ Scotchlok™ IDC Butt Connectors

Over 30 years ago, 3M introduced the industry's original U element connector, the 3M™ Scotchlok™ Connector UR. The latest series of connectors—the 3M Scotchlok Connectors UR2, UY2 and UB2A—features that same originality in technological advantages, building on the successful Scotchlok connector's design, shape, color-coded cap concepts and element technology. The Series 2 connectors additionally offer full wire range capability, increased port size to accommodate up to 0.082" (2,1 mm) insulation sizes, double elements in all products and a solvent-resistant plastic construction.

RoHS 2011/65/EU Yes

	UAL(BX)	UAL(CART)	UCC(CART)	UCC-JAR500
				
UPC	051115-26188	051115-26187	051115-26195	051115-26196
Connector Type	Butt	Butt	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	24 AWG	24 AWG	26 AWG	26 AWG
Conductor Size (Max.)	17 AWG	17 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	-
Connectors per Case	1000	10	10	500

	UCC(BULK)	UG(BX)	UP2(BULK)	UP2(CART)
				
UPC	051115-26194	051115-26197	054007-33420	054007-32698
Connector Type	Butt/ 2 Conductor	Bridge Tap/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Dry	Dry
Cable Type	PIC	PIC	PIC, PULP, PAPER	PIC, PULP, PAPER
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	19 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.044" (Tap); 0.066" (Run)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	Yes	Yes
Connectors per Carton	-	-	1000	16
Connectors per Case	5000	1000	5000	160

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UP3(BULK)	UP3(CART)	UR2(BX)	UR2(CART)
				
UPC	054007-33419	054007-32700	051115-26201	051115-26202
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Dry	Dry	Filled	Filled
Cable Type	PIC, PULP, PAPER	PIC, PULP, PAPER	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.060" (1,5 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	Yes	Yes	No	No
Connectors per Carton	500	10	-	-
Connectors per Case	5000	100	1000	10

	UR2(BULK)	UR2-25/PACK	UR2-JAR500	UR2-PK50
				
UPC	051115-26200	051115-26117	051115-26207	051115-26212
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	50
Connectors per Case	5000	40	5000	1000

	UR2-D(CART)	UR2-D-JAR500	UR(CART)	UR(BX)
				
UPC	054007-71475	051115-30060	051115-26232	051115-26230
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Dry	Dry	Filled	Filled
Cable Type	PIC, PULP, PAPER	PIC, PULP, PAPER	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	10	-	-	-
Connectors per Case	100	5000	10	1000

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UR-25/PACK	UY2(BX)	UY2(BULK)	UY2(CART)
				
UPC	051115-26238	051115-26121	051115-26224	051115-26225
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	25	-	-	-
Connectors per Case	250	1000	5000	10
	UY2-JAR500	**UY2-25/PACK**	**UY2-PK50**	**UY2-D(CART)**
				
UPC	051115-26228	051115-26119	051115-26213	054007-71478
Connector Type	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Dry
Cable Type	PIC	PIC	PIC	PIC, PULP, PAPER
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	50	12
Connectors per Case	5000	40	1000	120
	UY(BULK)	**UY(BX)**	**UY(CART)**	**UY-25/PACK**
				
UPC	051115-26221	051115-26214	051115-26223	051115-26237
Connector Type	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	22 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	25
Connectors per Case	5000	1000	10	250

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UPB(BULK)	211(BX)
		
UPC	054007-33416	051115-26185
Connector Type	Tap/ 2 Conductor	Butt Trim-out/ 2 Conductor
Application	Dry	Filled
Cable Type	PIC, PULP, PAPER	PIC
Conductor Size (Min.)	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	19 AWG
Maximum Insulation Outside Diameter	0.050" (1,3 mm)	0.082" (2,1 mm)
Flame Retardant	Yes	No
Connectors per Carton	-	-
Connectors per Case	5000	1000

3M™ Scotchlok™ IDC Tap Connector

By positioning the 3M™ Scotchlok™ IDC Tap Connector UB2A on the conductor and pre-crimping, the conductor is prevented from slipping out of the connector before the crimp is completed. A thin membrane molded into the tap wire entry port also assists the craftsperson by securing the tap wire until the crimp is completed. Like the 3M™ Scotchlok™ Connector UR2, a factory-installed sealant insulates against corrosion, and seals out moisture. The UB2A-D, a dry version, is available as well.

The UB2A connector permits tapping directly onto an existing conductor without interrupting service. In ready access closures, the UB2A eliminates cutting cable pairs, opening pairs, and piecing out wires. Fast and easy to work with the UB2A accepts 19–26 AWG (0,9–0,4 mm) plastic-, paper-, or pulp- insulated solid copper wire with a maximum O.D. of .082" (2,08 mm). The wires joined can be of different wire gauges.

Connection Style Insulation Displacement
Connector Type Bridge Tap/2 Conductor
Flame Retardant No
RoHS 2011/65/EU Yes
Agency Approval

	UB2A-25/PACK	UB2A(BX)	UB2A-JAR500	UB2A-D(BX)
				
UPC	051115-26120	051115-26189	051115-26193	054007-92694
Application	Filled	Filled	Filled	Dry
Cable Type	PIC	PIC	PIC	PIC, PULP, PAPER
Conductor Size Range	26–19 AWG	26–19 AWG	26–19 AWG	26–19 AWG
Insulation Outside Diameter	0.082" (2,08 mm)	0.082" (2,08 mm)	0.082" (2,08 mm)	0.082" (2,08 mm)
Connectors per Carton	25	-	500	100
Connectors per Case	1000	1000	5000	1000

3M™ Crimping Tools

The 3M™ Crimping Tool E-9BM is used with most 3M™ Scotchlok™ Connectors, and has parallel closing action with adjustable jaws and a high mechanical advantage. The 3M™ Cartridge Tool E-9C with case holds connectors (in cartridges) firmly in place, allowing the craftsperson use of the other hand for guiding wires. A time-saving tool, the E-9C tool holds cartridges of UR2, UR, UY2, UY, or UAL connectors. The 3M™ Scotchlok™ Hand Crimping Tool E-9E is a parallel closing action tool for use with Scotchlok butt and tap connectors. The E-9Y tool's stepped jaws and long nose provide parallel crimping action. Its features include a side wire cutter, cushioned handles and a return spring. The E-9R tool features single-stroke, parallel crimping action with a work-saving 10:1 mechanical advantage over applied hand force. The tool's innovative ratchet-release design indicates a positive crimp by automatically releasing after each successful connection. The E-9R tool is compatible with all 3M™ Scotchlok™ Connectors including UY, UR, UY2, UR2, UP2, UAL, UP3, UB, 211 and UB2A units across the entire range of applicable wire sizes.

RoHS 2011/65/EU Yes

	E-9BM	E-9C	E-9E	E-9J
				
UPC	054007-33482	054007-34211	054007-10577	051115-19004
Product Name	3M™ Scotchlok™ Hand Crimping Tool E-9BM	3M™ Scotchlok™ Cartridge Crimping Tool E-9C	3M™ Scotchlok™ Hand Crimping Tool E-9E	3M™ Scotchlok™ Hand Crimping Tool E-9J
Description	This heavy-duty tool is capable of crimping all Scotchlok connectors. Its closing action and adjustable jaws provide a 10-to-1 mechanical advantage, allowing it to handle all wire gauges.	With an automatic cartridge feed, 7-to-1 mechanical advantage and ratchet action, the E-9C tool allows the craftsperson to complete a crimp with one hand, freeing the other hand for wire handling. The tool is designed for cartridges with Scotchlok butt connectors.	A completely parallel closing action and a 4-to-1 mechanical advantage make the lightweight E-9E crimping tool a versatile addition to any craftsperson's pouch. With these features, the E-9E tool will crimp all Scotchlok butt and tap connectors in all wire gauges.	The E-9J tool is a lightweight, hand-held tool featuring a single stroke, with a work-saving 10-to-1 mechanical advantage over applied hand force. For use with Scotchlok butt and tap connectors.
Tools per Case	6	1	10	10

	E-9R	E-9Y	E-9Y-P
			
UPC	051138-87649	054007-15625	051115-22987
Product Name	3M™ Scotchlok™ Hand Crimping Tool E-9R	3M™ Scotchlok™ Hand Crimping Tool E-9Y	3M™ Scotchlok™ Hand Crimping Tool E-9Y-P
Description	This tool features a 10-to-1 mechanical advantage. Its ratchet-release and integrated wire cutter save time by not having to change tools. The E-9R tool is compatible with all Scotchlok connectors (except inline and drop connectors) across the entire range of applicable wire sizes.	The E-9Y tool has stepped jaws and a long nose and side wire cutter which provide crimping action for two- or three-conductor splicing. The E-9Y tool is not recommended for 19 AWG (0.9 mm) and larger conductors.	In package. It is not recommended for 19 AWG (.9 mm) and larger conductors. Mechanical advantage of 3-to-1. Includes integrated wire cutter.
Tools per Case	10	10	10

3M™ Scotchlok™ Moisture Resistant Connectors

The 3M™ Moisture Guard Connector MGC provides a convenient way to connect wires for landscape irrigation and lighting applications. Just press the MGC cap and a metal element inside pushes through the wire insulation to make a secure, reliable connection. The grease in the MGC protects against moisture while the MGC housing is UV resistant for above-ground applications.

Connection Type	Moisture Resistant
Connector Style	Insulation Displacement
Flame Retardant	No
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature	221°F (105 °C)
RoHS 2011/65/EU	Yes
Agency Approval	
Country of Origin	



Order No.	UPC	Conductor Size	Wire Range: Outside Port	Wire Range: Inside Port	Outside Port Maximum Insulation Diameter	Inside Port Maximum Insulation Diameter	Connectors per Carton	Connectors per Case
MGC(25/BAG)	051128-56827	14 AWG	12 AWG, Stranded 14–16 AWG, Solid/Stranded	20 AWG, Stranded 18 AWG, Solid/Stranded	0.21" (5,3 mm)	0.15" (3,8 mm)	25	250
MGC(100/JUG)	051128-56828	14 AWG	12 AWG, Stranded 14–16 AWG, Solid/Stranded	20 AWG, Stranded 18 AWG, Solid/Stranded	0.21" (5,3 mm)	0.150" (3,8 mm)	100	400

3M™ Scotchlok™ IDC Butt/Trim Out Connector 211

The 3M™ Scotchlok™ IDC Butt/Trim Out Connector 211 is a moisture-resistant, self-stripping insulation displacement connector with a built-in cut-off blade and a test port. Wires are positioned in the connector from the sides, allowing the 211 connector to be used without interrupting service. The 211 connector may also be used for standard two-wire butt type splicing operations.

For interruption free butt splice replacement.

Choose any one of the 3M™ Scotchlok™ Crimping Tools E-9 to use with the 211 connector.

Connector Type	Butt Trim-out/ 2 Conductor
Application	Filled
Cable Type	PIC
Flame Retardant	No



Order No.	UPC #	Conductor Size (Min.)	Conductor Size (Max.)	Insulation Outside Diameter	Min. Order Qty.	Case Qty.
211(BX)	051115-26185	26 AWG	19 AWG	0.082 inches	100 each per Box, 10 Boxes per Case	1000 each

3M™ Direct Bury Splice Kit DBO/B-6

The 3M™ Direct Bury Splice Kit DBO/B-6 is used to electrically connect two or more pre–stripped copper wires and moisture seal the connection for direct burial. The kit includes a 3M™ Performance Plus Wire Connector O/B+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease.

Voltage	600 V
Splice Type	Direct Bury
Application Temperature Range	32–120°F (0–49°C)
Operating Temperature	221°F (105°C)
Flame Retardant	Yes
RoHS 2011/65/EU	Yes
Agency Approval	UL

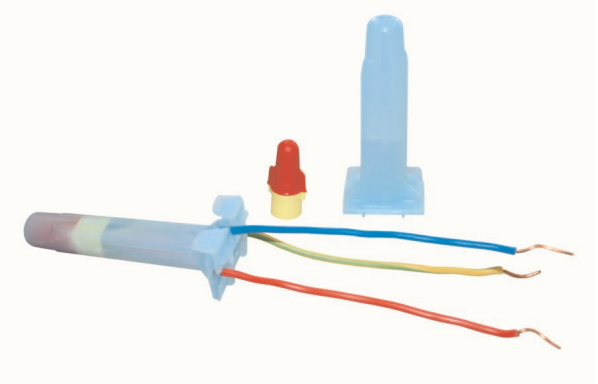


Order No.	UPC	Conductor Size	Common AWG Wire Combinations (CU only)	Case Qty.
DBO/B-6 KIT	051128-59075	18–10 AWG	2–3#16 sol/str; 2–3#14 sol/str; 2#12 sol/str; 1#14 to 1#12 sol/str; 1#18 to 1–2#14 sol/str; 1#18 to 1–2#12 sol/str; 1#16 to 1–2#14 sol/str; 1#16 to 1–2#12 sol/str	25 Kits
DBO/B-6 BULK	051128-59076	18–10 AWG	2–3#16 sol/str; 2–3#14 sol/str; 2#12 sol/str; 1#14 to 1#12 sol/str; 1#18 to 1–2#14 sol/str; 1#18 to 1–2#12 sol/str; 1#16 to 1–2#14 sol/str; 1#16 to 1–2#12 sol/str	100 Kits

3M™ Direct Bury Splice Kit DBR/Y-6

The 3M™ Direct Bury Splice Kit DBR/Y-6 is used to electrically connect two or more pre–stripped copper wires and moisture seal the connection for direct burial. The kit includes a 3M™ Performance Plus Wire Connector R/Y+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease.

Voltage	600 V
Splice Type	Direct Bury
Application Temperature Range	32–120°F (0–49°C)
Operating Temperature Range	-40–221°F (-40–105°C)
Flame Retardant	Yes
RoHS 2011/65/EU	Yes
Agency Approval	UL



Order No.	UPC	Conductor Size	Common AWG Wire Combinations (CU only)	Case Qty.
DBR/Y-6 KIT	051128-58573	18–10 AWG	2–7#18; 2–6#16; 2–4#14; 2–4#12; 2–3#10; 1–3#12 w/ 1#18; 1–2#10 w/1#18; 1–2#10 w/1#12; 1–2#14 w/ 1#18	25 Kits
DBR/Y-6 BULK	051128-58574	18–10 AWG	2–7#18; 2–6#16; 2–4#14; 2–4#12; 2–3#10; 1–3#12 w/ 1#18; 1–2#10 w/1#18; 1–2#10 w/1#12; 1–2#14 w/ 1#18	100 Kits

Electrical Wire Connectors and Tools

The best connectors do more than fit your application; they also fit your hand, and they feel good to use. At 3M, we design connectors that are as comfortable and easy to use as they are dependable. Our complete line provides a wide range of connector choices. Simply choose the connector that fits your personal preference, as well as the application. We give you plenty of choices.



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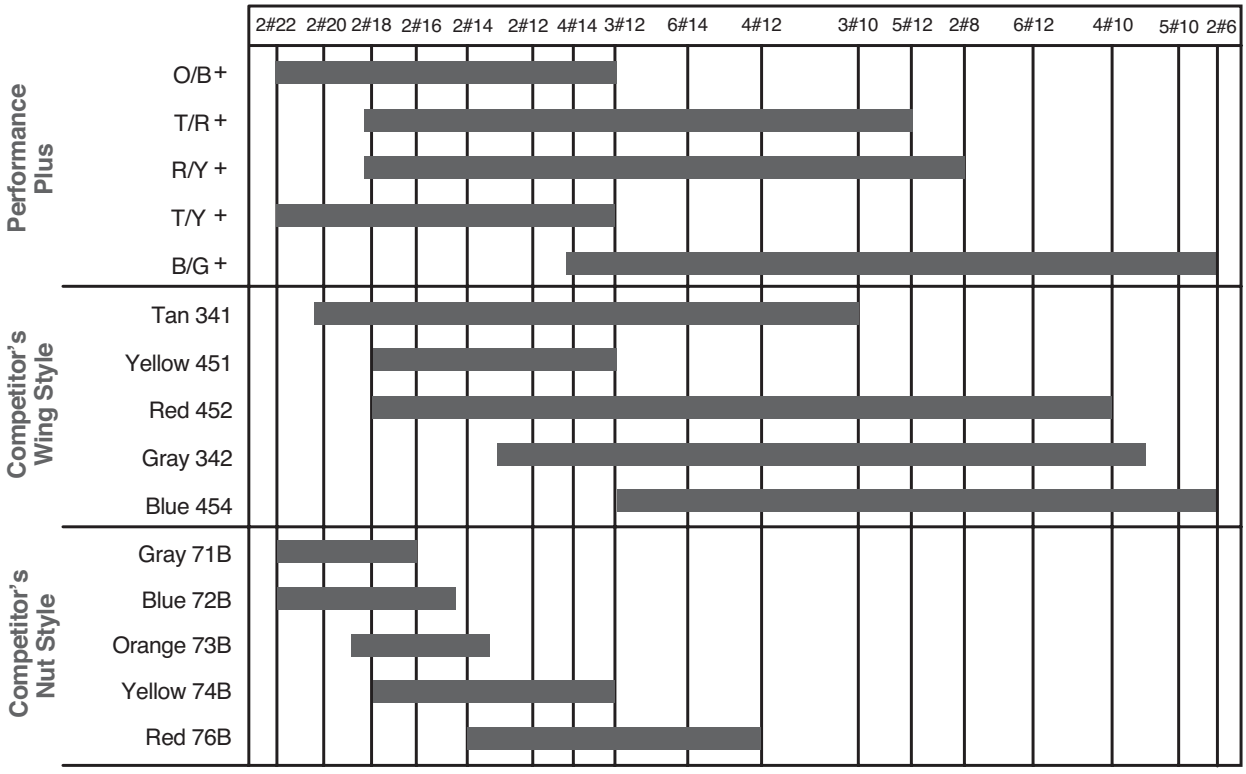
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SPRING CONNECTORS

FEATURES	ADVANTAGES	BENEFITS
3M™ PERFORMANCE PLUS WIRE CONNECTORS (T/R+,T/Y+, O/B+, R/Y+, B/G+)		
Wires feed deeper	Increases level of pull-out	Security
Wide wire ranges	Three connectors replace seven	Saves time and cost effective
Flexible skirt	Covers overstripped wires	Safety
New internal design	Smoother and faster installation	Improves quality and saves time
3M ELECTRICAL SPRING AND GROUNDING CONNECTORS (312, 412, 512, 512G)		
Hard shell	Easy to grip	Easy to use
Wings	Easy to turn	Easy to use
3M HIGHLAND™ WIRE CONNECTORS (H-29, H-30, H-31, H-33, H-35)		
Low price	Economical	Cost effective

Wire Range for 3M Performance Plus Wire Connectors



3M™ Performance Plus Wire Connectors

Because of their increased wire range, just three 3M™ Performance Plus Wire Connectors handle the work of eight standard connectors. O/B+ replaces the orange, blue and gray wire connector style connectors, as well as 70% of the yellow wire connector and wing style connectors. R/Y+ replaces both red and yellow wing style connectors. B/G+ covers both the large blue and gray connectors.

This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

A Better Bite for a Better Connection. 3M™ Performance Plus Wire Connectors O/B+, R/Y+ and B/G+ now have a better bite. Wires feed into the connector more easily, improving the security of the connection and increasing the level of pull out.

New Design Allows Easier Installation. We have modified the internal design of the O/B+, R/Y+ and B/G+ wire connectors. Installation is smooth, fast and easy on the hands.

Flexible Skirts Provide Safety. The flexible skirts on the O/B+, R/Y+ and B/G+ wire connectors make the workplace a safer environment. The flexible skirt provides protection against potential shock situations.

Connection Type	Wire
Connector Style	Twist On
Flame Retardant	Yes
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature	221°F (105°C)
RoHS 2011/65/EU	No
Agency Approval	



	B/G+BOX	B/G+JUG	O/B+BOX	O/B+JUG
				
UPC	054007-43150	054007-43151	054007-43152	054007-43153
Color	Blue/Gray	Blue/Gray	Orange/Blue	Orange/Blue
Conductor Size	14–6 AWG	14–6 AWG	22–12 AWG	22–12 AWG
Connectors per Carton	50	250	100	500
Connectors per Case	500	2000	1000	10,000

	R/Y+BOX	R/Y+JUG	R/Y+KEG
			
UPC	054007-43154	054007-43155	051128-57943
Color	Red/Yellow	Red/Yellow	Red/Yellow
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG
Connectors per Carton	100	500	-
Connectors per Case	1000	4000	17,000

3M™ Wire Connectors for Residential



Specifically created for the residential markets, the T/R+ replaces the yellow, tan and red connectors in the majority of field applications. T/Y+ replaces the yellow, orange, blue and gray wire nuts in most applications. Use the 412 (tan) connector for wire combinations from 2 #20 to 3 #10 AWG. This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

Connection Type Wire
Connector Style Twist On
Flame Retardant Yes
Maximum Voltage Rating 600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU No

	T/R+BOX	T/R+JUG	T/R+KEG	T/Y+BOX
				
UPC	051128-54454	051128-54455	051128-54456	051128-55218
Color	Tan/Red	Tan/Red	Tan/Red	Tan/Yellow
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG	22–12 AWG
Agency Approval	UL SA CE	UL SA CE	UL SA CE	UL SA CE
Connectors per Carton	100	750	-	100
Connectors per Case	1000	6000	25,000	1000

	T/Y+JUG	T/Y+KEG	412-BOX	412-BULK
				
UPC	051128-55219	051128-58623	051128-54451	051128-54452
Color	Tan/Yellow	Tan/Yellow	Tan	Tan
Conductor Size	22–12 AWG	22–12 AWG	22–10 AWG	22–10 AWG
Agency Approval	UL SA CE	UL SA CE	UL SA	UL SA
Connectors per Carton	500	-	100	500
Connectors per Case	10,000	40,000	1000	10,000

3M™ Wire Connectors for Residential (continued)

	412-JUG	412-KEG
		
UPC	051128-55695	051128-54453
Color	Tan	Tan
Conductor Size	22–10 AWG	22–10 AWG
Agency Approval	UL, CSA	UL, CSA
Connectors per Carton	500	-
Connectors per Case	4000	20,000

3M™ Scotchlok™ Electrical Spring Connectors 312, 512 and 512G

The quick-spin, wing-torque design of 3M™ Scotchlok™ Electrical Spring Connector 312 and 512 is easy on your fingers. The day's last connection will feel almost as good as the first. Generous expansion room accommodates a wide range of solid or stranded wire. Use the 312 (yellow) connector for wire combinations from 3 #20 to 3 #12 AWG, and the 512 (red) connector for 2 #18 to 5 #12 AWG. The 512G (green) is used for grounding connections.

Connection Type Wire
Connector Style Twist On
Maximum Voltage Rating 600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU Yes
Country of Origin MADE IN USA

	312-BOX	312-BULK	312-KEG	512-BOX
				
UPC	054007-08159	054007-08160	051128-56280	054007-08161
Color	Yellow	Yellow	Yellow	Red
Conductor Size	22–8 AWG	22–8 AWG	22–8 AWG	22–8 AWG
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval	UL, CSA, IEC	UL, CSA, IEC	UL, CSA, IEC	UL, CSA, IEC
Connectors per Carton	100	500	-	100
Connectors per Case	1000	10,000	25,000	1000

3M™ Scotchlok™ Electrical Spring Connectors 312, 512 and 512G (continued)

	512-BULK	512-KEG	512G-BAG	512G-POUCH
				
UPC	054007-08162	051128-56281	054007-50232	051128-59098
Color	Red	Red	Green	Green
Conductor Size	22–8 AWG	22–8 AWG	14–10 AWG	14–10 AWG
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval	UL CSA IEC	UL CSA IEC	UL CSA	UL CSA
Connectors per Carton	500	-	500	-
Connectors per Case	10,000	25,000	10,000	100

3M™ Highland™ Wire Connectors

3M™ Highland™ Wire Connectors make it quick and easy to match the right connector to the size of the wire. The shells are designed to withstand temperatures up to 221°F (105°C). Highland color-coded wire connectors are UL Listed, CSA Certified, and work equally well with either solid or stranded wire.



Connection Type Wire
Connector Style Twist On
Flame Retardant No
Operating Temperature 221°F (105°C)
RoHS 2011/65/EU Yes
Agency Approval UL CSA

	H-29-BIN	H-29-BOX	H-30-BIN	H-30-BOX
				
UPC	054007-43134	054007-43133	054007-43123	054007-43122
Color	Gray	Gray	Blue	Blue
Conductor Size	22–16 AWG	22–16 AWG	22–16 AWG	22–16 AWG
Maximum Voltage Rating	300 V	300 V	300 V	300 V
Connectors per Carton	-	100	-	100
Connectors per Case	1000	1000	1000	1000

3M™ Highland™ Wire Connectors (continued)

	H-30-KEG	H-31-BIN	H-31-BOX	H-31-BULK
				
UPC	054007-43124	054007-43119	054007-43117	054007-43118
Color	Blue	Orange	Orange	Orange
Conductor Size	22–16 AWG	18–14 AWG	18–14 AWG	18–14 AWG
Maximum Voltage Rating	300 V	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	500
Connectors per Case	10,000	1000	1000	10,000
	H-31-KEG	**H-33-BIN**	**H-33-BOX**	**H-33-BULK**
				
UPC	054007-43120	054007-43137	054007-43136	054007-43138
Color	Orange	Yellow	Yellow	Yellow
Conductor Size	18–14 AWG	18–12 AWG	18–12 AWG	18–12 AWG
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	500
Connectors per Case	10,000	1000	1000	5000
	H-33-KEG	**H-35-BIN**	**H-35-BOX**	**H-35-BULK**
				
UPC	054007-43139	054007-43141	054007-43140	054007-43142
Color	Yellow	Red	Red	Red
Conductor Size	18–12 AWG	18–10 AWG	18–10 AWG	18–10 AWG
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)	600 V (1000 V in signs, lighting fixtures and luminaries)
Connectors per Carton	-	-	100	250
Connectors per Case	5000	1000	1000	2500

3M™ Wire Connector Drivers WCD

These application tools for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, T/R+ and T/Y+, 3M™ Electrical Spring Connectors 312 and 512, and 3M™ Scotchlok™ Wire Connectors Y, R, and G quickly spin on the connector and position the wire bundle in the box. The WCD-H driver is a hand driver and the WCD-P driver is a power driver that fits a standard chuck.

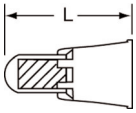
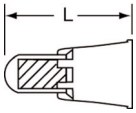
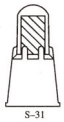
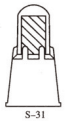
	WCD-H	WCD-P
		
UPC	054007-49948	054007-49919
Product Name	3M™ Hand Wire Connector Driver WCD-H	3M™ Power Wire Connector Driver WCD-P
Description	Hand driver for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, 3M™ Scotchlok™ Wire Connectors Y, R, G, and 3M™ Electrical Spring Connectors 312 and 512.	Power driver using a standard chuck, drill or screw driver for 3M™ Performance Plus Wire Connectors O/B+, R/Y+, 3M™ Scotchlok™ Wire Connectors Y, R, G, and 3M™ Electrical Spring Connectors 312 and 512.
Case Qty.	10	10

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11 and S-31

3M™ Scotchlok™ Insulated Electrical Crimp Sleeve Connectors S-11-A and S-31-A make fast work of splicing 22 to 10 AWG copper conductors. Smooth flared entry makes wire insertion fast — simply twist conductors together and crimp. The S-11-A and S-31-A are insulated, closed-end crimp sleeve connectors with a copper insert. The rugged and resilient nylon insulator allows these connectors to be used in light fixtures, appliances and other electrical OEM applications.

Connector Style	Crimp Sleeve
Insulation Material	Nylon
Barrel Style	Insulation Grip
Terminal Type	Closed End
Terminal Style	Copper
Flame Retardant	No
Maximum Voltage	600 V
Operating Temperature	221°F (105°C)
RoHS 2011/65/EU	Yes



	S-11-A(BOXED)	S-11-A(BULK)	S-31-A(BOXED)	S-31-A(BULK)
				
UPC	051128-58997	051138-98052	051128-58996	051138-98044
Conductor Size	22–16 AWG	22–16 AWG	18–10 AWG	18–10 AWG
Length	0.83" (21,1 mm)	0.83" (21,1 mm)	1.00" (25,4 mm)	1.00" (25,4 mm)
Cu Solid/Stranded Wire Combinations	2–5 #22; 1–4 #22 with 1–2 #20; 1–3 #22 with 1 #18; 1 #22 with 1 #16; 2–3 #20	2–5 #22; 1–4 #22 with 1–2 #20; 1–3 #22 with 1 #18; 1 #22 with 1 #16; 2–3 #20	1 #22 with 1 #12 or #10; 1 #22 with 2 #14 or #16; 1 #22 with 1 #20 with 1 #12 or #14;1 #22 with 1 #18 with 1 #12 or #14; 1 #22 with 1 #16 with 1 #12 or #14;1 #22 with 1 #14 with 1 #12; 1–2 #20 with 1–2 #14; 1–2 #20 with 1 #12; 1 #20 with 1 #10; 1 #20 with 1 #16 with 1 #12; 1 #18 with 1 #14; 1 #18 with 1 #12; 1 #18 with 2 #16; 1 #18 with 1 #16 with 1 #12 or #14; 1 #16 with 1 #12 or #14; 3 #16; 1 #14 with 1 #12;2 #14	1 #22 with 1 #12 or #10; 1 #22 with 2 #14 or #16; 1 #22 with 1 #20 with 1 #12 or #14;1 #22 with 1 #18 with 1 #12 or #14; 1 #22 with 1 #16 with 1 #12 or #14;1 #22 with 1 #14 with 1 #12; 1–2 #20 with 1–2 #14; 1–2 #20 with 1 #12; 1 #20 with 1 #10; 1 #20 with 1 #16 with 1 #12; 1 #18 with 1 #14; 1 #18 with 1 #12; 1 #18 with 2 #16; 1 #18 with 1 #16 with 1 #12 or #14; 1 #16 with 1 #12 or #14; 3 #16; 1 #14 with 1 #12;2 #14
Connectors per Carton	100	-	50	-
Connectors per Case	500	10,000	500	5000

3M™ Scotchlok™ IDC Pigtail Connectors

3M™ Scotchlok™ Self-Stripping, Moisture Resistant Electrical Pigtail Connector 314 provides a moisture-resistant seal. The 3M™ Scotchlok™ Electrical Connector IDC 314U is a self-stripping, flame retardant, electrical pigtail connector for dry environment applications. The 3M™ Scotchlok™ Electrical Connector IDC 316-IR provides a moisture-resistant seal and are recommended for use with low energy underground circuit wires, sprinkler systems, landscape lighting or other moisture-resistance wires for applications of less than 30 V. Its sealant is a mineral oil-based grease.

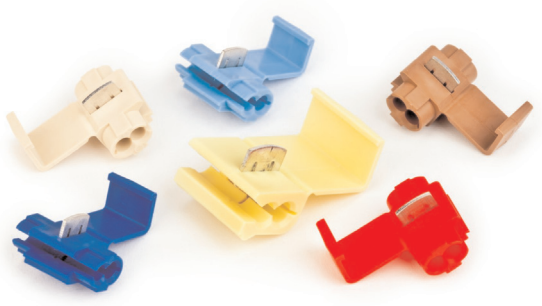


Connection Type	Pigtail
Connector Style	Insulation Displacement
Flame Retardant	Yes
Operating Temperature	221°F (105°C)
Recommended Crimping Tool	3M™ Crimping Tool No. E-9BM
RoHS 2011/65/EU	Yes

	314-BIN	314-BOX	314U-BOX	314U-BIN
				
UPC	054007-09231	054007-09230	054007-09232	054007-09233
Color	Blue	Blue	White	White
Conductor Size	22–14 AWG	22–14 AWG	22–14 AWG	22–14 AWG
Max. Insulation O.D.	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Agency Approval	UL CSA	UL CSA	UL CSA	UL CSA
Connectors per Carton	-	50	50	-
Connectors per Case	1000	500	500	1000

	316-IR BAG	557-BOX	557-BULK
			
UPC	054007-50419	054007-21494	054007-21502
Color	Black/White	Red	Red
Conductor Size	22–16 AWG	22–16 AWG	22–16 AWG
Max. Insulation O.D.	0.155" (3,9 mm)	0.120" (3,05 mm)	0.120" (3,05 mm)
Agency Approval	UL	UL CSA	UL CSA
Connectors per Carton	30	100	500
Connectors per Case	300	1000	5000

3M™ Scotchlok™ IDC Double Run or Tap Connectors



The 3M™ Scotchlok™ Electrical Connector IDC 560 and 560N electrically connect a (tap) wire end to a through (run) wire and insulate the connection. They are used for tap and parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 564 electrically connects two through (run) wires and insulates the connection. It is used for parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 560B electrically connects a (tap) wire end to a through (run) wire and insulates the connection. For general-purpose electrical connections on auto, boat, van or trailer. Used for tap and parallel splicing. The 3M™ Scotchlok™ Electrical Connector IDC 905 and 905N electrically connect a (tap) wire end to a through (run) wire and insulate the connection. Suitable for low-voltage accessories such as radios, stereo speakers, tape decks and CB radios. Used for tap, in-line parallel and pigtail splicing.

Connection Type	Double Run or Tap
Connector Style	Insulation Displacement
RoHS 2011/65/EU	Yes

	560-BOX	560-BULK	560B-BOX	560B-BULK
				
UPC	054007-00839	054007-00840	054007-20090	054007-20181
Color	Light Blue	Light Blue	Blue	Blue
Conductor Size	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str
Maximum Insulation Outside Diameter	0.145" (3,68 mm)	0.145" (3,68 mm)	0.145" (3,68 mm)	0.145" (3,68 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	194°F (90°C)	194 °F (90 °C)
Flame Retardant	Yes	Yes	Yes	Yes
Agency Approval	UL, CSA	UL, CSA	UL	UL
Connectors per Carton	100	500	100	500
Connectors per Case	1000	5000	1000	5000

3M™ Scotchlok™ IDC Double Run or Tap Connectors (continued)

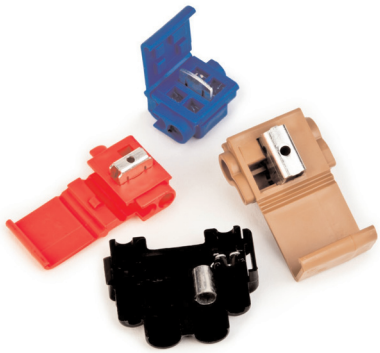
	560N-BULK	562-BOX	562-BIN	564-BULK
				
UPC	054007-09513	054007-11032	054007-11040	054007-06118
Color	Brown	Yellow	Yellow	White
Conductor Size	18–16 AWG / 14 AWG Str	12 AWG / 10 AWG Str	12 AWG / 10 AWG Str	18–14 AWG
Maximum Insulation Outside Diameter	0.145" (3,68 mm)	0.190" (4,82 mm)	0.190" (4,82 mm)	0.145" (3,68 mm)
Operating Temperature	221°F (105°C)	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	Yes	Yes	No
Agency Approval	UL, CSA	UL	UL	CE
Connectors per Carton	500	100	-	500
Connectors per Case	5000	1000	1000	5000

	905-BOX	905-BULK	905N
			
UPC	054007-06128	054007-06129	054007-06124
Color	Red	Red	Red
Conductor Size	Tap: 22–18 AWG Run: 18–14 AWG	Tap: 22–18 AWG Run: 18–14 AWG	18–22 AWG
Maximum Insulation Outside Diameter	Tap: 0.110" (2,79 mm) Run: 0.145" (3,68 mm)	Tap: 0.110" (2,79 mm) Run: 0.145" (3,68 mm)	0.145" (3,68 mm)
Operating Temperature	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	No	No	No
Agency Approval	CE	CE	N/A
Connectors per Carton	50	500	500
Connectors per Case	500	5000	5000

3M™ Scotchlok™ IDC Run and Tap Connector

Electrically connects a (tap) wire end to a through (run) wire and insulates the connection. Designed for control circuit wiring, fixture wiring, appliance wiring, signal and PA systems, and automotive/boat/RV wiring.

Connection Type	Run and Tap
Connector Style	Insulation Displacement
Recommended Crimping Tool	3M™ E-9BM or 9" Linemans Pliers
RoHS 2011/65/EU	Yes



	558-BOX	558-BULK	567-BOX
			
UPC	054007-14861	054007-14879	054007-14887
Color	Red	Red	Brown
Max. Recommended Voltage Rating	600 V	600 V	600 V
Conductor Size (Tap)	22–16 AWG	22–16 AWG	Tap: 18–14 AWG Run: 12–10 AWG
Maximum Insulation Outside Diameter	0.120" (3,1 mm)	0.120" (3,1 mm)	Tap: 0.145" (3,7 mm) Run: 0.190" (4,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Flame Retardant	Yes	Yes	Yes
Agency Approval	UL SA	UL SA	UL SA
Connectors per Carton	100	-	100
Connectors per Case	1000	5000	1000

	567-BIN	804-100/BAG	804-BOX
			
UPC	054007-14895	054007-50188	054007-06134
Color	Brown	Blue	Blue
Max. Recommended Voltage Rating	600 V	600 V	600 V
Conductor Size (Tap)	Tap: 18–14 AWG Run: 12–10 AWG	18–16 AWG / 14 AWG Str	18–16 AWG / 14 AWG Str
Maximum Insulation Outside Diameter	Tap: 0.145" (3,7 mm) Run: 0.190" (4,8 mm)	0.145" (3,7 mm)	0.145" (3,7 mm)
Operating Temperature	221°F (105 °C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	Yes	Yes
Agency Approval	UL SA	UL	UL
Connectors per Carton	-	100	25
Connectors per Case	1000	1000	250

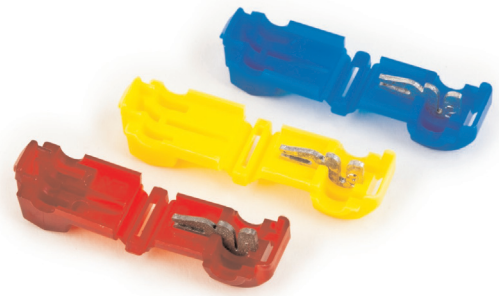
3M™ Scotchlok™ IDC Run and Tap Connector (continued)

	804-BULK	901-BOX	901-BULK
			
UPC	054007-06135	054007-06106	054007-06107
Color	Blue	Black	Black
Max. Recommended Voltage Rating	600 V	32 V	32 V
Conductor Size (Tap)	18–16 AWG / 14 AWG Str	18–14 AWG	18–14 AWG
Maximum Insulation Outside Diameter	0.145" (3,7 mm)	0.145" (3,7 mm)	0.145" (3,7 mm)
Operating Temperature	194°F (90°C)	194°F (90°C)	194°F (90°C)
Flame Retardant	Yes	No	No
Agency Approval	UL	-	-
Connectors per Carton	500	50	500
Connectors per Case	5000	500	5000

3M™ Scotchlok™ T-Tap Connector

Use 3M™ Scotchlok™ Self-Stripping Electrical Tap Connectors 951, 952 and 953 to electrically tap into a wire in mid-span without cutting or stripping the wire. Connector then mates with a .250" (6,35 mm) male tab, making a reusable quick-connect wiring termination.

Connection Type T-tap
Connector Style Insulation Displacement
RoHS 2011/65/EU Yes
Agency Approvals UL CSA



	951X-BOTTLE	951K-BULK	952X-BOTTLE
			
UPC	054007-12312	054007-12313	054007-08427
Conductor Size	22-18 AWG	22-18 AWG	18-14 AWG
Flame Retardant	Yes	Yes	Yes
Maximum Insulation Outside Diameter	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Connectors per Carton	50	-	50
Connectors per Case	500	1000	500

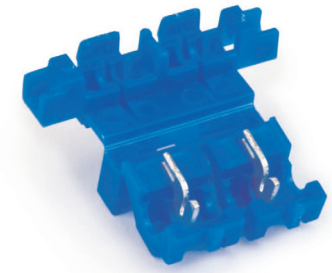
3M™ Scotchlok™ T-Tap Connector (continued)

	952K-BULK	953X-BOTTLE	953K-BULK
			
UPC	054007-08428	054007-12314	054007-12315
Conductor Size	18-14 AWG	12 AWG	12 AWG
Flame Retardant	Yes	Yes	Yes
Maximum Insulation Outside Diameter	0.150" (3,8 mm)	0.150" (3,8 mm)	0.150" (3,8 mm)
Operating Temperature	221°F (105°C)	221°F (105°C)	221°F (105°C)
Connectors per Carton	-	50	-
Connectors per Case	1000	500	1000

3M™ Scotchlok™ Fuse Holder

The 3M™ Scotchlok™ Fuse Holder 972 is used to install a blade-type automotive fuse between power source and device.

Terminal Type	Fuse
Connection Type	Wire
Connector/Connector Tool	Connector
Connector Style	Insulation Displacement
Insulation Material	Polypropylene
Flame Retardant	No
RoHS 2011/65/EU	Yes



Order No.	UPC	Color	Conductor Size	Maximum Insulation Outside Diameter	Operating Temperature	Connectors per Carton	Connectors per Case
972X-A-BOX	051128-57558	Blue	18–14 AWG (0,75 - 1,5 mm²)	0.150" (3,8 mm)	194°F (90°C)	25	250
972-A-BULK	051128-57557	Blue	18–14 AWG (0,75 - 1,5 mm²)	0.150" (3,8 mm)	194°F (90°C)	-	1000

3M™ Scotchlok™ IDC Butt Connectors

Over 30 years ago, 3M introduced the industry's original U element connector, the 3M™ Scotchlok™ Connector UR. The latest series of connectors—the 3M Scotchlok Connectors UR2, UY2 and UB2A—features that same originality in technological advantages, building on the successful Scotchlok connector's design, shape, color-coded cap concepts and element technology. The Series 2 connectors additionally offer full wire range capability, increased port size to accommodate up to 0.082" (2,1 mm) insulation sizes, double elements in all products and a solvent-resistant plastic construction.

RoHS 2011/65/EU Yes

	UAL(BX)	UAL(CART)	UCC(CART)	UCC-JAR500
				
UPC	051115-26188	051115-26187	051115-26195	051115-26196
Connector Type	Butt	Butt	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	24 AWG	24 AWG	26 AWG	26 AWG
Conductor Size (Max.)	17 AWG	17 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	-
Connectors per Case	1000	10	10	500

	UCC(BULK)	UG(BX)	UP2(BULK)	UP2(CART)
				
UPC	051115-26194	051115-26197	054007-33420	054007-32698
Connector Type	Butt/ 2 Conductor	Bridge Tap/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Dry	Dry
Cable Type	PIC	PIC	PIC, PULP, PAPER	PIC, PULP, PAPER
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	19 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.044" (Tap); 0.066" (Run)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	Yes	Yes
Connectors per Carton	-	-	1000	16
Connectors per Case	5000	1000	5000	160

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UP3(BULK)	UP3(CART)	UR2(BX)	UR2(CART)
				
UPC	054007-33419	054007-32700	051115-26201	051115-26202
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Dry	Dry	Filled	Filled
Cable Type	PIC, PULP, PAPER	PIC, PULP, PAPER	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.060" (1,5 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	Yes	Yes	No	No
Connectors per Carton	500	10	-	-
Connectors per Case	5000	100	1000	10

	UR2(BULK)	UR2-25/PACK	UR2-JAR500	UR2-PK50
				
UPC	051115-26200	051115-26117	051115-26207	051115-26212
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	50
Connectors per Case	5000	40	5000	1000

	UR2-D(CART)	UR2-D-JAR500	UR(CART)	UR(BX)
				
UPC	054007-71475	051115-30060	051115-26232	051115-26230
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor	Butt/ 2 or 3 Conductor
Application	Dry	Dry	Filled	Filled
Cable Type	PIC, PULP, PAPER	PIC, PULP, PAPER	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	10	-	-	-
Connectors per Case	100	5000	10	1000

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UR-25/PACK	UY2(BX)	UY2(BULK)	UY2(CART)
				
UPC	051115-26238	051115-26121	051115-26224	051115-26225
Connector Type	Butt/ 2 or 3 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	25	-	-	-
Connectors per Case	250	1000	5000	10
	UY2-JAR500	**UY2-25/PACK**	**UY2-PK50**	**UY2-D(CART)**
				
UPC	051115-26228	051115-26119	051115-26213	054007-71478
Connector Type	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Dry
Cable Type	PIC	PIC	PIC	PIC, PULP, PAPER
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	19 AWG	19 AWG	19 AWG	19 AWG
Maximum Insulation Outside Diameter	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)	0.082" (2,1 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	50	12
Connectors per Case	5000	40	1000	120
	UY(BULK)	**UY(BX)**	**UY(CART)**	**UY-25/PACK**
				
UPC	051115-26221	051115-26214	051115-26223	051115-26237
Connector Type	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor	Butt/ 2 Conductor
Application	Filled	Filled	Filled	Filled
Cable Type	PIC	PIC	PIC	PIC
Conductor Size (Min.)	26 AWG	26 AWG	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	22 AWG	22 AWG	22 AWG
Maximum Insulation Outside Diameter	0.060" (1,5 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)	0.060" (1,5 mm)
Flame Retardant	No	No	No	No
Connectors per Carton	-	-	-	25
Connectors per Case	5000	1000	10	250

3M™ Scotchlok™ IDC Butt Connectors (continued)

	UPB(BULK)	211(BX)
		
UPC	054007-33416	051115-26185
Connector Type	Tap/ 2 Conductor	Butt Trim-out/ 2 Conductor
Application	Dry	Filled
Cable Type	PIC, PULP, PAPER	PIC
Conductor Size (Min.)	26 AWG	26 AWG
Conductor Size (Max.)	22 AWG	19 AWG
Maximum Insulation Outside Diameter	0.050" (1,3 mm)	0.082" (2,1 mm)
Flame Retardant	Yes	No
Connectors per Carton	-	-
Connectors per Case	5000	1000

3M™ Scotchlok™ IDC Tap Connector

By positioning the 3M™ Scotchlok™ IDC Tap Connector UB2A on the conductor and pre-crimping, the conductor is prevented from slipping out of the connector before the crimp is completed. A thin membrane molded into the tap wire entry port also assists the craftsperson by securing the tap wire until the crimp is completed. Like the 3M™ Scotchlok™ Connector UR2, a factory-installed sealant insulates against corrosion, and seals out moisture. The UB2A-D, a dry version, is available as well.

The UB2A connector permits tapping directly onto an existing conductor without interrupting service. In ready access closures, the UB2A eliminates cutting cable pairs, opening pairs, and piecing out wires. Fast and easy to work with the UB2A accepts 19–26 AWG (0,9–0,4 mm) plastic-, paper-, or pulp- insulated solid copper wire with a maximum O.D. of .082" (2,08 mm). The wires joined can be of different wire gauges.

Connection Style Insulation Displacement
Connector Type Bridge Tap/2 Conductor
Flame Retardant No
RoHS 2011/65/EU Yes
Agency Approval

	UB2A-25/PACK	UB2A(BX)	UB2A-JAR500	UB2A-D(BX)
				
UPC	051115-26120	051115-26189	051115-26193	054007-92694
Application	Filled	Filled	Filled	Dry
Cable Type	PIC	PIC	PIC	PIC, PULP, PAPER
Conductor Size Range	26–19 AWG	26–19 AWG	26–19 AWG	26–19 AWG
Insulation Outside Diameter	0.082" (2,08 mm)	0.082" (2,08 mm)	0.082" (2,08 mm)	0.082" (2,08 mm)
Connectors per Carton	25	-	500	100
Connectors per Case	1000	1000	5000	1000

3M™ Crimping Tools

The 3M™ Crimping Tool E-9BM is used with most 3M™ Scotchlok™ Connectors, and has parallel closing action with adjustable jaws and a high mechanical advantage. The 3M™ Cartridge Tool E-9C with case holds connectors (in cartridges) firmly in place, allowing the craftsperson use of the other hand for guiding wires. A time-saving tool, the E-9C tool holds cartridges of UR2, UR, UY2, UY, or UAL connectors. The 3M™ Scotchlok™ Hand Crimping Tool E-9E is a parallel closing action tool for use with Scotchlok butt and tap connectors. The E-9Y tool's stepped jaws and long nose provide parallel crimping action. Its features include a side wire cutter, cushioned handles and a return spring. The E-9R tool features single-stroke, parallel crimping action with a work-saving 10:1 mechanical advantage over applied hand force. The tool's innovative ratchet-release design indicates a positive crimp by automatically releasing after each successful connection. The E-9R tool is compatible with all 3M™ Scotchlok™ Connectors including UY, UR, UY2, UR2, UP2, UAL, UP3, UB, 211 and UB2A units across the entire range of applicable wire sizes.

RoHS 2011/65/EU Yes

	E-9BM	E-9C	E-9E	E-9J
				
UPC	054007-33482	054007-34211	054007-10577	051115-19004
Product Name	3M™ Scotchlok™ Hand Crimping Tool E-9BM	3M™ Scotchlok™ Cartridge Crimping Tool E-9C	3M™ Scotchlok™ Hand Crimping Tool E-9E	3M™ Scotchlok™ Hand Crimping Tool E-9J
Description	This heavy-duty tool is capable of crimping all Scotchlok connectors. Its closing action and adjustable jaws provide a 10-to-1 mechanical advantage, allowing it to handle all wire gauges.	With an automatic cartridge feed, 7-to-1 mechanical advantage and ratchet action, the E-9C tool allows the craftsperson to complete a crimp with one hand, freeing the other hand for wire handling. The tool is designed for cartridges with Scotchlok butt connectors.	A completely parallel closing action and a 4-to-1 mechanical advantage make the lightweight E-9E crimping tool a versatile addition to any craftsperson's pouch. With these features, the E-9E tool will crimp all Scotchlok butt and tap connectors in all wire gauges.	The E-9J tool is a lightweight, hand-held tool featuring a single stroke, with a work-saving 10-to-1 mechanical advantage over applied hand force. For use with Scotchlok butt and tap connectors.
Tools per Case	6	1	10	10

	E-9R	E-9Y	E-9Y-P
			
UPC	051138-87649	054007-15625	051115-22987
Product Name	3M™ Scotchlok™ Hand Crimping Tool E-9R	3M™ Scotchlok™ Hand Crimping Tool E-9Y	3M™ Scotchlok™ Hand Crimping Tool E-9Y-P
Description	This tool features a 10-to-1 mechanical advantage. Its ratchet-release and integrated wire cutter save time by not having to change tools. The E-9R tool is compatible with all Scotchlok connectors (except inline and drop connectors) across the entire range of applicable wire sizes.	The E-9Y tool has stepped jaws and a long nose and side wire cutter which provide crimping action for two- or three-conductor splicing. The E-9Y tool is not recommended for 19 AWG (0.9 mm) and larger conductors.	In package. It is not recommended for 19 AWG (.9 mm) and larger conductors. Mechanical advantage of 3-to-1. Includes integrated wire cutter.
Tools per Case	10	10	10

3M™ Scotchlok™ Moisture Resistant Connectors

The 3M™ Moisture Guard Connector MGC provides a convenient way to connect wires for landscape irrigation and lighting applications. Just press the MGC cap and a metal element inside pushes through the wire insulation to make a secure, reliable connection. The grease in the MGC protects against moisture while the MGC housing is UV resistant for above-ground applications.

Connection Type	Moisture Resistant
Connector Style	Insulation Displacement
Flame Retardant	No
Maximum Voltage Rating	600 V (1000 V in signs, lighting fixtures and luminaries)
Operating Temperature	221°F (105 °C)
RoHS 2011/65/EU	Yes
Agency Approval	
Country of Origin	



Order No.	UPC	Conductor Size	Wire Range: Outside Port	Wire Range: Inside Port	Outside Port Maximum Insulation Diameter	Inside Port Maximum Insulation Diameter	Connectors per Carton	Connectors per Case
MGC(25/BAG)	051128-56827	14 AWG	12 AWG, Stranded 14–16 AWG, Solid/Stranded	20 AWG, Stranded 18 AWG, Solid/Stranded	0.21" (5,3 mm)	0.15" (3,8 mm)	25	250
MGC(100/JUG)	051128-56828	14 AWG	12 AWG, Stranded 14–16 AWG, Solid/Stranded	20 AWG, Stranded 18 AWG, Solid/Stranded	0.21" (5,3 mm)	0.150" (3,8 mm)	100	400

3M™ Scotchlok™ IDC Butt/Trim Out Connector 211

The 3M™ Scotchlok™ IDC Butt/Trim Out Connector 211 is a moisture-resistant, self-stripping insulation displacement connector with a built-in cut-off blade and a test port. Wires are positioned in the connector from the sides, allowing the 211 connector to be used without interrupting service. The 211 connector may also be used for standard two-wire butt type splicing operations.

For interruption free butt splice replacement.

Choose any one of the 3M™ Scotchlok™ Crimping Tools E-9 to use with the 211 connector.

Connector Type	Butt Trim-out/ 2 Conductor
Application	Filled
Cable Type	PIC
Flame Retardant	No



Order No.	UPC #	Conductor Size (Min.)	Conductor Size (Max.)	Insulation Outside Diameter	Min. Order Qty.	Case Qty.
211(BX)	051115-26185	26 AWG	19 AWG	0.082 inches	100 each per Box, 10 Boxes per Case	1000 each

3M™ Direct Bury Splice Kit DBO/B-6

The 3M™ Direct Bury Splice Kit DBO/B-6 is used to electrically connect two or more pre–stripped copper wires and moisture seal the connection for direct burial. The kit includes a 3M™ Performance Plus Wire Connector O/B+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease.

Voltage	600 V
Splice Type	Direct Bury
Application Temperature Range	32–120°F (0–49°C)
Operating Temperature	221°F (105°C)
Flame Retardant	Yes
RoHS 2011/65/EU	Yes
Agency Approval	UL

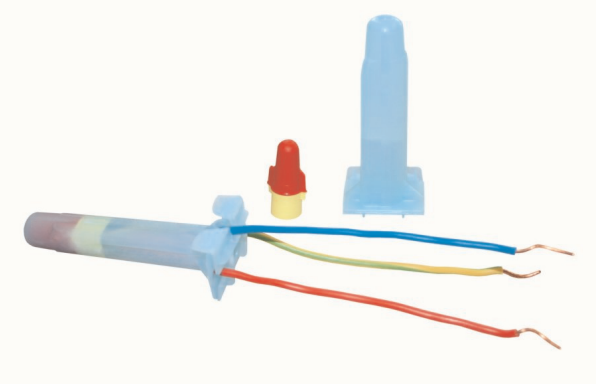


Order No.	UPC	Conductor Size	Common AWG Wire Combinations (CU only)	Case Qty.
DBO/B-6 KIT	051128-59075	18–10 AWG	2–3#16 sol/str; 2–3#14 sol/str; 2#12 sol/str; 1#14 to 1#12 sol/str; 1#18 to 1–2#14 sol/str; 1#18 to 1–2#12 sol/str; 1#16 to 1–2#14 sol/str; 1#16 to 1–2#12 sol/str	25 Kits
DBO/B-6 BULK	051128-59076	18–10 AWG	2–3#16 sol/str; 2–3#14 sol/str; 2#12 sol/str; 1#14 to 1#12 sol/str; 1#18 to 1–2#14 sol/str; 1#18 to 1–2#12 sol/str; 1#16 to 1–2#14 sol/str; 1#16 to 1–2#12 sol/str	100 Kits

3M™ Direct Bury Splice Kit DBR/Y-6

The 3M™ Direct Bury Splice Kit DBR/Y-6 is used to electrically connect two or more pre–stripped copper wires and moisture seal the connection for direct burial. The kit includes a 3M™ Performance Plus Wire Connector R/Y+ and a high impact, UV-resistant polypropylene tube prefilled with moisture-resistant grease.

Voltage	600 V
Splice Type	Direct Bury
Application Temperature Range	32–120°F (0–49°C)
Operating Temperature Range	-40–221°F (-40–105°C)
Flame Retardant	Yes
RoHS 2011/65/EU	Yes
Agency Approval	UL



Order No.	UPC	Conductor Size	Common AWG Wire Combinations (CU only)	Case Qty.
DBR/Y-6 KIT	051128-58573	18–10 AWG	2–7#18; 2–6#16; 2–4#14; 2–4#12; 2–3#10; 1–3#12 w/ 1#18; 1–2#10 w/1#18; 1–2#10 w/1#12; 1–2#14 w/ 1#18	25 Kits
DBR/Y-6 BULK	051128-58574	18–10 AWG	2–7#18; 2–6#16; 2–4#14; 2–4#12; 2–3#10; 1–3#12 w/ 1#18; 1–2#10 w/1#18; 1–2#10 w/1#12; 1–2#14 w/ 1#18	100 Kits