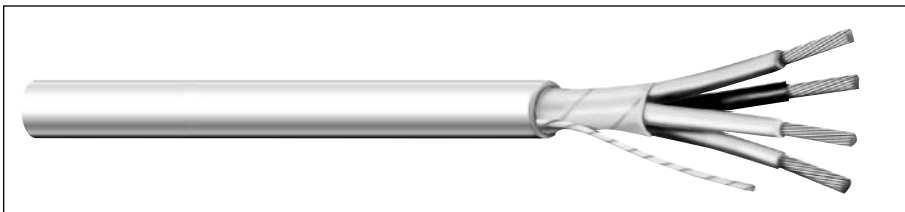


# Sound, Alarm & Security Cable



The sound and security industry in the United States has grown from a simple and unsophisticated business, begun some 45 years ago, to one which has developed technology to the degree that specialized wires and cables are now much in demand.

No longer are the security and sound industries characterized by large electromechanical relays and large contactors; today these circuits incorporate the latest in microprocessors and solid state devices to not only improve functionality but also to guarantee performance.

As a major wire producer, our role is to ensure that the wires and cables that go into these systems are as reliable as the other components ... the net result is a fully integrated system which will provide peace of mind to the system user.

Also in this section are General Cable's Carol® Brand wire and cable designs suitable for a variety of applications, both in industrial and commercial environments, including telephone systems,

intercoms, burglar alarms, business machines and thermostats.

Aside from the quality materials used in these designs, specifiers and users of Carol® Brand wire and cable products have come to expect that these cables are registered and certified with the leading regulatory agencies such as Underwriters Laboratories ... and we haven't let you down!

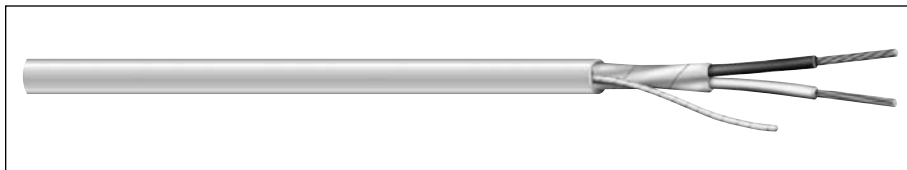
Carol® Brand designs have proven themselves in the area of sound and security over time; most are fabricated with solid or stranded, bare copper conductors with insulations and jackets of premium grades of PVC. We offer both parallel and cabled designs both with and without shields. Sequential footage markings on the jackets are offered on all products.

General Cable Carol® Brand products are conveniently packaged in 1000' or 500' lengths to assist the installer.

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# Multi-Conductor, Shielded, Riser

NEC Type CMR and/or CL3R



**Product Construction:**

**Conductor:**

- Stranded or solid bare copper per ASTM B-3, B-8 and B-286

**Insulation:**

- Premium-grade, color-coded S-R PVC
- Color Code: See chart below

**Shield:**

- Overall Flexfoil® polyester supported aluminum foil
- Stranded tinned copper drain wire

**Jacket:**

- Premium-grade, gray PVC
- Sequential footage markings to facilitate installation
- Suitable for use from -20°C to +75°C
- Includes ripcord

**Applications:**

- Power-limited control circuits
- Wiring of the following systems:
  - Intercom
  - Security
  - Audio
  - Background music
- Suggested voltage rating: 300 volts

**Compliances:**

- NEC Article 725 Type CL3R (UL: 75°C, 150V)
- NEC Article 800 Type CMR (UL: 75°C, 300V)
- RoHS Compliant Directive 2002/95/EC
- California State Fire Marshall Approved

**Packaging:**

- Please contact Customer Service for packaging and color options

CATALOG NUMBER	NO. OF COND.	AWG SIZE	COND. STRAND	NOM. INSULATION THICKNESS		NOM. JACKET WALL		NOMINAL O.D.	
				INCHES	mm	INCHES	mm	INCHES	mm
<b>22 AWG CONDUCTORS</b>									
E2000S	2	22	Solid	0.008	0.20	0.015	0.38	0.117	2.97
E2002S	2	22	7/30	0.008	0.20	0.015	0.38	0.132	3.35
E2003S	3	22	7/30	0.008	0.20	0.015	0.38	0.135	3.43
E2004S	4	22	7/30	0.008	0.20	0.015	0.38	0.147	3.73
E2006S	6	22	7/30	0.008	0.20	0.015	0.38	0.173	4.39
E2008S	8	22	7/30	0.008	0.20	0.015	0.38	0.195	4.95
E2010S	10	22	7/30	0.008	0.20	0.015	0.38	0.218	5.54
E2012S	12	22	7/30	0.010	0.25	0.015	0.38	0.238	6.05
<b>20 AWG CONDUCTORS</b>									
E2022S	2	20	7/28	0.007	0.18	0.015	0.38	0.142	3.61
E2023S	3	20	7/28	0.008	0.20	0.015	0.38	0.151	3.84
E2024S	4	20	7/28	0.007	0.18	0.015	0.38	0.171	4.34
<b>18 AWG CONDUCTORS</b>									
E2030S	2	18	Solid	0.009	0.20	0.015	0.38	0.147	3.73
E2032S	2	18	7/26	0.009	0.23	0.015	0.38	0.164	4.17
E2033S	3	18	7/26	0.009	0.23	0.015	0.38	0.172	4.37
E2034S	4	18	7/26	0.009	0.23	0.015	0.38	0.187	4.75
E2036S	6	18	7/26	0.008	0.20	0.015	0.38	0.230	5.54
E2038S	8	18	7/26	0.008	0.20	0.015	0.38	0.250	6.35
E2040S	10	18	7/26	0.008	0.20	0.015	0.38	0.287	7.29
E2041S	12	18	7/26	0.008	0.20	0.015	0.38	0.296	7.52
<b>16 AWG CONDUCTORS</b>									
E2042S	2	16	19/.0117	0.009	0.23	0.015	0.38	0.189	4.80
E2043S	3	16	19/.0117	0.009	0.23	0.015	0.38	0.198	5.03
E2044S	4	16	19/.0117	0.009	0.23	0.015	0.38	0.219	5.56
<b>14 AWG CONDUCTORS</b>									
E2052S*	2	14	19/.0147	0.013	0.33	0.015	0.38	0.245	6.22
E2054S*	4	14	19/.0147	0.013	0.33	0.015	0.38	0.269	6.83
<b>12 AWG CONDUCTORS</b>									
E2062S*	2	12	19/.0185	0.013	0.33	0.015	0.38	0.281	7.14
E2064S*	4	12	19/.0185	0.013	0.33	0.015	0.38	0.312	7.92

\* NEC CL3R only

**Color Code Chart**

NO. OF COND.	COLOR	NO. OF COND.	COLOR
1	Black	7	Orange
2	Red	8	Yellow
3	White	9	Violet
4	Green	10	Gray
5	Brown	11	Pink
6	Blue	12	Tan



# Put-Ups and Color Codes

## PUT-UP CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
03	3 ft Coax w/ Connector HD	68	3500 ft Reel
06	6 ft Coax w/ Connector HD	69	Retail Spool Pac
11	50 ft Spool	70	Cord Hanked, coil w/cuff
12	100 ft Spool	73	Cord Set, long length
13	Clamshell	74	12' Clamshell w/ connectors
15	250 ft Spool	75	25' Clamshell w/ connectors
18	500 ft Spool	76	50' Clamshell w/ connectors
20	900 ft Spool	77	100' Clamshell w/ connectors
21	1000 ft Spool	78	15,000 ft Reel
24	2500 ft Spool	79	8,000 ft Reel
25	500 ft Pull Pac	80	Blister Pack w/ connectors
26	5000 ft Spool	85	250 ft Coil
27	500 ft Pull Pac	86	500' Shrinkwrap coil
30	1000 ft Pull Pac	88	12' Sleeve w/o connector
31	1000 ft Pull Pac	89	25' Sleeve w/o connector
32	150 ft Reel	90	50' Sleeve w/o connector
33	100 ft Reel	91	75' Sleeve w/o connector
34	200 ft Coil	92	100' Sleeve w/o connector
35	250 ft Reel	93	Bulk Reel
36	300 ft Reel	94	Display
38	500 ft Reel	96	Wiring Devise, Skin Pack
39	500 Meter = 1,640 ft	99	Factory Reel
40	Long Length Reel	XX	Various Lengths
41	1000 ft Reel		
42	1500 ft Reel	A1	250 ft Spool Pack
43	2000 ft Reel	A2	500 ft Spool Pack
44	2500 ft Reel	A3	1000 ft Spool Pack
45	4000 ft Reel	A4	2000 ft Spool Pack
46	5000 ft Reel	R5	250 ft Spool, Retail
47	7500 ft Reel	R8	500 ft Spool, Retail
48	10,000 ft Reel		
49	1600 ft Reel		
50	1000 Meter (3280')		
51	4500 ft Reel		
52	3000 ft Reel		
53	25 ft Cuff		
54	12 ft Clamshell		
55	25 ft Clamshell		
56	50 ft Clamshell		
57	100 ft Clamshell		
58	12 ft Sleeve w/connectors		
59	25 ft Sleeve w/connectors		
60	Cord Hanked, coil w/cuff		
61	Cord Set Box		
62	Cord Set Bag		
63	Cord Set Sleeve		
64	50 ft Sleeve w/connectors		
65	100 ft Sleeve w/connectors		
66	50 ft Cuff		
67	100 ft Cuff		

## JACKET COLOR CODES

Put-Up Code	Packaging	Put-Up Code	Packaging
00	Uninsulated	69	Maple
01	Black	70	Walnut
02	White	71	Wrought Iron
03	Red	72	Copper
04	Orange	73	White/Black/Red
05	Yellow	74	White/Black/Orange
06	Green	75	White/Black/Yellow
07	Dark Blue	76	White/Black/Green
08	Brown	77	White/Black/Blue
09	Maroon	78	White/Black/Brown
10	Gray	79	White/Black/Violet
11	Antique Gold	80	White/Black/Gray
12	Ivory	81	Black/Red/White
13	Pink	82	Orange/Green/Black
14	Light Green	86	Natural
15	Clear Gold	88	Tan
16	Light Blue	90	Clear
17	Beige	91	Clear Brown
18	Light Brown	92	Clear Blue
19	Purple	93	Clear Red
20	Clear Silver	96	Twisted Cond. No Jkt
21	Light Purple	97	1 Stripe
22	Neon Green	98	2 Stripes
23	Mint Green	99	Assorted Colors
24	Raspberry		
25	Gold		
31	White/Black		
33	White/Red		
34	White/Orange		
35	White/Yellow		
36	White/Green		
37	White/Blue		
38	White/Brown		
39	White/Violet		
40	White/Gray		
41	Red/Green		
42	Green/White		
43	Blue/Red		
44	Blue/White		
45	Orange/Red		
46	Orange/Black		
47	Yellow/White		
48	Yellow/Black		
49	Blue/White		
50	Blue/Black		
56	Black w/White Trace		
62	Silver Gray (Lt Gray)		
66	Light Green		
67	Lime Green		
68	Birch		