

Quick Term II

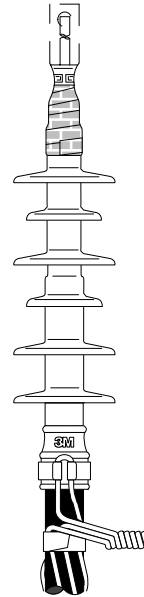
Silicone Rubber Termination (with High-K Stress Relief)

IEEE Std. No. 48-1990

Class 1 Termination
25 kV Class
150 kV BIL

Kit Contents

- 1 Hi-K Silicone Rubber Termination
- 2 Scotch™ 70 Silicone Rubber Tape Strip(s)
- 1 Neutral Wire Ground Clip
- 1 Pack of Silicone Grease
- 1 Instruction Sheet



15 to 34.5 kV Kit Selection Chart

NOTE: Final determining factor is cable insulation diameter.

Kit No.	Cable Insulation O. D. Range	Conductor Size Range (AWG & kcmil)		
		15 kV	25/28 kV	34.5 kV
5681	0.637 – 1.12 in. (16 – 28 mm)	#4 – 4/0 (22 – 100)	#4 – 2/0 (22 – 60)	
5682	0.84 – 1.38 in. (21 – 35 mm)	250 – 500 (120 – 250)	1/0 – 350 (50 – 185)	#1 – 4/0 (50 – 100)
5683	1.08 – 1.80 in. (27 – 46 mm)	500 – 1250 (250 – 625)	350 – 750 (185 – 400)	4/0 – 500 (100 – 250)
5684	1.31 – 2.10 in. (33 – 53 mm)	1000 – 1750 (500 – 850)	750 – 1500 (400 – 800)	500 – 1250 (250 – 625)

Table 1



Concentric Neutral Cable

3M Quick Term II

Silicone Rubber Termination Kits
for use on Concentric Neutral (CN) Cable

5681
5682

5683
5684

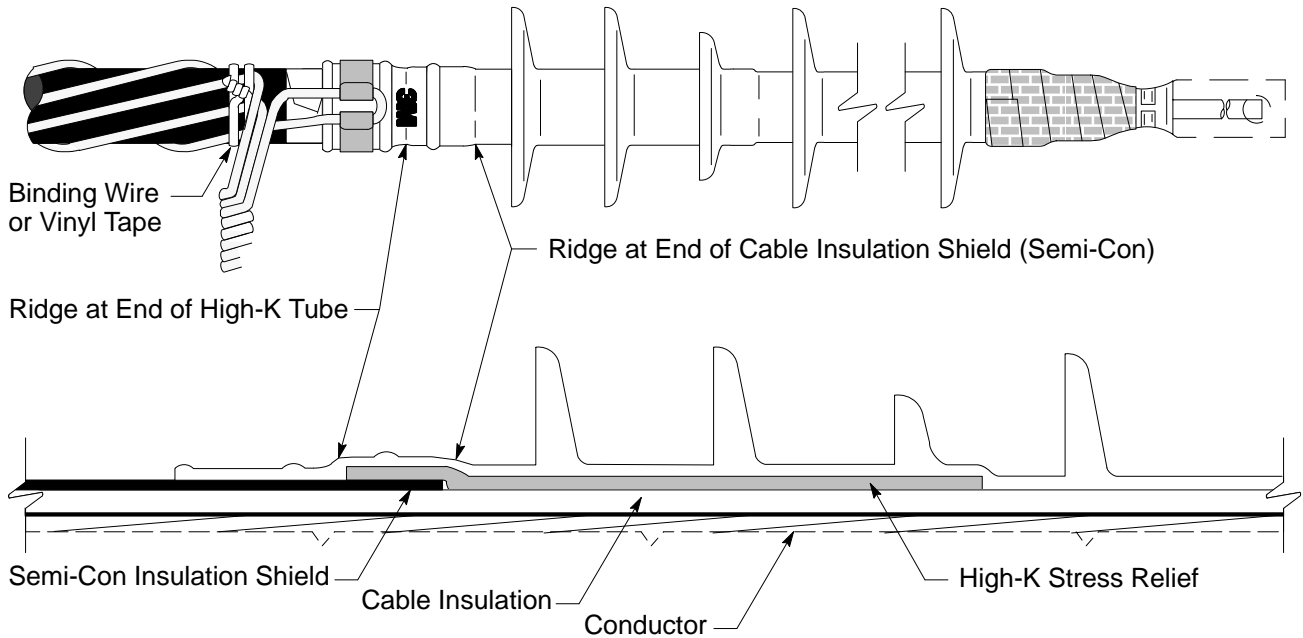
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SCALE: Not to scale

ISSUE DATE: 7/1/91

ISSUE:

Correct Installation of Termination



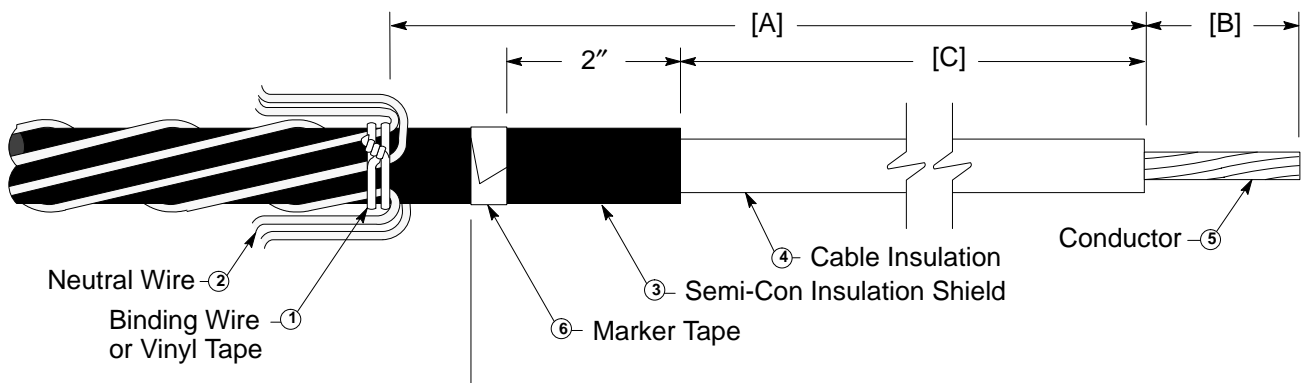
A. Prepare Cable

1. Check to be sure cable size fits within kit range as shown in *Table 1* (cover page).
2. Train cable into position and cut to length required for installation. Allow sufficient neutral wire length for neutral connection.
3. Bind neutral wires with a piece of wire or vinyl tape at dimension [A] + [B] *Table 2*. ① (See * below)
4. Bend the neutral wires over the binding wire or vinyl tape. ②
5. Remove cable semi-conductive insulation shield (semi-con) for a distance of [C] plus [B] *Table 2*. ③ (See * below)
6. Remove cable insulation ④ from end of conductor for distance [B] *Table 2*. ⑤
7. Place a marker tape 2" back from semi-con cut edge as shown. ⑥

Kit No.	Dimension		
	[A] *	[B]	[C] *
5681	11 ³ / ₄ " (298 mm)	Depth of Terminal Lug Barrel	8 ¹ / ₄ " (216 mm)
5682	11 ³ / ₄ " (298 mm)		8 ¹ / ₄ " (216 mm)
5683	12 ¹ / ₄ " (311 mm)		9" (229 mm)
5684	12 ¹ / ₄ " (311 mm)		9" (229 mm)

Table 2

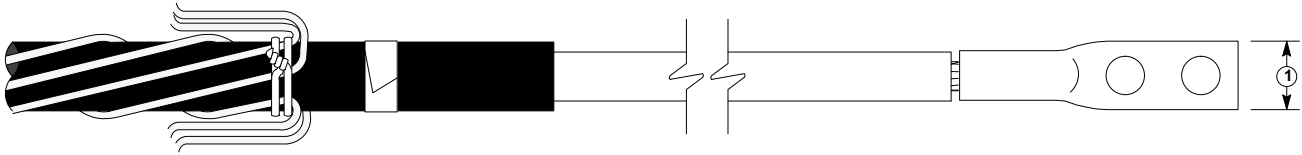
* add 1" to [A] and [C] for short lug barrels (1" or less).



DO NOT LOOP NEUTRAL WIRES BEYOND MARKER TAPE

B. Install Lug or Connector

1. These units were designed to fit over Scotchlok™ and 3M copper and aluminum lugs. If other lugs ① will not fit through the core of the termination, slide termination on cable before installing lug. **Do not remove core at this time.**



2. When using 3M type lugs or connectors, refer to the tooling index (*Pages 5 and 6*) for crimping information.
3. Position lug or connector and crimp according to manufacturers directions. **Remove excess contact aid and sharp crimp flash.**

C. Clean Cable Insulation and Lug Barrel Using Standard Practice

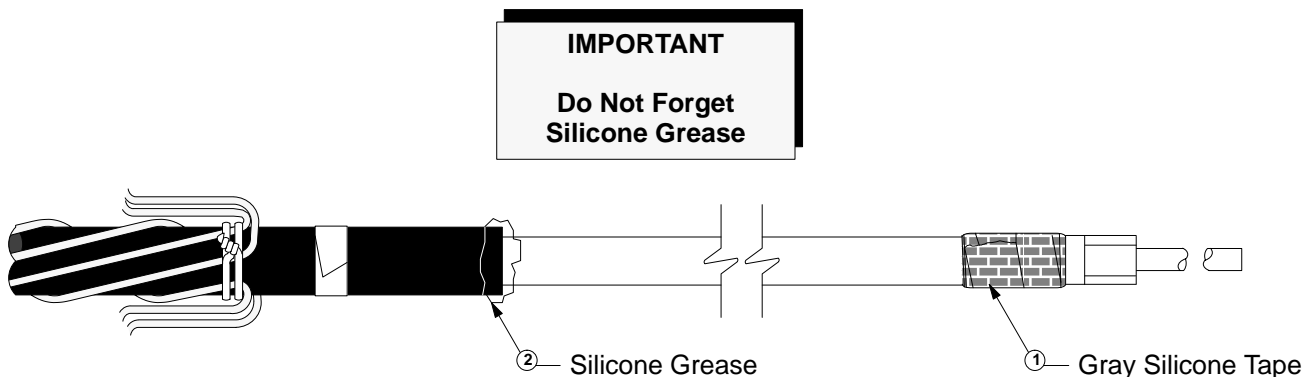
1. Wipe the cable insulation with an approved solvent. **Do not allow solvent to touch semi-con insulation shield!**
2. If abrasive must be used:
 - a. Use on insulation only. **Do not use abrasive on semi-con insulation shield!**
 - b. Use only aluminum oxide abrasive; grit 120 or finer or Scotch™ A-3 Electrician's Abrasive Roll.
 - c. Be careful not to reduce the cable insulation diameter below that allowed by the kit.

D. Install Termination

1. **Important:** A track resistant seal **must** be made between the silicone termination insulator and connector using one of two **gray** Scotch™ 70 Silicone Rubber Electrical Tape Strips (contained in kit). ①

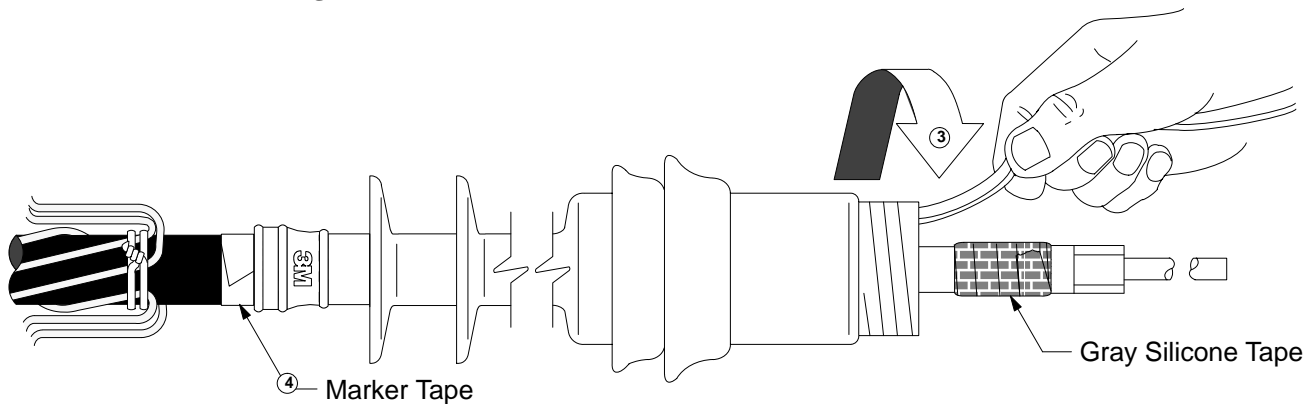
If the lug barrel is smaller than the cable insulation, wrap the bottom end of the lug with gray silicone tape to the approximate diameter of the cable insulation. ①

2. Cover the edge of the semi-con insulation shield with a liberal coating of silicone grease. ② **On this product the silicone grease does not serve as a lubricant. It must be used to fill the step at the semi-con cutoff.**

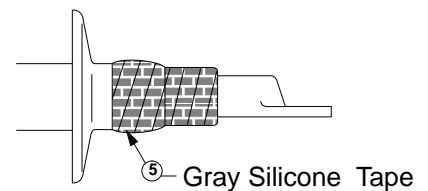


Install Termination (continued)

- Slide the termination body onto the cable and remove core by unwinding, counter-clockwise, ③ starting with the loose end. Make sure the termination body is butted up to the edge of the marker tape. ④ **Tip: An occasional tug of the strand while unwinding will aid in core removal.**

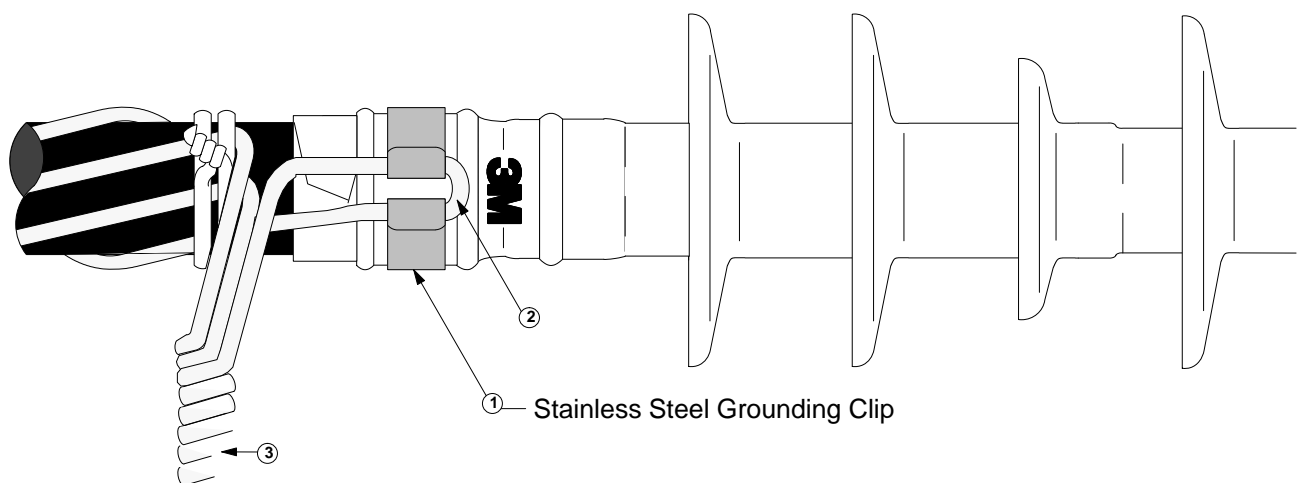


- Complete the lug seal using the second gray silicone tape strip. Overlap insulator by one inch and extend tape wrapping onto lug barrel as shown. ⑤



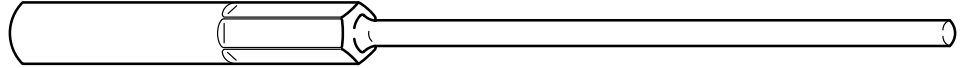
E. Grounding

- Snap stainless steel grounding clip onto base of termination. ① **Clip must be applied to the base of the termination, between the bottom two rings**
- Loop one neutral strand around ground clip ends, pulling clip tight onto the termination. ②
- Bundle all neutral wires together and connect to ground. ③



Tooling Index

Crimping Information for 3M Stem Connectors Copper/Aluminum

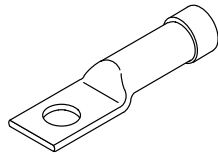


CRIMPING TABLE FOR 3M STEM TYPE CONNECTOR

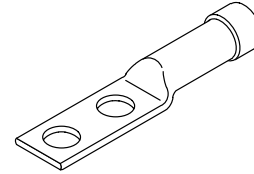
Conductor Size	3M Connector No.	Recommended Crimping Tools				
		Manufacturer	Mech. Tool	Die (No. Crimps)	Hydraulic Tool	Die (No. Crimps)
#2 Sol. #1, #2 1/0	SC0002 SC0001 SC0010	Burndy	MD6	BG(4), W243(4)	Y35, Y39, Y45**	U25ART(2), U243(2)
		Kearny	0-51, 0-52	5/8-1(4)	12, 20, 40, Ton	5/8-1(4)
		T & B	TBM 8	Olive(2)	TBM 15	50*(2)
		Anderson	—	—	VC 6	Universal(2)
2/0 3/0 4/0	SC0020 SC0030 SC0040	Burndy	MD6	W669(0) 840(5)*	Y35, Y39, Y45**	U28ART(2)
		Kearny	0-51, 0-52	840(5)*	WH-1, WH-2	840(2)
		T & B	TBM 8	White(4)	TBM 15	66(3)
		Anderson	—	—	VC 6	Universal(2)

Lug and Crimping Information for Scotchlok™ Copper/Aluminum Lugs

40016 thru 40079
One hole



40132 thru 40178
Two hole

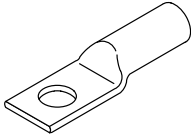
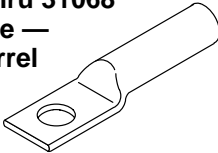



Cable Size AWG/ kcmil	Stud Size (in.)	Scotchlok™ Lug Number	CRIMPING TOOL-DIE SETS (NO. OF CRIMPS)												
			Burndy Corporation					Thomas & Betts Corporation				Square D Co. Anderson Div.		ITT Black-burn Co.	Kearne Nat'l Div.
			MD6	MY29	Y34A	Y35, 39, 45*, 46*	Y1000**	TBM 5	TBM 8	TBM 12	TBM 15	VC6-3** VC6-FT**	VC8C**	OD58	TYPE 0
6	5/16	40016	W161(1)	6 AWG(1)	A6CAB(1)	U6CABT(1)	(1)	Grey(1)	Grey(1)	—	29(1)	(1)	—	BY19(3)	J(3)
4	5/16	40020	W162(3)	4 AWG(1)	A4CAB(1)	U4CABT(1)	(1)	Green(2)	Green(2)	—	37(1)	(1)	—	BY53(3)	P(3)
2	3/8 1/2	40024	W163(3)	2 AWG(1)	A2CAB(1)	U2CABT(1)	(1)	Pink(2)	Pink(2)	—	42H(2)	(1)	—	BY23(3)	1/2(3)
		40025	W163(3)	2 AWG(1)	A2CAB(1)	U2CABT(1)	(1)	Pink(2)	Pink(2)	—	42H(2)	(1)	—	BY23(3)	1/2(3)
1	3/8 1/2	40028	W163(3)	1 AWG(1)	A1CAR(1)	U1CART(1)	(1)	Gold(2)	Gold(2)	—	45(1)	(1)	—	BY23(3)	1/2(3)
		40029	W163(3)	1 AWG(1)	A1CAR(1)	U1CART(1)	(1)	Gold(2)	Gold(2)	—	45(1)	(1)	—	BY23(3)	1/2(3)
1/0	3/8 1/2 3/8	40032	W241(3)	1/0 (1)	A25AR(1)	U25ART(1)	(1)	Tan(2)	Tan(2)	—	50(1)	(1)	—	BY25(3)	5/8-1(3)
		40033	W241(3)	1/0 (1)	A25AR(1)	U25ART(1)	(1)	Tan(2)	Tan(2)	—	50(1)	(1)	—	BY25(3)	5/8-1(3)
		40132	W241(3)	1/0 (1)	A25AR(1)	U25ART(1)	(1)	Tan(2)	Tan(2)	—	50(1)	(1)	—	BY25(3)	5/8-1(3)
2/0	1/2 1/2	40037	BG(4)	2/0(1)	A26AR(2)	U26ART(2)	(1)	Olive(2)	Olive(2)	—	54H(2)	(2)	—	BY31C(3)	5/8-1(3)
		40137	BG(4)	2/0(1)	A26AR(2)	U26ART(2)	(1)	Olive(2)	Olive(2)	—	54H(2)	(2)	—	BY31C(3)	5/8-1(3)
3/0	1/2 1/2	40041	W166(4)	3/0(1)	A27AR(2)	U27ART(2)	(1)	Ruby(2)	Ruby(2)	—	60(2)	(2)	—	—	737(3)
		40141	W166(4)	3/0(1)	A27AR(2)	U27ART(2)	(1)	Ruby(2)	Ruby(2)	—	60(2)	(2)	—	—	737(3)
4/0	1/2 5/8 1/2	40045	W660(4)	4/0(2)	A28AR(2)	U28ART(2)	(1)	—	White(4)	—	66(4)	(2)	—	BY35C(4)	840(4)
		40046	W660(4)	4/0(2)	A28AR(2)	U28ART(2)	(1)	—	White(4)	—	66(4)	(2)	—	BY35C(4)	840(4)
		40145	W660(4)	4/0(2)	A28AR(2)	U28ART(2)	(1)	—	White(4)	—	66(4)	(2)	—	BY35C(4)	840(4)
250	1/2 5/8 1/2	40049	W249(3)	—	A29AR(2)	U29ART(2)	(1)	—	—	71H(4)	71H(2)	(3)	—	—	—
		40050	W249(3)	—	A29AR(2)	U29ART(2)	(1)	—	—	71H(4)	71H(2)	(3)	—	—	—
		40149	W249(3)	—	A29AR(2)	U29ART(2)	(1)	—	—	71H(4)	71H(2)	(3)	—	—	—
300	1/2 1/2	40053	—	—	A30AR(2)	U30ART(2)	(1)	—	—	76H(4)	76(2)	(3)	—	—	—
		40153	—	—	A30AR(2)	U30ART(2)	(1)	—	—	76H(4)	76(2)	(3)	—	—	—
350	1/2 5/8 1/2	40056	—	—	—	U31ART(2)	(1)	—	—	87H(4)	87H(3)	(3)	—	—	—
		40057	—	—	—	U31ART(2)	(1)	—	—	87H(4)	87H(3)	(3)	—	—	—
		40156	—	—	—	U31ART(2)	(1)	—	—	87H(4)	87H(3)	(3)	—	—	—
400	1/2	40160	—	—	—	U32ART(4)	(1)	—	—	94H(4)	94H(4)	—	(2)	—	—
500	5/8 1/2	40067	—	—	—	U34ART(4)	(1)	—	—	106H(4)	106H(3)	—	(2)	—	—
		40166	—	—	—	U34ART(4)	(1)	—	—	106H(4)	106H(3)	—	(2)	—	—
600	1/2	40170	—	—	—	U36ART(4)	(1)	—	—	—	115H(3)	—	(3)	—	—
750	5/8 1/2	40073	—	—	—	U39ART(4)	(1)	—	—	—	125H(5)	—	(3)	—	—
		40172	—	—	—	U39ART(4)	(1)	—	—	—	125H(5)	—	(3)	—	—
1000	5/8 1/2	40079	—	—	—	S44ART(4)	(1)	—	—	—	140H(4)	—	(3)	—	—
		40178	—	—	—	S44ART(4)	(1)	—	—	—	140H(4)	—	(3)	—	—

* Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.

** Anderson VC6-3, VC6-FT, VC8C and Burndy Y1000 require no die set.

Tooling Index

Lug and Crimping Information for Scotchlok™ Copper Lugs		
30014 thru 30045 One hole 	31036 thru 31068 One hole — long barrel 	31145 thru 31178 Two hole 

Cable Size AWG/ kcmil	Stud Size (in.)	Scotchlok™ Copper Lug Number	CRIMPING TOOL-DIE SETS (NO. OF CRIMPS)							
			Burdny Corporation				Thomas & Betts Corporation			Square D Co. Anderson Div.
			MD6	MY29	Y34A	Y35, Y39 Y45*, Y46*	TBM 5	TBM 8	TBM 15	VC6-3, VC6-FT**
6	10 1/4 5/16	30014 30015 30016	—	6 AWG(1)	—	U5CRT(1)	Blue(1)	Blue(1)	—	Universal(1)
4	10 1/4 3/8	30018 30019 30021	W161(1)	4 AWG(1)	A4CR(1)	U4CRT(1)	Grey(1)	Grey(1)	—	Universal(1)
2	1/4 5/16 3/8	30022 30023 30024	W162(2)	2 AWG(1)	A2CR(1)	U2CRT(2)	Brown(1)	Brown(1)	33(1)	Universal(2)
1	5/16 3/8	30027 30028	—	1 AWG(1)	A1CR(1)	U1CRT(2)	Green(1)	Green(1)	37(1)	Universal(2)
1/0	5/16 3/8	30031 30032	W163(2)	1/0(1)	A25R(1)	U25RT(1)	Pink(2)	Pink(2)	42H(2)	Universal(1)
2/0	3/8 3/8	30036 31036	W241(2) W241(3)	2/0(1) 2/0(2)	A26R(1) A26R(2)	U26RT(2) U26RT(3)	Black(2) Black(3)	Black(2) Black(3)	45(1) 45(2)	Universal(1) Universal(2)
3/0	1/2 1/2	30041 31041	W243(2) W243(3)	3/0(1) 3/0(2)	A27R(1) A27R(2)	U27RT(2) U27RT(3)	Orange(2) Orange(3)	Orange(2) Orange(3)	50(1) 50(2)	Universal(2) Universal(3)
4/0	1/2 1/2 1/2	30045 31045 31145	BG(3) BG(4) BG(4)	4/0(1) 4/0(2) 4/0(2)	A28R(2)	U28RT(2) U28RT(3) U28RT(3)	Purple(2) Purple(3) Purple(3)	Purple(2) Purple(3) Purple(3)	54H(2) 54H(3) 54H(3)	Universal(2) Universal(3) Universal(3)
250	1/2 1/2	31049 31149	W166(4)	250(2)	A29R(2)	U29RT(3)	Yellow(2)	Yellow(2)	62(2)	Universal(2)
300	1/2 1/2	31053 31153	—	—	A30R(2)	U30RT(3)	—	White(3)	66(3)	Universal(3)
350	1/2 1/2	31056 31156	—	—	A31R(2)	U31RT(3)	—	Red(4)	71H(4)	—
400	1/2 1/2	31060 31160	—	—	A32R(2)	U32RT(3)	—	Blue(4)	76H(4)	—
500	1/2 5/8 1/2	31066 31067 31166	—	—	A34R(2)	U34RT(3)	—	Brown(4)	87H(4)	—
600	1/2 1/2	31068 31168	—	—	—	U36RT(3)	—	Green(4)	94H(4)	—
750	1/2	31172	—	—	—	Y39, Y45, Y46: U39RT(5)	—	—	106H(4)	—
1000	1/2	31178	—	—	—	Y45: S44RT(6) Y46: P44RT(6)	—	—	125H(4)	—

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