

ISO:9001-2015	Document no.: TCQ-0160	Version: 1.2	Date of Effective: 23.01.2024	Reference Specification : IRS TC 75-99 Amd. 4 & IRS:TC-78/2020 Ver. 1.1
Document Title:	STR For 4 Wire/2 wire Portable Control Telephone & Light Weight Portable Control Telephone			

GOVERNMENT OF INDIA

MINISTRY OF RAILWAYS



TCQ-0160

Schedule of Technical Requirement (STR) for

4 Wire /2 Wire Portable Control Telephone & Light weight Portable Control Telephone

ISSUED BY

SIGNAL & TELECOM DIRECTORATE
RESEARCH DESIGNS & STANDARD ORGANISATION
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DOCUMENT CONTROL SHEET

Name	Organisation	Function	Level
SSE/Telecom	RDSO	Member	Assist/Prepare
ADE/Telecom	RDSO	Member	Assist/Prepare, Check
Director/Telecom-II	RDSO	Member Secretary	Prepare, Issue
PED/S&T	RDSO	Approving Authority	Approve

Revision History

S.N.	Amendment Date	Version	Reason for Amendment
1.	01.12.2014	Revision 1	First Issue with No. TCQ-0033 for 8 Telecom Items
2.	27.05.2021	Version 1.1	STR TCQ-0033 reviewed to make separate STR for similar Items. This STR for 2 items framed with No. TCQ-0160 Version 1.1
3.	23.01.2024	Version 1.2	Typographical Error in Para I & Para II are corrected.

1. Scope:

The Schedule of Technical Requirement covers machinery & plant, testing & measuring equipment's and quality assurance plan required for manufacturing and testing of following items as per RDSO specifications;

S. N.	Description of Item	Specification
1.	4 wire /2 Wire Portable Control Telephone	IRS TC 75-99 Amendment 4
2.	Light weight Portable Control Telephone (4-Wire/2-Wire)	IRS:TC-78/2020 Version: 1.1

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I. ESSENTIAL MACHINERY AND PLANTS REQUIRED FOR PRODUCTION

S.N.	Description	Qty. Required	Qty. Available	Model	Make	Machine No.	Year of Built	Range / Capacity	Date of calibration	Due date of calbration
1.	Drilling Machine									
2.	Grinding Machine									
3.	Vices									
4.	Electric Blower									
5.	The PCB Assembly jigs									
6.	Coil Winding Machine									
7.	Shearing Machine									
8.	Bending Machine									
9.	Spray Painting Machine									
10.	Hacksaw Machine									
11.	Baking Oven									
12.	Vacuum impregnation plant									
13.	Temperature controlled soldering iron									
14.	Regulated Power Supply									
15.	Test Jigs									
16.	Threading machine /tool									
17.	Hand press									

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II. Essential Measuring/Testing Equipment for Quality Control:

S.N.	Description	Qty. Required	Qty. Available	Model	Make	Machine No.	Year of Built	Range / Capacity	Date of calibration	Due date of calibration
1.	High Voltage Tester 2KV/AC RMS									
2.	Megger or Insulation Resistance Tester 500V									
3.	Digital Level Meter / Digital Multi Meter with Digital level meter facility									
4.	Oscilloscope 10 MHz or better									
5.	Digital Multi Meter 3 1/2 digit									
6.	Harmonic Distortion Meter									
7.	Decade Step Attenuator or Variable Attenuator									
8.	Terminating Load Resistances of different values such as 100, 150, 200, 300,470, 600 ohms & 1120 ohms etc. with tolerances of 1%									
9.	LCR Bridge and Meters									
10.	Digital IC Tester									
11.	Signal Generator or Audio Oscillator									
12.	Vernier calipers, Scale, Micro meter, Filter Guages, Thermometer etc.									

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III. Process flow chart for manufacturing of Telephone covered under this STR;

