

SHIELDED CABLES AND WIRES
 VERIFICATION ITEMS

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| <p>1. <u>GENERAL</u></p> <p>1.1 <u>Scope of Section</u></p> <p>1.11 This section contains the verification items for the equipment installed by operations covered in Sections 710 to 770 of this handbook.</p> <p>1.12 Where practible the essentials of the requirements are included in the verification item. Where this is not practicable a brief statement of the requirement appears as one or more subparagraphs of the verification item. In each case a reference is made to the complete requirement.</p> | <p>1.2 <u>Verification of Inaccessible Equipment</u></p> <p>1.21 Verification items marked "(P)" are so designated to denote that the equipment should be verified before it becomes inaccessible or before a portion of the work becomes indiscernible due to following installing operations. If a portion of the work is visible on the equipment that portion should be verified in the regular manner.</p> |
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VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS			
	REFERENCE		
	Sec.No.	Par.No.	Fig.No.
2. FORMING AND SEWING			
2.1 Forming Shielded Wires			
2.11 Split pairs formed out properly.	710	3.11 to 3.14	1
(P) 2.12 Exposed shields insulated from wires with other than braided, EDACL, Pe or Pvc insulation.	710	3.21	
2.13 Unequipped, spare, and unused wires disposed of in accordance with standard procedures for unshielded wires except at terminal strip with fanning strips where wires are enclosed in paper or fiber tube.	710	3.31	
2.2 Sewing Pe or Rubber Insulated			
2.21 Pe and rubber insulated wires protected from direct contact with twine, or taped, as required.	710	4.11 to 4.26	
3. PREPARATION OF SHIELDED WIRE FOR TERMINATION			
3.1 Location of Shield Terminations			
(P) 3.11 Shields terminated in accordance with bay cabling plan drawings.			
3.111 In general shields terminated 1-1/2 inches from terminals of apparatus except as follows:	720	3.11	
3.112 In local cables, where 1-1/2 inch dimension could not be maintained, shields terminated as close as practical to breakout point.	720	3.112	
3.113 At terminal strip with fanning strip, shields terminated just back of fanning strip.	720	3.113	
3.114 At 224 (well) type terminal strips, shields terminated just back of grommet in mounting plate.	720	3.114	
3.115 At D-type terminal strips, shields terminated just in back of terminal strip throat.	720	3.115	
3.2 Insulation of Exposed Shields and Bare Shield Ground Wire			
(P) 3.21 Exposed shields and bare shield ground wires protected from foreign grounds, apparatus terminals, other wires etc., with tape or sleeving when clearance between shield or bare wire and terminals, etc. is less than 1/8".	720	3.21 to 3.212	
4. PREPARATION OF SHIELDED CABLES FOR TERMINATION			
4.1 General			
(P) 4.11 Cables prepared for termination in accordance with terminating drawings.	730	3.11	
(P) 4.12 Cuts or scoring of coaxial cable dielectric not more than 1/64 inch in depth as gauged by eye.	730	3.31	
(P) 4.13 Outer Pvc jacket butted and stripped in standard manner for Pvc jacketed switchboard cables.	730	3.41	

VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS			
4. PREPARATION OF SHIELDED CABLES FOR TERMINATION (Cont'd)	REFERENCE		
	Sec.No.	Par.No.	Fig.No.
<u>4.2 720 Type Cables</u>			
(P) 4.21 723 cable treated in same manner as two individual 720 cables.	730	4.11	
4.22 Cables butted near back of fanning strip at terminal strips.	730	4.12	
(P) 4.23 Butts properly made, with outer rubber jacket extending beyond end of shield, and end of shield taped when not connected.	730	4.13	1,2
(P) 4.24 Skinners coated with clear protective cement.	730	4.14	
4.25 Skinner lengths, 1-1/2 inch when not otherwise indicated on drawings or when shield is not terminated in a ground connector.	730	3.21(d)	
<u>4.3 724, 727A, 728A, 730A, 731A, KS-8086, SDC-75-2S Cable</u>			
(P) 4.31 Butts properly made and shield ends taped when not connected.	730	3.51, 4.21, 4.51	3,4
(P) 5.32 Exposed rubber insulation on central conductor of KS-8086 coated with clear protective cement.	730	4.52	
<u>4.4 754-Type Cables</u>			
(P) 4.41 Butts properly made, and shield ends taped when not connected.	730	3.51, 4.31, 4.22	1,5
<u>4.5 760, 761A, 762A, 763A-Type Cables</u>			
4.51 Butts properly made, and shield ends taped when not connected.	730	3.51 4.41	1.6
<u>4.6 KS-19224-L1, L2 and KS-19414-L1 Cables</u>			
4.61 Butts properly made, and shield ends taped when not connected.	730	3.51	
<u>5. SOLDERLESS CRIMPED SHIELD CONNECTIONS</u>			
<u>5.1 Use of Crimping Tools</u>			
(P) 5.11 Die closure checked periodically before using.	740	5.22	
(P) 5.12 One crimped connection made at a time.	740	5.231	
<u>5.2 Crimped Connections</u>			
5.21 Crimped connection made with proper parts and tool.	740	4.2	2
(P) 5.22 The B bond clip squeezed to .070 or less.	740	5.12	
(P) 5.23 All shield connections on coaxial and twin-conductor office cables made with tubular parts crimped to the shield unless otherwise specified by terminating drawings.	740	6.11	5,6
(P) 5.24 All crimped connections made in accordance with terminating drawings.	740	6.211	
(P) 5.25 No loose strand of shield extends past end of inner sleeve.	740	6.2212 (b)	

VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS			
	REFERENCE		
	Sec.No.	Par.No.	Fig.No.
5. SOLDERLESS CRIMPED SHIELD CONNECTIONS (Cont'd)			
(P) 5.26 Sleeves or other crimping parts positioned correctly.	740	6.2212, (b) 6.22.4	
(P) 5.27 Connection made in proper die opening of crimping tool.	740	6.2216	
6. SPLICING			
6.1 General			
6.11 Splices in shielded cable and wire made only when authorized by drawings or job specifications.	750	3.1, 4.11	
6.2 Wires			
(P) 6.21 Splices in shielded wire properly made.	750	3.1	1
6.3 Cables			
(P) 6.31 Splices in coaxial or twin-conductor office cables made with crimped shield connection.	750	4.12	
6.32 Cables spliced in accordance with following general restrictions.			
6.321 Not more than one splice in a cable when equipment is initially installed.	750	4.211	
6.322 One additional splice permitted when circuits are later reassigned or rerouted.	750	4.212	
6.323 Splices in same cable not closer than 5 feet.	750	4.213	
6.324 Splices at least 2 feet from end of cable.	750	4.214	
6.325 Splices in adjacent cables not closer than 9 inches, center to center.	750	4.215	
6.4 219 Connector			
6.41 Refer to Section 749V of this handbook for verification of 219 Type Connectors.			

VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS			
	REFERENCE		
	Sec.No.	Par.No.	Fig.No.
7. GENERAL CONNECTING INFORMATION			
7.1 Common Requirements			
7.11 Shield Grounding			
(P) 7.111 No foreign ground on shields of shielded cables or wires.	760	3.11	
(P) 7.112 Shields, of shielded cables and wires grounded or insulated from ground, as indicated on application schematics.	760	3.11	
7.12 Running and Dressing Shield Ground Leads			
7.121 At terminal strips and fanning strips when common terminal(s) is provided for grounding the shields, ground leads from shields run along in back of fanning strip and brought through hole opposite ground terminal(s).	760	3.21	
7.122 Shield ground lead dressed same as skimmers.	760	3.22	
7.13 Soldering			
(P) 7.131 All soldering done with standard rosin-core solder, RM-546293.	760	3.31	
7.2 General Requirements			
7.21 Shielded Cables			
7.211 Lock washers properly placed under ground connectors where specified.	760	4.131	
(P) 7.212 720 type cable pairs twisted together counterclockwise approximately one twist to the inch.	760	4.151	
(P) 7.213 Rubber or Pe insulation on conductors ended approximately 1/32 inch from terminal.	760	4.152	
(P) 7.214 Insulation on skimmers of coaxial cable close enough to terminal to insure against crossing or grounding.	760	4.161	
(P) 7.215 Central wire of 724, 726, 727A, or 728A; KS-8086: RG-58/U or SDC-75-2S (RG-59/U) cable sleeved when bent on radius less than 3 inches, 1 inch and 1-3/4 inches respectively.	760	4.162	
7.22 Shielded Wires			
7.221 Pe insulation on conductors ended approximately 1/32 inch from terminal.	760	4.211	
7.222 Pe insulated leads at solder-type terminal strips protected from terminals other than at connection.	760	4.212	
7.223 Pe insulated leads at solderless wrap-types terminal strips, dressed away from terminals to which they do not connect.	760	4.213	

VERIFICATION ITEMS AND BRIEF STATEMENT OF REQUIREMENTS			
	REFERENCE		
	Sec.No.	Par.No.	Fig.No.
8. CONNECTING AT COAXIAL TYPE CONNECTORS, JACKS, PLUGS AND TERMS			
8.1 <u>General</u>			
8.11 Cables connected to apparatus in accordance with terminating drawings.	770	4.11 (a)	
8.2 <u>Soldered Shield Connections</u>			
(P) 8.21 Sleeving placed under shield when required.	770	4.211	
(P) 8.22 End of Shield Tinned.	770	4.212	
(P) 8.23 Body of split type jacks or plugs clamped during soldering operations.	770	4.222	3
(P) 8.24 Apparatus properly placed on cable to assure good connection and to prevent twisting of cable.	770	4.23, 4.231	
8.3 <u>Crimped Shield Connections</u>			
(P) 8.31 Apparatus properly placed on cable to assure good connection and to prevent twisting of cable.	770	4.343	5
(P) 8.32 Connection made using proper sleeves and crimping tool.	770	4.35	
8.4 <u>Double Coaxial Jacks</u>			
(P) 8.41 Central terminals not under tension after connecting inner cable conductors.	770	4.42	
8.5 <u>Assembly of Apparatus Bodies</u>			
(P) 8.51 No solder splashes or other foreign matter inside apparatus bodies.	770	4.61	
8.52 Jack springs properly seated inside of the sleeve.	770	4.63	
(P) 8.53 When cable is connected to 207A terminal and 210A connector, terminal held stationery while screwing down connector shell and connector shell locked in place with locking nut.	770	4.715	

Arrowed lines indicate changed or added information.

Reason for Reissue:
To add reference to Section 749V.

Manager, Engineering Transmission Products