4-11-83

MIL-C-13777/2B
15 September 1969
SUPERSEDING
MIL-C-13777/2A
1 September 1966

MILITARY SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL 6, 7, 8, 9, 10, 12, 13, AND 15 CONDUCTORS

The complete requirements for procuring the cable described herein shall consist of this document and the latest issue of Specification MIL-C-13777.

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

REQUIREMENTS:

Dimensions and configuration: See applicable figure and design data for the following cable types:

060410S	070618	080766	100660	150885
060480	070730	080840	100870	150915S
060565	070823S	080918	101091	
061530	070930	090540	120620	
061805	071090	090675	120650S	
070590	S080625	100595	130685	

In any conflict between the design data and the applicable figure, the design data shall govern.

FSC 6145

DESIGN DATA

Type Designation	060410S		060480		060565
Figure No.----------	1		2		2
Total Wires----------	6		6		6
No. of Conductors & AWG #	3/#18	3/#18S	6/#18		6/#16
Insulation					
Min average thickness----	0.012"	0.012"	0.015"		0.015"
Spark Test Voltage-------	2000	2000	3000		3000
Inspection Test Voltage--	1000	1000	1500		1500
Cabling					
Layer No. 1----------		Filler	Filler		Filler
Layer No. 2----------					
(a) Number of wires----	3	3	6		6
(b) AWG #----------	#18	#18S	#18		#16
(c) Maximum Lay--------					5.00"
Sheath					
No. of Layers----------		1	1		1
Total thickness Min------		0.056"	0.070"		0.078"
Minimum OD Cable---------		0.390"	0.460"		0.540"
Maximum OD Cable---------		0.430"	0.500"		0.590"

DESIGN DATA

Type Designation	061530		061805		070590
Figure No.----------	3		4		5
Total Wires----------	6		6		7
No. of Conductors & AWG #	4/#18	2/#0	3/#00	3/#5	7/#16
sulation					
Min average thickness----	0.015"	0.078"	0.075"	0.060"	0.020"
Spark Test Voltage-------	3000	7500	7500	3000	4000
Inspection Test Voltage--	1500	2500	5000	1500	2000
Cabling					
Layer No. 1----------			Filler		Filler
(a) Number of wires----	4	2			
(b) AWG #----------	#18	#0			
(c) Maximum Lay--------					
Layer No. 2----------					
(a) Number of wires----			6		7
(b) AWG #----------			3/#00	3/#5	#16
(c) Maximum Lay--------			12.00		
Sheath					
No. of Layers----------		2	2		1
Total thickness Min------		0.125"	0.188"		0.070"
Minimum OD Cable---------		1.480"	1.760"		0.575"
Maximum OD Cable---------		1.579	1.850"		0.605"

DESIGN DATA

Type Designation	070618		070730		070823S
Figure No.----------	5		6		7
Total Wires----------	7		7		7
No. of Conductors & AWG #	7/#18	4/#16	3/#12	3 Prs Tw & Sh 1 Single:	All #18
Insulation					
Min average thickness----	0.015"	0.015"	0.020"		0.015"
Spark Test Voltage-------	3000	3000	4000		3000
Inspection Test Voltage--	1500	1500	2000		1500
Cabling					
Layer No. 1----------	Filler		Filler		Filler
Layer No. 2----------					
(a) Number of Wires---	7	4	3	3 Prs & 1 Single	
(b) AWG #----------	#18	#16	#12		#18
(c) Maximum Lay-------	4.00"				5.00"
Sheath					
No. of Layers----------	1		2		2
Total thickness Min------	0.093"		0.098"		0.109"
Minimum OD Cable---------	0.596"		0.710"		0.798"
Maximum OD Cable---------	0.640"		0.750"		0.848"

DESIGN DATA

Type Designation	070930	071090	S080625	080766	
Figure No.----------	5	5	8	9	
Total Wires----------	7	7	8	8	
No. of Conductors & AWG #	7/#10	7/#8	8/#18	4/#16	4/#12
Insulation					
Min average thickness----	0.020"	0.025"	0.015"	0.015"	0.020"
Spark Test Voltage-------	4000	4000	3000	3000	4000
Inspection Test Voltage--	2000	2000	1500	1500	2000
Cabling					
Layer No. 1----------	Filler	Filler	Filler	Filler	
Layer No. 2----------					
(a) Number of Wires---	7	7	8	4	4
(b) AWG #----------	#10	#8	#18	#16	#12
(c) Maximum Lay-------	6.00"	8.00"	2.50"		
Sheath					
No. of Layers----------	2	2	1	1	
Total thickness Min------	0.125"	0.120"	0.070"	0.080"	
Minimum OD Cable---------	0.912"	1.070"	0.610"	0.746"	
Maximum OD Cable---------	0.948"	1.110"	0.640"	0.786"	

DESIGN DATA

Type Designation	080840	080918		090540	090675
Figure No.----------	9	10		11	11
Total Wires----------	8	8		9	9
No. of Conductors & AWG #	8 #12	4/#18	4/#9	9/#20	9/#18
Insulation					
Min average thickness----	0.020"	0.015"	0.040"	0.012"	0.015"
Spark Test Voltage-------	4000	3000	4000	3000	3000
Inspection Test Voltage--	2000	1500	2000	1500	1500
Cabling					
Layer No. 1----------	Filler	Filler		Filler	Filler
Layer No. 2----------					
(a) Number of wires----	8	4	4	9	9
(b) AWG #----------	#12	#18	#9	#20	#18
(c) Maximum Lay--------				3.5"	3.10"
Sheath					
No. of Layers----------	1	2		1	1
Total thickness Min------	0.070"	0.110"		0.063"	0.094"
Minimum OD Cable---------	0.815"	0.888"		0.525"	0.660"
Maximum OD Cable---------	0.865"	0.948"		0.555"	0.690"

DESIGN DATA

Type Designation	100595	100660	100870	
Figure No.----------	18	12	19	
Total wires----------	10	10	10	
No. of Conductors & AWG #	10/#20	10/#18	6/#16	4/#12
Insulation				
Min average thickness----	0.015"	0.015"	0.015"	0.020"
Spark Test Voltage-------	3000	3000	3000	4000
Inspection Test Voltage--	1500	1500	1500	2000
Cabling				
Layer No. 1----------				
(a) Number of wires----	2	2	2	
(b) AWG #----------	#20	#18	#16	
(c) Maximum Lay--------				
Layer No. 2----------				
(a) Number of Wires----	8	8	4	4
(b) AWG #----------	#20	#18	#16	#12
(c) Maximum Lay--------		4.00"		
Sheath				
No. of Layers----------	1	2	2	
Total thickness Min------	0.070"	0.110"	0.098"	
Minimum OD Cable---------	0.580"	0.645"	0.845"	
Maximum OD Cable---------	0.610"	0.675"	0.895"	

DESIGN DATA

Type Designation	101091		120620	120650S		130685
Figure No.----------	13		14	15		16
Total Wires----------	10		12	12		13
No. of Conductors & AWG #	6/#18	4/#9	12/#20	8/#20	4/#20S	13/#18
Insulation						
Min average thickness----	0.015"	0.040"	0.015"	0.015"		0.015"
Spark Test Voltage-------	3000	4000	3000	3000		3000
Inspection Test Voltage--	1500	2000	1500	1500		1500
Cabling						
Layer No. 1----------	Filler			Filler		Filler
(a) Number of wires----			3			
(b) AWG #----------			#20			
(c) Maximum Lay--------						
Layer No. 2----------						
(a) Number of wires----	6	4	9	4		3
(b) AWG #----------	#18	#9	#20	#20S		#18
(c) Maximum Lay--------						4.25"
Layer No. 3----------						
(a) Number of wires----				8		10
(b) AWG #----------				#20		#18
(c) Maximum Lay--------						6.00"
Sheath						
No. of Layers----------	2		1	1		1
Total thickness Min------	0.155"		0.070"	0.056"		0.090"
Minimum OD Cable---------	1.061"		0.605"	0.635"		0.670"
Maximum OD Cable---------	1.121"		0.635"	0.665"		0.700"

DESIGN DATA

Type Designation	150885		150915S		
Figure No.----------	17		17		
Total Wires----------	15		15		
No. of Conductors & AWG #	12/#18	3/#12	7/#18	5/#18S	3/#12
Insulation					
Min average thickness----	0.015"	0.020"	0.015"	0.015"	0.020"
Spark Test Voltage-------	3000	4000	3000	3000	4000
Inspection Test Voltage--	1500	2000	1500	1500	2000
Cabling					
Layer No. 1----------	Filler		Filler		
Layer No. 2----------					
(a) Number of wires----	3		3		
(b) AWG #----------	#12		#12		
(c) Maximum Lay--------	3.00"		3.00"		
Layer No. 3----------					
(a) Number of wires----	12		7	5	
(b) AWG #----------	#18		#18	#18S	
(c) Maximum Lay--------	6.00"		6.00"		
Sheath					
No. of Layers----------	2		2		
Total thickness Min------	0.125"		0.120"		
Minimum OD Cable---------	0.870"		0.900"		
Maximum OD Cable---------	0.900"		0.930"		

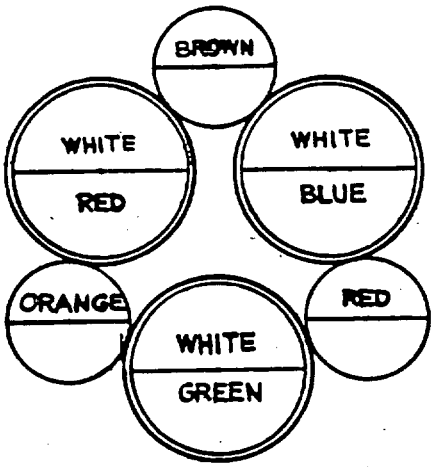
Custodians:
Army - MU
Navy - SH
Air Force - 17

Preparing activity:
Army - MU

(Project 6145-0471)

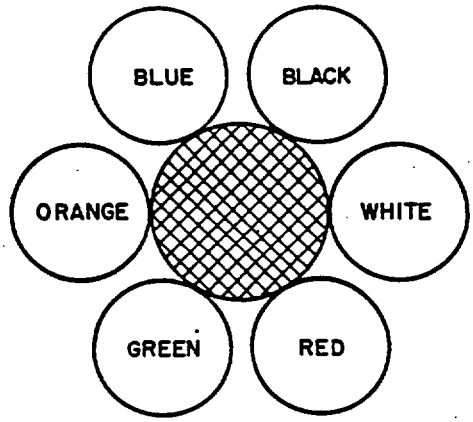
Reviewer:
Army - MI, EL, WC
Navy - SH
Air Force - 85

Users:
Army - ME, AT
Navy - MC, AS, EC
Air Force - 11



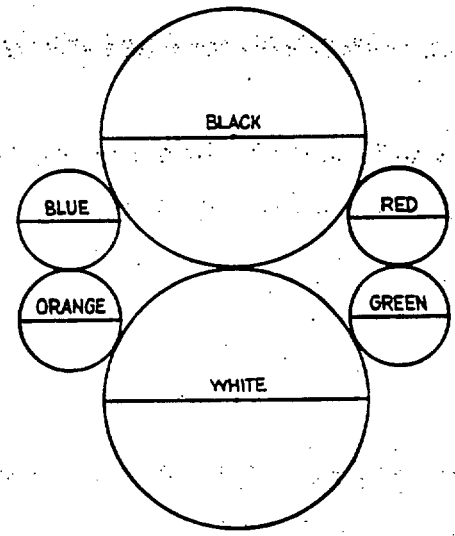
CABLE TYPE: 060410S
NOTE: DOUBLE CIRCLE INDICATE SHIELDED CONSTRUCTION

FIGURE 1



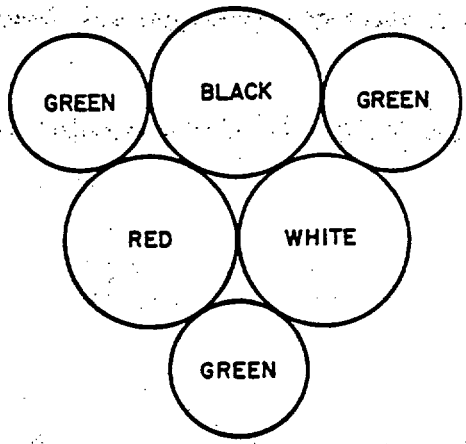
CABLE TYPES: 060480 060565

FIGURE 2



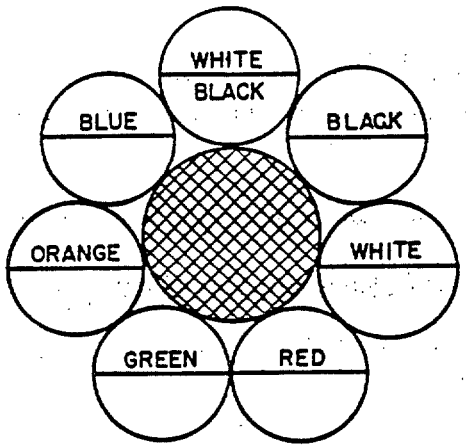
CABLE TYPE: 061530

FIGURE 3



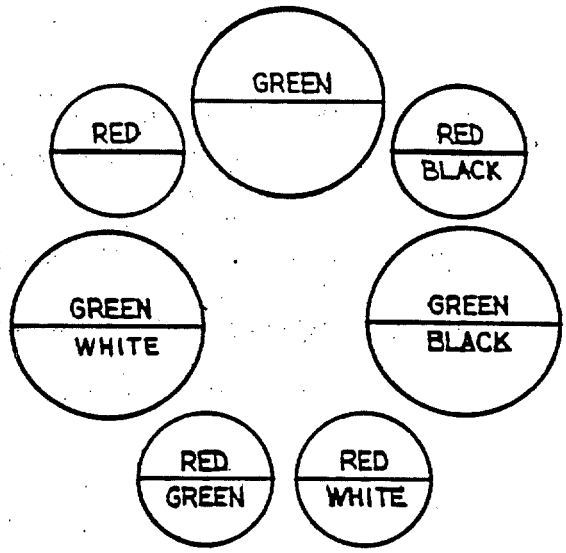
CABLE TYPE: 061805

FIGURE 4



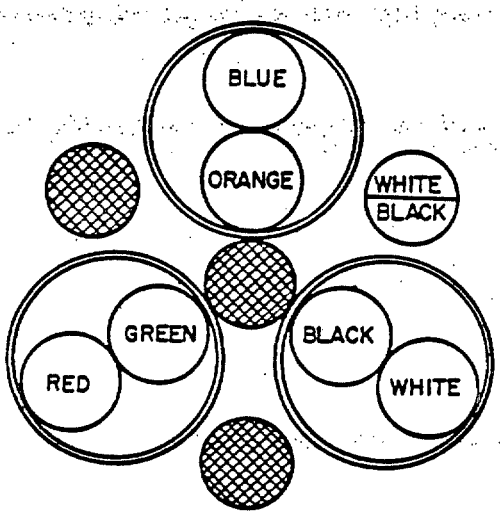
CABLE TYPES: 070590 070618
070930 071090

FIGURE 5



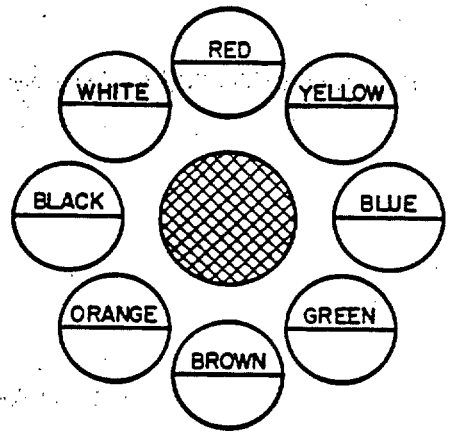
CABLE TYPE: 070730

FIGURE 6



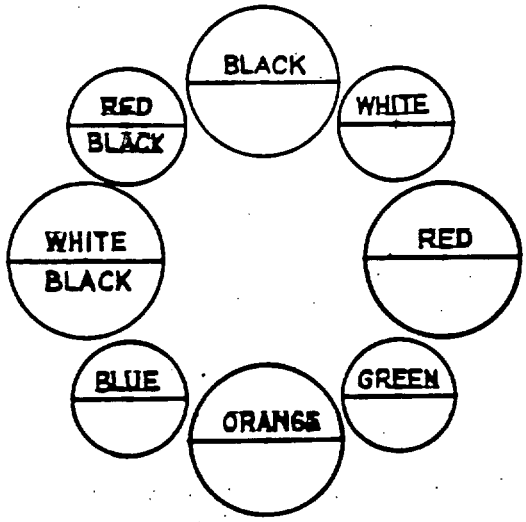
CABLE TYPE: 070823S

FIGURE 7



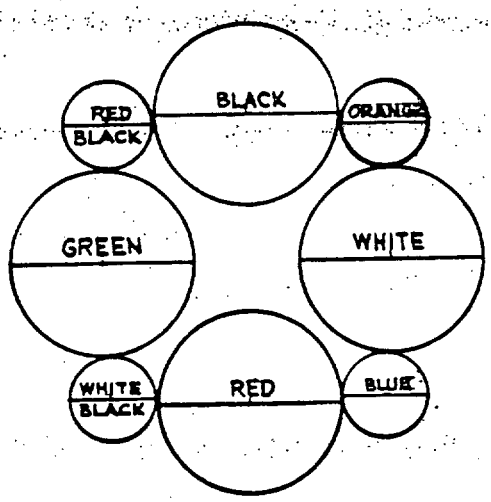
CABLE TYPE: S080625

FIGURE 8



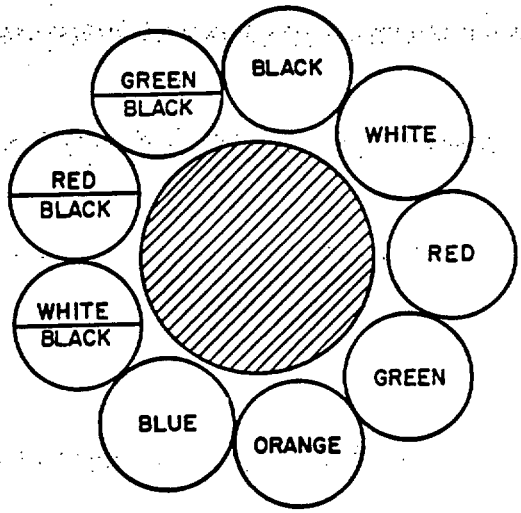
CABLE TYPES 080766 080840

FIGURE 9



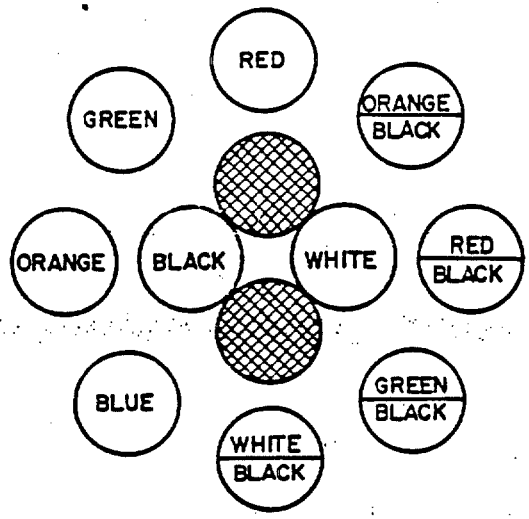
CABLE TYPE: 080918

FIGURE 10



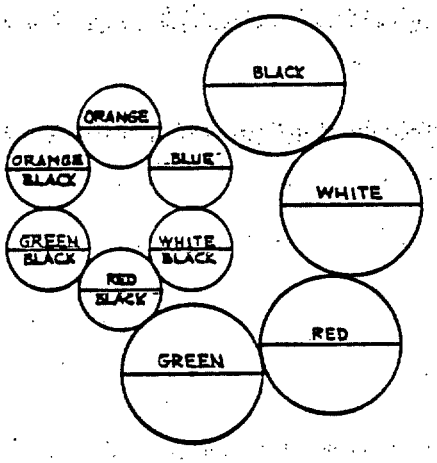
CABLE TYPES: 090540 090675

FIGURE 11



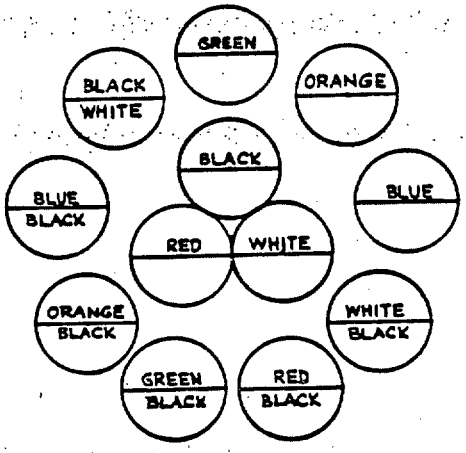
CABLE TYPES: 100660

FIGURE 12



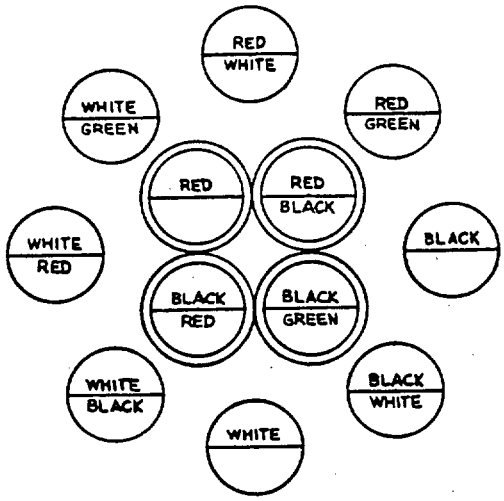
CABLE TYPE: 101091

FIGURE 13



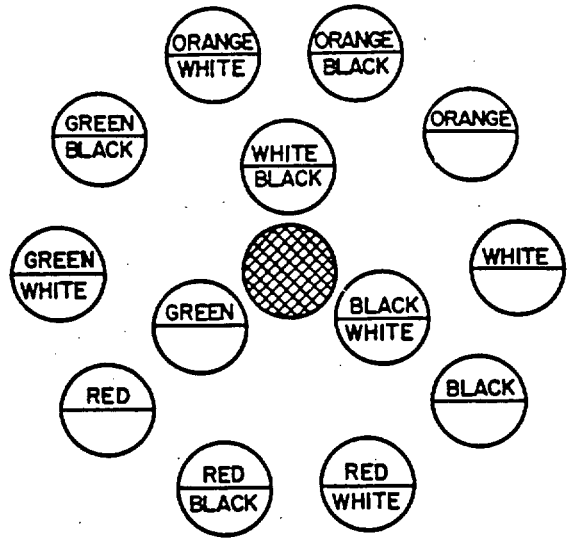
CABLE TYPE: 120620

FIGURE 14



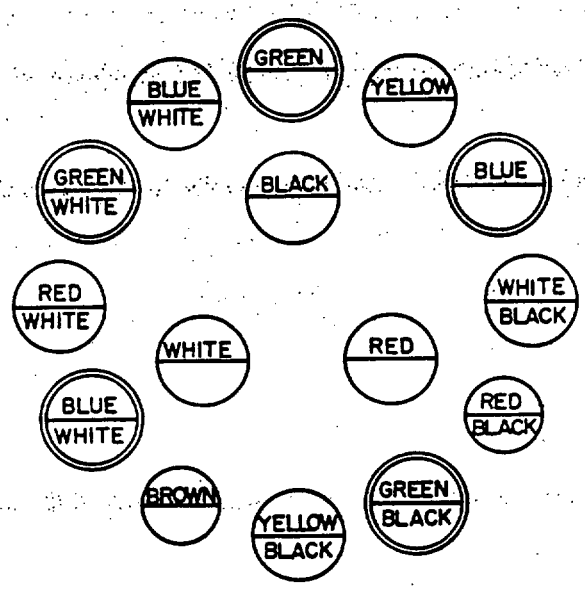
CABLE TYPE: 120650S
NOTE: DOUBLE CIRCLE INDICATES SHIELDED CONSTRUCTION

FIGURE 15



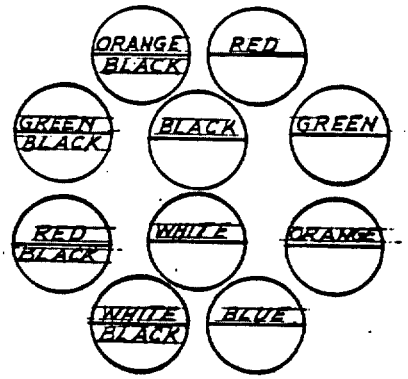
CABLE TYPE: 130685

FIGURE 16



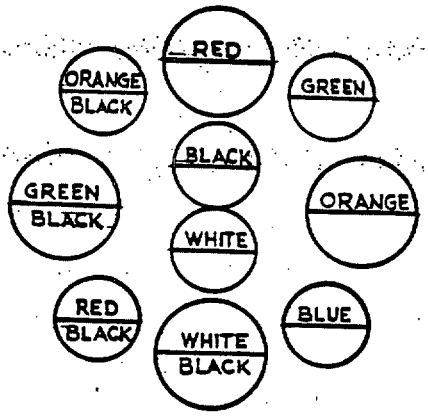
CABLE TYPES: 150885 150915S

FIGURE 17



CABLE TYPE: 100595

FIGURE 18



CABLE TYPE: 100870

FIGURE 19

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 22-R255

INSTRUCTIONS: This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.

SPECIFICATION

ORGANIZATION

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

   A. GIVE PARAGRAPH NUMBER AND WORDING.

   B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

   ☐ YES ☐ NO *(If "yes", in what way?)*

4. REMARKS *(Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)*

SUBMITTED BY *(Printed or typed name and activity - Optional)*

DATE

DD FORM 1 JAN 66 1426

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.

FOLD

Department of the Army

Frankford Arsenal
Philadelphia, Pa. 19137

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Department of the Army

Commanding Officer
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Philadelphia, Pa. 19137

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