

GROUNDING

BI - BI5



Irreversible Grounding

NEW

AVAILABLE
JULY 2020

UL US
LISTED
DIRECT BURIAL
UL467



- Made of Pure Electrolytic Copper - matches or exceeds conductor current carrying capacity
- Acceptable for direct burial in earth and concrete
- Provides a tap or pigtail-type connection from ground rods to grounding counterpoise or grid
- Conductor range #2 through 500 kcmil
- Suitable for use on Copperweld™ or copper clad cable
- Ground rod sizes 1/2", 5/8", and 3/4"
- UL 467 Listed and meets UL 96 Std.
- CSA Certified, and conforms to IEEE 837 Std.

**UL467 LISTED &
CSA C22.2 NO.41
SUITABLE FOR DIRECT BURIAL
& GROUNDING/BONDING**

DIMENSIONS = INCHES

CAT. NO.	WIRE RANGE	ROD/REBAR DIAMETER	DIMENSIONS INCHES		BOX QTY
			DEPTH/WIDTH	HEIGHT	
91500	2/0-2	1/2"	.88	1.94	50
91502	2/0-2	5/8"	.88	1.97	50
91504	2/0-2	3/4"	.88	2.19	40
91506	2/0-2	1"	.88	2.55	40
91510	250-4	1/2"	.88	1.40	50
91512	250-4	5/8"	.88	2.14	40
91514	250-4	3/4"	.88	2.19	40
91516	250-4	1"	.88	2.45	40
91520	500-300	5/8"	.88	2.14	40
91522	500-300	3/4"	.88	2.44	35
91524	500-300	1"	.88	2.45	40



Fig 1



Fig 2

- Made of Pure Electrolytic Copper - matches or exceeds conductor current carrying capacity
- Acceptable for direct burial in earth and concrete
- Provides a tap or pigtail connection from ground rods to grounding counterpoise or grid
- Conductor range #6 through 500 kcmil
- Suitable for use on Copperweld™ or copper clad cable
- Ground rod sizes 1/2", 5/8", and 3/4"
- UL 467 Listed and meets UL 96 Std.
- CSA Certified, and conforms to IEEE 837 Std.

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DIMENSIONS = INCHES

CAT. NO.	FIG	CONDUCTOR/GROUND ROD TO CONDUCTOR WIRE RANGE		REBAR TO CONDUCTOR		DIMENSIONS INCHES		BOX QTY
		MAIN	TAP	MAIN	TAP	DEPTH/WIDTH	HEIGHT	
91530	1	#2 STR	#6 SOL	-	-	.88	1.94	75
91532	2	#2 STR	#6 SOL	-	-	.88	1.97	75
91534	2	250-1/0 1/2"-5/8" ROD	#6 STR-#8 SOL	#3(3/8")-#4(1/2")	#6 STR-#8 SOL	.88	2.19	50
91536	1	250-1/0 1/2"-5/8" ROD	#2 STR-#4 SOL	#3(3/8")-#4(1/2")	#2 STR	.88	2.55	15
91540	1	250-1/0 1/2"-5/8" ROD	2/0 STR-1/0 STR	#3(3/8")-#4(1/2")	2/0 STR-1/0 STR	.88	1.40	15
91542	1	250-1/0 1/2"-5/8" ROD	250-3/0 STR	#3(3/8")-#4(1/2")	250 MCM- 3/0 STR	.88	2.14	15
91544	1	500-250 3/4"-5/8" ROD	#2 STR-#4 STR	#5(5/8")-#6(3/4")	-	.88	2.19	15
91546	1	500-250 3/4"-5/8" ROD	2/0 STR-1/0 STR	#5(5/8")-#6(3/4")	2/0 STR-1/0 STR	.88	2.45	15
91547	1	500-250 3/4"-5/8" ROD	250-3/0 STR	#5(5/8")-#6(3/4")	250 MCM-3/0 STR	.88	2.14	15
91549	1	500-250 3/4"-5/8" ROD	500-350 MCM	#5(5/8")-#6(3/4")	500- MCM-350 MCM	.88	2.44	15

Copper C-Taps



**UL467 LISTED &
CSA C22.2 NO.41
SUITABLE FOR DIRECT BURIAL
& GROUNDING/BONDING**

- Applications include Copper to Copper Tapping, Splicing or Stub/Pigtail
- High Strength Electrolytic Copper
- Allows for 2 Continuous Parallel Conductors
- Compact Size & Range Taking

DIMENSIONS = INCHES

CAT. NO.	FIG	DIE COLOR	CONDUCTOR RANGE		STRIP L	DIMENSIONS				BOX QTY
			RUN	TAP		L	W (ID)	H	T	
91802	1	RED	14	16-14	1/2	.32	.18	.16	.07	275
			12	16-12						
			10	14						
91803	1	BLUE	10	10	5/8	.61	.32	.36	.07	275
			8	12						
91804	1	GRAY	6	10-12	5/8	.61	.32	.43	.07	200
			8	8-10						
91805	1	BROWN	4	8-10-12	1-1/4	1.17	.41	.43	.07	150
			6	6-8						
91806	1	GREEN	4	6-4	1-1/4	1.17	.45	.52	.07	100
			3	12-6						
91807	1	PINK	4	4	1-1/4	1.17	.49	.54	.07	100
			3	4-6						
			2	12-6						
91808	1	BLACK	1	12-4	2	1.75	.53	.64	.07	100
			2	4-6						
			3	4-3						
91809	1	ORANGE	1/0	12-4	2	1.75	.61	.71	.09	50
			1	4-3						
			2	4-2						
91810	1	PURPLE	2/0	12-4	2	1.75	.69	.77	.09	30
			1/0	2						
			1	1-2						
91811	1	YELLOW	3/0	2-12	1	1.75	.81	1.07	.09	30
			2/0	1-2						
			1/0	1/0-1						



FIG 1



FIG 2

DIMENSIONS = INCHES

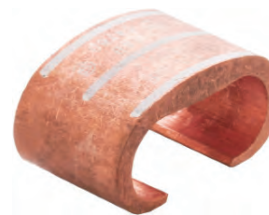
CAT. NO.	FIG	DIE COLOR	CONDUCTOR RANGE		STRIP L	DIMENSIONS				BOX QTY
			RUN	TAP		L	W (ID)	H	T	
91812	2	BLUE	1	1	1	1.30	.79	.63	.16	50
			1/0	1/0-2						
			2/0	2/0-4						
			3/0	1/0-6						
			4/0	1-8						
91813	2	BROWN	2/0	2/0-1	1	1.46	.79	.79	.20	50
			3/0	3/0-3						
			4/0	4/0-4						
			250	1/0-8						
			2/0	2/0-1						
91814	2	PINK	2/0	2/0-1	1-1/8	1.67	1.03	.85	.20	25
			3/0	3/0-3						
			4/0	4/0-4						
			250	3/0-6						
			300	2/0-8						
91815	2	BLACK	4/0	4/0-2/0	1-1/8	1.71	1.03	.90	.20	25
			250	250-1						
			300	4/0-4						
			350	3/0-6						
			250	250						
91816*	2	YELLOW	350	350-1/0	1-5/16	1.87	1.28	1.02	.20	15
			400	300-2						
			450	250-4						
			500	250-6						
			350	350-4/0						
91817*	2	WHITE	400	400-2/0	1-5/16	2.17	1.29	1.18	.30	10
			450	450-1						
			500	500-2						
			350	350-4/0						
			400	400-2/0						
91818*	2	-	750-500	4/0-6	2-3/4	2.75	1.97	1.34	.16	5
			750	750-4/0						

Copper C-Taps - Heavy Wall



- Heavy Wall High Strength Electrolytic Copper
- Allows for 2 Continuous Parallel Conductors
- Range Taking

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DIMENSIONS = INCHES

CAT. NO.	CONDUCTOR RANGE		DIE TYPE	DIMENSIONS						STRIP LENGTH	BOX QTY
	RUN MAX	TAP MAX		L (OD)	L (ID)	W	D	ENTRY			
91819	6-6	6-6	BG	.77	.46	.71	.43	.29	3/4	50	
91820	6-4	4-4	BG	.81	.53	.63	.47	.31	3/4	25	
91821	2-2	8-4	C	.98	.65	.75	.61	.37	3/4	50	
91822	2-2	2-2	C	1.05	.76	.76	.60	.45	3/4	50	
91823	1/0-2/0	1/0-2/0	C	1.35	.87	.95	.80	.43	1-1/8	25	
91824	3/0-4/0	1/0-2/0	D3	1.64	1.01	1.07	.97	.60	1-1/4	15	
91825	3/0-4/0	3/0-4/0	D3	1.58	1.10	1.07	.97	.56	1-1/4	15	



Aluminum Ground Pipe Clamps

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FIG 1



FIG 2

- Cast of High Conductivity 6061-T6 Tin Plated Aluminum Alloy
- Dual Rated for Copper or Aluminum Conductors
- For Connecting Copper or Aluminum Conductor to Water Pipe, Ground Rod, Copper Water Pipe, Galvanized Pipe or Steel Conduit
- Tin Plated Aluminum Set Screw for Corrosion Resistance
- Tin Plated Machined Steel Mounting Hardware
- 90635, 90537 & 90540 have Lay-In Feature for use in Continuous Loop applications

DIMENSIONS = INCHES

CAT. NO.	FIG	TYPE	PIPE RANGE	WIRE RANGE		SCREW SIZE		BOX QTY
				MIN	MAX	TOP	SIDE	
90633	1	FEED-THRU	1/2"-1"	14	1/0	7/16 X .55"	1/4-20 X 1.50"	25
90632	1	FEED-THRU	1-1/4"-2"	6	250	5/8-18 X 1.18"	5/16-18 X 2.17"	5
90561	1	FEED-THRU	2-1/2"-4"	6	250	5/8-18 X 1.18"	5/16-18 X 2.17"	5
90635	2	LAY-IN	1/2"-1"	14	1/0	7/16 X .55"	1/4-20 X 1.50"	25
90640	2	LAY-IN	1-1/4"-2"	6	250	5/8-18 X 1.18"	5/16-18 X 2.17"	5
90637	2	LAY-IN	2-1/2"-4"	6	250	5/8-18 X 1.18"	5/16-18 X 2.17"	5

Zinc Ground Pipe Clamps

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FIG 1



FIG 2

- Cast of High Conductivity Zinc Alloy
- Dual Rated for Copper or Aluminum Conductors
- For Connecting Copper or Aluminum Conductor to Water Pipe, Ground Rod, Copper Water Pipe, Galvanized Pipe or Steel Conduit
- Tin Plated Aluminum Set Screw for Corrosion Resistance
- Tin Plated Machined Steel Mounting Hardware

DIMENSIONS = INCHES

CAT. NO.	FIG	TYPE	CABLE TYPE	PIPE RANGE	WIRE RANGE		SCREW SIZE		BOX QTY
					MIN	MAX	TOP	SIDE	
90567	1	FEED-THRU	JACKETED	1/2"-1"	10	2	1/4 X 51"	1/4-20 X 1.50"	100
90570	2	FEED-THRU	ARMORED	1/2"-1"	8	6	1/4 X .62"	1/4-20 X 1.50"	100

Heavy Duty Ground Rod Clamps - Direct Burial



- Designed to Maintain Proper Contact and Alignment between Ground Wire & Ground Rod
- Listed for use with Copper Bonded Steel, Stainless Steel and Galvanized Ground Rods
- Cast of High Strength Copper Alloy containing 80% or more Copper
- Silicone Bronze or Stainless Steel Bolt
- UL 467 Approved for Direct Burial in Soil & Concrete
- Direct Burial Marked on Clamps



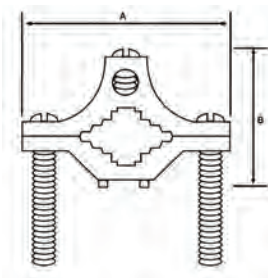
DIMENSIONS = INCHES

CAT. NO.	ROD DIAMETER	REBAR SIZE	WIRE RANGE	SCREW THREAD SIZE	DIMENSIONS		BOX QTY
					A	B	
90634	1/2"	3/8"	#2-#10	5/16-18	.50	1.24	50
90636	5/8"	1/2"	1/0-#10	3/8-16	.59	1.46	50
90638	3/4"	5/8"	#1-#10	3/8-16	.59	1.51	50
90639	1/2", 5/8", 3/4"	3/8", 1/2", 5/8"	1/0-#10	3/8-16	.59	2.38	50
90535	1"	-	4/0-#8	3/8-16	.58	2.40	50

Copper Ground Pipe Clamps



- For Connecting Grounding Conductor to Water Pipe, Copper Tubing or Ground Rod
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws Zinc Plated for Corrosion Resistance



DIMENSIONS = INCHES

CAT. NO.	WATER PIPE RANGE	WIRE RANGE	SCREW THREAD SIZE	DIMENSIONS		BOX QTY
				A	B	
90627	1/2"-1"	2-10	1/4-20	2.25	1.64	25
90628	1-1/4"-2"	2-10	5/16-18	3.54	2.48	10
90598	2-1/2"-4"	2-10	3/8-16	6.30	3.40	15
90599	4-1/2"-6"	2-10	3/8-16	8.30	4.00	5

Conduit Hub Adaptors

- Conduit Hub Adaptors Used with Standard Ground Pipe Clamps to Ground Conduit to Pipe - Used with 90627, 90628, 90598 & 90599 Pipe Clamps
- Allows for Maximum Flexibility In the Field
- Cast of High Strength, High Conductivity Copper Alloy
- For Grounding Water Pipe to Electrical Conduit
- Can also purchase pre-assembled Clamp & Adaptors 90601 Thru 90606

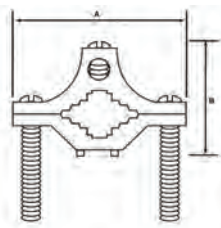
DIMENSIONS = INCHES

CAT. NO.	CONDUIT SIZE	BOX QTY
91600	1/2"	10
91601	3/4"	10
91602	1"	10





Copper Ground Pipe Clamps - Direct Burial



- For Grounding Conductors to Water Pipe, Copper Tubing or Ground Rod
- 90631 UL Direct Burial Clamp Designed for Copper-to-Rebar
- Commonly used for Swimming Pools/Spas, Commercial, Industrial & Agricultural Applications
- Cast of High Strength, High Conductivity Copper Alloy
- Copper or Stainless Steel Screws
- UL 467 Listed for Direct Burial in Soil or Concrete

DIMENSIONS = INCHES

CAT. NO.	WATER PIPE RANGE	GROUND ROD SIZE	REBAR SIZE	WIRE RANGE	TOP SCREW THREAD	SIDE SCREW THREAD	DIMENSIONS		BOX QTY
							A	B	
90629	1/2"-1"	1"	-	2-10	1/4-20	1/4-20	2.17	1.42	25
90630	1-1/4"-2"	1"	-	2-10	1/4-20	5/16-18	3.58	1.93	10
90621	2-1/2"-4"	2"	-	2-10	1/4-20	5/16-18	5.95	2.95	5
90622	4-1/2"-6"	2"	-	2-10	1/4-20	5/16-18	8.09	4.19	5
PIPE CLAMPS FOR REBAR APPLICATIONS									
90631	1/2"-1"	1/4"-1"	3/8"-1"	2-10	1/4-20	1/4-20	2.25	1.64	5

Copper Ground Pipe Clamps - Serrated Collar



- For Grounding to Water Pipe, Copper Tubing or Ground Rod
- Serrated Collar Accommodates a Variety of Adaptors for Maximum Flexibility In the Field
- High Strength, High Conductivity Copper Alloy
- Zinc Plated Steel Set Screws for Corrosion Resistance
- Use with Morris Cat# 91603 thru 91606 Serrated Adaptors for Armored Cable or Conduit Grounding Applications

DIMENSIONS = INCHES

CAT. NO.	PIPE RANGE	WIRE RANGE		BOX QTY
		MIN	MAX	
91660	1/2"-1"	10 SOL	2 STR	10
91662	1-1/4"-2"	10 SOL	2 STR	10
91664	2-1/2"-4"	10 SOL	2 STR	35
91666	4-1/2"-6"	10 SOL	2 STR	25

Serrated Adaptors - for Serrated Collar Ground Clamps



FIG 1



FIG 2

- Serrated Teeth match Serrated Collar Pipe Clamps for maximum flexibility in the Field
- Use with Serrated Collar Pipe Clamps - Cat# 91660 Thru 91666
- For Grounding Pipe to Electrical Conduit or Ground Wires
- Cast of High Strength, High Conductivity Copper Alloy
- Can also purchase pre-assembled Clamp & Adaptors Cat #91701 Thru 91709 or Cat# 91690 Thru 91696

DIMENSIONS = INCHES

CAT. NO.	FIGURE	CONDUIT SIZE	WIRE RANGE		BOX QTY
			MIN	MAX	
SERRATED CONDUIT HUB ADAPTOR					
91603	1	1/2"	N/A	N/A	25
91604	1	3/4"	N/A	N/A	25
91605	1	1"	N/A	N/A	25
SERRATED ARMORED CABLE ADAPTOR					
91606	2	N/A	#8	4/0	25

Copper Ground Clamps - Rotatable - Rigid Conduit Hub



- For Connecting Electrical Conduit to Water Pipe, Copper Tubing & Ground Rod
- Serrated Conduit Adaptor Swings 360° for Easy Alignment
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws Zinc Plated for Corrosion Resistance



DIMENSIONS = INCHES

CAT. NO.	PIPE SIZE	HUB SIZE	WIRE RANGE		DIMENSIONS		SCREW TYPE		BOX QTY
			MIN	MAX	LENGTH	HEIGHT	TOP	SIDE	
91701	1/2 - 1	1/2	10 STR	4 STR	2.17	1.95	3/16"-24 X 1.37	5/16"-18 X 1.69	10
91702	1/2 - 1	3/4	10 STR	2/0 STR	2.17	2.15	3/16"-24 X 1.37	1/4"-20 X 1.67	10
91703	1/2 - 1	1	10 STR	3/0 STR	2.24	2.32	3/16"-24 X 1.37	1/4"-20 X 1.67	10
91704	1-1/4 - 2	1/2	10 STR	4 STR	3.58	2.54	3/16"-24 X 1.37	5/16"-18 X 2.60	5
91705	1-1/4 - 2	3/4	10 STR	2/0 STR	3.58	3.68	3/16"-24 X 1.50	5/16"-18 X 2.60	5
91706	1-1/4 - 2	1	10 STR	3/0 STR	3.58	3.81	3/16"-24 X 1.50	5/16"-18 X 2.60	5
91707	2-1/2 - 4	1/2	10 STR	4 STR	5.95	4.00	3/16"-24 X 1.50	5/16"-18 X 4.23	5
91708	2-1/2 - 4	3/4	10 STR	2/0 STR	5.95	4.20	3/16"-24 X 1.50	5/16"-18 X 4.23	5
91709	2-1/2 - 4	1	10 STR	3/0 STR	5.95	4.33	3/16"-24 X 1.50	5/16"-18 X 4.23	5

Copper Ground Clamps - Rigid Conduit Hub



- Suitable for connecting grounding conductor in rigid conduit to water pipe, ground rod and copper weld tubing
- Standard Collar and Adaptor
- Hub Swings 360° for Easy Alignment
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws are Zinc Plated for Corrosion Resistance
- UL Listed



DIMENSIONS = INCHES

CAT. NO.	PIPE RANGE	CONDUIT SIZE	CONDUCTOR		DIMENSIONS		TOP SCREW SIZE	SIDE SCREW SIZE	BOX QTY
			MIN	MAX	LENGTH	WIDTH			
90601	1/2 - 1	1/2	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10
90602	1/2 - 1	3/4	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10
90603	1/2 - 1	1	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10
90604	1-1/4 - 2	1/2	10	2	3.58	2.48	5/16-18 X .73	5/16-18 X 2.25	5
90605	1-1/4 - 2	3/4	10	2	3.58	2.48	5/16-18 X .73	5/16-18 X 2.25	5
90606	1-1/4 - 2	1	10	2	3.58	2.48	5/16-18 X .73	5/16-18 X 2.25	5

Copper Ground Clamps - Rigid Conduit Hub & Strap

NEW



- Suitable for connecting grounding strap to rigid conduit to water pipe, ground rod and copper weld tubing
- 1/2" or 3/4" Conduit hub & extension strap
- 8" Copper Strap & Hub Swing 360° for Easy Alignment
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws are Zinc Plated for Corrosion Resistance
- 91558 for water heater applications has 2 pipe clamps & 24" of 6 awg copper wire included
- UL Listed

**AVAILABLE
JULY 2020**



FIG 1



FIG 2

DIMENSIONS = INCHES

CAT. NO.	FIG	PIPE RANGE	CONDUIT SIZE	CONDUCTOR		DIMENSIONS		TOP SCREW SIZE	SIDE SCREW SIZE	BOX QTY
				MIN	MAX	LENGTH	WIDTH			
91550	1	1/2 - 1	1/2	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10
91556	1	1/2 - 1	3/4	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10
91558	2	1/2 - 1	N/A	10	2	2.24	1.52	1/4-20 X .63	1/4-20 X 1.50	10



Copper Ground Clamps - Cable Adaptor



- For Connecting Ground Wire to Water Pipe, Copper Tubing & Ground Rod
- Standard Collar and Pressure Bar Grip Adaptor decreases chances of grounding conductors being pulled out
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws are Zinc Plated for Corrosion Resistance

DIMENSIONS = INCHES

CAT. NO.	PIPE RANGE	WIRE RANGE		BOX QTY
		MIN	MAX	
91670	1/2" - 1"	8 SOL	4 STR	10
91672	1-1/4" - 2"	8 SOL	4 STR	10

Copper Ground Clamps - Cable Adaptor - Top Mount

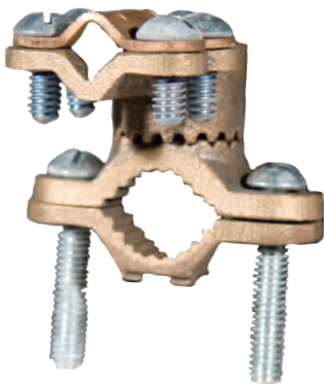


- For Connecting Ground Wire to Water Pipe, Copper Tubing & Ground Rod
- Standard Collar and Pressure Bar Grip Adaptor decreases chances of grounding conductors being pulled out
- Pressure Bar Swings 360° for Easy Alignment
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws are Zinc Plated for Corrosion Resistance

DIMENSIONS = INCHES

CAT. NO.	PIPE RANGE	WIRE RANGE		BOX QTY
		MIN	MAX	
91680	1/2" - 1"	10 SOL	6 SOL	10
91682	1-1/4" - 2"	10 SOL	6 SOL	10

Copper Ground Clamps - Serrated Collar - Cable Adaptor



- For Connecting Armored Cable/Ground Wire to Water Pipe, Copper Tubing, & Ground Rod
- Serrated Collar and Adaptor Swings 360° for Easy Alignment
- Cast of High Strength High Conductivity Copper Alloy
- Steel Set Screws are Zinc Plated for Corrosion Resistance

DIMENSIONS = INCHES

CAT. NO.	PIPE RANGE	WIRE RANGE		DIMENSIONS			SCREW SIZE		BOX QTY
		MIN	MAX	LENGTH	DEPTH	HEIGHT	TOP	SIDE	
91690	1/2" - 1"	8 STR	4/0 STR	2.32	.75	1.44	1/4-20 X .63"	1/4-20 X 1.5"	10
91692	1-1/4" - 2"	8 STR	4/0 STR	3.54	.83	2.13	1/4-20 X .63"	5/16-18 X 2"	10
91694	2-1/2" - 4"	8 STR	4/0 STR	5.95	.98	2.95	1/4-20 X .63"	5/16-18 X 4"	25
91696	4-1/2" - 6"	8 STR	4/0 STR	8.09	.94	4.19	1/4-20 X .63"	5/16-18 X 5"	25

Copper Ground Pipe Clamps - Lay-In



FIG 1



FIG 2

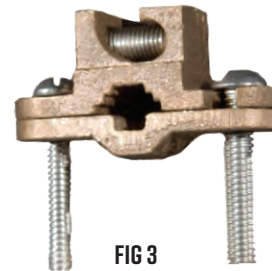


FIG 3

- For Connecting Grounding Conductors to Water Pipe, Conduit, Copper Tubing, Ground Rods or Rebar
- Parallel, Perpendicular or Top Entry Lay-In Feature for Easy Wire Insertion in Continuous Loop applications
- Cast of High Strength Copper Alloy containing 80% or more Copper
- Copper or Stainless Steel Screws
- UL 467 Listed for Direct Burial in Soil & Concrete

DIMENSIONS - INCHES

CAT. NO.	FIG	PIPE RANGE	GROUND ROD RANGE	REBAR RANGE	WIRE RANGE		DIMENSIONS			BOX QTY
					MIN	MAX	LENGTH	HEIGHT	WIDTH	
91653	1	1/2-1	3/8-1	3/8-1	10 SOL	2 STR	2.24	1.46	.75	25
91656	2	1/2-1	3/8-1	3/8-1	10 SOL	2 STR	2.24	1.46	.75	25
91652	3	1/2-1	1/2-1	3/8-1	10 SOL	2 STR	2.21	1.15	.63	25

Copper Ground Pipe Clamps - Heavy Duty - Lay-In



- For Connecting Grounding Conductors to Water Pipe, Conduit, Copper Tubing, Ground Rods or Rebar up to 1" in diameter
- Accepts Up To 4/0 Ground Conductor
- Lay-In or Feed Through Configurations
- Cast of High Strength High Conductivity Copper
- Stainless Steel Set Screws
- UL 467 Listed for Direct Burial in Soil & Concrete



FIG 1



FIG 2

DIMENSIONS - INCHES

CAT. NO.	FIG	PIPE RANGE	GROUND ROD RANGE	REBAR RANGE	WIRE RANGE		DIMENSIONS		BOX QTY	
					MIN	MAX	LENGTH	HEIGHT		
SIDE LAY-IN										
91654	1	1/2" -1"	-	-	8 STR	4/0 STR	2.55	2.10	10	
91655	1	1-1/4" - 2"	-	-	8 STR	4/0 STR	3.32	3.20	5	
91657	1	2-1/4" - 4"	-	-	8 STR	4/0 STR	5.70	3.75	5	
FEED THROUGH										
91610	2	1/2"-1"	3/8"11"	3/8"-1"	8 STR	4/0 STR	2.36	1.76	25	



GROUNDING

Lay-In Lugs

B9

Lay-In Lugs - Copper - Direct Burial



90573



90572

- Use on Electrical Equipment, Pool/Spa Equipment, Conduit Bushings, and Jumper to Multiple Conduits
- 90572 Ideal for Grounding Swimming Pools
- 90573 Ideal for Solar applications
- Lay-In Feature for Use with Continuous Ground Loops
- Cast of High Strength Copper Alloy containing 80% or more Copper
- Stainless Steel Set Screw - 1/4" X 28 Thread
- UL 467 CSA C22.2 Approved for Direct Burial in Soil & Concrete
- Direct Burial Marked on Clamp

DIMENSIONS = INCHES

CAT. NO.	TYPE	AWG	WIRE RANGE	LENGTH	WIDTH	HEIGHT	BOLT	BOX QTY
90572	DIPPED	4	4-14	1.04"	.47"	.76"	.26"	100
90573	TIN PLATED	4	4-14	1.04"	.47"	.76"	.26"	100

Lay-In Lugs - Aluminum



- Open face design allows installer to quickly lay in the grounding conductor as a jumper to multiple conduits with no break in the ground conductor
- Excellent for tapping off main conductor without cutting due to lay-in feature
- Manufactured from high strength 6061-T6 aluminum alloy to insure both maximum strength and conductivity
- Dual Rated for both copper and aluminum conductors
- Electro tin plated to provide low contact resistance and protection against corrosion

DIMENSIONS = INCHES

CAT. NO.	AWG	WIRE RANGE	LENGTH	WIDTH	HEIGHT	BOLT	BOX QTY
90574	4	4-14	1.05	.47	.78	.26	100
90575	1/0	1/0-14	1.50	.59	1.17	.26	50
90576	3/0	3/0-6	2.00	.80	1.56	.41	50
90580	250	250-6	2.20	.80	1.79	.41	25

InterSystem Bonding Connector



- Fast & Simple Installation on Ground Conductor Below Meter
- Lay-In feature Allows Termination to Existing Main Ground Electrode without Cutting or Splicing Conductor
- Accommodates up to 4 Intersystem Bonding Conductors
- 6061-T6 Dual Rated Aluminum Connector
- Stainless Steel Screws
- UV Rated Paintable Thermoplastic Cover Included
- UL 467 Listed, Meets NEC 2008 Section 250.94 Requirements

DIMENSIONS = INCHES

CAT. NO.	CONDUCTORS				SCREW TYPE	LENGTH	WIDTH	HEIGHT	BOX QTY
	MAIN GROUND MIN	MAIN GROUND MAX	LOW VOLTAGE MIN	LOW VOLTAGE MAX					
90588	6	2	14	4	STAINLESS STEEL	3.93	1.19	1.40	10

Ground Clamps - Lay-In - Rebar



- Connect Grounding Electrode Conductor to Bare Rebar
- Rugged and Compact
- Lay-In Feature for Use with Continuous Ground Loops
- Popular for Swimming Pool/Spa, Telecommunications, Agriculture, Marine & Food Processing Applications
- Cast of High Strength High Conductivity Copper Alloy
- Stainless Steel Hardware
- UL 467 Listed for Direct Burial In Soil & Concrete
- Not for Use on Epoxy Coated Rebar



DIMENSIONS = INCHES

CAT. NO.	REBAR SIZE	WIRE RANGE		DIMENSIONS			BOX QTY
		MIN	MAX	LENGTH	WIDTH	HEIGHT	
91712	3/8"	8 SOL	6 SOL	1.14"	.74"	.75"	25
91713	1/2"	8 SOL	4 STR	1.35"	.83"	.91"	25

Ground Clamps - Vice Grip Style

- For Grounding to Flat Bar with One or Two Conductors - Copper Only
- Use as Splice or Tap
- Lay-In (Side Entry) for easy installation
- V-Groove aligns Conductors
- Interlock Design for Resistance to Vibration
- Cast of High Strength High Conductivity Bronze - Excellent Heat Dissipation



CAT. NO.	CONDUCTOR RANGE		BOX QTY
	MAX 2 CONDUCTORS	MIN 2 CONDUCTORS	
91912	6 SOL	8 SOL	25
91913	4 STR	6 SOL	25

Ground Clamps - I-Beam



- Connect Ground Conductor to I-Beam or Metal Frame
- Connects one ground wire to 1/4" Thick Bar or Stanchion
- Lay-in Feature for Use with Continuous Ground Loops
- Popular for Cable Tray, Fence Posts & Structural Steel
- Cast of High Strength High Conductivity Copper Alloy
- Stainless Steel Bolts, Nuts & Lock Washers
- UL 467 Listed for Direct Burial In Soil or Concrete



FIG 1



FIG 2

DIMENSIONS = INCHES

CAT. NO.	FIG	CONDUCTOR RANGE		DIMENSIONS			BOLT SIZE	BOX QTY
		MIN	MAX	LENGTH	WIDTH	HEIGHT		
GROUND CONDUCTOR ISOLATED FROM BAR								
91715	1	8 SOL	4 STR	1-1/4	1	1-5/8	3/8	25
91716	1	4 SOL	2/0 STR	1-5/8	1-1/8	1-3/4	3/8	10
91717	1	2/0 SOL	250 MCM	2-1/8	1-1/2	2	1/2	10
GROUND CONDUCTOR CLAMPED TO BAR								
91721	2	8 SOL	4 STR	1-1/4	1	1-5/8	3/8	25
91722	2	4 SOL	2/0 STR	1-5/8	1-1/8	1-3/4	3/8	25
91723	2	2/0 SOL	250 MCM	2-1/8	1-1/2	2	1/2	10



Ground Jumper Clamps



- Cast of High Strength, High Conductivity Copper Alloy
- Stainless Steel Hardware
- Make Connections between Aluminum or Galvanized Steel and Copper or Copper Bonded Steel Wires
- Bow Design Spring Action Maintains Positive Clamping Force
- Wrap-Around Design Secures Conductor

DIMENSIONS = INCHES

CAT. NO.	FINISH	CONDUCTOR RANGE		CONDUCTOR DIAMETER	BOLT MATERIAL	BOX QTY
		MIN	MAX			
91922	TIN PLATED	6 SOL	1/0 STR	.162 - .373	STAINLESS	25

Transformer Ground Connectors



- For Transformers with 1/2"-13 Tapped Hole
- High Strength High Conductivity Copper Alloy
- Stainless Steel Nuts & Lock Washer

CAT. NO.	CONDUCTOR RANGE		BOX QTY
	MAX	MIN	
91902	1 STR	10 SOL	25
91904	2/0 STR	8 SOL	25
91906	250 MCM	6 SOL	5

Table 250.66 Grounding Electrode Conductor for Alternating-Current Systems

Size of Largest Ungrounded Service-Entrance Conductor or Equivalent Area for Parallel Conductors ^a (AWG/kcmil)		Size of Grounding Electrode Conductor (AWG/kcmil)	
Copper	Aluminum or Copper-Clad Aluminum	Copper	Aluminum or Copper-Clad Aluminum ^b
2 or smaller	1/0 or smaller	8	6
1 or 1/0	2/0 or 3/0	6	4
2/0 or 3/0	4/0 or 250	4	2
Over 3/0 through 350	Over 250 through 500	2	1/0
Over 350 through 600	Over 500 through 900	1/0	3/0
Over 600 through 1100	Over 900 through 1750	2/0	4/0
Over 1100	Over 1750	3/0	250

Notes:

1. Where multiple sets of service-entrance conductors are used as permitted in 230.40, Exception No. 2, the equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set.

2. Where there are no service-entrance conductors, the grounding electrode conductor size shall be determined by the equivalent size of the largest service-entrance conductor required for the load to be served.

^aThis table also applies to the derived conductors of separately derived ac systems.

^bSee installation restrictions in 250.64(A).

Table 250.122 Minimum Size Equipment Grounding Conductors for Grounding Raceway and Equipment

Rating or Setting of Automatic Overcurrent Device in Circuit Ahead of Equipment, Conduit, etc., Not Exceeding (Amperes)	Size (AWG or kcmil)	
	Copper	Aluminum or Copper-Clad Aluminum [*]
15	14	12
20	12	10
30	10	8
40	10	8
60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250
1600	4/0	350
2000	250	400
2500	350	600
3000	400	600
4000	500	800
5000	700	1200
6000	800	1200

Note: Where necessary to comply with 250.4(A)(5) or (B)(4), the equipment grounding conductor shall be sized larger than given in this table.

^{*}See installation restrictions in 250.120.

Copper Ground Clamps - U Bolt - 1 Conductor



- U-Bolt Style Clamp
- For Connecting 1 Ground Wire Parallel or 90° to Water Pipe, Copper Tubing, Ground Rod, Rebar or Fencing
- Use with Continuous Ground Loops
- Cast of High Strength High Conductivity Copper Alloy
- Stainless Steel Bolts, Nuts & Lock Washers
- UL 467 Listed for Direct Burial In Soil or Concrete



DIMENSIONS = INCHES

CAT. NO.	ROD SIZE	PIPE SIZE	WIRE RANGE		DIMENSIONS			BOX QTY
			MIN	MAX	WIDTH	HEIGHT	THREAD	
91732	5/8 OR 3/4	1/2	8 SOL	4 STR	2	2-7/16	3/8 X 16	5
91733	5/8 OR 3/4	1/2	4 SOL	2/0 STR	2	2-7/16	3/8 X 16	5
91734	5/8 OR 3/4	1/2	2/0 SOL	250 MCM	2-1/16	2-3/4	3/8 X 16	5
91735	7/8 OR 1	1/2 OR 3/4	4 SOL	2/0 STR	2-1/4	3	3/8 X 16	5
91736	7/8 OR 1	1/2 OR 3/4	2/0 SOL	250 MCM	2-5/16	3-3/16	3/8 X 16	5
91737	-	1	4 SOL	2/0 STR	2-9/16	3-3/16	3/8 X 16	5
91738	-	1	2/0 SOL	250 MCM	2-9/16	3-3/16	3/8 X 16	5
91740	-	1-1/4	4 SOL	250 MCM	3	3-1/2	3/8 X 16	5
91742	-	1-1/2	4 SOL	250 MCM	3-1/4	4	3/8 X 16	5
91744	-	2	4 SOL	250 MCM	3-3/4	4-3/8	3/8 X 16	5
91746	-	2-1/2	4 SOL	250 MCM	4-1/4	5	3/8 X 16	5
91748	-	3	4 SOL	250 MCM	4-7/8	5-5/8	3/8 X 16	5
91750	-	3-1/2	4 SOL	250 MCM	5-3/8	6-1/4	3/8 X 16	5

Copper Ground Clamps - U Bolt - 2 Conductor



- U-Bolt Style Clamp
- For Connecting 2 Ground Wires Parallel or 90° to Water Pipe, Copper Tubing, Ground Rod, Rebar or Fencing
- Use with Continuous Ground Loops
- Cast of High Strength High Conductivity Copper Alloy
- Stainless Steel Bolts, Nuts & Lock Washers
- UL 467 Listed for Direct Burial In Soil or Concrete



DIMENSIONS = INCHES

CAT. NO.	PIPE SIZE	WIRE RANGE		DIMENSIONS			BOX QTY
		MIN	MAX	WIDTH	HEIGHT	THREAD	
91752	1	4 SOL	250 MCM	2-5/8	3-3/8	3/8-16	5
91756	1-1/2	4 SOL	250 MCM	3-1/4	4	3/8-16	5
91758	2	4 SOL	250 MCM	3-3/4	4-3/8	3/8-16	5
91760	2-1/2	4 SOL	250 MCM	4-1/4	5	3/8-16	5
91762	3	4 SOL	250 MCM	4-7/8	5-5/8	3/8-16	5
91764	3-1/2	4 SOL	250 MCM	5-3/8	6-1/4	3/8-16	5

Copper Ground Clamps - U Bolt - 3 Conductor



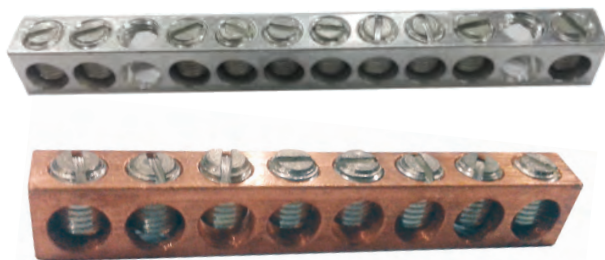
- U-Bolt Style Clamp
- For Connecting 3 Ground Wires Parallel or 90° to Water Pipe, Copper Tubing, Ground Rod, Rebar or Fencing
- Use with Continuous Ground Loops
- Cast of High Strength High Conductivity Copper Alloy
- Stainless Steel Bolts, Nuts & Lock Washers
- UL 467 Listed for Direct Burial In Soil or Concrete



DIMENSIONS = INCHES

CAT. NO.	PIPE SIZE	WIRE RANGE MIN	MAX	DIMENSIONS		BOX QTY
				WIDTH	HEIGHT	
91766	1/4	4 SOL	250 MCM	3-5/8	2-3/4	5
91767	3/8	4 SOL	250 MCM	3-1/2	3	5
91768	1/2 OR 3/4	4 SOL	250 MCM	3-7/8	3-3/8	5
91769	1	4 SOL	250 MCM	4-1/8	3-1/2	5
91770	1-1/4	4 SOL	250 MCM	4-1/2	3-7/8	5
91771	1-1/2	4 SOL	250 MCM	4-3/4	4-1/4	5
91772	2	4 SOL	250 MCM	5-1/4	5	5
91773	2-1/2	4 SOL	250 MCM	5-7/8	5-1/4	5
91774	3	4 SOL	250 MCM	6-3/8	5-3/4	5
91775	3-1/2	4 SOL	250 MCM	6-3/4	6-3/8	5
91776	4	4 SOL	250 MCM	7-1/4	6-3/4	5

Ground/Neutral Bars



- Copper & Aluminum Neutral & Ground Bars
- Aluminum Bars are made from 6060-T6 Tin-Plated Aluminum
- Aluminum Bars are Dual Rated for Copper or Aluminum Conductors
- Copper Bars are Rated for Copper Conductors Only
- Available from 2 Circuit to 190 Circuit Configurations
- Range Taking
- 600V

DIMENSIONS = INCHES

CAT. NO.	MATERIAL	WIRE RANGE	NO. OF CIRCUITS	TOTAL NO. HOLES	LENGTH	HEIGHT	WIDTH	HOLE SPACING	MOUNT HOLE POSITION	BOX QTY
ALUMINUM										
91130	ALUMINUM	#14-#4	2	3	.95	.44	.31	.312	2	100
91131	ALUMINUM	#14-#4	4	5	1.57	.44	.31	.312	3	100
91132	ALUMINUM	#14-#4	5	6	1.88	.44	.31	.312	3	100
91133	ALUMINUM	#14-#4	6	7	2.25	.44	.31	.312	4	100
91134	ALUMINUM	#14-#4	4	6	1.88	.44	.31	.312	1 & 4	100
91135	ALUMINUM	#14-#4	5	7	2.25	.44	.31	.312	1 & 7	100
91136	ALUMINUM	#14-#4	5	7	2.25	.44	.31	.312	2 & 6	100
91137	ALUMINUM	#14-#4	6	8	2.56	.44	.31	.312	4 & 7	100
91138	ALUMINUM	#14-#4	7	9	2.87	.44	.31	.312	3 & 7	100
91139	ALUMINUM	#14-#4	9	11	3.50	.44	.31	.312	1 & 11	50
91140	ALUMINUM	#14-#4	10	12	3.81	.44	.31	.312	1 & 12	50
91141	ALUMINUM	#14-#4	12	14	4.43	.44	.31	.312	1 & 14	50
91142	ALUMINUM	#14-#4	15	17	5.37	.44	.31	.312	1 & 17	50
91143	ALUMINUM	#14-#4	20	22	6.93	.44	.31	.312	1 & 22	50
91144	ALUMINUM	#14-#4	190	190	60.0	.44	.31	.312	-	10
91145	ALUMINUM	#14-#2	10	12	4.12	.50	.38	.34	3 & 11	50
91146	ALUMINUM	#14-2/0	2	3	1.75	.75	.56	.60	2	25
91147	ALUMINUM	#14-2/0	3	5	2.95	.75	.56	.60	2 & 4	25
91148	ALUMINUM	#14-2/0	6	8	4.75	.75	.56	.60	1 & 8	25
COPPER										
91152	COPPER	#14-#4	4	6	1.94	.44	.31	.312	1 & 6	100
91153	COPPER	#14-#4	5	7	2.25	.44	.31	.312	1 & 7	100
91154	COPPER	#14-#4	6	8	2.56	.44	.31	.312	1 & 8	100
91155	COPPER	#14-#4	12	14	4.43	.44	.31	.312	1 & 14	50
91156	COPPER	#14-#4	13	15	4.74	.44	.31	.312	3 & 13	50
91157	COPPER	#14-#4	13	15	4.74	.44	.31	.312	6 & 11	50
91158	COPPER	#14-#4	190	190	60.0	.44	.31	.312	-	10
91159	COPPER	#14-#2	3	5	2.00	.50	.38	.397	1 & 5	50
91160	COPPER	#14-#2	6	8	3.25	.50	.38	.397	2 & 7	50

Ground/Neutral Bars



CAT. NO.	MATERIAL	WIRE RANGE	NO. OF CIRCUITS	TOTAL NO. HOLES	LENGTH	HEIGHT	WIDTH	HOLE SPACING	MOQ	BOX QTY
ALUMINUM										
95180	ALUMINUM	#14-#6	4	6	2.80	.50	.37	.312	1	480
COPPER										
95190	COPPER	#14-#6	4	6	2.80	.50	.37	.312	1	320

Multi-Combination Ground/Neutral Bars

NEW

- Aluminum Neutral & Ground Bars - Multiple Wire Combinations
- Aluminum Bars are made from 6060-T6 Tin-Plated Aluminum
- Aluminum Bars are Dual Rated for Copper or Aluminum Conductors
- Available from 2 Circuit to 6 Circuit Feed & 5 Circuit to 17 Circuit Tap Configurations
- Range Taking
- 600V; 90°C
- UL 486A Listed
- Available in custom configurations upon request - consult factory



AVAILABLE
JULY 2020

DIMENSIONS = INCHES

CAT. NO.	NUMBER OF CIRCUITS		LENGTH	WIDTH	HEIGHT	BOX QTY
	1/0-14 AWG	6-14 AWG				
95195	2	5	2.29	.375	.625	400
95197	3	8	3.44	.375	.625	240
95199	4	11	4.63	.375	.625	200
95201	6	17	7.00	.375	.625	210

NEW

- Aluminum Neutral & Ground Bars - Multiple Wire Combinations
- Aluminum Bars are made from 6060-T6 Tin-Plated Aluminum
- Aluminum Bars are Dual Rated for Copper or Aluminum Conductors
- Screw Material: SAE1008 Zinc Plated Steel
- 600V; 90°C
- UL Recognized 486B

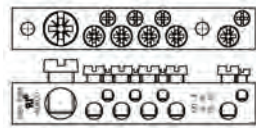


FIG 1

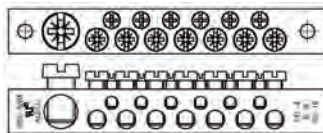


FIG 2

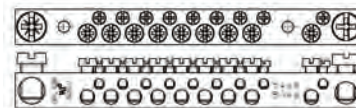


FIG 3

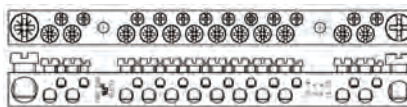


FIG 4



AVAILABLE
JULY 2020

DIMENSIONS = INCHES

CAT. NO.	FIG	CONDUCTOR ENTRY HOLE	CONDUCTOR RANGE	TOTAL NOS OF HOLE FOR CONDUCTOR	DIMENSIONS			BOX QTY
					LENGTH	WIDTH	HEIGHT	
95205	1	B C D	2 8 10 & 12	1 5 4	3.00	0.50	0.50	280
95207	2	B C D	2 8 10 & 12	1 7 6	3.53	0.50	0.50	240
95209	3	A B C D	1/0 2 8 10 & 12	1 1 9 9	4.86	0.50	0.50	160
95211	4	A B C D	1/0 2 8 10 & 12	1 1 12 12	5.88	0.50	0.50	160



Flexible Braided Jumper Straps



- Used wherever it is necessary to bridge expansion gaps, allow for misalignment or absorb vibration between moving parts
- To maintain continuity of ground electrode
- Prevent breakage of insulators, bushings or equipment due to misalignment during settling of substation foundations
- Manufactured from highly conductive extra flexible tinned copper braid flattened into a rectangular shape for greater flexibility
- Mounting pads on ends are made from tin-plated pure electrolytic copper for superior surface contact area

DIMENSIONS = INCHES

CAT. NO.	LENGTH	AMP RATING		APPROXIMATE CIRCULAR MILS	THICKNESS	PAD HOLE SIZE	BOX QTY
		INDOOR	OUTDOOR				
91620	12"	330	400	154,500	1/4"	1-1/2 X 9/16	10

Flexible Ground Braids



- Use for continuing the fault-carrying capacity of the cable shield for Bonding or Grounding Jumpers
- Use for shield & lead-sheath grounding, and is easily soldered to lead, copper & tinned metals
- Use to absorb expansion, misalignment, motion, or vibration of equipment
- Manufactured from high conductivity, woven process, annealed, tinned copper wire
- Use Multiple Layers to increase ampacity

DIMENSIONS = INCHES

CAT. NO.	WIDTH	LENGTH	EQUIVALENT AWG SIZE	BOX QTY
91630	3/8"	100'	9 AWG	10
91640	1/2"	100'	6 AWG	10

Green Grounding Pigtails



FIG 1



FIG 2

- Solid Green 12 Gauge Wire
- Attached 10/32 x 3/8" Ground Screw with Easy-Start Tip

CAT. NO.	FIG	SIZE	BOX QTY
30774	1	6-1/2" WITH 10/32 X 3/8 SCREW & END STRIPPED 5/8"	100
30775	2	8" WITH 10/32 X 3/8 GROUND SCREW & #10 FORK TERMINAL	100

Green Grounding Screws



- For Grounding of Switch & Outlet Boxes
- Hex Washer Head Slotted/Phillips 10/32 x 3/8" - Easy-Start Tip

CAT. NO.	DESCRIPTION	BOX QTY
30772	10/32 X 3/8 GROUNDING SCREW	100

Green Grounding Clips



- Used with #10, #12, or #14 Copper or Aluminum Grounding Wire

CAT. NO.	DESCRIPTION	BOX QTY
30773	GREEN GROUNDING CLIP	100