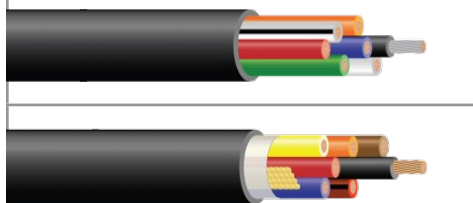
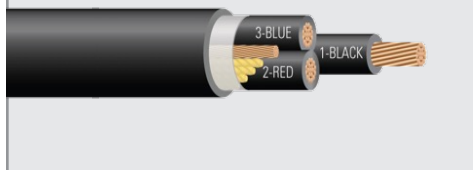
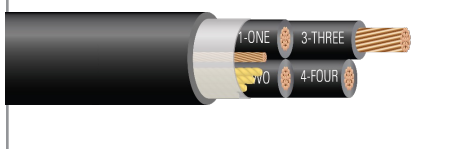


## COMMON CONDUCTOR IDENTIFICATION FOR MULTICONDUCTOR CABLES

There are several conductor identification methods for power, control, instrumentation, and thermocouple extension cables. The National Electrical Code® (NEC) has specific requirements for identifying grounded conductors reserving white and gray for this use (Article 200.6). Conductors colored green or green/yellow are to be used only for grounding conductors. Neither white nor green is to be used for ungrounded conductors. This document is a summary of conductor identification for multiconductor cables.

### ICEA S-73-532 STANDARD FOR CONTROL, THERMOCOUPLE EXTENSION, AND INSTRUMENTATION CABLES

#### Appendix E

	<p style="text-align: center;"><b>METHOD 1 (Colored Compounds with Tracers)</b></p> <p>This method uses base colors with tracers in accordance with Table E1 or E2. E1 is used for grounded systems containing both a green and white conductor. E2 is used for ungrounded systems missing the presence of both a green and white conductor.</p>
	<p style="text-align: center;"><b>METHOD 3 (Neutral or Single-Color Compounds with Surface Printing of Numbers and Color Designation or Only Color Designations)</b></p> <p>This method uses a single-color insulation or covering on all conductors, often black, with printed conductor numbers or color designations or only color designations in accordance with Table E1 or E2.</p> <p style="text-align: center;">Often utilized for multiconductor power cables 8 AWG and larger</p>
	<p style="text-align: center;"><b>METHOD 4 (Neutral or Single-Color Compounds with Surface Printing of Numbers)</b></p> <p>This method uses a single-color insulation or covering on all conductors, often black, with each conductor numbered in sequence by surface printing, beginning with the number 1.</p> <p style="text-align: center;">Often utilized for multiconductor power cables 8 AWG and larger</p>

\*ICEA S-58-679 Standard for Control, Instrumentation and Thermocouple Extension Conductor Identification contains the same information except refers to Table 1 and Table 2 instead of E1 and E2.

<b>METHOD 3</b> Neutral or Single-Color Compounds with Surface Printing of Numbers and Color Designation or Only Color Designations	
E1	E2
1 – Black	1 – Black
2 – White	2 – Red
3 – Red	3 – Blue
4 – Green	4 – Orange
5 – Orange	5 – Yellow

<b>METHOD 4</b> Neutral or Single-Color Compounds with Surface Printing of Numbers	
1 – One	
2 – Two	
3 – Three	
4 – Four	
5 – Five	

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## CONDUCTOR IDENTIFICATION FOR CONTROL CABLES | ICEA S-73-532 METHOD 1

CONDUCTOR NUMBER	E1		
	Base Color	First Tracer	Second Tracer
1	BLACK		
2	WHITE		
3	RED		
4	GREEN		
5	ORANGE		
6	BLUE		
7	WHITE	BLACK	
8	RED	BLACK	
9	GREEN	BLACK	
10	ORANGE	BLACK	
11	BLUE	BLACK	
12	BLACK	WHITE	
13	RED	WHITE	
14	GREEN	WHITE	
15	BLUE	WHITE	
16	BLACK	RED	
17	WHITE	RED	
18	ORANGE	RED	
19	BLUE	RED	
20	RED	GREEN	
21	ORANGE	GREEN	
22	BLACK	WHITE	RED
23	WHITE	BLACK	RED
24	RED	BLACK	WHITE
25	GREEN	BLACK	WHITE
26	ORANGE	BLACK	WHITE
27	BLUE	BLACK	WHITE
28	BLACK	RED	GREEN
29	WHITE	RED	GREEN
30	RED	BLACK	GREEN
31	GREEN	BLACK	ORANGE
32	ORANGE	BLACK	GREEN
33	BLUE	WHITE	ORANGE
34	BLACK	WHITE	ORANGE
35	WHITE	RED	ORANGE
36	ORANGE	WHITE	BLUE
37	WHITE	RED	BLUE
	Base Color	First Tracer	Second Tracer

E2		CONDUCTOR NUMBER
Base Color	Tracer Color	
BLACK		1
RED		2
BLUE		3
ORANGE		4
YELLOW		5
BROWN		6
RED	BLACK	7
BLUE	BLACK	8
ORANGE	BLACK	9
YELLOW	BLACK	10
BROWN	BLACK	11
BLACK	RED	12
BLUE	RED	13
ORANGE	RED	14
YELLOW	RED	15
BROWN	RED	16
BLACK	BLUE	17
RED	BLUE	18
ORANGE	BLUE	19
YELLOW	BLUE	20
BROWN	BLUE	21
BLACK	ORANGE	22
RED	ORANGE	23
BLUE	ORANGE	24
YELLOW	ORANGE	25
BROWN	ORANGE	26
BLACK	YELLOW	27
RED	YELLOW	28
BLUE	YELLOW	29
ORANGE	YELLOW	30
BROWN	YELLOW	31
BLACK	BROWN	32
RED	BROWN	33
BLUE	BROWN	34
ORANGE	BROWN	35
YELLOW	BROWN	36
		37
Base Color	Tracer Color	

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