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ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS
(By Command of the Army Council)

TELECOMMUNICATIONS
A 780

CABLE, ELECTRIC (D3 AND D8)

(Inspection of depot stock)

Errata

Note: These pages 0 and 01 will be filed immediately in front of page 1, Issue 1, dated 21 Mar 53.

1. The following amendments will be made to the Regulation.

2. Page 4, para 9(a),

(a) line 3,
Delete: '.....100,000Ω per mile.'
Insert: '..... 1,000,000Ω per mile.'

(b) line 4,
Delete: 'For U.K. use only.'
Insert: 'For U.K. and training use only.'

Distribution - Class 900. Code No 4

(c) line 6,
Delete: 'Training purposes only.'
Insert: 'To be reduced to salvage.'

(d) lines 7 and 8,
Delete the complete sentence commencing: 'On the basis of a 100% test .....'

para 9(b)

(a) line 3,
Delete: 'For U.K. use only.'
Insert: 'For U.K. and training use only.'

(b) line 5,
Delete: 'Training purposes only.'
Insert: 'To be reduced to salvage.'

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS
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TELECOMMUNICATIONS
A 780

CABLE, ELECTRIC (D3 AND D8)

Inspection of depot stocks

SUMMARY

1. Whenever large stocks of this cable are to be inspected the procedure and testing standard to be adopted is detailed in this instruction.

GENERAL

2. All the cable under examination will be tested on a 100% basis.

3. The D3 and D8 cable manufactured during the war conformed to various specifications, the type of insulation, the diameter of the wires, the ratio of copper to steel and the type of braiding being the principal variants.

4. The larger quantities of 'D' class cable in existence which conform to war emergency specifications are D3, Mk. 6 and D8, Mk. 3. A detailed list is given in Table 1 and the appropriate specifications in Table 2.

Cat. No.	Designation	Normal supply
Y3/WB 0101	Cable, electric, D3, Mk. 6, single	1 mile on Drums, cable, No. 5
Y3/WB 2253	Cable, electric, D3, Mk. 6, P.V.C.,	⅓ mile on Reels, cable, No. 1
Y3/WB 0104	Cable, electric, D3, Mk. 6, twisted	½ mile on Drums, cable, No. 5
Y3/WB 2254	Cable, electric, D3, Mk. 6, P.V.C., twisted	1/6 mile on Reels, cable, No. 1
Y3/WB 3925	Cable, electric, D3, Mk. 6, 1 mile coils, No. 1	For air dropping
Y3/WB 3926	Cable, electric, D3, Mk. 6, P.V.C., 1 mile coils, No. 1	
Y3/WB 3959	Cable, electric, D3, Mk. 6, 1 mile coils, No. 2	For air laying
Y3/WB 3960	Cable, electric, D3, Mk. 6, 2 mile coils, No. 2	
Y3/WB 3957	Cable, electric, D3, Mk. 6, P.V.C., 1 mile coils, No. 2	
Y3/WB 3958	Cable, electric, D3, Mk. 6, P.V.C., 2 mile coils, No. 2	
Y3/WB 0112	Cable, electric, D8, Mk. 3, single	2 miles on Drums, cable, No. 7
Y3/WB 3381	Cable, electric, D8, Mk. 3, P.V.C.,	1 mile on Drums, cable No. 7
Y3/WB 0114	Cable, electric, D8, Mk. 3, twisted	¼ mile on Drums, cable No. 5 150 yd. in coil
Y3/WB 3504	Cable, electric, D8, Mk. 3, P.V.C., twisted	
Y3/WB 3962	Cable, electric, D8, Mk. 3, ½ mile coils, No. 1	For air dropping
Y3/WB 3961	Cable, electric, D8, Mk. 3, P.V.C., ½ mile coils, No. 1	

Table 1 - Details of cables D3 Mk. 6 and D8 Mk. 3

Conductor	D8 cable				
	Insulation thickness in inches (min.)		Over-all diameter in inches	Resistance per single mile of cable (in ohms)	Breaking load of cable (lb.)
	Wall	Diam.			
1/0.020 in. copper + 7/0.0148 in. steel	0.032	0.114	0.136 - 0.146	106	280
1/0.024 in. copper + 7/0.0148 in. steel	0.032	0.118	0.140 - 0.150	83	280
3/0.018 in. copper + 4/0.018 in. steel	0.032	0.118	0.140 - 0.150	57	280
4/0.018 in. copper + 3/0.018 in. steel	0.032	-	- -	43	-

Conductor	D3 cable				
	Insulation thickness in inches (min.)		Over-all diameter in inches	Resistance per single mile of cable (in ohms)	Breaking load of cable (lb.)
	Wall	Diam.			
1/0.018 in. copper + 7/0.0124 in. steel	0.019	0.081	0.103 - 0.110	136	195
1/0.020 in. copper + 7/0.0124 in. steel	0.019	0.083	0.105 - 0.112	120	196
4/0.0148 in. copper+ 3/0.0148 in. steel	0.019	0.082	0.105 - 0.112	65	150
1/0.018 in. copper + 1/0.0124 in. copper 6/0.0124	0.019	-	- -	100	-

Table 2 - Specification details of various 'D' class cables

METHOD

5. The cable from the selected drums will be run-off on to empty and similar drums flexing and twisting the cable during the process. Fig. 1(a) shows the correct method of carrying this out and Fig. 1(b) the incorrect method.

CABLES, TELEPHONE, ALL TYPES

Note: This Issue 2, Pages 1 to 2 and 1001 to 1013 supersedes Issue 1, Pages 0-01, dated 25 Sep 57 and 1-4 dated 21 Mar 53, entitled 'Cable, electric (D3 and D8)'. The regulation has been revised throughout.

SUBJECT INDEX

INDEX TO TABLES

INSPECTION PROCEDURE

Summary

1. Whenever depot stocks of these cables are to be inspected, or reclaimed cable is to be classified, the test procedure and relevant standards detailed in this regulation, are to be applied.

2. The regulation is divided into Inspection Schedule and Specification Tables.

Inspection schedule

3. This details a series of tests which will be applied in their entirety, or in part, to specified telephone cables, the application being dependent upon the physical characteristics of the particular type of cable.

Specification tables

4. Each table is confined to a particular type of telephone cable, lists the specimens of that type in current use and

indicates the specification applicable to a given cable. Space is provided in each table to facilitate the addition of information concerning new cables.

INSPECTION SCHEDULE

General

5. All cables will be inspected on a 100% basis. Visual examination applicable to the entire cable length and measurement of length will be carried out during the rewinding of the cable.

Test equipment

6. Figures quoted in this schedule are based upon measurements to be made with the following test equipment:—
WY0712 Bridge, megger, No. 3, Mk 2 (or equivalent).
NIV Myria Megohmeter, Model 35A.

Specification tests

7. The following tests will be carried out in part or in full as detailed for each type of cable. The only exception to this will be Cable, electric, D10, Mk 2 in dispenser packs which are unopened and intact in every respect. In this condition they may be assumed to be serviceable.

Drums and Reels

8. All cables will be re-wound by an approved method on serviceable drums or reels, which are of the correct type for the cable and are painted olive drab, and stencilled with the catalogue number, designation and length.

Outer covering

9. The outer protective or insulative covering throughout the entire length of the cable will be clean and free from tears, holes, cuts, field joints, bumps or any other form of deterioration. Should any such imperfections be apparent at the cable ends a suitable amount may be removed providing that in so doing the cable length remains within limits.

Cable length

10. All cables will be within 3% of the designated length calculated to the nearest yard.

Couplers

11. Where cables are terminated by couplers the coupler will be complete and free from any signs of corrosion. Mating surfaces and interiors will be clean and screw threads undamaged. The cable grip will hold the cable rigidly, and when two couplers are mated, they will be a secure fit with each other. A conductor continuity test will be made to ensure that the coupler is properly connected and a positive contact is being made. Continuity of braid will be checked between coupler housings, for lengths which are terminated at both ends with couplers, and between the coupler housing and the braid lead-out wire for lengths terminated with a coupler at one end only. Construction and details of Couplers 1A for Carrier, quad, P, Mk 3 and Couplers, telephone cable, 10-pair, types A and B are detailed in Tels U 234.

Terminations (applicable where couplers are not fitted)

12. The outer sheath and all protective or insulating layers will be removed for a distance of 4 in. from the cable ends, exposing the individual insulated cores. The insulant will be removed for a distance of 1 in. from the end of each core, leaving the conductors bare.

(*a*) Each insulated core will be close wound on a cylindrical former of size detailed in the relevant table. In this condition the insulant will show no signs of cracking or fracture.

(*b*) All layers removed will be examined individually for signs of damp seepage or deterioration. This will also apply to any centres or belts on which quads are formed.

(*c*) The exposed conductors will not show signs of rust or corrosion (Cable, electric, D10, Mk 2 will have the conductors bared for approximately 2 in.).

13. Should any such imperfections be apparent at the cable ends a further length of cable may be stripped for inspection providing that in so doing the cable length remains within limits.

Conductor resistance

14. The average d.c. resistance of each cable will not exceed the limits quoted in the relevant table. For multicore cables a representative selection of ten pairs of conductors, taken from different layers and connected in series may be measured to determine the average resistance. The maximum deviation for any individual measurement may be twice the tolerance quoted. All figures detailed in the tables refer to resistance per mile loop unless otherwise stated in the column heading.

Insulation resistance

15. (*a*) The insulation resistance between each core and all remaining cores joined together (including outer metallic sheath where present) will exceed the limits quoted in the relevant table. The Myria Megohmeter should have the low side earthed and readings are to be taken after one minute electrification.

(*b*) In the case of Cable, electric, D10, Mk 2, the drums of cable will be immersed in water for three hours and then the insulation resistance will be measured between each wire and the water.

Completion of tests

16. On completion of tests the cable crutch at each en will be sealed in an approved manner to the satisfaction of the inspection authority. For single quad cables the cable crutch at each end will be sealed with Chatterton's or similar compound and where a P.V.C. or rubber sheath is present the sheath will be bound with a fine thread. The prepared ends will then be covered in adhesive tape and sealed with Chatterton's compound. Alternatively, a P.V.C. tube with one end sealed may be used. In the case of multiple quad cables the ends will be metal capped and sealed. Finally the ends of the cable will be made secure, the outside of the cable wrapped in hessian, or battened, and the date of inspection stencilled on the drum.

SPECIFICATION TABLES

17. Tables 1001 to 1020 detail all types of telephone cables in current use. In addition to specification figures referred to in the inspection schedule, endeavour has been made to include enough information to assist in the identification of cables by type and catalogue number.

Note: *The next page is Page* 1001.

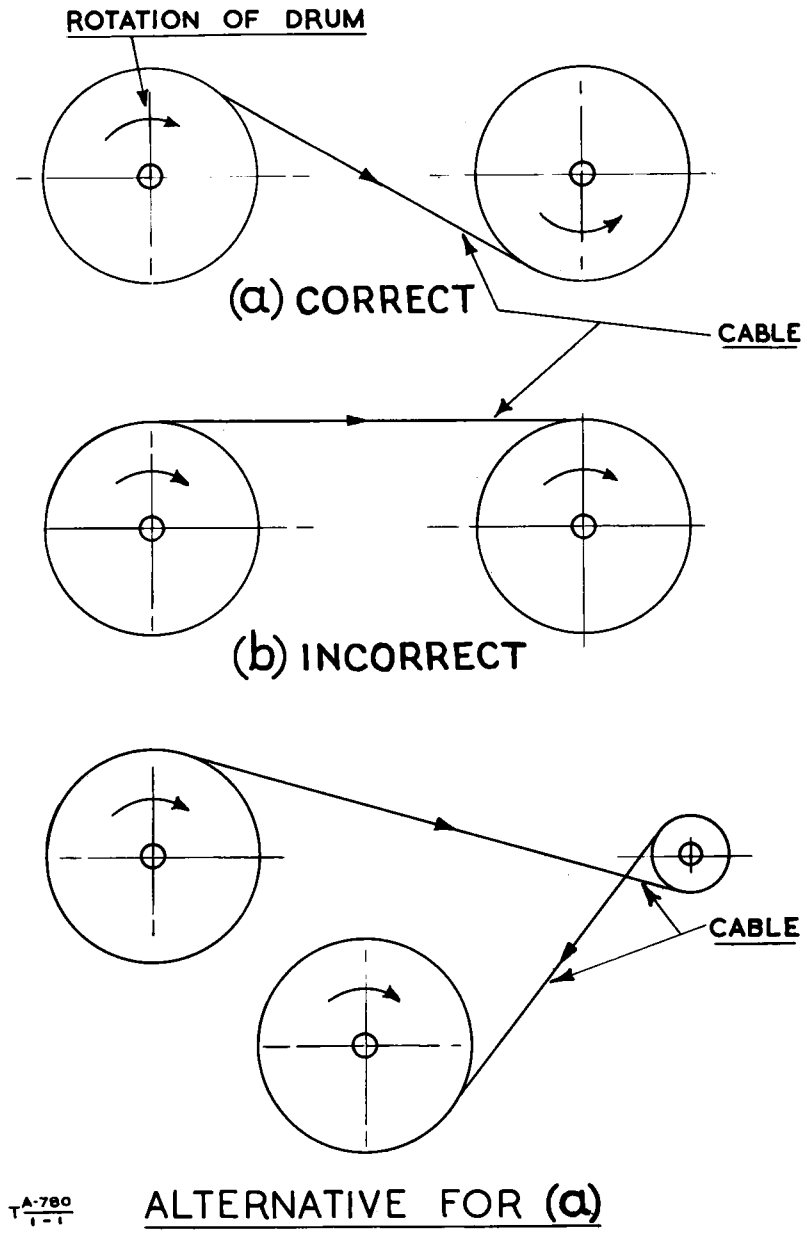

Fig 1 - Correct and incorrect method of running-off cable

6. During the rewinding, the braiding and insulation will be visually examined for any deterioration. Suitable lengths of the cable which has been exposed to light on the outside of the drum, or become rust impregnated from contact with the metal core of the drum, will be cut off and disposed of.

7. At a suitable distance near each end of the cable, the braiding will be scratched off with a knife blade and examined for rotting and perishing. The insulation will then be removed from a 6 in. length, slit down its length, and examined for perishing, cracking, splitting and elasticity.

8. (a) The cable will be immersed in water for 3 hr.

(b) An insulation test will then be applied between the cable and the water. The negative terminal of a 500V Megger will be connected to the cable and the positive terminal to the water.

(c) The handle of the Megger will be rotated for one minute and the insulation resistance noted.

(d) Care must be taken to prevent leakage across the ends of the cable and a guard wire should always be used. Suitable instruments having guard terminals are:-

(i) Testers, insulation, (500V model) No. 1
(ii) Bridge Meggers, No. 3, Mk. 2, and No. 4, Mks. 1 and 3.

9. The following standards should be adhered to in grading the cable.

(a) D3 cable

'Serviceable' : insulation resistance should not be less than AND TRAINING ~~1,000,000~~ ~~100,000~~Ω per mile.

'For U.K^ use only' : insulation resistance should not be less than 10,000Ω per mile.

TO BE REDUCED TO SALVAGE 'Training ~~purposes only~~' : insulation resistance less than 10,000Ω per mile.

~~On the basis of a 100% test, it can be expected that about 10% of the cable tested will be found to be 'Serviceable'.~~

(b) D8 cable

'Serviceable' : insulation resistance should not be less than 1MΩ AND TRAINING per mile.

'For U.K^ use only' : insulation resistance should not be less than 10,000Ω per mile.

TO BE REDUCED TO SALVAGE 'Training ~~purposes only~~' : insulation resistance less than 10,000Ω per mile.

On basis of a 100% test, it can be expected that about 50% of the cable tested will be found to be serviceable.

10. The standards laid down in this regulation take into account the fact that cable may continue in store for many more years and will still be required in good condition and are not the minimum requirement for satisfactory working.

11. Field cable (in particular D8) of far lower insulation resistance than specified will give satisfactory service, and its propagation properties will be affected only to a slight extent.

57/Maint/4316

END

Table 1001—Cable, telephone, paper core, quad, trunk

(Lead alloy sheathed with or without brass tape, double steel tape armoured and served)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, P.C.Q.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00539	8-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +3%	5/8	1·15			
Y3/YC 00548	14-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +3%	3/8	1·09			
Y3/YC 00492	14-pair/40, LY., B.T., S.T.S.	0·0500	46 +3%	5/8	1·25			
Y3/YC 00540	14-pair/20, LY., S.T.S.	0·0355	90 +3%	3/8	1·04			
Y3/WB 2094	14-pair/40, L.Y., S.T.S.	0·0500	46 +3%	5/8	1·20			
Y3/YC 00493	24-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +3%	3/8	1·22			
Y3/YC 00551	24-pair/20, L.Y., S.T.S.	0·0355	90 +3%	3/8	1·17			
Y3/YC 00541	24-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +3%	5/8	1·43			
Y3/YC 00552	24-pair/40, L.Y., S.T.S.	0·0500	46 +3%	5/8	1·38			
Y3/YC 00542	28-pair/20, L.Y., S.T.S.	0·0355	90 +3%	3/8	1·26			
Y3/YC 00491	28-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +3%	3/8	1·21			
Y3/YC 00543	28-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +3%	5/8	1·49			
Y3/YC 00544	28-pair/40, L.Y., S.T.S.	0·0500	46 +3%	5/8	1·44			
Y3/YC 00494	38-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +3%	3/8	1·36			
Y3/YC 00545	38-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +4%	5/8	1·63	15,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length.
Y3/YC 00499	38-pair/20, L.Y., S.T.S.	0·0355	90 +3%	3/8	1·31			
Y3/YC 00553	38-pair/40, L.Y., S.T.S.	0·0500	46 +4%	5/8	1·58			
Y3/YC 00495	54-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +3%	3/8	1·49			
Y3/YC 00546	54-pair/20, L.Y., S.T.S.	0·0355	90 +3%	3/8	1·44			
Y3/YC 00496	54-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +4%	5/8	1·85			
Y3/YC 00547	54-pair/40, L.Y., S.T.S.	0·0500	46 +4%	5/8	1·80			
Y3/YC 00550	74-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +4%	3/8	1·62			
Y3/YC 00554	74-pair/20, L.Y., S.T.S.	0·0355	90 +4%	3/8	1·57			
Y3/YC 00549	74-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +4%	5/8	2·04			
Y3/YC 00555	74-pair/40, L.Y., S.T.S.	0·0500	46 +4%	5/8	1·99			
Y3/YC 00497	104-pair/20, L.Y., B.T., S.T.S.	0·0355	90 +4%	3/8	1·84			
Y3/YC 00500	104-pair/20, L.Y., S.T.S.	0·0355	90 +4%	3/8	1·79			
Y3/YC 00498	104-pair/40, L.Y., B.T., S.T.S.	0·0500	46 +4%	5/8	2·29			
Y3/YC 00501	104-pair/40, L.Y., S.T.S.	0·0500	46 +4%	5/8	2·24			

Table 1001—Cable, telephone, paper core, quad, trunk—*continued*

(Lead alloy sheathed with or without brass tape, double steel tape armoured and served)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, P.C.Q.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				

Table 1002—Cable, telephone, paper core, quad, local

(Lead sheathed, with or without protection or armouring)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, P.C.Q.L.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 01115	6-pair/40	0·0500	46 +3%	$\frac{5}{8}$	0·54	5,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length.
Y3/YC 02006	8-pair/40	0·0500	46 +3%	$\frac{5}{8}$	0·60			
Y3/YC 00737	14-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·57			
Y3/WB 3275	14-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	0·77			
Y3/YC 00738	14-pair/40	0·0500	46 +3%	$\frac{5}{8}$	0·72			
Y3/WB 2763	14-pair/40, protected	0·0500	46 +3%	$\frac{5}{8}$	0·92			
Y3/WB 2618	14-pair/40, armoured	0·0500	46 +3%	$\frac{5}{8}$	1·22			
Y3/WB 2181	20-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·51			
Y3/YC 01118	20-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·66			
Y3/WB 3980	28-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·55			
Y3/YC 00739	28-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·72			
Y3/YC 00586	28-pair/20, armoured	0·0355	88 +3%	$\frac{3}{8}$	1·22			
Y3/WB 3276	28-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	0·92			
Y3/YC 01116	28-pair/40	0·0500	46 +3%	$\frac{5}{8}$	0·94			
Y3/WB 4019	38-pair/6½	0·0200	280 +3%	$\frac{1}{4}$	0·55			
Y3/YC 01860	38-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	1·00			
Y3/YC 01117	38-pair/40	0·0500	46 +3%	$\frac{5}{8}$	1·07			
Y3/YC 02047	54-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·93			
Y3/YC 00613	54-pair/20, armoured	0·0355	88 +3%	$\frac{3}{8}$	1·43			
Y3/WB 3277	54-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	1·13			
Y3/WB 4066	100-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·91			
Y3/WB 4020	200-pair/6½	0·0200	280 +3%	$\frac{1}{4}$	1·05			

Table 1003—Cable, paper core, quad, trunk

(Lead sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, P.C.Q.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 01814	28-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·75	15,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length
Y3/YC 01119	28-pair/40	0·0500	44 +3%	$\frac{5}{8}$	0·97	15,000		
Y3/YC 01120	38-pair/40	0·0500	44 +3%	$\frac{5}{8}$	1·10	15,000		
Y3/YC 01121	54-pair/40	0·0500	44 +3%	$\frac{5}{8}$	1·28	15,000		

Table 1004—Cable, paper core, quad, local, aerial type

(Lead alloy sheathed, with or without double steel tape armour)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, P.C.Q.L.A.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00724	14-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·57	5,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length
Y3/YC 00749	28-pair/6½	0·0200	280 +3%	$\frac{1}{4}$	0·49			
Y3/YC 00723	28-pair/10	0·0250	178 +3%	$\frac{1}{4}$	0·55			
Y3/WB 2185	28-pair/20, armoured	0·0355	88 +3%	$\frac{3}{8}$	1·22			
Y3/WB 2184	28-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·72			
Y3/WB 2747	38-pair/10	0·0250	178 +3%	$\frac{1}{4}$	0·62			
Y3/WB 2746	54-pair/10	0·0250	178 +3%	$\frac{1}{4}$	0·71			
Y3/YC 01859	20-pair/10	0·0250	178 +3%	$\frac{1}{4}$	0·51			

Table 1005—Cable, paper core, twin distribution

(Lead/lead alloy sheathed, with and without protection)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, P.C.,T.D.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00740	1-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·23	5,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length
Y3/YC 00664	1-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	0·43			
Y3/YC 00635	2-pair/10, protected	0·0250	176 +3%	$\frac{1}{4}$	0·44			
Y3/YC 01658	2-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·30			
Y3/WB 2198	4-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·30			
Y3/YC 00741	4-pair/10, protected	0·0250	176 +3%	$\frac{1}{4}$	0·50			
Y3/YC 01675	4-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·39			
Y3/YC 00742	4-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	0·59			
Y3/WB 2199	7-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·37			
Y3/YC 00663	7-pair/10, protected	0·0250	176 +3%	$\frac{1}{4}$	0·57			
Y3/YC 00743	7-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·47			
Y3/WB 3227	7-pair/20, protected	0·0355	88 +3%	$\frac{3}{8}$	0·67			
Y3/WB 2183	10-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·42			
Y3/YC 00744	10-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·53			
Y3/WB 2200	15-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·48			
Y3/YC 01858	15-pair/10, protected	0·0250	176 +3%	$\frac{1}{4}$	0·68			
Y3/WB 2201	15-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·62			
	Cable, telephone, P.C.,T.D.,A,							
Y3/YC 01857	10-pair/10	0·0250	176 +3%	$\frac{1}{4}$	0·48	5,000	*	Lead alloy sheathed

Table 1006—Cable, telephone, I.P.C.T.

(Impregnated paper core, twin, armoured, with or without brass tape)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, I.P.C.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00537 Y3/YC 00510 Y3/YC 00485 Y3/YC 00487 Y3/YC 00486 Y3/YC 00488 Y3/YC 00534 Y3/YC 00489	10-pair/40, L.Y., B.T., S.T.S. 10-pair/40, L.Y., S.T.S. 15-pair/40, L.Y., B.T., S.T.S. 15-pair/40, L.Y., S.T.S. 25-pair/40, L.Y., B.T., S.T.S. 25-pair/40, L.Y., S.T.S. 50-pair/40, L.Y., B.T., S.T.S. 50-pair/40, L.Y., S.T.S.	0·0500	44 −3%	$\frac{5}{8}$		200	*	* These cables are normally supplied on contractor's drums, size being dependent on length

Table 1007—Cable, telephone, P.C.T.

(Dry paper core, twin, lead covered and armoured, with and without brass tape)

Catologue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, P.C.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00565 Y3/YC 00502 Y3/YC 00506 Y3/YC 00503 Y3/YC 00563 Y3/YC 00504 Y3/YC 00564 Y3/YC 00562 Y3/YC 00602	4-pair/40, L.Y., S.T.S. 10-pair/40, L.Y., B.T., S.T.S. 10-pair/40, L.Y., S.T.S. 15-pair/40, L.Y., B.T., S.T.S. 15-pair/40, L.Y., S.T.S. 25-pair/40, L.Y., B.T., S.T.S. 25-pair/40, L.Y., S.T.S. 50-pair/40, L.Y., B.T., S.T.S. 50-pair/40, L.Y., S.T.S.	0·0500	46 +3%	$\frac{5}{8}$		5,000	*	* These cables are normally supplied on contractor's drums, size being dependent on length

Table 1008—Cable, telephone, 'O' class, 4-core and 5-pair (screened or unscreened)

(V.R. insulated, T.R. sheathed, brass taped, braided and compounded cores, screened when specified)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, 'O',	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00484 Y3/YC 00625 Y3/YC 00581	2-pair/40, B.T., unscreened 5-pair/40, B.T., screened 5-pair/40, B.T., unscreened	0·0500	46 +3%	$\frac{5}{8}$	—	1,200	*	*Drum size according to length

Table 1009—Cable, P.V.C., No 1

(P.V.C. insulated and sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, P.V.C., No 1,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 02357	2-Wire/$6\frac{1}{2}$	0·020	280 +3%	$\frac{1}{4}$	0·16	50	*	* May be supplied in coils, reels or drums
Y3/YC 01807	3-Wire/$9\frac{1}{4}$	0·024	200 +3%	$\frac{3}{8}$	0·18			
Y3/YC 01568	4-Wire/$9\frac{1}{4}$	0·024	200 +3%	$\frac{3}{8}$	0·19			
Y3/YC 01163	8-Wire/$9\frac{1}{4}$	0·024	200 +3%	$\frac{3}{8}$	0·27			
Y3/YC 02226	21-Wire/$6\frac{1}{2}$	0·020	280 +3%	$\frac{1}{4}$	0·39			
Y3/YC 02240	24-Wire/$6\frac{1}{2}$	0·020	280 +3%	$\frac{1}{4}$	0·45			
Y3/YC 02225	41-Wire/$6\frac{1}{2}$	0·020	280 +3%	$\frac{1}{4}$	0·49			

Table 1010—Cable, telephone, trunk, lightweight

(Aluminium conductors, polythene insulated, polythene sheathed, brass or aluminium taped, P.V.C. sheathed overall)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, trunk, lightweight,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00266	14-pair/0·064, AL, AL. taped, P.V.C. sheathed	0·064	46 +3%	—	1·14	15,000	No 27	
Y3/YC 01267	14-pair/0·064, AL, B.T., P.V.C. sheathed	0·064	46 +3%	—	1·14	15,000	No 27	
Y3/YC 01269	28-pair/0·064, AL, AL taped, P.V.C. sheathed	0·064	46 +3%	—	1·53	15,000	No 28	
Y3/YC 01268	28-pair/0·064, AL, B.T., P.V.C. sheathed	0·064	46 +3%	—	1·53	15,000	No 28	

Table 1011—Cable, polythene

(Polythene insulated, polythene sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, polythene,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 02023	4-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·37	10,000		
Y3/YC 01585	7-pair/20	0·0355	88 +3%	$\frac{3}{8}$	0·43	10,000		

Table 1012—Cable, telephone, plastic

(Plastic insulated and sheathed, unarmoured and armoured)

Catalogue number	*Desingation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/1000 yd)*	*Drum*	*Remarks*
	Cable, telephone, plastic insulated and sheathed,	*Diameter (in.)*	*Average resistance (Ω/1000yd)*	*Mandrel size (in.)*				
Y3/6145-99-942-9831	2-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·32	10,000		
Y3/6145-99-942-9832	5-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·51	10,000		
Y3/6145-99-942-9833	7-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·56	10,000		
Y3/6145-99-942-9834	10-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·72	10,000		
Y3/6145-99-942-9835	15-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·79	10,000		
	Cable, telephone, plastic insulated, sheathed and armoured,							
Y3/6145-99-942-9836	2-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·49	10,000		
Y3/6145-99-942-9837	5-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·71	10,000		
Y3/6145-99-942-9838	7-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·75	10,000		
Y3/6145-99-942-9839	10-pair/20	0·036	26 +3%	$\frac{3}{8}$	0·98	10,000		
Y3/6145-99-942-9840	15-pair/20	0·036	26 +3%	$\frac{3}{8}$	1·05	10,000		

Table 1013—Cable, telephone, submarine, I.P.C.T.

(Impregnated paper core, lead sheathed, brass or rubber taped, wire armoured)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, submarine, I.P.C.T.,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 00571 Y3/YC 00572 Y3/YC 00573 Y3/YC 00574	10-pair/40, L.Y., B.T., S.W.S. 15-pair/40, L.Y., B.T., S.W.S. 20-pair/40, L.Y., B.T., S.W.S. 25-pair/40, L.Y., B.T., S.W.S.	0·05	44 +3%	$\frac{5}{8}$		200		

Table 1014—Cable, telephone, submarine, I.P.C.Q.

(Impregnated paper core, lead alloy sheathed, brass tape or rubber covered, single wire armoured)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/nautical mile)*	*Drum*	*Remarks*
	Cable, telephone, submarine, I.P.C.Q.,	*Diameter (in.)*	*Average resistance (Ω/nautical mile*	*Mandrel size (in.)*				
Y3/YC 00570	28-pair/40, L.Y., B.T., S.W.S.	0·05	26 +3%	$\frac{5}{8}$		250		

Table 1015—Cable, telephone, 2-conductor, D10, Mk 2, twisted

(Copper and steel conductors, polythene insulated, nylon sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, 2-conductor	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/6145-99-901-0199	D10, Mk 2, twisted	4/0·0116 (copper) 3/0·0116 (steel)	200 +3%	¼		2,000	5 or 7	Two insulated and sheathed conductors twisted together with a uniform right-hand lay of approximately 5 in.
Y3/6145-99-942-6314	*Cable, electric,* D10, Mk 2, twisted, ½ mile dispenser coil		200 +3%	¼		2,000		

Table 1016—Cable, telephone, 10-pair

(0·032, H.D. copper, polythene insulated, P.C.P. sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 01988	10-pair/0·032, H.D. copper, polythene insulated, P.C.P., sheathed	0·032	115 +3%	⅜	0·535	15,000	No. 29	P.C.P.=Polychloropene (Neoprene)

Table 1017—Cable, electric, carrier, quad

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, electric, carrier, quad,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/WB 2188	P, Mk 1	7/0·018	52 +3%	$\frac{3}{8}$	0·420	10,000	No 7	Polythene insulated, polythene belt, metallised paper tape, tinned steel braid, P.V.C. sheath
Y3/WB 3424	P, Mk 2	6/0·020	50 +3%	$\frac{3}{8}$	0·420	10,000	No 7	Polythene insulated, polythene belt, metallised paper tape, P.V.C. sheath

Table 1018—Cable, telephone, carrier, quad, P, Mk 3

(Polythene insulated, polythene belt, carbon tape, stainless steel wire braid, P.V.C. sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone, carrier, quad,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/6145-99-942-8638	P, Mk 3	7/0·0136	87 +4%	$\frac{3}{8}$	0·36	1,000	No 22 Mk 2	
Y3/YC 01788	P, Mk 3 (w/2 couplers) 440 yd	7/0·0136	87 +4%	$\frac{3}{8}$	0·36	50	—	On cables fitted with couplers the insulation resistance will be measured between each pole and the remaining poles connected to the coupler shell.
Y3/YC 01789	P, Mk 3 (w/2 couplers) 2 yd	7/0·0136	87 +4%	$\frac{3}{8}$	0·36	50		
Y3/YC 01791	P, Mk 3 (w/1 coupler) 10 ft	7/0·0136	87 +4%	$\frac{3}{8}$	0·36	50		

Table 1019—Cable, telephone, lightweight, quad

(Polythene insulated, polythene belt, P.V.C. sheathed)

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/mile)*	*Drum*	*Remarks*
	Cable, telephone,	*Diameter (in.)*	*Average resistance (Ω)*	*Mandrel size (in.)*				
Y3/YC 01981	Lightweight, quad	4/0·0116 copper 3/0·0116 steel	200 +3%	$\frac{3}{8}$	0·255	2,000	No 23 No 22 Mk 2	($\frac{1}{4}$ mile) ($\frac{1}{2}$ mile)

Table 1020—Cable, electric, field, quad

Catalogue number	*Designation*	*Conductors*			*Overall diameter (in.)*	*Insulation resistance (MΩ/1000 yd.)*	*Drum*	*Remarks*
	Cable, electric, field, quad,	*Diameter (in.)*	*Average resistance (Ω/1000 yd)*	*Mandrel size (in.)*				
Y3/WB 1543	Mk 1	4/0·018 tinned copper 3/0·018 galv. steel	25 +3%	$\frac{3}{8}$	0·390	500	No 7	
Y3/WB 3478	Mk 2	6/0·018 H.D. copper 1/0·018 galv. steel	18 +3%	$\frac{3}{8}$	0·390	500	No 7	

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END