

**EQUIPMENT TEST LIST**

**MICROWAVE RADIO—COMMON EQUIPMENT**

SEE SECTION 010-300-011 FOR EQUIPMENT TEST LIST INSTRUCTIONS

| EQUIPMENT TEST LIST |             |                     |   |       |       |            |
|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION        | CLASS | FREQ. | JOB<br>NO. |
| 420                 |             |                     | MICROWAVE RADIO—COMMON EQUIPMENT            |       |       |            |
| 420-2               |             |                     | FM TERMINALS                                |       |       |            |
| 420-210             |             |                     | 3A FM Transmitter                           |       |       |            |
|                     |             |                     | Tests Using 37H FM Test Set                 |       |       |            |
| 420-210-501         | 2           |                     | IN-SERVICE CHECKS                           | MW    | 3M    |            |
| 420-210-502         | 4           |                     | IF AND OSCILLATOR REST FREQUENCIES          |       |       |            |
|                     |             | 1                   | <i>IF Rest Frequency</i>                    | MW    | 12M   |            |
| 420-210-506         | 2           |                     | DEVIATION SENSITIVITY                       | MW    | 12M   |            |
| ADDENDUM            | 1           |                     |   |       |       |            |
| 420-211             |             |                     | 3A FM Receiver                              |       |       |            |
|                     |             |                     | Tests Using 37H FM Test Set                 |       |       |            |
| 420-211-501         | 1           |                     | IN-SERVICE CHECKS                           | MW    | 12M   |            |
| 420-213             |             |                     | 4-Type FM Terminals                         |       |       |            |
| 420-213-500         | 2           |                     | J68418C PORTABLE HOUSING                    |       |       |            |
|                     |             | 1                   | <i>Power Supply Tests</i>                   | MW    | #     |            |
|                     |             | 2                   | <i>Transmission Tests</i>                   | MW    | #     |            |
|                     |             |                     | <i># As Required</i>                        |       |       |            |
| 420-214             |             |                     | 4-Type FM Transmitter                       |       |       |            |
| 420-214-501         | 3           |                     | IN-SERVICE CHECKS                           | MW    | 3M    |            |
| 420-214-502         | 3           |                     | REST FREQUENCY, OUTPUT LEVEL, AND           | MW    | 12M   |            |
| ADDENDUM            | 1           |                     | DEVIATION SENSITIVITY                       |       |       |            |
| 420-215             |             |                     | 4-Type FM Receiver                          |       |       |            |
| 420-215-501         | 2           |                     | IN-SERVICE CHECKS                           |       |       |            |
|                     |             |                     | <i>Regulator Voltage</i>                    | MW    | 12M   |            |
| 420-216             |             |                     | 5A FM Terminal—J68418F—BB Modem             |       |       |            |
| 420-216-501         | 2           |                     | IN-SERVICE TESTS                            |       |       |            |
|                     |             |                     | <i>Oven Temperature Control</i>             | MW    | 12M   |            |
|                     |             |                     | <i>Transmitter Output Frequency</i>         | MW    | 12M   |            |
| 420-216-502         | 1           |                     | REST FREQUENCY, OUTPUT LEVEL,               | MW    | 12M   |            |
|                     |             |                     | AND DEVIATION SENSITIVITY                   |       |       |            |
| 420-217             |             |                     | 5A FM Terminal—J68418G—IF Deviation Shifter |       |       |            |
| 420-217-501         | 1           |                     | IN-SERVICE TESTS                            |       |       |            |
|                     |             |                     | <i>Oven Temperature Control</i>             | MW    | 12M   |            |
|                     |             |                     | <i>Transmitter Output Frequency</i>         | MW    | 12M   |            |
|                     |             |                     | <i>Deviation Shifter Gain or Loss</i>       | MW    | 12M   |            |
| 420-217-502         | 1           |                     | OUTPUT LEVEL, REST FREQUENCY,               | MW    | 12M   |            |
|                     |             |                     | AND DEVIATION SENSITIVITY                   |       |       |            |

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| 420-3               |             |                     | AUXILIARY SYSTEMS  |       |       |            |
| 420-300             |             |                     | J68422 Frequency Dplexed Auxiliary Channel   |       |       |            |
| 420-300-501         | 2           |                     | SERVICE CHANNEL TESTS—TERMINALS  | MW    | 6M    |            |
| 420-300-502         | 1           |                     | SERVICE CHANNEL TESTS—REPEATERS  | MW    | 6M    |            |
| 420-301             |             |                     | Auxiliary Channel Switching System   |       |       |            |
| 420-301-501         | 2           |                     | SYSTEM TESTS—TERMINAL STATION  |       |       |            |
|                     |             | 1                   | <i>Test Circuit Calibration</i>  | MW    | 6M    |            |
|                     |             | 2                   | <i>Monitor Circuit Tests</i>   | MW    | 6M    |            |
|                     |             | 3                   | <i>Overall Transmission</i>  | MW    | 6M    |            |
|                     |             | 4                   | <i>VF Tone Circuit Tests</i>   | MW    | 12M   |            |
| 420-301-502         | 1           |                     | SYSTEM TESTS—REPEATER STATION  |       |       |            |
|                     |             | 1                   | <i>Detector Settings</i>   | MW    | 6M    |            |
|                     |             | 2                   | <i>Transmission and Switching Checks</i>   | MW    | 6M    |            |
| ♦ 420-306           |             |                     | J68451A Heterodyne Auxiliary Channel   |       |       |            |
| ♦ 420-306-500       | 2           |                     | TESTS  |       |       |            |
| ♦                   |             | 1                   | <i>Pilot Generator Frequency and Level</i>   | MW    | 12M   |            |
| ♦                   |             |                     | <i>Tests</i>   |       |       |            |
| ♦                   |             | 2                   | <i>Transmit and Receive Path Level Tests</i>   | MW    | 6M    |            |
| ♦                   |             | 3                   | <i>Signal Inserter and IF Amplifier</i>  | MW    | 12M   |            |
| ♦                   |             |                     | <i>Gain Tests</i>  |       |       |            |
| ♦                   |             | 4                   | <i>512-kHz or 64-kHz Pilot Transmission</i>  | MW    | 12M   |            |
| ♦                   |             |                     | <i>Tests</i>   |       |       |            |
| ♦                   |             | 5                   | <i>Switch Control Tests</i>  | MW    | 6M    |            |
| ♦ 420-5             |             |                     | PORTABLE MICROWAVE REPEATER  |       |       |            |
| ♦ 420-501-100       | 1           |                     | FARINON (PMR 4000)—DESCRIPTION,<br>OPERATION, AND MAINTENANCE  | MW    | 12M   |            |
| ♦ 420-502-100       | 1           |                     | HEWLETT-PACKARD 4-GHz (83001A)—<br>DESCR, OPRN, AND MTCE   | MW    | 12M   |            |
| 420-6               |             |                     | SWITCHING  |       |       |            |
| ♦ 420-600           |             |                     | Data Tests   |       |       |            |
| ♦ 420-600-302       | 1           |                     | REGISTERS—RECORDING AND ANALYSIS   | MW    | W*    |            |
| ♦                   |             |                     | <i>*Attended stations weekly. Unattended stations<br/>when visited, but not more than once a week.</i> |       |       |            |
| 420-610             |             |                     | 100A Protection Switching System   |       |       |            |
| ♦ 420-610-502       | 8           |                     | J68381B RECEIVING IF SWITCH BAY  |       |       |            |
|                     |             | 1                   | <i>-20 Volt Regulator Unit</i>   | MW    | 6M    |            |
|                     |             | 2                   | <i>Transfer and Alarm Unit</i>   | MW    | 6M    |            |

| EQUIPMENT TEST LIST |             |                     |  |           |            |            |
|---------------------|-------------|---------------------|--|-----------|------------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION   | CLASS     | FREQ.      | JOB<br>NO. |
| 420-610-502         | 8           |                     | (Cont)   |           |            |            |
|                     |             | 5                   | <i>J68381BG Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |
|                     |             | 6                   | <i>J68381DN Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |
|                     |             | 7                   | <i>J68381EF Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |
| ♦                   |             | 8                   | <i>Initiator Noise Detector Adjustment<br/>Procedure Using the J68381T Test Set</i>                              | <i>MW</i> | <i>12M</i> |            |
| ♦                   |             | 9                   | <i>Initiator Noise Detector Adjustment Procedure Using<br/>the Scientific-Atlanta Baseband Noise Transmitter</i> | <i>MW</i> | <i>12M</i> |            |
| ♦                   |             | 18                  | <i>Exerciser Tests</i>   | <i>MW</i> | <i>6M</i>  |            |
| ♦                   |             | 19                  | <i>Access Pre-Emption Test</i>   | <i>MW</i> | <i>12M</i> |            |
| 420-610-503         | 3           |                     | J68381C RECEIVING CONTROL BAY  |           |            |            |
|                     |             | 23                  | <i>Manual and Override Switch Relay Circuit<br/>Connector Test</i>   | <i>MW</i> | <i>12M</i> |            |
| ♦ 420-610-504       | 4           |                     | J68381A TRANSMITTING IF SWITCH AND<br>CONTROL BAY  |           |            |            |
|                     |             | 4                   | <i>Protection Carrier Supply Unit</i>  | <i>MW</i> | <i>12M</i> |            |
|                     |             | 14                  | <i>Override Switch Relay Circuit—Connector Test</i>  | <i>MW</i> | <i>12M</i> |            |
| 420-610-507         | 3           |                     | J68389A IF EQN AND AMPLR BAY   |           |            |            |
|                     |             | 1                   | <i>-20V Regulator Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
|                     |             | 2                   | <i>Transfer and Alarm Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
| 420-610-510         | 2           |                     | 1×1 SIMPLIFIED SWITCHING SYSTEM  |           |            |            |
|                     |             | 1                   | <i>-20V Regulator Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
|                     |             | 2                   | <i>Transfer and Alarm Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
|                     |             | 6                   | <i>Initiators and IF Amplifiers Used<br/>With the Initiators</i>   | <i>MW</i> | <i>12M</i> |            |
| ♦ 420-610-511       | 3           |                     | J68381B RECEIVING IF SWITCH BAY—1×11   |           |            |            |
|                     |             | 1                   | <i>-20V Regulator Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
|                     |             | 2                   | <i>Transfer and Alarm Unit</i>   | <i>MW</i> | <i>6M</i>  |            |
|                     |             | 5                   | <i>J68381BG Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |
|                     |             | 6                   | <i>J68381DN Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |
|                     |             | 7                   | <i>J68381EF Initiators, IF Amplifiers Used With the<br/>Initiators, and Protection Pilot Detectors</i>           | <i>MW</i> | <i>12M</i> |            |

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|---------------------|-------------|---------------------|---------------------------------------|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION  | CLASS | FREQ. | JOB<br>NO. |
| 420-610-516         | 1           |                     | J68389A IF EQN AND AMPLR BAY—1×11     |       |       |            |
|                     |             | 1                   | -20V Regulator Unit                   | MW    | 6M    |            |
|                     |             | 2                   | Transfer and Alarm Unit               | MW    | 6M    |            |
| 420-617             |             |                     | J68381E Exerciser Logic Plug-In Units |       |       |            |
| 420-617-500         | 2           |                     | GENERAL                               |       |       |            |
|                     |             | 3                   | Stepping Switch                       | MW    | #     |            |
|                     |             |                     | # As Required                         |       |       |            |
| 420-620             |             |                     | 400A Protection Switching System      |       |       |            |
| 420-620-141         | 1           |                     | ADD-DROP DESCRIPTION, OPERATION,      |       |       |            |
|                     |             |                     | AND MAINTENANCE                       |       |       |            |
|                     |             |                     | System Tests                          |       |       |            |
|                     |             | 6                   | Indicator Test                        | MW    | 12M   |            |
|                     |             | 7                   | VF Termination Circuit Tests          | MW    | 6M    |            |
|                     |             | 8                   | Logic Tests                           | MW    | 12M   |            |
|                     |             | 9                   | IF System Tests                       | MW    | 6M    |            |
|                     |             |                     | Receiving Tests                       |       |       |            |
|                     |             | 10                  | J68429D Bay Tone Oscillator Tests     | MW    | 6M    |            |
|                     |             | 11                  | Initiator Tests                       | MW    | 6M    |            |
|                     |             | 14                  | J68429D Bay Voltage Test              | MW    | 12M   |            |
|                     |             |                     | Transmitting Tests                    |       |       |            |
|                     |             | 15                  | Transmitting Logic Tests              | MW    | 12M   |            |
|                     |             | 16                  | J68429D Bay VF Tests—Trmtg            | MW    | 6M    |            |
|                     |             | 17                  | AGC Amplifier Test                    | MW    | 6M    |            |
|                     |             | 18                  | Carrier Supply Frequency Check        | MW    | 12M   |            |
| 420-620-501         | 5           |                     | OVERALL SYSTEM ROUTINES               |       |       |            |
|                     |             | 1                   | Indicator Test                        | MW    | 12M   |            |
|                     |             | 2                   | Logic Tests (Exerciser Equipped)      | MW    | 12M   |            |
|                     |             | 3                   | Logic Tests (Exerciser Not Equipped)  | MW    | 3M    |            |
|                     |             | 4                   | Voice-Frequency Tests                 | MW    | 6M    |            |
|                     |             | 5                   | IF System Test                        | MW    | 6M    |            |
|                     |             | 6                   | Exerciser Test                        | MW    | 12M   |            |
|                     |             | 7                   | System Timing Test                    | MW    | 12M   |            |
| 420-620-502         | 4           |                     | J68429A TRANSMITTING IF SWITCH AND    |       |       |            |
|                     |             |                     | CONTROL BAY                           |       |       |            |
|                     |             | 1                   | J68429A Bay Logic Tests               | MW    | 12M   |            |
|                     |             | 2                   | J68429A Bay Voice-Frequency Tests     | MW    | 6M    |            |
|                     |             | 3                   | AGC Amplifier Test                    | MW    | 6M    |            |

| EQUIPMENT TEST LIST |             |                     |  |       |       |            |
|---------------------|-------------|---------------------|--|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION   | CLASS | FREQ. | JOB<br>NO. |
| 420-620-502         | 4           |                     | (Cont)   |       |       |            |
|                     |             | 4                   | Carrier Supply and IF Shifter Frequency Check  | MW    | 12M   |            |
| 420-620-503         | 7           |                     | J68429B RECEIVING IF SWITCH AND<br>CONTROL BAY                                       |       |       |            |
|                     |             | 1                   | J68429B Bay Voice-Frequency Tests  | MW    | 6M    |            |
|                     |             | 2                   | J68429B Bay Initiator Tests  | MW    | 6M    |            |
|                     |             | 5                   | J68429B Bay Voltage Test   | MW    | 12M   |            |
|                     |             | 6                   | Initiator Noise Detector Test Using<br>Scientific-Atlanta Baseband Noise Transmitter | MW    | 6M    |            |
| 420-620-504         | 6           |                     | J68429C SUPPLEMENTARY IF SWITCH AND<br>CONTROL BAY                                   |       |       |            |
|                     |             | 1                   | J68429C Bay—Logic Tests  | MW    | 12M   |            |
|                     |             | 2                   | J68429C Bay—Initiator Tests  | MW    | 6M    |            |
|                     |             | 5                   | J68429C Bay—Voltage Test   | MW    | 12M   |            |
|                     |             | 6                   | Initiator Noise Detector Test Using<br>Scientific-Atlanta Baseband Noise Transmitter | MW    | 6M    |            |
| 420-630             |             |                     | 200A Protection Switching System   |       |       |            |
| 420-630-500         | 7           |                     | OVERALL SYSTEM   |       |       |            |
|                     |             | 1                   | Sensor Ckt Checks and Adjustments for<br>Trmr and Revr Systems                       | MW    | 12M   |            |
|                     |             | 2                   | Trmr System Switch Control Ckt Tests   | MW    | 12M   |            |
|                     |             | 3                   | Revr System Switch Control Ckt Tests   | MW    | 12M   |            |
|                     |             | 4                   | Overall System Transmission Test   | #     |       |            |
|                     |             |                     | # This chart performed on initial installation;<br>then on a trouble test basis      |       |       |            |
|                     |             | 5                   | Deleted  |       |       |            |
| 420-630-506         | 3           |                     | J68398P METERING CIRCUIT   | MW    | 12M   |            |
| 420-650             |             |                     | 300A Protection Switching System   |       |       |            |
| 420-650-501         | 2           |                     | TRANSMITTING END   |       |       |            |
|                     |             | 1                   | Test Ckt Calibration   | MW    | 6M    |            |
|                     |             | 2                   | Pilot Osc Level and Frequency  | MW    | 6M    |            |
|                     |             | 3                   | Trmig Access BB Switch   | MW    | 6M    |            |
| 420-650-502         | 3           |                     | RECEIVING END  |       |       |            |
|                     |             | 1                   | Test Ckt Calibration   | MW    | 6M    |            |
|                     |             | 2                   | Monitor Ckt Tests  | MW    | 6M    |            |
|                     |             | 3                   | Overall Transmission   | MW    | 6M    |            |
| 420-660             |             |                     | 400B Protection Switching System   |       |       |            |

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|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION                          | CLASS | FREQ. | JOB<br>NO. |
| 420-660-501         | 1           |                     | SYSTEM TESTS—OVERALL SYSTEM ROUTINES                          |       |       |            |
|                     |             | 1 or 2              | Digital or VF Signaling Tests                                 | MW    | 12M   |            |
|                     |             | 3                   | Channel Control Tests   | MW    | 12M   |            |
|                     |             | 4                   | Remote Control Tests  | MW    | 12M   |            |
| 420-660-502         | 2           |                     | SYSTEM TESTS—J68437A BAY TESTS                                |       |       |            |
|                     |             | 1                   | Indicator Lamp Tests  | MW    | 12M   |            |
|                     |             | 2                   | Fuse Alarm Test   | MW    | 12M   |            |
|                     |             | 3                   | Baseband Tests—Trmtg End Pilot Levels                         | MW    | 12M   |            |
|                     |             | 4                   | Baseband Tests—Rcvg End Pilot Levels                          | MW    | 12M   |            |
|                     |             | 5                   | Monitor Trip Point Tests                                      | MW    | 12M   |            |
|                     |             | 6 or 7              | Digital or VF Signaling Tests                                 | MW    | 12M   |            |
|                     |             | 8 or 9              | Channel Control Ckt Tests—Digital or VF Signaling             | MW    | 12M   |            |
| 420-670             |             |                     | 401B Protection Switching System                              |       |       |            |
| 420-670-501         | 1           |                     | OVERALL SYSTEM  |       |       |            |
|                     |             | 1 or 2              | Overall System Test   | MW    | 12M   |            |
|                     |             | 3                   | Monitor Circuit Adjustments                                   | MW    | 12M   |            |
| 420-685             |             |                     | 401H Protection Switching System                              |       |       |            |
| 420-685-000         | 1           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE                       |       |       |            |
|                     |             | 7                   | Overall System Logic Tests                                    | MW    | 12M   |            |
| 420                 |             |                     | MICROWAVE RADIO—COMMON EQUIPMENT                              |       |       |            |
| 420-2               |             |                     | FM TERMINALS  |       |       |            |
| 420-210             |             |                     | 3A FM Transmitter   |       |       |            |
| 420-210-502         | 4           |                     | IF AND OCILLATOR REST FREQUENCIES                             |       |       |            |
|                     |             | 2                   | Oscillator Rest Frequencies                                   | TT    |       |            |
| 420-210-503         | 2           |                     | SQUARE-WAVE RESPONSE  | TT    |       |            |
|                     |             |                     | Note: Required only on channels which may<br>carry television |       |       |            |
| 420-210-504         | 2           |                     | IF OUTPUT AND FREQUENCY RESPONSE                              | TT    |       |            |
| 420-210-505         | 2           |                     | LINEARITY   | TT    |       |            |
| 420-210-507         | 2           |                     | FREQUENCY RESPONSE AND MONITOR GAIN<br>ADJUSTMENTS            | TT    |       |            |
| 420-210-508         | 2           |                     | ALARM CIRCUIT ADJUSTMENTS                                     | TT    |       |            |
| 420-210-509         | 1           |                     | FLUCTUATION NOISE AND SPURIOUS<br>TONE MEASUREMENTS           | TT    |       |            |
| 420-210-510         | 1           |                     | OVEN TEMPERATURE CONTROL CIRCUIT—<br>PERFORMANCE CHECKS       | TT    |       |            |
| 420-210-511         | 1           |                     | CONTROL UNIT—PERFORMANCE CHECKS                               | TT    |       |            |

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| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION           | CLASS | FREQ. | JOB<br>NO. |
| 420-210-512         | 1           |                     | -20 VOLT REGULATOR—PERFORMANCE CHECKS          | TT    |       |            |
| 420-211             |             |                     | 3A FM Receiver                                 |       |       |            |
| 420-211-502         | 1           |                     | SQUARE-WAVE RESPONSE                           | TT    |       |            |
|                     |             |                     | <i>Note: Required only on channels which</i>   |       |       |            |
|                     |             |                     | <i>may carry television</i>                    |       |       |            |
| 420-211-503         | 2           |                     | GAIN, FREQUENCY RESPONSE, LIMITING ACTION, AND | TT    |       |            |
| ADDENDUM            | 1           |                     | ALARM CIRCUIT ADJUSTMENTS                      |       |       |            |
| 420-211-504         | 2           |                     | LINEARITY                                      | TT    |       |            |
| 420-211-505         | 2           |                     | FLUCTUATION NOISE AND SPURIOUS                 | TT    |       |            |
|                     |             |                     | TONE MEASUREMENTS                              |       |       |            |
| 420-211-506         | 1           |                     | ALARM RELAYS—PERFORMANCE CHECKS                | TT    |       |            |
| 420-213             |             |                     | 4-Type FM Terminals                            |       |       |            |
| 420-213-500         | 2           |                     | J68418C PORTABLE HOUSING                       |       |       |            |
|                     |             | 1                   | <i>Power Supply Tests</i>                      | TT    |       |            |
|                     |             | 2                   | <i>Transmission Tests</i>                      | TT    |       |            |
| 420-214             |             |                     | 4-Type FM Transmitter                          |       |       |            |
| 420-214-503         | 3           |                     | IF FLATNESS, LINEARITY, AND DELAY              | TT    |       |            |
| ‡ 420-214-504       | 3           |                     | BASEBAND GAIN-FREQUENCY RESPONSE               | TT    |       |            |
| ‡ 420-214-505       | 3           |                     | FLUCTUATION NOISE AND SPURIOUS                 | TT    |       |            |
|                     |             |                     | TONE MEASUREMENTS                              |       |       |            |
| ‡ 420-214-506       | 3           |                     | SQUARE-WAVE RESPONSE                           | TT    |       |            |
|                     |             |                     | <i>Note: Required only on channels which</i>   |       |       |            |
|                     |             |                     | <i>may carry television</i>                    |       |       |            |
| 420-215             |             |                     | 4-Type FM Receiver                             |       |       |            |
| ‡ 420-215-502       | 4           |                     | SQUARE-WAVE RESPONSE                           | TT    |       |            |
|                     |             |                     | <i>Note: Required only on channels</i>         |       |       |            |
|                     |             |                     | <i>which may carry television</i>              |       |       |            |
| 420-215-503         | 3           |                     | GAIN, FREQUENCY RESPONSE, AND                  | TT    |       |            |
|                     |             |                     | LIMITING ACTION                                |       |       |            |
| 420-215-504         | 4           |                     | LINEARITY                                      | TT    |       |            |
| ‡ 420-215-505       | 4           |                     | FLUCTUATION NOISE AND SPURIOUS                 | TT    |       |            |
|                     |             |                     | TONE MEASUREMENTS                              |       |       |            |
| 420-216             |             |                     | 5A FM Terminal—J68418F—BB Modem                |       |       |            |
| 420-216-503         | 1           |                     | TRANSMITTER—IF FLATNESS, LINEARITY, AND DELAY  | TT    |       |            |
| ADDENDUM            | 1           |                     |  |       |       |            |
| 420-216-504         | 1           |                     | RECEIVER LINEARITY AND DELAY                   | TT    |       |            |
| ‡ 420-216-505       | 2           |                     | GAIN, FREQUENCY RESPONSE,                      | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |   |       |       |            |
|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION                | CLASS | FREQ. | JOB<br>NO. |
| ♦ 420-216-505       | 2           |                     | (Cont)  |       |       |            |
|                     |             |                     | AND LIMITING ACTION                                 |       |       |            |
| ♦ 420-216-506       | 2           |                     | FLUCTUATION NOISE AND<br>SPURIOUS TONE MEASUREMENTS | TT    |       |            |
| 420-216-507         | 1           |                     | SQUARE-WAVE RESPONSE                                | TT    |       |            |
| 420-216-508         | 1           |                     | PILOT DETECTOR TESTS                                | TT    |       |            |
| 420-216-509         | 1           |                     | LINEARITY AND DELAY TESTS                           | TT    |       |            |
| 420-217             |             |                     | 5A FM Terminal—J68418G—IF Deviation Shifter         |       |       |            |
| 420-217-503         | 1           |                     | TRANSMITTER—IF FLATNESS, LINEARITY, AND DELAY       | TT    |       |            |
| ADDENDUM            | 1           |                     |   |       |       |            |
| 420-217-504         | 1           |                     | RECEIVER LINEARITY AND DELAY                        | TT    |       |            |
| ♦ 420-217-505       | 2           |                     | GAIN, FREQUENCY RESPONSE, AND<br>LIMITING ACTION    | TT    |       |            |
| ♦ 420-217-506       | 2           |                     | FLUCTUATION NOISE AND SPURIOUS<br>TONE MEASUREMENTS | TT    |       |            |
| 420-217-507         | 1           |                     | SQUARE-WAVE RESPONSE                                | TT    |       |            |
| 420-217-508         | 2           |                     | BASEBAND PROTECTION CIRCUIT                         | TT    |       |            |
| 420-3               |             |                     | AUXILIARY SYSTEMS                                   |       |       |            |
| 420-300             |             |                     | J68422 Frequency Dplexed Auxiliary Channel          |       |       |            |
| 420-300-501         | 2           |                     | SERVICE CHANNEL TESTS—TERMINALS                     | TT    |       |            |
| 420-301             |             |                     | Auxiliary Channel Switching System                  |       |       |            |
| 420-301-501         | 2           |                     | SYSTEM TESTS—TERMINAL STATION                       |       |       |            |
|                     |             | 5                   | <i>Controls, Indications, and Alarms</i>            | TT    |       |            |
|                     |             | 6                   | <i>Troubleshooting</i>                              | TT    |       |            |
| 420-304             |             |                     | 16A Modulator                                       |       |       |            |
| 420-304-500         | 1           |                     | REMOVAL AND REPLACEMENT                             | TT    |       |            |
| 420-305             |             |                     | IF Entrance Link                                    |       |       |            |
| ♦ 420-305-000       | 2           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE             |       |       |            |
|                     |             | 1                   | <i>J68445AA Output Amplifier Gain Measurement</i>   | TT    |       |            |
|                     |             | 2                   | <i>J68445AB Input Amplifier Gain Measurement</i>    | TT    |       |            |
|                     |             | 3                   | <i>J68445AC Limiter-Amplifier and Alarm</i>         | TT    |       |            |
|                     |             |                     | <i>Circuit Adjustments</i>                          |       |       |            |
| ♦ 420-306           |             |                     | J68451A Heterodyne Auxiliary Channel                |       |       |            |
| ♦ 420-306-500       | 2           |                     | TESTS   |       |       |            |
| ♦                   |             | 6                   | <i>Pilot Detector Trip Alignment</i>                | TT    |       |            |
| ♦                   |             | 7                   | <i>Noise Detector Trip Level Alignment</i>          | TT    |       |            |
| ♦                   |             | 8                   | <i>HAC Blocking Station—Noise</i>                   | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |  |       |       |            |
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| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION   | CLASS | FREQ. | JOB<br>NO. |
| 420-306-500         | 2           |                     | (Cont)   |       |       |            |
|                     |             |                     | <i>Detector Trip Level Alignment</i>   |       |       |            |
| 420-307             |             |                     | Radio Protection Monitor   |       |       |            |
| 420-307-101         | 1           |                     | J68455A-1 100A—DESCRIPTION,<br>OPERATION, AND MAINTENANCE                                  |       |       |            |
|                     |             | Fig. 17             | <i>Troubleshooting—Regular and<br/>Protection Flowchart</i>                                | TT    |       |            |
| 420-6               |             |                     | SWITCHING  |       |       |            |
| 420-600             |             |                     | Data Tests   |       |       |            |
| 420-600-501         | 2           |                     | LONG-HAUL RADIO SYSTEM DATA TROUBLE LOCATION<br>TESTS FOR 1A RADIO DIGITAL SYSTEM (1A RDS) | TT    |       |            |
| 420-610             |             |                     | 100A Protection Switching System   |       |       |            |
| 420-610-302         | 1           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE—<br>REGISTER CIRCUITS                              |       |       |            |
|                     |             | 1                   | <i>System Tests—Register</i>   | TT    |       |            |
| 420-610-502         | 8           |                     | J68381B RECEIVING IF SWITCH BAY  |       |       |            |
|                     |             | 4                   | <i>IF Line Amplifiers</i>  | TT    |       |            |
|                     |             | 10                  | <i>IF Switch Control Unit</i>  | TT    |       |            |
|                     |             | 11                  | <i>IF Switch Control Auxiliary Unit</i>  | TT    |       |            |
|                     |             | 12                  | <i>IF Switch and Associated Ckts—8A Gates—<br/>45A Test Set</i>                            | TT    |       |            |
|                     |             | 13                  | <i>IF Switch and Associated Ckts—8A Gates—<br/>92A or 28A Test Set</i>                     | TT    |       |            |
|                     |             | 14                  | <i>IF Switch and Associated Ckts—8B Gates—<br/>45A Test Set</i>                            | TT    |       |            |
|                     |             | 15                  | <i>IF Switch and Associated Ckts—8B Gates—<br/>92A or 28A Test Set</i>                     | TT    |       |            |
|                     |             | 16                  | <i>IF Switch and Associated Ckts—<br/>8A or 8B Gates—Split System</i>                      | TT    |       |            |
|                     |             | 17                  | <i>Access Protection Switching Tests</i>   | TT    |       |            |
| 420-610-503         | 3           |                     | J68381C RECEIVING CONTROL BAY  |       |       |            |
|                     |             | 1                   | <i>Voice-Frequency Tone Oscillators</i>  | TT    |       |            |
|                     |             | 2                   | <i>Voice-Frequency Line Terminating Ckts</i>   | TT    |       |            |
|                     |             | 3                   | <i>Revg Logic Test Point Voltages (In Standby)</i>   | TT    |       |            |
|                     |             | 4                   | <i>Placing System in Status Quo</i>  | TT    |       |            |
|                     |             | 5                   | <i>Revg Logic Protn Switching Check (In Status Quo)</i>                                    | TT    |       |            |
|                     |             | 6                   | <i>Revg Logic Repetitive Protn Switching and</i>   | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |  |       |       |            |
|---------------------|-------------|---------------------|--|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION   | CLASS | FREQ. | JOB<br>NO. |
| 420-610-503         | 3           |                     | (Cont)   |       |       |            |
|                     |             |                     | <i>Timing Check (In Status Quo)</i>  |       |       |            |
|                     |             | 7                   | <i>Switch to Channel X</i>   | TT    |       |            |
|                     |             | 8                   | <i>3-ms Delay (Channel X)</i>  | TT    |       |            |
|                     |             | 9                   | <i>Switch to Channel Y</i>   | TT    |       |            |
|                     |             | 10                  | <i>3-ms Delay (Channel Y)</i>  | TT    |       |            |
|                     |             | 11                  | <i>Switch Transfer (One Protn Channel Equipped)</i>                                  | TT    |       |            |
|                     |             | 12                  | <i>Switch Transfer (Both Protn Channels Equipped)</i>                                | TT    |       |            |
|                     |             | 13                  | <i>Switch Initiation Failure (One Protn<br/>Channel Equipped)</i>                    | TT    |       |            |
|                     |             | 14                  | <i>Switch Initiation Failure (Both Protn<br/>Channels Equipped)</i>                  | TT    |       |            |
|                     |             | 15                  | <i>Double Switch Initiation Failure</i>  | TT    |       |            |
|                     |             | 16                  | <i>Release Failure</i>   | TT    |       |            |
|                     |             | 17                  | <i>Previous Sect. Fail. and Guard Tone Reinsertion</i>                               | TT    |       |            |
|                     |             | 18                  | <i>Access Switching, Receiving-End Control</i>                                       | TT    |       |            |
|                     |             | 19                  | <i>Diode Test for CR50 and CR51</i>  | TT    |       |            |
|                     |             | 22                  | <i>Status Quo Reset</i>  | TT    |       |            |
| 420-610-504         | 4           |                     | J68381A TRANSMITTING IF SWITCH AND<br>CONTROL BAY                                    |       |       |            |
|                     |             | 1                   | <i>IF Switch Control Unit</i>  | TT    |       |            |
|                     |             | 2                   | <i>IF Switch Control Auxiliary Unit</i>  | TT    |       |            |
|                     |             | 3                   | <i>IF Amplifier-Limiter Used in the<br/>Transmitting IF Switch</i>                   | TT    |       |            |
|                     |             | 4                   | <i>Protection Carrier Supply Unit</i>  | TT    |       |            |
|                     |             | 5                   | <i>Trmtg IF Switch and Associated Ckts—<br/>8A and 14A Gates—45A Test Set</i>        | TT    |       |            |
|                     |             | 6                   | <i>Trmtg IF Switch and Associated Ckts—<br/>8A and 14A Gates—92A or 28A Test Set</i> | TT    |       |            |
|                     |             | 7                   | <i>Trmtg IF Switch and Associated Ckts—<br/>8B Gates—45A Test Set</i>                | TT    |       |            |
|                     |             | 8                   | <i>Trmtg IF Switch and Associated Ckts—<br/>8B Gates—92A or 28A Test Set</i>         | TT    |       |            |
|                     |             | 9                   | <i>Transmitting IF Access Protection<br/>Switching Tests</i>                         | TT    |       |            |
|                     |             | 10                  | <i>Voice-Frequency Circuit</i>   | TT    |       |            |
|                     |             | 11                  | <i>Transmitting Logic</i>  | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |  |       |       |            |
|---------------------|-------------|---------------------|--|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION                                   | CLASS | FREQ. | JOB<br>NO. |
| 420-610-505         | 2           |                     | J68381D AUXILIARY STATION IF SWITCH AND<br>CONTROL BAY                 |       |       |            |
|                     |             | 1                   | -20V Regulator   | TT    |       |            |
|                     |             | 2                   | Transfer and Alarm Unit  | TT    |       |            |
|                     |             | 4                   | IF Amplifier   | TT    |       |            |
|                     |             | 5                   | IF Switch Control Unit   | TT    |       |            |
|                     |             | 6                   | IF Switch Control Auxiliary Unit                                       | TT    |       |            |
|                     |             | 7                   | IF Switch—8A Gates—45A Test Set  | TT    |       |            |
|                     |             | 8                   | IF Switch—8A Gates—92A or 28A Test Set                                 | TT    |       |            |
|                     |             | 9                   | IF Switch—8B Gates—45A Test Set  | TT    |       |            |
|                     |             | 10                  | IF Switch—8B Gates—92A or 28A Test Set                                 | TT    |       |            |
|                     |             | 11                  | Voice-Frequency Circuits   | TT    |       |            |
|                     |             | 12                  | Auxiliary Station Logic Circuit  | TT    |       |            |
| 420-610-506         | 4           |                     | OVERALL SYSTEM TESTS   | TT    |       |            |
| 420-610-507         | 3           |                     | J68389A IF EQN AND AMPLR BAY   | TT    |       |            |
| 410-610-510         | 2           |                     | 1×1 SIMPLIFIED SWITCHING SYSTEM  |       |       |            |
|                     |             | 4                   | Receiving Logic Test Point Voltages                                    | TT    |       |            |
|                     |             | 5                   | IF Line Amplifiers   | TT    |       |            |
|                     |             | 7                   | Receiving-End IF Switch Control Unit                                   | TT    |       |            |
|                     |             | 8                   | Receiving-End IF Switch Control Auxiliary Unit                         | TT    |       |            |
|                     |             | 9                   | Receiving-End IF Switch and Associated<br>Circuits—45A Test Set        | TT    |       |            |
|                     |             | 10                  | Receiving-End IF Switch and Associated<br>Circuits—92A or 28A Test Set | TT    |       |            |
|                     |             | 11                  | Transmitting-End IF Switch Control Unit                                | TT    |       |            |
|                     |             | 12                  | Transmitting-End IF Switch Control<br>Auxiliary Unit                   | TT    |       |            |
|                     |             | 13                  | Transmitting IF Switch and Associated<br>Circuits—45A Test Set         | TT    |       |            |
|                     |             | 14                  | Transmitting IF Switch and Associated<br>Circuits—92A or 28A Test Set  | TT    |       |            |
|                     |             | 15                  | IF Amplifier-Limiter Used in the<br>Transmitting IF Switch             | TT    |       |            |
| 420-610-511         | 3           |                     | J68381B RECEIVING IF SWITCH BAY—1×11                                   |       |       |            |
|                     |             | 4                   | IF Line Amplifiers   | TT    |       |            |
|                     |             | 8                   | IF Switch Control Unit   | TT    |       |            |
|                     |             | 9                   | IF Switch Control Auxiliary Unit                                       | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |   |       |       |            |
|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION  | CLASS | FREQ. | JOB<br>NO. |
| 420-610-511         | 3           |                     | (Cont)  |       |       |            |
|                     |             | 10                  | IF Switch and Associated Ckts—8A Gates—<br>45A Test Set                           | TT    |       |            |
|                     |             | 11                  | IF Switch and Associated Ckts—8A Gates—<br>92A or 28A Test Set                    | TT    |       |            |
|                     |             | 12                  | IF Switch and Associated Ckts—8B Gates—<br>45A Test Set                           | TT    |       |            |
|                     |             | 13                  | IF Switch and Associated Ckts—8B Gates—<br>92A or 28A Test Set                    | TT    |       |            |
|                     |             | 14                  | Exerciser Tests   | TT    |       |            |
|                     |             | 15                  | Access Pre-Emption Test   | TT    |       |            |
|                     |             | 16                  | Initr Noise Detr Adjmt Prcdr<br>Using the 81T Test Set                            | TT    |       |            |
|                     |             | 17                  | Initr Noise Detr Adjmt Prcdr Using the<br>Scientific-Atlanta Baseband Noise Trmtr | TT    |       |            |
| 420-610-512         | 2           |                     | J68381C RECEIVING CONTROL BAY—1×11  | TT    |       |            |
| 420-610-513         | 1           |                     | J68381A TRANSMITTING IF SWITCH<br>AND CONTROL BAY—1×11                            | TT    |       |            |
| ADDENDUM            | 1           |                     |   |       |       |            |
| 420-610-515         | 2           |                     | OVERALL SYSTEM—1×11   | TT    |       |            |
| 420-610-516         | 1           |                     | J68389A IF EQN AND AMPLR BAY—1×11   |       |       |            |
|                     |             | 3                   | -20V Regulator—Replacement  | TT    |       |            |
|                     |             | 4                   | IF Trunk Amplifiers   | TT    |       |            |
| 420-611             |             |                     | IF Equipment Tests  |       |       |            |
| 420-611-501         | 3           |                     | J68381BK/EG AND J68389AC IF AMPLIFIERS  |       |       |            |
| ADDENDUM            | 1           |                     |   |       |       |            |
|                     |             | 1                   | Input Return-Loss Test—Method A—<br>45A Test Set                                  | TT    |       |            |
|                     |             | 2                   | Input Return-Loss Test—Method A—<br>92A Test Set                                  | TT    |       |            |
|                     |             | 3                   | Input Return-Loss Test—28A Test Set   | TT    |       |            |
|                     |             | 4                   | Output Return-Loss Test—Method A—<br>45A Test Set                                 | TT    |       |            |
|                     |             | 5                   | Output Return-Loss Test—Method A—<br>92A Test Set                                 | TT    |       |            |
|                     |             | 6                   | Output Return-Loss Test—28A Test Set  | TT    |       |            |
|                     |             | 7                   | Input Return-Loss Test Method—B—<br>45A Test Set                                  | TT    |       |            |

| EQUIPMENT TEST LIST |             |                     |   |       |       |            |
|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION                    | CLASS | FREQ. | JOB<br>NO. |
| 420-611-501         | 3           |                     | (Cont)  |       |       |            |
|                     |             | 8                   | Output Return-Loss Test—Method B—<br>45A Test Set       | TT    |       |            |
|                     |             | 9                   | Transmission and Gain Measurement Test—<br>45A Test Set | TT    |       |            |
|                     |             | 10                  | Transmission and Gain Measurement Test—92A Test Set     | TT    |       |            |
|                     |             | 11                  | Transmission and Gain Measurement Test—<br>28A Test Set | TT    |       |            |
| 420-611-502         | 2           |                     | J68381BJ/EJ IF SWITCH CONTROL UNIT                      | TT    |       |            |
| 420-611-503         | 2           |                     | J68381BH/DM/DY/EB PROTECTION PILOT DETR CKT             |       |       |            |
|                     |             | 1                   | J68381BH Protn Pilot Detr Test                          | TT    |       |            |
|                     |             | 4                   | J68381DM Protn Pilot Detr Test and Troubleshooting      | TT    |       |            |
|                     |             | 5                   | J68381DY Protn Pilot Detr Tests                         | TT    |       |            |
|                     |             | 7                   | J68381EB Protn Pilot Detr Tests                         | TT    |       |            |
| 420-611-504         | 3           |                     | J68381BT/DP/DW/EA                                       | TT    |       |            |
| ADDENDUM            | 1           |                     | PROTN CARR SUP  |       |       |            |
|                     |             | 1                   | J68381BT Protn Carr Sup Test                            | TT    |       |            |
|                     |             | 3                   | J68381DP Protn Carr Sup Test                            | TT    |       |            |
|                     |             | 5                   | J68381DW Protn Carr Sup Test                            | TT    |       |            |
|                     |             | 6                   | J68381EA Protn Carr Sup Test                            | TT    |       |            |
| 420-611-505         | 2           |                     | 8A/8B/14A GATES   | TT    |       |            |
| 420-611-506         | 3           |                     | J68381DJ IF AMPLR-LIMR CKT                              | TT    |       |            |
| ADDENDUM            | 1           |                     | AND J68381EH IF AMPLR WITH SQUELCH                      |       |       |            |
| 420-612             |             |                     | Initiator Tests   |       |       |            |
| 420-612-501         | 3           |                     | J68381DN/BG/EF CHANNEL INITIATOR                        | TT    |       |            |
| 420-613             |             |                     | Receiving Logic Plug-In Units                           |       |       |            |
| 420-613-501         | 1           |                     | TESTS   | TT    |       |            |
| ADDENDUM            | 1           |                     |   |       |       |            |
| 420-614             |             |                     | Transmitting Logic Plug-In Units                        |       |       |            |
| 420-614-501         | 1           |                     | TESTS   | TT    |       |            |
| 420-615             |             |                     | Aux Sta Logic Plug-In Units                             |       |       |            |
| 420-615-501         | 1           |                     | TESTS   | TT    |       |            |
| 420-616             |             |                     | VF Circuit Plug-In Units                                |       |       |            |
| 420-616-501         | 1           |                     | TESTS   | TT    |       |            |
| 420-617             |             |                     | J68381E Exerciser Logic Plug-In Units                   |       |       |            |
| 420-617-501         | 2           |                     | TESTS   | TT    |       |            |
| 420-618             |             |                     | Miscellaneous Equipment                                 |       |       |            |

| EQUIPMENT TEST LIST |     |              |   |       |       |         |
|---------------------|-----|--------------|---|-------|-------|---------|
| B.S.P.              | ISS | TEST OR REQ. | EQUIPMENT AND WORK DESCRIPTION            | CLASS | FREQ. | JOB NO. |
| 420-618-501         | 2   |              | TESTS                                     | TT    |       |         |
| 420-620 THRU        |     |              | 400A Protection Switching System          |       |       |         |
| 420-626             |     |              |   |       |       |         |
| ◆ 420-620-120       | 1   |              | SIMPLIFIED 1×1 SYSTEM—                    |       |       |         |
| ◆                   |     |              | DESCRIPTION, OPERATION, AND MAINTENANCE   |       |       |         |
| ◆                   |     | 8            | <i>Service Failure</i>                    | TT    |       |         |
| ◆                   |     | 9            | <i>Prolonged Protection Chan Failure</i>  | TT    |       |         |
| ◆                   |     | 10           | <i>Common Alarm</i>                       | TT    |       |         |
| ◆                   |     | 11           | <i>Carrier or Output Failure</i>          | TT    |       |         |
| ◆                   |     | 12           | <i>Release Failure Alarm</i>              | TT    |       |         |
| ◆                   |     | 13           | <i>Manual Sw or Lockout Failure</i>       | TT    |       |         |
| ◆                   |     | 14           | <i>Regular Chan Rcvg End (IF)</i>         | TT    |       |         |
| ◆                   |     | 15           | <i>Protection Chan Rcvg End (IF)</i>      | TT    |       |         |
| ◆                   |     | 16           | <i>Regular Chan Trmtg End (IF)</i>        | TT    |       |         |
| ◆                   |     | 17           | <i>Protection Chan Trmtg End (IF)</i>     | TT    |       |         |
| ◆ 420-620-141       | 1   |              | ADD-DROP DESCRIPTION,                     |       |       |         |
| ◆                   |     |              | OPERATION, AND MAINTENANCE                |       |       |         |
| ◆                   |     | 13           | <i>J68429D Bay Trmsn Tests—Rcvg</i>       | TT    |       |         |
| ◆                   |     | 20           | <i>J68429D Bay Trmsn Tests—Trmtg</i>      | TT    |       |         |
| ◆ 420-620-147       | 1   |              | REGISTER CIRCUITS—DESCRIPTION,            |       |       |         |
| ◆                   |     |              | OPERATION, AND MAINTENANCE                |       |       |         |
| ◆                   |     | 16           | <i>Automatic Switch Register Test</i>     | TT    |       |         |
| ◆                   |     | 17           | <i>Service Fail Register Test</i>         | TT    |       |         |
| ◆                   |     | 18           | <i>Protection Fail Register Test</i>      | TT    |       |         |
| ◆                   |     | 19           | <i>Voice-Frequency Fail Register Test</i> | TT    |       |         |
| ◆                   |     | 20           | <i>MS/ACS/LO Switch Register Test</i>     | TT    |       |         |
| ◆ 420-620-502       | 4   |              | J68429A TRANSMITTING IF SWITCH AND        |       |       |         |
|                     |     |              | CONTROL BAY                               |       |       |         |
|                     |     | 5            | <i>Removal and Replacement of Units</i>   | TT    |       |         |
|                     |     | 6            | <i>J68429A Bay Transmission Test</i>      | TT    |       |         |
| ◆ 420-620-503       | 7   |              | J68429B RECEIVING IF SWITCH AND           |       |       |         |
|                     |     |              | CONTROL BAY                               |       |       |         |
|                     |     | 3            | <i>Removal and Replacement of Units</i>   | TT    |       |         |
|                     |     | 4            | <i>J68429B Bay Transmission Test</i>      | TT    |       |         |
| ◆ 420-620-504       | 6   |              | J68429C SUPPLEMENTARY IF SWITCH AND       |       |       |         |
|                     |     |              | CONTROL BAY                               |       |       |         |
|                     |     | 3            | <i>Removal and Replacement of Units</i>   | TT    |       |         |

| EQUIPMENT TEST LIST |             |                     |  |       |       |            |
|---------------------|-------------|---------------------|--|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION         | CLASS | FREQ. | JOB<br>NO. |
| 420-620-504         | 6           |                     | (Cont)                                       |       |       |            |
|                     |             | 4                   | <i>J68429C Bay—Transmission Test</i>         | TT    |       |            |
| 420-626-500         | 2           |                     | SYSTEM TESTS—TROUBLESHOOTING                 | TT    |       |            |
| 420-628             |             |                     | 401A Protection Switching System             |       |       |            |
| 420-628-000         | 1           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE      |       |       |            |
|                     |             | 7                   | <i>Overall System Tests</i>                  | TT    |       |            |
|                     |             | 8                   | <i>Rcvg Sw and Trmtg Access Sw Trmsn Tst</i> | TT    |       |            |
|                     |             | 10                  | <i>Service Failure</i>                       | TT    |       |            |
|                     |             | 11                  | <i>Prolonged Channel Failure</i>             | TT    |       |            |
|                     |             | 12                  | <i>Forced Switch</i>                         | TT    |       |            |
|                     |             | 13                  | <i>Access Switch</i>                         | TT    |       |            |
|                     |             | 14                  | <i>Reset</i>                                 | TT    |       |            |
|                     |             | 15                  | <i>IF Troubleshooting—Rcvg End</i>           | TT    |       |            |
|                     |             | 16                  | <i>IF Troubleshooting—Trmtg End</i>          | TT    |       |            |
| 420-629             |             |                     | 401C Protection Switching System             |       |       |            |
| 420-629-000         | 1           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE      |       |       |            |
|                     |             | 7                   | <i>Overall System Tests</i>                  | TT    |       |            |
|                     |             | 8                   | <i>Rcvg Sw and Trmtg Access Sw Trmsn Tst</i> | TT    |       |            |
|                     |             | 10                  | <i>Service Failure</i>                       | TT    |       |            |
|                     |             | 11                  | <i>Prolonged Channel Failure</i>             | TT    |       |            |
|                     |             | 12                  | <i>Forced Switch</i>                         | TT    |       |            |
|                     |             | 13                  | <i>Access Switch</i>                         | TT    |       |            |
|                     |             | 14                  | <i>Reset</i>                                 | TT    |       |            |
|                     |             | 15                  | <i>IF Troubleshooting—Rcvg Ckts</i>          | TT    |       |            |
|                     |             | 16                  | <i>IF Troubleshooting—Trmtg Ckts</i>         | TT    |       |            |
| 420-630             |             |                     | 200A Protection Switching System             |       |       |            |
| 420-630-500         | 7           |                     | OVERALL SYSTEM                               |       |       |            |
|                     |             | 4                   | <i>Overall System Transmission Test</i>      | TT    |       |            |
|                     |             | 5                   | <i>223-Type Switch Test</i>                  | TT    |       |            |
| 420-630-501         | 2           |                     | FM TERMINAL TRANSMITTER AND WLEL SWITCHING   | TT    |       |            |
|                     |             |                     | TESTS—AUTO AND MANUAL CONTROL CIRCUITS       |       |       |            |
| 420-630-502         | 2           |                     | FM TERMINAL RECEIVER AND WLEL SWITCHING      | TT    |       |            |
|                     |             |                     | TESTS—AUTO AND MANUAL CONTROL CIRCUITS       |       |       |            |
| 420-630-503         | 5           |                     | J68381BK/EG AND J68389AA/AC IF AMPLIFIERS    | TT    |       |            |
| 420-630-504         | 3           |                     | J68382H FM RECEIVER                          | TT    |       |            |
| 420-630-505         | 6           |                     | J68382E BASEBAND AMPLIFIER-RECTIFIER         | TT    |       |            |
| 420-630-507         | 2           |                     | J87252C VOLTAGE REGULATOR                    |       |       |            |

| EQUIPMENT TEST LIST |             |                     |   |       |       |            |
|---------------------|-------------|---------------------|---|-------|-------|------------|
| B.S.P.              | I<br>S<br>S | TEST<br>OR<br>REQT. | EQUIPMENT<br>AND<br>WORK DESCRIPTION                  | CLASS | FREQ. | JOB<br>NO. |
| 420-630-507         | 2           |                     | (Cont)  |       |       |            |
|                     |             | 2                   | <i>Bench Test</i>                                     | TT    |       |            |
|                     |             | 3                   | <i>Voltage Measurements (Troubleshooting)</i>         | TT    |       |            |
| 420-650             |             |                     | 300A Protection Switching System                      |       |       |            |
| 420-650-501         | 2           |                     | TRANSMITTING END                                      |       |       |            |
| ‡                   |             | 4                   | <i>Troubleshooting</i>                                | TT    |       |            |
| 420-650-502         | 3           |                     | RECEIVING END   |       |       |            |
|                     |             | 4                   | <i>Controls, Indications, and Alarms</i>              | TT    |       |            |
|                     |             | 5                   | <i>Troubleshooting</i>                                | TT    |       |            |
| 420-660 THRU        |             |                     | 400B Protection Switching System                      |       |       |            |
| 420-667             |             |                     |   |       |       |            |
| 420-667-500         | 1           |                     | TROUBLESHOOTING                                       | TT    |       |            |
| 420-670 THRU        |             |                     | 401B Protection Switching System                      |       |       |            |
| 420-671             |             |                     |   |       |       |            |
| 420-670-501         | 1           |                     | OVERALL SYSTEM  |       |       |            |
|                     |             | 4                   | <i>Rcvg Switch and Trmtg Access Switch Trmsn Test</i> | TT    |       |            |
|                     |             | 5                   | <i>Removal and Replacement of Units</i>               | TT    |       |            |
| ‡ 420-671-500       | 1           |                     | TROUBLESHOOTING                                       | TT    |       |            |
| ‡ 420-684           |             |                     | 400H Protection Switching System                      |       |       |            |
| ‡ 420-684-130       | 1           |                     | DESCRIPTION, OPERATION, AND                           |       |       |            |
| ‡                   |             |                     | MAINTENANCE—SIMPLIFIED 1×1 SYSTEM                     |       |       |            |
| ‡                   |             | 12                  | <i>Service Failure</i>                                | TT    |       |            |
| ‡                   |             | 13                  | <i>Prolonged Prot'n Chan Failure</i>                  | TT    |       |            |
| ‡                   |             | 14                  | <i>Common Alarm</i>                                   | TT    |       |            |
| ‡                   |             | 15                  | <i>Release Failure Alarm</i>                          | TT    |       |            |
| ‡                   |             | 16                  | <i>Manual Switch Failure</i>                          | TT    |       |            |
| ‡                   |             | 17                  | <i>Lockout Failure</i>                                | TT    |       |            |
| ‡                   |             | 18                  | <i>Forced Access Switch Failure</i>                   | TT    |       |            |
| ‡                   |             | 19                  | <i>Forced Switch Failure</i>                          | TT    |       |            |
| ‡                   |             | 20                  | <i>Forced Sw Normal Fail—Reg Chan</i>                 | TT    |       |            |
| ‡                   |             | 21                  | <i>Forced Sw Normal Fail—Prot'n Chan</i>              | TT    |       |            |
| ‡ 420-684-502       | 1           |                     | TROUBLESHOOTING                                       | TT    |       |            |
| ‡ 420-685           |             |                     | 401H Protection Switching System                      |       |       |            |
| ‡ 420-685-000       | 1           |                     | DESCRIPTION, OPERATION, AND MAINTENANCE               |       |       |            |
| ‡                   |             | 9                   | <i>Service Failure</i>                                | TT    |       |            |
| ‡                   |             | 10                  | <i>Prolonged Channel Failure</i>                      | TT    |       |            |
| ‡                   |             | 11                  | <i>Forced Switch</i>                                  | TT    |       |            |

