

NUMERICAL INDEX — DIVISION 411

TD-3 MICROWAVE RADIO

1. GENERAL

- 1.01** This section provides an index of System-issued sections in Division 411.
- 1.02** A bullet (●) indicates an item that has been added or changed since the previous issue of the index.
- 1.03** 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.
- 1.04** This section reverted to Issue 1 in April 1979. Prior to that date there had been 99 issues of this section.
- 1.05** 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.
- 1.06** "Add" is the abbreviation for Addendum, and "Sup" is the abbreviation for Supplement.

2. LAYERS

2.01 This division is arranged in layers as follows:

- 411-0 Indexes and Equipment Test Lists
 - 1 Overall System
 - 4 J68386A and J68386B Transmitter-Receiver Bays
 - 5 J68386G and J68386H Transmitter-Receiver Bays
 - 6 Hot Standby/Space Diversity — Overall Switching
 - 7 Maintenance Center
 - 8 Antenna Arrangements

3. INDEX

Section Number	Issue	Subject
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411-0 INDEXES AND EQUIPMENT TEST LISTS

- ♠ 411-000-000 15 Numerical Index — Division 411 — TD-3 Microwave Radio
- Sup 411-001-011 1
- 411-001-011 9 ETL

411-1 OVERALL SYSTEM

Tests

- | | | |
|-----------------|---|--|
| 411-100-100 | 3 | Description |
| 411-100-301 | 2 | Initial Lineup of Channels |
| Add 411-100-500 | 1 | |
| 411-100-500 | 1 | General Test Information |
| 411-100-501 | 2 | Envelope Delay Distortion |
| Add 411-100-503 | 1 | |
| 411-100-503 | 1 | Channel Net Gain and Baseband Response |
| Add 411-100-504 | 1 | |
| 411-100-504 | 1 | Thermal Noise and Spurious Tones |

Section Number	Issue	Subject
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|-------------|---|--------------------------------|
| 411-100-505 | 1 | Noise Loading |
| 411-100-506 | 1 | Differential Phase and Gain |
| 411-100-508 | 1 | Received Carrier Power |
| 411-100-509 | 1 | Carrier Frequency Measurements |

411-4 J68386A AND J68386B TRANSMITTER-RECEIVER BAYS

411-400 General

Operation

- | | | |
|-------------|---|--|
| 411-400-100 | 3 | Description |
| 411-400-301 | 2 | Turnon and Turnoff Procedures |
| 411-400-303 | 1 | Operation With Portable Microwave Repeater |

Tests

- | | | |
|-------------|---|-------------------|
| 411-400-500 | 2 | General |
| 411-400-501 | 3 | In-Service Checks |
| 411-400-502 | 4 | Level Diagrams |

411-402 Common Equipment Tests

- | | | |
|-------------|---|--|
| 411-402-500 | 2 | Preliminary Checks |
| 411-402-501 | 2 | J68387B Microwave Generator |
| 411-402-502 | 1 | -19 Volt Regulator |
| 411-402-503 | 2 | J68387D 40-MHz Oscillator-Shift Modulator |
| 411-402-504 | 2 | J68387R Microwave Generator and 4-GHz Multiplier |
| 411-402-511 | 2 | Impulse Noise Troubleshooting |
| 411-402-512 | 3 | Fade Margin Tests |
| 411-402-513 | 1 | Cross-Polarization Discrimination Test |

411-404 Receiver Tests

- | | | |
|-------------|---|--|
| 411-404-501 | 4 | Transmission |
| 411-404-502 | 2 | IF Return Loss Measurement |
| 411-404-503 | 1 | J68387P Receiver Modulator — IF Preamplicifier |
| 411-404-504 | 1 | J68387C Receiver Modulator — IF Preamplicifier |
| 411-404-505 | 1 | Noise Figure |

NOTICE

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

SECTION 411-000-000

Section Number	Issue	Subject
411-406 Transmitter Tests		
• Add 411-406-501	1	
411-406-501	5	Transmitter Transmission Test
411-406-502	1	IF Return Loss Measurements
411-406-503	2	J68387E IF Driver Amplifier — Transmitter Modulator
411-406-504	4	J86835A Traveling Wave Tube Power Supply Tests and TWT Amplifier Replacement Procedure

411-5 J68386G AND J68386H TRANSMITTER-RECEIVER BAYS

411-500 General

Operation

411-500-100	4	Description
411-500-301	3	Turnon and Turnoff Procedures
411-500-303	1	TD-3A Operation With Portable Microwave Repeater

Tests

411-500-500	3	General Test Information
411-500-501	4	In-Service Checks
411-500-502	5	Level Diagrams

411-502 Common Equipment Tests

411-502-500	5	Preliminary Checks
411-502-502	2	J87279A —19 Volt Regulator
411-502-503	2	J68387W 40-MHz Oscillator and Shift Modulator
411-502-504	7	J68387R-11 Microwave Generator
Add 411-502-505	1	
411-502-505	1	70A Detector, 27A or 28A Integrated Circuit — Replacement
411-502-511	1	Impulse Noise Troubleshooting
411-502-512	3	Fade Margin Tests
411-502-513	1	Cross-Polarization Discrimination Test

411-504 Receiver Tests

411-504-501	4	Transmission
411-504-502	2	IF Return Loss Measurement
411-504-503	2	J68387P Receiver Modulator and IF Preamplicifier
411-504-505	2	Noise Figure
411-504-506	1	Testing and Replacing the 295A IF Switch

Section Number	Issue	Subject
411-506 Transmitter Tests		
• Add 411-506-501	1	
411-506-501	8	Transmission
411-506-502	2	IF Return Loss Measurements
411-506-503	2	J68387U IF Driver Amplifier — Transmitter Modulator
Add 411-506-504	1	
411-506-504	1	J86890A Traveling Wave Tube Power Supply Tests and TWT Amplifier Replacement
411-506-505	2	29A and 30A Integrated Circuit — Replacement
411-506-506	1	Testing and Replacing RF Switch and 337A Relay

411-6 HOT STANDBY/SPACE DIVERSITY — OVERALL SWITCHING

411-600-500	1	General
411-600-501	1	Tests
411-600-502	1	Testing and Replacement of the J68434B Pilot Detector

411-7 MAINTENANCE CENTER

411-700) Transmitter-Receiver Bay Components 411-730)

411-700-500	1	General
411-702-500	1	J68387P Receiver Modulator — IF Preamplicifier
411-704-500	1	J68387C Receiver Modulator — IF Preamplicifier
411-706-500	1	J68387F IF Main Amplifier
411-708-500	1	J68387S IF Main Amplifier
411-710-500	1	J68387G AGC Amplifier
411-712-500	2	J68387H IF Limiter
411-713-500	1	J68387T IF Limiter — Carrier Resupply
Add 411-714-500	1	
411-714-500	1	IF Carrier Resupply
411-716-500	1	J68387E IF Driver Amplifier — Transmitter Modulator
411-717-500	2	J68387U IF Driver Amplifier — Transmitter Modulator
411-718-500	1	J68387D 40-MHz Oscillator-Shift Modulator
411-719-500	2	J68387W 40-MHz Oscillator — Shift Modulator
411-720-500	1	J86835A Traveling Wave Tube Power Supply
411-721-500	1	J86890A Traveling Wave Tube Power Supply
411-722-500	1	J68387B Microwave Generator
411-724-500	1	J68387R, List 1, 2, and 4 through 20 Microwave Generator

Section Number	Issue	Subject	Section Number	Issue	Subject
411-726-500	1	J87279A — 19 Volt 4.0-Ampere Semiconductor Regulator	411-8 ANTENNA ARRANGEMENTS		
411-728-500	1	Transmitter-Receiver Control Units	411-802-302	2	General — Waveguide-Antenna System Restoration
411-729-500	1	J68387Y-1 and J68387Y-2 Meter Circuits	411-802-303	1	Temporary Single Antenna Operation for Emergency Use
411-730-500	1	Common Alarm			
411-731-500	1	J68387AA Alarm Circuit			