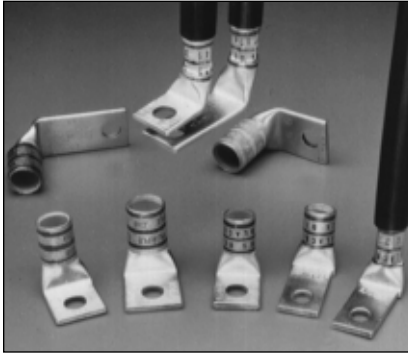


# Color-Keyed® Connection by Compression

**Color-Keyed® Special Lugs for Special Problems—  
Angled, Shaped and Trimmed the Way You Need Them**



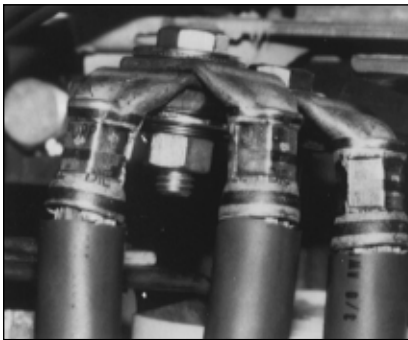
Thomas & Betts can solve your difficult wire bending and terminating problems in confined power distribution panels, switchgear and motor control enclosures. We have the design and production capability to deliver exactly the type lug you need, shaped the way you need.

- Straight, 45° and 90° angle
- Stacking or non-stacking
- Narrow tongue or standard
- Tin, silver, lead or nickel plating

Thomas & Betts offers an extensive line of copper Color-Keyed® lugs for #8 AWG through 1000 MCM flex and code cables. The lug tongues are modified in several different configurations to meet your exact needs: 45° and 90° bend angles, narrow tongues to fit into circuit breakers, offset tongues to stack two cables, and special stud hole drilling. These special configurations let you:

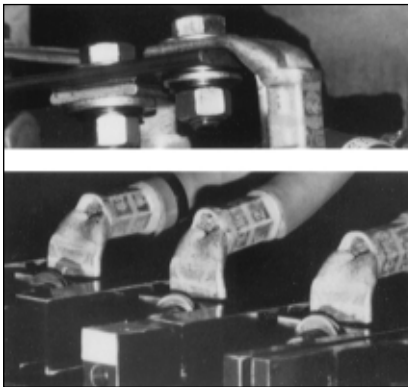
- (1) run cable directly to the bus bar with no bending,
- (2) terminate into very narrow spaces, and
- (3) utilize minimal bus bar space.

The specially designed lugs help you “clean up” your cabling in crowded enclosures. These photographs show some examples of how and where the lugs can be used.



## ***Customized Connectors for Copper Cables***

- Standard and special tongue angles, stacking and non-stacking, bolt hole sizes and centers, protective platings.
- Specially modified one and two hole copper Color-Keyed® compression lugs, Series 54100, 54200, 54850BE and 54930BE for flex and code copper stranded cables. Material: High conductivity wrought copper.
- Minimum order quantity: Standard package quantity by cable size. Consult your Regional Sales Office for price and delivery. Orders for customized lugs non-cancellable.



# Color-Keyed®

## Ordering Information

### Order Form

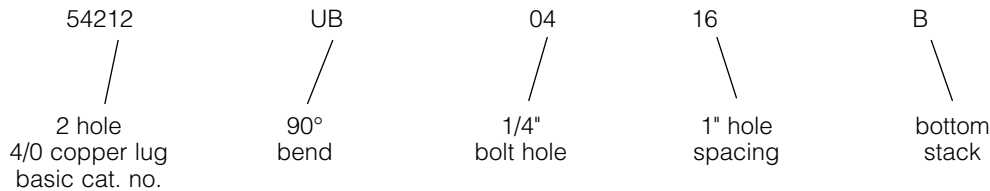
Catalogue No. \_\_\_\_\_ Qty. \_\_\_\_\_  
 (For 54100, 54200, 54800 & 54900 Series Copper Lugs Only)

### Design Controls and Requirements

All "MADE-UP" catalogue numbers start with a standard or basic catalogue number and are followed by the customer required extra features: tongue shape, bolt hole size, distance between bolt holes, stacking, plating and inspection hole (peep hole). A code letter or a number has been assigned to each extra feature. See CODE TABLE.

- NOTES: 1) Lack of any of the extra features on the "MADE-UP" catalogue number means that the standard Cat. No. features are prevalent.  
 2) If either bolt hole size or distance between bolt holes needs to be changed from standard Cat. No., both code numbers will appear on the "MADE-UP" Cat. No. (see example below).

Cat. No. 54212UB0416BSP



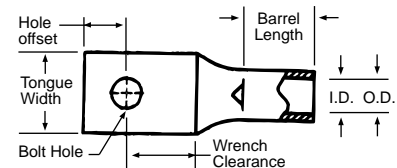
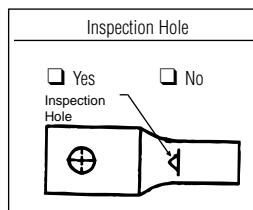
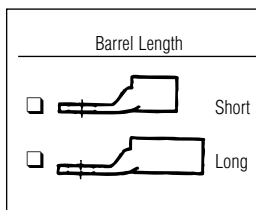
### Code Table

Tongue Shape		Bolt Holes		Bolt Hole Centers		Stacking		Finish (Plating)		Inspection Hole (Long Barrel)		Inspection Hole (Short Barrel)	
Type	Code	Size .020	Code	Distance .015	Code	Type	Code	Type 1	Code	Code	Code		
45°	UF	#8	.173 02	1/2"	08	Top	T**	Silver Plate	SP	with hole	PH	without hole	BE
90°	UB	#10	.204 03	5/8"	10	Bottom	B	Lead Plate	LP				
Blank	BT	1/4"	.281 04	3/4"	12			Nickel Plate	NP				
(No Bolt Hole)		5/16"	.344 05	7/8"	14			Plain Finish	PF				
		3/8"	.406 06	1"	16								
		1/2"	.531 08	1 1/8"	18								
		5/8"	.656 10	1 1/4"	20								
		3/4"	.812 12	1 3/8"	22								
		7/8"	.937 14	1 1/2"	24								
		1"	1.062 16	1 5/8"	26								
				1 3/4"	28								
				*1 7/8"	30								
				*2"	32								

\* These bolt centers not available for bolt holes larger than 1 3/16"

\*\* Not required for 45° & 90° Top Stacking.

Cable	Code <input type="checkbox"/>	
	Weld <input type="checkbox"/>	
<input type="checkbox"/> #8	<input type="checkbox"/> #6	<input type="checkbox"/> #4
<input type="checkbox"/> #2	<input type="checkbox"/> #1	<input type="checkbox"/> 1/0
<input type="checkbox"/> 2/0	<input type="checkbox"/> 3/0	<input type="checkbox"/> 4/0
<input type="checkbox"/> 250 MCM & up (Code Only)		



### Chart A

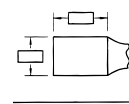
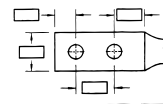
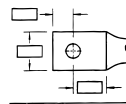
Nominal Bolt Hole Size .015	Hole Offset .030	Wrench Clearance Min.	Tongue Width/Cable Size										
			#8 Code #8 Weld	#6 Code #6 Weld	#4 Code	#2 Code #4 Weld	#1 Code #2 Weld	1/0 Code #1 Weld	2/0 Code 1/0 Weld	3/0 Code 2/0 Weld	4/0 Code 3/0 Weld	250 Code	
#8	.173	.200	.240	.406	.437	.562	.593	.672	.750	.825	.937	1.030	1.125
#10	.204	.218	.250	.406	.437	.562	.593	.672	.750	.825	.937	1.030	1.125
1/4	.281	.250	.312	.469	.500	.562	.593	.672	.750	.825	.937	1.030	1.125
5/16	.344	.375	.406	.562	.562	.562	.675	.672	.750	.825	.937	1.030	1.125
3/8	.406	.375	.440	.578	.578	.594	.675	.672	.750	.825	.937	1.030	1.125
1/2	.531	.500	.562	-	-	-	.750	.750	.750	.825	.937	1.030	1.125
5/8	.656	.812	.875	-	-	-	-	-	-	-	.937	1.030	1.125
3/4	.812	.750	.770	-	-	-	-	-	-	-	-	-	-
*7/8	.937	.875	.890	-	-	-	-	-	-	-	-	-	-
*1	1.062	.937	1.000	-	-	-	-	-	-	-	-	-	-

\* These bolt holes available in one hole lug only.

### Tongue Specifications – See Chart “A” For Dimensions

Stud Sizes

- |                               |                              |
|-------------------------------|------------------------------|
| <input type="checkbox"/> #8   | <input type="checkbox"/> 1/2 |
| <input type="checkbox"/> #10  | <input type="checkbox"/> 5/8 |
| <input type="checkbox"/> 1/4  | <input type="checkbox"/> 3/4 |
| <input type="checkbox"/> 5/16 | <input type="checkbox"/> 7/8 |
| <input type="checkbox"/> 3/8  | <input type="checkbox"/> 1   |



### Chart B

Cable Size	Tongue Thickness	Straight Lug Barrel Length Plus Transition		Barrel O.D.	Dim. “X” Stacked Lugs			Dim. “Y”		Dim. “H”	
		Short	Long		Straight	45°	90°	Short	Long	Short	Long
#8	.080	.635	.935	.260	.158	.478	.394	.595	.808	.779	1.079
#6	.081	.675	.975	.296	.134	.544	.432	.587	.799	.767	1.067
#4	.099	.685	.985	.365	.175	.622	.502	.637	.849	.838	1.138
#2	.108	.815	1.115	.410	.216	.649	.535	.711	.923	.958	1.258
#1	.106	.825	1.275	.467	.212	.731	.592	.710	1.028	.956	1.406
1/0	.125	.975	1.325	.571	.250	.789	.646	.794	1.042	1.075	1.425
2/0	.125	.965	1.315	.571	.250	.859	.696	.829	1.077	1.125	1.475
3/0	.125	1.085	1.435	.632	.250	.946	.757	.900	1.148	1.225	1.575
4/0	.137	1.255	1.705	.701	.274	1.031	.826	1.015	1.333	1.387	1.837
250	.137	1.375	1.925	.766	.274	1.123	.891	1.085	1.474	1.487	2.037
300	.153	1.900	2.675	.850	.459	1.226	.975	1.180	1.726	1.924	2.679
350	.177	2.090	2.896	.926	.531	1.333	1.103	1.267	1.830	2.096	2.896
400	.173	2.460	2.980	.960	.519	1.370	1.085	1.551	1.913	2.484	2.984
500	.218	2.670	3.610	1.100	.654	1.514	1.225	1.629	2.266	2.669	3.619
600	.244	2.900	3.490	1.200	.732	1.630	1.325	1.762	2.147	2.897	3.497
700	.228	2.784	-	1.255	.684	1.662	1.375	1.780	-	3.011	-
750	.270	3.050	3.925	1.330	.810	1.745	1.455	1.827	2.434	3.050	3.925
800	.266	3.213	-	1.375	.800	1.728	1.625	1.952	2.787	3.213	4.554
900	.313	3.450	4.550	1.500	.940	1.900	1.650	2.065	-	1.387	-
1000	.297	3.356	4.500	1.550	.890	2.070	1.675	2.031	2.787	1.487	4.506

Note: Stacking lugs are available for one bolt only.

Consult your Regional Sales Office: Straight: 700 MCM & up

45°: 400 MCM & up

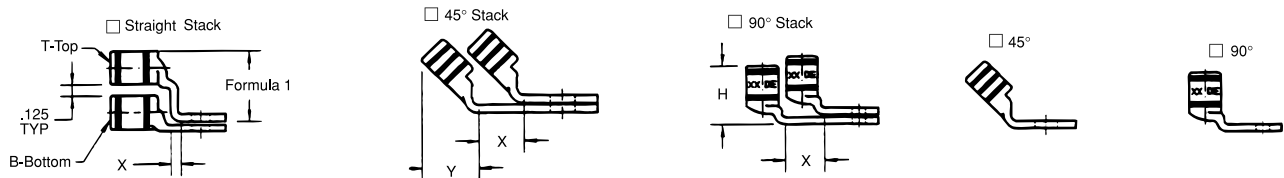
90°: 500 MCM & up

# Color-Keyed®

## Ordering Information

### Chart C

Bolt Hole Size	Tongue Width .030/Code Cable Size										
	300MCM 4/0 Weld	350 MCM	400 MCM	500 MCM 400 Weld	600 MCM 500 Weld	1325/24	700 MCM	750 MCM	800 MCM	900 MCM	1000 MCM
#8	-	-	-	-	-	-	-	-	-	-	-
#10	-	-	-	-	-	-	-	-	-	-	-
¼	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅙	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅓	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
½	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅝	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
¾	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
*⅞	-	-	-	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
*1	-	-	-	-	1.745	1.805	1.840	1.935	2.010	2.180	2.265



Formula 1 = (.125 + 2 (OD) + .037 - Tongue Thickness)

# Color-Keyed®

## Connectors for Copper Cables — Code and Flex

### One Hole Lugs — 90° Short Barrel for 600V to 35 kV Applications (continued)



Material: High Conductivity Wrought Copper  
Finish: Electro Tin Plate

Wire Size*		Cat. No.	Bolt Size G	Dimensions (in.)					Die Code	Colour Key
Code	Flex			B	C	D	E	F		
3/0	2/0 325/24	54111UB	3/8	13/16	15/16	9/64	5/8	3/8	50	Orange
4/0	3/0 450/24	54167UB	1/4	13/16	1 1/32	5/32	45/64	1/4	54	Purple
		54112UB	3/8	13/16	1 1/32	5/32	45/64	3/8	54	Purple
	4/0 550/24	58163UB	3/8	1	1 1/4	3/16	27/32	3/8	62	Yellow
		58165UB	1/2	1 1/8	1 1/4	3/16	27/32	1/2	62	Yellow
250 MCM		256-30695-1294	3/8	15/16	1 1/8	5/32	49/64	1/2	62	Yellow
		256-30695-943	3/8	2 7/32	1 1/32	3/16	49/64	3/8	62	Yellow
300 MCM		54114UB	1/2	1 1/8	1 1/4	3/16	27/32	1/2	66	White
350 MCM	650/24 262	54115UB	1/2	1 3/16	1 3/8	13/64	15/16	9/16	71	Red
	350/373 925/24	58177UB	1/2	1 5/16	1 5/8	1/4	1 3/32	6/16	80	N/A
500 MCM		256-30695-945***	1/2	2 9/16	1 5/8	1/4	1 3/32	1/2	87	Brown
		54118UB	1/2	1 5/16	1 5/8	1/4	1 3/32	9/16	87	Brown
600 MCM	1100/24	54120UB	5/8	1 11/16	1 3/4	17/64	1 3/16	13/16	94	N/A
	535 1325/24	58182UB 256-30695-840UB	5/8 1/2	1 11/16 1 11/16	1 25/32 1 25/32	9/32 9/32	1 1/4 1 1/4	13/16 13/16	99 99	Pink Pink
750 MCM		54123UB	5/8	1 11/16	1 15/16	5/16	1 21/64	13/16	106	Black
900 MCM	750 /777 1925/24	54126UB	5/8	1 13/16	2 3/16	11/32	1 1/2	7/8	115	Yellow
1000 MCM		54128UB	5/8	4 1/32	2 17/64	19/64	1 35/64	5/8	125	N/A

Can be used for 600V to 35kV applications provided proper insulation techniques are used.  
U.L. and C.S.A. listing of T&B connectors is a continual process; please call your Regional Sales Office for the latest listings.  
Many tongue sizes are available undrilled; please call your Regional Sales Office for availability.

\*Call your Regional Sales Office for sizes not listed.

\*\*\* Long barrel

For tool and die selection see pages 60-61.

