Waterpipe Ground Clamps







Malleable iron crossbar, steel U-Bolt c/w copper cable clamp with serrations.







Material: Steel U-bolt and nut c/w bronzed aluminum cap and crossbar cadmium plated plus gold chromate finish.





Cat. No.	Ground Wire Size	Water Pipe Size
3902BU*		1/2 in1
3903BU*		1-1/4 in.–2 in.
3904BU*		2-1/2 in3-1/2 in.
3905BU*	HA A/O ANNO	4 in.–5 in.
3906BU*	#4–4/0 AWG	6 in.
3907BU*		8 in.
3908BU*		10 in.
3909BU*		12 in.

Material: Bronze U-bolt and nut c/w bronzed aluminum cap and crossbar with a

brite dip finish. *UL Listed for Direct Burial.

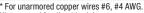






Ground Clamps

Cat. No.	Material	Water Pipe, Copper Tubing Size	Ground Rod Size
3826*	Malleable Iron	4/0:- 0/4:-	4/01: 4
3846*	Bronze	1/2 in., 3/4 in.	1/2 in.–1
3840-TB•	Malleable Iron	1/2 in., 3/4 in. or 1	



UL approved for direct burial.

• #8 thru #4 AWG. Not CSA Certified.





Ground Clamps for K&L Grade Copper Tubing Only



^{*} With Steel Screws.



For armored and unarmored wires.

Ground Clamp Accessories

Cat. No.	Description	For use with
10102-TB	1-1/4 to 1-1/2 in. cables	#8-#2 Ground wire

Material: Malleable iron, zinc plated.



(1) (1)



Cat. No.	For use with
10105	Single conductors #4 solid to 2/0 str.
10109	Single conductors 2/0 solid to 4/0 str





 $[\]ensuremath{^{**}}$ UL approved for direct burial. Silicon Bronze Screws.





Type JAB — Ground Rod Clamps

- · Cast of high-strength corrosion resistant copper alloy
- Both hex head and socket set screws available
- Long bearing surface of clamp on ground wire secures ground connection
- Listed for direct burial







Cat. No.		Nomina	ll Rod Dia.		Wire I	Range				Dimensions (i	n.)		
Socket Set Screw	Hex Head Bolt	(in.)	(mm)	Max.	Min.	Max. (mm²)	Min. (mm²)	A (Max.) Socket Screw	A (Max.) Hex Bolt	Screw Thread Size UNC-2A	В	С	D
JAB12*	JAB12H	1/2	12.7	2 str.	10 sol.	33.6	5.2	1-19/32	2-3/32		27/32	7/8	19/32
JAB58	JAB58H	5/8	15.8	4/0 -1-		50.4		1-27/32	2-13/64		29/32	_	11/16
JAB34	JAB34H	3/4	19.0	1/0 str.	01	53.4	0.0	2	0.44/00	7/16-14	11/16	1	51/64
_	JAB34C	3/4 + 5/8	15.8 to 19.0	0/0 -1-	8 sol.	95.0	8.3	_	2-11/32		1-1/8	1-1/32	13/16
JAB1	JAB1H	1	25.0	3/0 str.		107.1		2-1/4	3		1-11/32	1-1/16	1

* CSA not applicable. Add suffix P to Cat. No. for tin-plated clamp.

Type G — Budget Line Ground Clamps

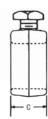
- · A dependable ground connection offered at a substantial saving
- · Cast of high-strength corrosion-resistant copper alloy
- Hex head bolts
- · Simplified compact design will make a lasting, trouble-free connection
- · Listed for direct burial





	Nominal Rod Dia. Wire Range					·	Dimensions (in.)							
Cat. No.	(in.)	(mm)	Max.	Min.	Max. (mm²)	Min. (mm²)	A (Max.) Bolt	Screw Thread Size UNC-2A	В	С	D	E		
G3*	3/8	9.5	4 str.		21.1		1-3/8	5/16-18	11/16	1/2	27/64	3/8		
G4	1/2	12.7		401					27/32		37/64			
G5	5/8	15.8	2 str.	10 sol.	33.6	3.6 5.2	5.2	5.2	_	3/8-16	29/32	3/8	43/64	1/2
G6	3/4	19.0							1-1/16		13/16			



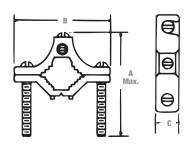




Not U.L. Listed and CSA not applicable. Add suffix P to Cat. No. for tin-plated clamp.

Budget Price Cast Bronze Clamp

Similar to aluminum water pipe clamp but lighter in construction







Add suffix C to Cat. No. to specify plating.

Type JDLI — Direct Burial Ground Clamp

Lay-in feature reduces installation time for difficult bends or continuous loops of ground wire

- UL Listed for direct burial in earth/concrete
- UL Listed for connection to ground rod, pipe or rebar up to 1
- Constructed from bronze alloy and high-performance stainless steel bolts
- · Designed for easy installation of difficult bends or continuous loops



Cat. No.	Pipe Size	Pipe Size Rebar Size		Conductor Range	Mech. Conn./ Splice (UL Listed)
JDLI	1/2 in1	3/8 in1	1/4 in1	#10 sol#2 str.	(2) #8 sol.







Type JWR — Wide-Range Ground Rod Clamp

- Listed for direct burial in earth/concrete
- Constructed from bronze alloy and high-performance stainless steel bolt
- Provides wide range of connection sizes
- More than 300 lb. torque capacity

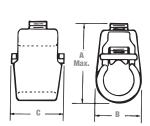


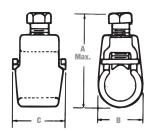
Oak Na	Nominal	Nominal Rod Dia.		Wire Range				Dimensions (in.)			
Cat. No.	(in.)	(mm)	Max.	Min.	Max. (mm²)	Min. (mm²)	A (Max.) Bolt	В	C	D	
	3/8*	9.5				5.2			0.812		
nup.	1/2	12.7	4/0 -1-	40 1	50.4		4 505	1.050		0.050	
JWR	5/8	15.8	1/0 str.	10 sol.	53.4		1.535			0.652	
	3/4	19.0				8.3					

^{* 3/8} in. rod CSA not applicable/Listed by UL.

Types GG and GGH — Heavy Duty Ground Rod Clamps

- Cast of high-strength corrosion-resistant copper alloy; two types of screws available
- Type GG has a socket set screw
- Type GGH has a hex head bolt
- · Floating pressure bar distributes pressure evenly over a large area of the ground wire
- · Axial groove keeps wire and rod in perfect alignment









Cat. No.		Nominal	Rod Dia.	Wire Range Dimensions (in.)								
Socket Set Screw	Hex Head Bolt	(in.)	(mm)	Max.	Min.	Max. (mm²)	Min. (mm²)	A (Max.) Socket Screw	A (Max.) Hex Bolt	Screw Thread Size UNC-2A	В	С
GG12	GG12H	1/2	12.7	2 str.		33.6		1-13/64	1-13/16	7/10 11	27/32	4540
GG58	GG58H	5/8	15.8	2/0 str.	8 sol.	53.6	8.3	1-51/64	2-7/32	7/16-14	61/64	15/16
_	GG34H**	3/4	19.0	4/0 str		120 6		_	3	1/2-14	1-3/8	1-1/4

** CSA not applicable. GG34H has no pressure bar or axial groove. Add suffix P to Cat. No. for tin-plated clamp.



Budget Price Cast Bronze Clamps

Type swings 360° for ease of alignment

- Pipe clamping portion identical to "JA" clamp
- Pressure-bar type conduit hub adjusts to fit 1/2 in. or 3/4 in. EMT, or 1/2 in. rigid conduit
- Brass washer provides positive contact with grounding conductor
- Furnished with zinc-plated screws

Cat. No.	Conduit	Water Pipe	Conductor Range			
Gal. NO.	Size	Size	Max.	Min.		
JPT		1/2 in. to 1				
JPT2	1/2 in. or 3/4 in. EMT 1/2 in. Rigid	1-1/4 in. to 2 in.	#6 Sol.	#10 Sol.		
JPT4	1/2 III. Nigiu	2-1/2 in. to 4 in.				



Cast Bronze Clamps

For connecting armored cable to water pipe

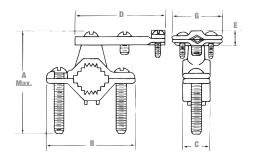
- Clamping portion similar to standard "J" clamp
- Special pressure bar grips armor or outer cable insulation to reduce chance of grounding conductor being pulled out
- Furnished with zinc-plated screws



	Water	Conductor Range			Dimensions (in.)							
Cat. No.	Pipe Size (in.)	Max.	Min.	A	В	С	D	E	G			
JA	1/2 to 1			2-3/4	2-11/32	25/32						
JA2	1-1/4 to 2	#6 sol.	#10 sol.	3-3/4	3-1/2	13/16	2-9/32	15/32	1-3/8			
JA2124	2-1/2 to 4			6	6-5/16	1						

Add suffix C to Cat. No. to specify plating.



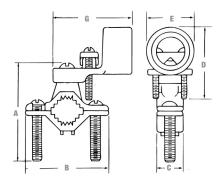




Cast Bronze Clamps for Conduit

For grounding rigid conduit systems

- Continuity from rigid conduit system to ground provided by cast bronze threaded conduit hub
- Hub swings 360° for easy alignment
- · Heavy brass washer protects clamped grounding conductor
- Furnished with zinc-plated screws
- Cast bronze pipe clamping portion identical to that used in "JA" clamp



Cat. No.	Conduit	Water Pipe	Conduct	or Range			Dimens	ions (in.)		
Gat. No.	Size (in.)	Size (in.)	Max.	Min.	Α	В	C	D	Е	G
JP12		1/2 to 1			2-3/4	2-11/32	23/32			
JP212	1/2	1-1/4 to 2	#6 sol.		3-3/4	3-1/2	13/16	1-9/64	1	2-1/2
JP212412		2-1/2 to 4			6	6-5/16	1			
JP34	0/4	1/2 to 1	#0/0 - L		2-3/4	2-11/32	23/32			2-3/16
JP234	3/4	1-1/4 to 2	#2/0 str.	#10 sol.	3-3/4	3-1/2	13/16		1-1/4	
JP1		1/2 to 1			2-3/4	2-11/32	23/32	2-5/16		
JP21	1	1-1/4 to 2	#3/0 str.		3-3/4	3-1/2	13/16		1-1/2	2-3/8
ID01041		0.1/0.4- 4				0.5/40	4	1		

Add suffix C to Cat. No. to specify plating.

Cast Bronze Clamps with Copper Strap

Flexible copper strap makes alignment easy

- For grounding rigid conduit systems
- Same features as "JP" clamp plus flexible copper strap
- Strap helps protect conduit system from water system vibrations
- Furnished with zinc-plated screws



Oat Na	Conduit Size	Water Pipe	Conducto	or Range
Cat. No.	(in.)	Size (in.)	Max.	Min.
JPS12	1/2		6 sol.	
JPS34	3/4	1/2 to 1	2/0 str.	10 sol.
JPS1	1		3/0 str.	

Add suffix C to Cat. No. to specify plating.





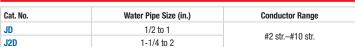
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Cast Bronze Ground Clamps

Connect copper ground wire to water pipe, copper tubing or ground rods

- High-strength, high-conductivity copper alloy (over 80% copper)
- UL Approved for direct burial







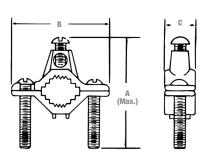
Type J — Cast Bronze Ground Clamps

For connecting grounding conductor to water pipe or copper tube

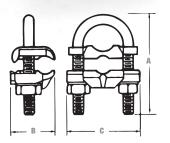
- · Cast of high-strength, highly conductive copper alloy
- Screws plated for corrosion resistance
- UL Listed

	Water Pipe	Conduc	tor Range	Dimensions (in.)				
Cat. No.	Size (in.)	Max.	Min.	Α	В	C		
J	1/2 to 1			2-3/4	2-11/32	23/32		
J2BB	1-1/4 to 2		40.1	3-3/4	3-1/2	13/16		
J2124	2-1/2 to 4	2 str.	10 sol.	6	6-5/16	_		
J6	4-1/4 to 6			7-1/4	8-1/8	1		









Type GUV — U-Bolt Clamps

- Listed for direct burial in earth or concrete
- For connecting copper or copper clad steel grounding conductor to ground rod or pipe or rebar
- Excellent for connecting multiple electrodes with a single cable as in substation grounding
- GUV body components are cast or forged from copper alloy and U-Bolts are stainless steel
- Specially designed spacer provides proper alignment between cable and electrode and affords more positive contact area

DB ®

0-4-11-	Conductor	Range (Cu)	Nominal Ro	od Size (in.)	IPS Pipe	Size (in.)	D	imensions (ir	ı.)	
Cat. No.	Max.	Min.	Max.	Min.	Max.	Min.	Α	В	С	
GUV584	4	8								
GUV5821	2/0	4	3/4	5/8	3/8	_	2-13/16		2-1/4	
GUV5825	250	2/0								
GUV784	4	8								
GUV7821	2/0	4	1 7/8		3/4	1/2	2-3/4		2-5/8	
GUV7825	250	2/0								
GUV1184	4	8	4 4/4	4.4/0	_		0.540		0.044	
GUV11821	2/0	4	1-1/4	1-1/8	1		3-5/16		2-3/4	
GUV1384	4	8								
GUV13821	2/0	4	1-1/2	1-1/2 1-3/8	1-1/4		3-7/16		2-15/16	
GUV13825	250	2/0								
GUV1584	4	8						1-9/16		
GUV15821	2/0	4	1-7/8	1-5/8	1-1/2	1-1/2		3-15/16	1-9/10	3-3/16
GUV15825	250	2/0								
GUV204	4	8								
GUV2021	2/0	4	2-3/8	2	2	_	4-7/16		3-11/16	
GUV2025	250	2/0								
GUV21221	2/0	4	0.7/0	0.4/0	0.4/0		4.4540		4.0/40	
GUV21225	250	2/0	2-7/8	2-1/2	2-1/2		4-15/16		4-3/16	
GUV3021	2/0	4	0.1/0	3	3		F 0/10		4 10/10	
GUV3025	250	2/0	3-1/2	3	3		5-9/16		4-13/16	
GUV31221	2/0	4	4	3-1/2	3-1/2		6-1/16		5-1/2	
GUV4021	2/0	4	4.1/0		,		0.540		F 44/40	
GUV4025	250	2/0	4-1/2	4	4		6-5/16		5-11/16	

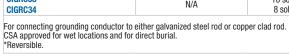
For tin-plated, add suffix TP to Cat. No. $\,$



Technical Specifications



		Ground Wire	e Size (AWG)		
Cat. No.	Water Pipe Size (in.)	Min.	Max.	Galv. Steel	Copper Clad
Ground Clamps (Zinc alloy body	/ Steel screws)				
Cl3106	1/2 to 1	10 sol.	2 str.	5/8 to 1*	N/A
Ground Clamps (Zinc / Steel)					
Cl3108	1/2 to 1	10 sol.	2 str.	5/8 to 1*	N/A
For connecting grounding conductor to	either galvanized steel rod or wate	er pipe.			
Ground Clamps (Brass body / Br	ass screws)				
CI3110U	1/2 to 1	10 sol.	2 str.	5/8 to 1*	5/8 to 1
For connecting grounding conductor to CSA approved for wet locations and for		r clad or water pipe.			
Ground Clamps (Brass body / Br	ass screws)				
Cl3112U	1-1/4 to 2	10 sol.	2 str.	-	-
For connecting grounding conductor to CSA approved for wet locations and for					
Ground Rod Clamps (Bronze boo	ly / Brass screws)				
CIGRC58 CIGRC34	N/A	10 sol. 8 sol.	2 str. 1/0 str.	5/8 3/4	5/8 3/4







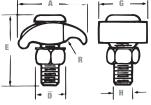




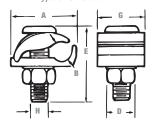








Type GTC 13 and 14



Type GTC 23 and 24

Type GTC — Tower Ground Clamps

- Bolt has square shank to prevent turning and allow clamp to be tightened with one wrench
- GTC 23 and 24 are two-piece clamps for connecting ground lead cable to flat metal surface; ideal for grounding substations on tower footings
- Castings are of high-strength, corrosion resistant copper alloy
- GTC 13 and 14 are economical one-piece clamps which perform the same function as two-piece clamps except the under pad support is omitted and conductor is connected directly to tower
- Add suffix L to Cat. No. for 1/2 in. channel thickness

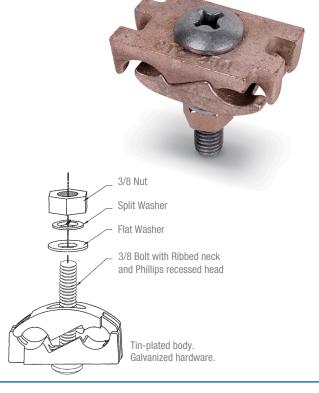


		Conductor	r Range		Channel	nannel Dimensions (in.)							
Cat. No.	Max.	Min.	Max. (mm²)	Min. (mm²)	Thickness (in.)	Α	В	D	E	G	Н	R	
GTC13	2/0 str.	4 sol.	67.4	21.1		1-15/32		9/16	1-21/32	13/32	3/8	7/32	
GTC14	250 kcmil	2/0 str.	126.6	67.4		1-15/16	-	3/4	1-15/16	1-13/32	1/2	5/16	
GTC23	2/0 str.	4 sol.	67.4	04.4	1/4	1-41/64	7/16	9/16	2-21/32	1-3/32	3/8		
GTC24	250 kcmil	2/0 str.	126.6	21.1		1-61/64	5/8	3/4	1-15/16	1-3/8	1/2	_	

CTG250 — Wide Range Tower Ground Clamp

- For use with aluminum or copper conductors and in aluminum or galvanized steel cable tray
- Ribbed neck on the bolt prevents rotation during tightening if 0.440 dia. hole is used

Cat. No.	Wire Range (2 sides)	Height (in.)	Width (in.)	Depth (in.)	Nut (Flats)
CTG250	#2 sol. (0.258 Dia.), 250 kcmil (0.575 Dia.)	1.95	2.00	1.13	0.560



I-Beam Ground Clamps

Connect ground cable to I-Beam or any 1 in. maximum structural steel member — without welding or drilling

- Breakaway bolt head shears at predetermined torque to ensure tight connection
- · Heavy-duty compression lug provides excellent current carrying capabilities
- Surface of steel must be cleaned in accordance with installation instruction sheet provided with product
- · Connector made of high-conductivity cast copper bright dip
- · Clamp made of drop-forged high-grade steel, zinc-plated





Cat. No.	Wire Range	TBM15I, TBM15 Installing Tool, Die Code	Die Cat. No.
IBG2-10	2 thru 1/0 AWG	66H	15534SS 2
IBG20-40	2/0 thru 4/0 AWG	76	15506SS 2
IBG350-500	350 kcmil thru 500 kcmil	115H	15504SS 2

Hydraulic tooling with hex crimp dies. Use 15500TB adaptor for TBM15-Ton Tool. * Number of crimps.





Ground Clamps

For permanent, reliable connection

- · Crimp to cable
- · Clamp to ground rod and rebar
- Use standard Color-Keyed[®] hand and hydraulic tools
- · Colour-coded for easy installation die selection
- · Made from high-conductivity wrought copper
- Furnished with stainless steel hardware, 1/4 in. washers, bolts and nuts



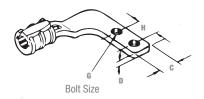




Cat. No.	Wire Size	Ground Rod Diameter (in.)	Rebar (in.)	Bolt Size (in.)	Die Code and Colour
CC2C-45R	#2-#3 AWG	4/0 5/0	0.00	0.05	33 Brown
CC1C-45R	#1 AWG	1/2 or 5/8	0.80	0.25	37 Green
CC10C-56R	1/0 AWG				42 Pink
CC20C-56R	2/0 AWG	5/8 or 3/4	0.83	0.38	45 Black
CC40C-56R	4/0 AWG				54 Purple

UL Approved for direct burial.





Flat-Surface Ground Clamps

Terminate or connect continuous runs of copper cable to flat surfaces

- · Captive "Keeper bar" design extends cable range and helps hold cable prior to crimping, facilitating installation
- Saddles marked with conductor size and die code
- Conductor can be assembled to saddle with standard dies and hydraulic tools
- · Made from high-conductivity cast copper







	Wire	Bolt	Die Code		Std.	Wt.	Hex	c Die		Dime	ensions in. (mm))	
Cat. No.	Range	Hole (in.)	No.	Qty.	Pkg.	Per 100	Cat. No.	Die Code No.	L1	L2	D	С	Н
53055FL	1/0-2/0 AWG	0/0	66	_	10	75	15534*	66	4.09 (103.9)	3.66 (93.0)	0.28 (7.1)	1.00 (05.1)	1.00 (05.4)
53065FL	4/0-250 kcmil	3/8	87H	2	10	112	15506**	87H	4.50 (114.3)	4.09 (103.9)	0.31 (7.9)	1.38 (35.1)	1.00 (25.4)

^{*} TBM14M, 13100A, TBM15I with hex crimp dies.
** TBM15I with hex crimp dies only.

Grid-to-Fence Ground Clamps

Bond copper conductors to steel or aluminum fence post or top rail of round fence posts

- Provide quick, dependable installation at low installed cost
- Use no incendiary materials
- · Body made from cast copper alloy with steel U-bolt



Cat. No.	Ground Cable Range	Die Code	Steel and Aluminum Line Post Range (in)
FG2040R2			2.00
FG2040R25	2/0-3/0-4/0	76	2.50
FG2040R3			3.00
FG210R2			2.00
FG210R25	2-1-1/0	66	2.50
FG210F3			3.00

Install with hydraulic tooling with hex crimp dies.





