

NUMERICAL INDEX — DIVISION 104

RADIO TEST EQUIPMENT

1. GENERAL

1.01 This section provides an index of System-issued sections in Division 104.

1.02 This section reverted to Issue 1 in April 1982. Prior to that date there had been 99 issues of the section.

1.03 A bullet (●) indicates an item that has been added or changed since the previous issue of the index.

1.04 A square (□) indicates a canceled item. Information relating to the cancellation, if necessary, will be shown in a note following the item. Canceled items and related notes will be deleted upon reissue of the index.

1.05 A club (♣) indicates a section that refers to a manufacturer's manual — providing a number for filing purposes and instructions for ordering the manual.

1.06 A heart (♥) indicates a new or reissued item which, because of its limited need, will not be distributed on standing order except through coded distribution. Additional copies may be obtained by placing regular (one-time) orders.

1.07 A spade (♠) indicates an item not on microfiche. This index indicates the latest issue for hard-copy BSPs. In some cases, the microfiche BSP will reflect the next higher issue as a result of the reduced distribution interval.

1.08 "Add" is the abbreviation for Addendum.

2. LAYERS

2.01 This division is arranged in layers as follows:

- 104-0 Indexes and Equipment Test Lists
 - 1 Signal Generators, Oscillators, Oscilloscopes, and Meters
 - 2 Attenuators, Detectors, Impedance Matching Devices and Nonmicrowave Test Sets
 - 3 FM Terminal, Visual Delay, and Protection Switching Test Sets
 - 4 Microwave Test Bays, Sets, and Benches
 - 5 Single-Sideband Microwave Radio Test Equipment

3. INDEX

Note: References to a specific radio system or systems (as TL or TJI) are for information only. Such designations do not appear on the practices themselves, and do not preclude the use of the test equipment for other than the indicated system. Remember that usages may change as test equipment originally designed for one system is found to be useful in testing another.

Section Number	Issue	Subject
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104-0 INDEXES AND EQUIPMENT TEST LISTS

- ♠ 104-000-000 2 Numerical Index — Division 104 — Radio Test Equipment
- 104-001-011 7 ETL

Section Number	Issue	Subject
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104-1 SIGNAL GENERATORS, OSCILLATORS, OSCILLOSCOPES, AND METERS

104-100) Signal Generators

104-103)

104-100 KS-5782 L1 Signal Generator (TD-2)

104-100-100 2 Description

104-100-300 2 Operation

104-100-500 2 Tests

104-101 General Radio 605-B Signal Generator

104-101-100 1 Description

♥ 104-101-300 1 Operation

♥ 104-101-500 1 Tests

104-102 62A Signal Generator

104-102-100 1 Description

104-102-300 1 Operation

104-102-500 1 Tests

104-103 63A Signal Generator

104-103-100 1 Description

104-103-300 1 Operation

104-103-500 1 Tests

104-104 70-MHz Noise Generator, J99382G

104-104-000 1 Description, Operation, and Maintenance

104-110) Oscillators

104-112)

104-110 291A Test Oscillator

104-110-100 2 Description

104-110-500 2 Tests

104-111 KS-10361 Two-Tone Oscillator

104-111-100 2 Description

104-111-500 1 Tests

104-112 33A Oscillator

104-112-000 2 Description, Operation and Maintenance

NOTICE

Not for use or disclosure outside the
 Bell System except under written agreement

SECTION 104-000-000

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104-120) Oscilloscopes		
104-121)		
104-120 DuMont 2567 Cathode Ray Oscillograph (TD-2)		
104-120-000	1	Description, Operation and Maintenance
104-121 KS-15586 Oscilloscope (TD-2)		
♣ 104-121-000	2	Description, Operation and Maintenance
104-130) Meters		
104-142)		
104-130 Link 2051 Frequency Meter		
104-130-100	1	Description
104-130-300	1	Operation
104-130-500	1	Tests
104-131 Budelman Type 17 Frequency Meter		
104-131-100	2	Description
Add 104-131-300	1	
104-131-300	2	Operation
104-131-330	2	Periodic Intervals
104-131-500	2	Maintenance
104-132 Measurements Corp. Model 59 UHF Frequency Meter		
♣ 104-132-000	1	Description, Operation and Maintenance
104-133 GE ST-13A-WE Frequency Meter		
104-133-100	2	Description
104-133-300	1	Operation
104-133-500	1	Tests
104-134 Jones Micromatch, Models 711N & 711N2		
104-134-000	2	Description, Operation and Maintenance
104-135 71A Frequency-Power Meter (TE)		
104-135-100	1	Description
104-135-300	1	Operation
104-135-500	1	Tests
104-136 J68404D Broadband and Auxiliary Radio Channel Metering Test Set (TH)		
104-136-000	1	Description and Maintenance
104-137 J68404E Heater Supply Test Set (TH)		
104-137-000	1	Description and Maintenance
104-138 J68404F TWT Cathode Activity Test Set (TH)		
104-138-000	1	Description and Maintenance

Section Number	Issue	Subject
104-139 J68404T FM Terminal Metering Test Sets (TH)		
104-139-000	1	Description and Maintenance
104-140 Radio Specialty Model 1163 FM Deviation Meter		
♣ 104-140-000	1	Description
104-141 Gertsch Model FM-7 Frequency Meter and FM-3 Deviation Meter		
104-141-000	1	Description
104-142 General Radio Type 1862 Megohmmeter and TD-2 Capacitor Test Set		
104-142-100	2	General
104-142-300	2	Operation
104-2 ATTENUATORS, DETECTORS, IMPEDANCE MATCHING DEVICES AND NONMICROWAVE TEST SETS		
104-200) Attenuators		
104-202)		
104-200 ED-63927-01 Variable Waveguide Attenuator (TD-2)		
104-200-500	3	ED-63927-01 and -70 — Tests
104-201 DuMont 21-1CBA Coaxial RF Attenuator		
104-201-000	1	Description, Operation and Maintenance
104-202 20A and 20B Variable Waveguide Attenuator (TH-1)		
104-202-500	2	Tests
104-210) Detectors		
104-211)		
104-210 1AJ 1F Detector (TE)		
104-210-100	1	Description
104-210-300	1	Operation
104-210-500	1	Maintenance
104-211 1AJ Detector Modified Per ES-886600 (RCA TTR/TRR)		
104-211-100	1	Description
104-211-300	1	Operation
104-211-500	1	Maintenance
104-220 J68376C Impedance Matching Test Set (TJ)		
104-220-000	1	Description and Maintenance
104-230) Non-Microwave Test Sets		
104-232)		
104-230 83A Test Set		
104-230-100	1	Description
104-230-500	1	Maintenance
104-231 J41625A Remote Power Control Unit		
104-231-100	1	Description

Section Number	Issue	Subject	Section Number	Issue	Subject
104-231-500	1	Maintenance	Add 104-306-500	1	
104-232 Scantlin Model 2225 Test Set			104-306-500	2	Maintenance
Add 104-232-000	1		104-307 J68337J 3A FM Terminal Test Panel (TD3)		
104-232-000	1	Description, Operation and Maintenance	104-307-100	2	Description
104-3 FM TERMINAL, VISUAL DELAY, AND PROTECTION SWITCHING TEST SETS			104-307-300	2	Operation
104-300) FM Terminal Test Sets			Tests		
104-307)			104-307-500	2	Tests
104-300 J68337A FM Test Set (TD-2)			104-307-501	2	J68337K 70- or 74.13-MHz Deviation and Frequency Test Unit
104-300-100	3	Description	104-307-502	2	J68337L 256- or 271-MHz Reference Oscillator
104-300-300	3	Operation	104-307-503	2	J68337M 70.2- or 74.3-MHz Calibration Oscillator
104-300-500	3	Maintenance	104-307-504	1	J68337N 1.05-MHz Oscillator
104-301 J68337B Electronic Switch (TD-2) (Part of 37A FM Test Set)			104-307-505	1	J68337P Baseband Amplifier
104-301-100	3	Description	104-307-506	1	J68337R Power Supply
104-301-300	2	Operation	104-308 J99302BG Linearity Test Set (TL & TM)		
104-301-500	3	Maintenance	104-308-100	1	Description
104-302 J68337C Linearity Test Set (TD-2 & TJ) (Part of 37A FM Test Set)			104-308-500	1	Maintenance
104-302-100	3	Description	104-320 J68347A Visual Delay Set (TD-2)		
104-302-300	2	Operation	104-320-000	1	General
104-302-500	3	Maintenance	104-320-100	1	Description
104-303 J68337H FM Terminal Test Set (TD-2)			104-320-300	2	Operation
104-303-100	2	Description	Add 104-320-500	1	
104-303-300	2	Operation	104-320-500	1	Maintenance
104-303-500	2	Maintenance	104-330) Protection Switching Test Sets		
104-304 J68337F FM Test Set (TD-2) (Part of 37H FM Test Set)			104-333)		
104-304-100	1	Description	104-330 J68345K Initiator Test Set (TD-2)		
104-304-300	2	Operation	General, Description and Operation		
104-304-500	4	Maintenance	104-330-000	1	General
104-305 J68337G Linearity Test Set (TD-2 & TJ) (Part of 37H FM Test Set)			104-330-100	1	Description
104-305-100	1	Description	104-330-300	1	Operation
104-305-300	1	Operation	Tests		
104-305-500	1	Maintenance	104-330-501	1	Electronically Regulated Power Supply
104-306 J68408A FM Terminal Test Set (TH)			104-330-502	2	Impedance Measurements
104-306-100	1	Description	104-330-503	2	70 Mc Oscillator and Amplifier Adjustment
104-306-300	1	Operation	104-330-504	2	61 MHz Pilot Supply Tests
			104-330-505	2	61-MHZ Mixing Pad Loss
			104-330-506	1	Noise Meter Amplifier Gain-Frequency Characteristic

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104-330-507	1	Audio Noise Circuit Gain-Frequency Characteristic
104-330-508	1	Fade Level Calibration Using 70-Type Power Meter
104-330-509	1	Fade Level Calibration Using a Vacuum Tube Voltmeter
104-330-510	3	Overall Noise Calibration
104-330-511	1	Indicator Lamp Circuit Check
104-330-512	1	Initiator Load Circuit
104-330-520	2	Pilot Attenuator (ATI) Check
104-330-530	1	Voltage & Resistance Measurements

104-331 J68381T Test Set (TD-3) (100A)

Add	104-331-100	1	
	104-331-100	2	Description
Add	104-331-300	1	
	104-331-300	4	Operation

Tests

	104-331-500	4	General Test Information
	104-331-501	2	J68381CD Voltmeter Circuit Maintenance
	104-331-502	1	Drive A Circuit
	104-331-503	1	Drive Circuit
	104-331-504	1	Repetitive Drive Circuit
	104-331-505	1	Switch Simulating Circuit
	104-331-506	1	Inhibiting and Detecting Circuit
	104-331-507	1	J68381CK, 63- and 70-MC Oscillator Circuit
	104-331-508	2	J68381CL, 7- and 61-MHz Oscillator Circuit — J68381DR, 58.12- and 59.8-MHz Oscillator Circuit
	104-331-509	1	J68381CM Lamp Drive Circuit
+	104-331-510	3	KS-19714, L1 Electronic Counter
+	104-331-511	3	KS-19714, L4 Time Interval Plug-In Unit
+	104-331-512	3	KS-19714, L5 Frequency Converter Plug-In Unit
+	104-331-513	3	KS-19711, L1 Oscillator
+	104-331-514	3	KS-19698, L1 or L5 Power Meter
+	104-331-515	3	KS-19698, L4 Thermistor Mount or KS-19698 L6 Thermocouple Mount
	104-331-516	1	J87207B Rectifier Circuit
	104-331-517	1	Hewlett-Packard 5248L or KS-19714, L6 (Hewlett-Packard H45/5248L) Electronic Counter — Maintenance

Section Number	Issue	Subject
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104-332 J68412A Test Set (TH)

Tests

104-332-100	1	Description
104-332-300	1	Operation
104-332-500	3	Maintenance

104-333 J68429AA Test Set

104-333-000	1	Description, Operation, and Maintenance
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104-4 MICROWAVE TEST BAYS, SETS, AND BENCHES

104-410) Test Sets

104-440)

104-410 J68345A Transmitter-Receiver Set (TD-2)

104-410-100	2	Description
104-410-300	5	Operation
104-410-500	6	Maintenance

104-411 J68340N Power Meter (TD-2, TH & TJ) (Part of 45A & 405A Test Set)

104-411-100	1	Description
104-411-300	1	Operation
104-411-500	1	Maintenance

104-412 J68345F Frequency Calibrator (TD-2)

104-412-100	3	Description
104-412-300	3	Operation
104-412-500	3	Maintenance

104-413 KS-15658 Noise Figure Test Set (TD-2)

104-413-000	1	General
104-413-100	1	Description
104-413-300	1	Operation
104-413-500	3	Maintenance

104-414 J64001AK Tube Test Set (TD-2)

104-414-100	2	Description
104-414-300	2	Operation
104-414-330	3	J64001AK Tube Test Set — Trouble Tests
104-414-500	2	Maintenance

104-415 J68392A Transmitter-Receiver Test Set (TD-3 & TH-3)

Tests

104-415-000	1	Description and Operation
104-415-300	1	Operation

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104-415-501	2	Routine Maintenance	Maintenance		
104-415-502	1	J87296A Power Supply	104-430-500	2	General
104-415-504	1	KS-19975 IF Oscillator	104-430-501	1	Power Supplies
104-415-505	1	RF and IF Sweep Control Unit	104-430-502	2	RF Generator
104-415-506	1	J68392C IF Amplifier	104-430-503	1	Sweep Generator
104-415-507	1	J68392F IF Detector Circuit	Add 104-430-504	1	
✚ 104-415-508	2	KS-19974 RF Oscillator	104-430-504	2	KS-15865 Oscillator (IF Generator)
104-415-509	1	RF Frequency Meter	104-430-505	1	Video Amplifier
✚ 104-415-510	1	KS-19977 Frequency Counter	104-430-506	2	97-kHz Oscillator
✚ 104-415-511	2	KS-19976 Oscilloscope	104-430-507	1	97-Kc Amplifier-Rectifier
✚ 104-415-512	1	KS-19927 Noise Generator	104-430-508	1	Modulation Regulator
✚ 104-415-513	1	KS-19978 Power Meter	Add 104-430-509	1	
✚ 104-415-514	1	Maintenance — KS-20383 RF Oscillator	104-430-509	1	Noise Figure Test Set
104-416 ED50978-10 Portable Test Arrangement			104-430-510	1	489A Network
104-416-300	1	Operation	104-430-511	1	RF Reflectometer
104-417 J68428A Transmitter-Receiver Test Set			104-430-512	1	KS-15869 Oscilloscope
104-417-000	1	Description and Operation	104-430-513	2	RF Meter
Maintenance			104-430-514	1	IF Meter
104-417-500	1	General	104-430-515	2	Miscellaneous Test Set Accessories
104-417-501	1	Routine Maintenance	104-430-516	1	KS-16532 Flexible Waveguide Return Loss Test
✚ 104-417-502	1	KS-20882 Oscilloscope	104-431 J68415A Auxiliary Test Set (TH)		
✚ 104-417-503	1	KS-20884 Frequency Counter	104-431-100	1	Description
✚ 104-417-504	1	KS-20625 Power Meter	104-431-500	4	Maintenance
✚ 104-417-505	1	KS-20626 IF/RF Sweep Oscillator	104-432 J68414A DADE Test Set (TH)		
104-417-506	1	Control Unit Maintenance	104-432-000	1	Description, Operation and Maintenance
✚ 104-417-507	1	KS-21444 Frequency Counter	104-440 J99262AA Test Set (TL)		
104-420 J68376A Transmitter Disconnect Unit			104-440-100	1	Description
104-420-000	1	Description, Operation and Maintenance	104-440-300	1	Operation
104-421 J68376B IF Test Set (TJ)			104-440-500	1	Maintenance
104-421-000	2	Description, Operation and Maintenance	104-480) Test Benches		
104-422 Hewlett-Packard KS-16647 RF Test Set (TJ)			104-482)		
✚ 104-422-000	2	Description, Operation and Maintenance	104-480 J68333A Test Bench (TD-2)		
104-430 J68405A Transmitter-Receiver Test Set (TH)			104-480-100	2	Description
104-430-100	1	Description	104-480-300	2	Operation
104-430-300	2	Operation	104-480-500	3	Maintenance

SECTION 104-000-000

Section Number	Issue	Subject
104-481 J68848 Test Bench (TH)		
Description		
104-481-100	1	General
104-481-101	1	AC Power Control and Distribution
104-481-102	1	6049-MC Frequency Generator Bay
104-481-103	2	Broadband Channel Radio Equipment
104-481-104	1	Auxiliary Channel Equipment
104-481-105	1	FM Terminal Transmitter Bay
104-481-106	1	FM Terminal Receiver Bay
Tests		
104-481-501	1	AC Power Control and Distribution
104-481-502	3	6049-MHz Frequency Generator Bay
104-481-503	3	Broadband Radio Channel Equipment
Add 104-481-504	1	
104-481-504	1	Auxiliary Channel Equipment

Section Number	Issue	Subject
104-481-505	1	FM Terminal Transmitter Bay
104-481-506	1	FM Terminal Receiver Bay
104-482 J68396A Test Bench		
104-482-100	1	Description
104-482-300	1	Operation
104-482-500	1	Maintenance
104-5 SINGLE-SIDEBAND MICROWAVE RADIO TEST EQUIPMENT		
104-500 AR 6A Test Equipment		
104-500-100	2	J68454C Scanning IM Test Module --- J68454D Scanning IM Power Module --- Description, Operation, and Maintenance --- AR 6A Single-Sideband Radio System
104-500-101	1	Description, Operation, and Maintenance --- AR 6A Single-Sideband Radio System
104-500-102	1	J87431B Test Load for J87431A TWT --- Power Supply