

NUMERICAL INDEX — DIVISION 332
VOICE FREQUENCY TELEPHONE REPEATERS, PILOT WIRE REGULATORS,
ECHO SUPPRESSORS, COMPOSITE SETS AND ASSOCIATED EQUIPMENT

1. GENERAL

- 1.01** This section provides an index of System-issued sections in Division 332.
- 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** "Add" is the abbreviation for Addendum. "App" is the abbreviation for Appendix; and "Sup" is the abbreviation for Supplement.

2. LAYERS

- 2.01** This division is arranged in layers as follows:
- 332-0 Indexes, Equipment Test Lists and General Information
 - 1 Amplifier Type Telephone Repeaters
 - 2 Negative Impedance Telephone Repeaters
 - 3 Special Service Lines — Line-Up
 - 4 Pilot Wire Regulators, Echo Suppressors, Toll Conference Grouping Circuits and Auxiliary Equipment
 - 8 4-Wire Terminating Sets and Precision Balancing Networks

3. INDEXES

| Section Number | Issue | Subject |
|--|-------|--|
| 332-0 INDEXES, EQUIPMENT TEST LISTS AND GENERAL INFORMATION | | |
| ● 332-000-000 | 39 | Numerical Index — Division 332 — Voice Frequency Telephone Repeaters, Pilot Wire Regulators, Echo Suppressors, Composite Sets and Associated Equipment |
| ● Sup 332-001-011 | 1 | |
| 332-001-011 | 2 | ETL |
| General Information | | |
| 332-010-010 | 3 | Test Results on Voice Repeaters |
| 332-010-011 | 4 | Forms for Recording Results of Singing Point and Office Cabling Balance Tests |
| 332-010-012 | 4 | Circuit Order Tests Circuit Units |
| 332-010-015 | 2 | Telephone Repeaters — Jack Field Designations and Assignment Directory |
| Add332-010-100 | 1 | |
| 332-010-100 | 2 | Voice Frequency Telephone Repeaters — General Instructions |
| 332-010-101 | 2 | Procedure for Investigating Gains of Telephone Repeaters |
| Add332-011-100 | 1 | |
| 332-011-100 | 1 | Repeater Attendant's Telephone Set |

| Section Number | Issue | Subject |
|----------------|-------|---|
| 332-011-101 | 1 | 4-Wire Telephone Order Wire — Hybrid Coil Bridging |
| 332-011-102 | 1 | 4-Wire Telephone Order Wire — Hybrid Coil Bridging — Equipment Arrangements |
| 332-015-100 | 2 | Simplified Theory of Singing Point Tests |
| 332-015-300 | 3 | Singing Point Tests |
| 332-015-500 | 3 | Singing Point Tests for Voice Frequency Trunks |
| 332-016-010 | 3 | Location of Irregularities on Loaded Cable Pairs Through Analysis of Impedance and Impedance Unbalance Curves |
| 332-016-011 | 1 | Forms for Recording Attenuation and Impedance Measurements on Toll Circuits Voice Frequency Range |

332-1 AMPLIFIER TYPE TELEPHONE REPEATERS

22 Type Repeaters

| | | |
|----------------|---|---|
| Add332-100-100 | 3 | |
| 332-100-100 | 1 | 22A1 Telephone Repeater |
| 332-100-101 | 1 | 22A2 and D-87797 Telephone Repeaters |
| Add332-100-102 | 2 | |
| 332-100-102 | 1 | Circuits and Apparatus Associated with 22A1, 22A2 and D-87797 Telephone Repeaters |

22 Type Repeaters

| | | |
|----------------|---|---|
| 332-100-103 | 2 | 22 Type Telephone Repeaters Modified for 4-Wire Operation |
| 332-100-104 | 1 | 22 Type Telephone Repeater Arranged for AC Operation |
| Add332-100-300 | 2 | |
| 332-100-300 | 3 | 22A1, 22A1 (HE), D-87797 and 22A2 Telephone Repeaters — Operating Requirements and Limits |
| Add332-100-500 | 3 | |
| 332-100-500 | 2 | 22A1, D-87797 and 22A2 Telephone Repeaters — Tests and Adjustments |
| Add332-100-501 | 1 | |
| 332-100-501 | 2 | 22 Type Telephone Repeaters Arranged for AC Operation — Tests and Adjustments |

44 Type Repeaters

| | | |
|----------------|---|-------------------------|
| Add332-101-100 | 3 | |
| 332-101-100 | 1 | 44A1 Telephone Repeater |

SECTION 332-000-000

| Section Number | Issue | Subject |
|--------------------------|-------|--|
| Add332-101-101 | 1 | |
| 332-101-101 | 1 | Circuits and Apparatus Associated With the 44A1 Telephone Repeater |
| 332-101-102 | 2 | Regulating Network Lockup Circuit for Telephoto Services |
| Add332-101-300 | 1 | |
| 332-101-300 | 5 | Operating Requirements and Limits |
| Add332-101-500 | 1 | |
| 332-101-500 | 2 | Tests and Adjustments |
| V1 Type Repeaters | | |
| Add332-102-100 | 1 | |
| 332-102-100 | 2 | V1 Telephone Repeater and Associated Equipment |
| 332-102-101 | 1 | Repeater Switching Circuit |
| 332-102-300 | 6 | Circuit Order and Periodic Tests |
| Add332-102-500 | 2 | |
| 332-102-500 | 4 | Tests and Adjustments |
| V3 Type Repeaters | | |
| 332-103-100 | 1 | V3 Telephone Repeater |
| 332-103-101 | 1 | Bay Arrangements |
| 332-103-300 | 2 | Circuit Order and Periodic Tests |
| 332-103-500 | 3 | Tests and Adjustments on V3 Amplifier |
| 332-103-501 | 2 | V1 and V3 Telephone Repeaters — Associated Equipment Tests and Adjustments |
| 332-103-502 | 2 | Adjustment of Battery Supply Circuits |
| V4 Type Repeaters | | |
| Add332-104-100 | 1 | |
| 332-104-100 | 1 | V4 Telephone Repeater |
| 332-104-102 | 2 | 24V4B Telephone Repeater |
| 332-104-500 | 1 | Initial Line-up |
| 332-104-501 | 2 | 227 Type Amplifiers — Tests and Adjustments |
| 332-105-101 | 1 | 24V4A Repeater Mounting Shelf — Description |
| 332-105-102 | 1 | 24V4B Repeater Mounting Unit — Description |
| Add332-105-103 | 1 | |
| 332-105-103 | 1 | 24V4C Repeater Mounting Shelf — Description |
| 332-106-101 | 1 | 44V4A Repeater Mounting Shelf — Description |
| 332-106-102 | 1 | 44V4B Repeater Mounting Shelf — Description |
| 332-115-101 | 1 | 849A Network — Description |
| 332-115-102 | 1 | 849B Network — Description |
| 332-115-103 | 1 | 849C Network — Description |
| 332-115-104 | 1 | 849D Network — Description |
| 332-115-105 | 1 | 849E Network — Description |

| Section Number | Issue | Subject |
|----------------|-------|------------------------------|
| 332-115-106 | 1 | 849F Network — Description |
| 332-115-107 | 1 | 849G Network — Description |
| 332-116-101 | 1 | 359A Equalizer — Description |
| 332-116-102 | 1 | 359B Equalizer — Description |
| 332-116-103 | 1 | 359C Equalizer — Description |
| 332-116-104 | 1 | 359D Equalizer — Description |
| 332-116-105 | 1 | 359E Equalizer — Description |
| 332-116-106 | 1 | 359F Equalizer — Description |
| 332-116-107 | 1 | 359G Equalizer — Description |
| 332-116-108 | 1 | 359H Equalizer — Description |
| 332-116-109 | 1 | 359J Equalizer — Description |
| 332-116-110 | 1 | 359K Equalizer — Description |
| 332-116-111 | 1 | 359L Equalizer — Description |
| 332-116-112 | 1 | 359M Equalizer — Description |
| 332-116-113 | 1 | 359N Equalizer — Description |
| 332-117-101 | 1 | 648A Filter — Description |

332-2 NEGATIVE IMPEDANCE TELEPHONE REPEATERS

E Type Repeaters

| | | |
|----------------|---|---|
| 332-200-000 | 3 | E1 Telephone Repeater — General Information |
| 332-200-100 | 1 | General Information On Placing Repeaters In Service |
| 332-200-101 | 1 | Taking Repeater Out of Service and Analyzing Trouble |
| 332-200-102 | 1 | Taking an E1 or E3 Repeater Out of Service and Preparing for Trouble Analysis |
| 332-200-103 | 1 | Taking E2 or E23 Repeater Out of Service and Preparing for Trouble Analysis |
| 332-200-104 | 1 | General Procedures for Trouble Analysis for a Line Equipped with an E1, E2, E13 or E23 Repeater When Little Gain, No Gain or Poor Transmission is Indicated |
| 332-200-105 | 1 | General Procedures for Trouble Analysis for a Line Equipped with an E1, E2, E13 or E23 Repeater When Instability Or Excessive Gain Is Indicated |
| Add332-200-106 | 1 | |
| 332-200-106 | 1 | Network Strapping by Use of Charts — E13 or E23 Bridged Repeaters |
| 332-200-108 | 1 | Application of Test Terminations Using Test Termination Circuit SD-96476-01 or Trunk Terminating and Patching Jacks at Master Test Frame |
| 332-200-300 | 1 | Placing E1 or E13 Repeaters In Service Using E-Repeater Test Set |

| Section Number | Issue | Subject | Section Number | Issue | Subject |
|-------------------------|-------|--|---|-------|--|
| 332-200-301 | 1 | Placing E2 or E23 Repeaters In Service Using E-Repeater Test Set | 332-206-503 | 1 | E6 Repeater Line-up on Nonloaded PBX-to-CO Trunk With 830C Network at Central Office and No Network at PBX |
| 332-200-302 | 1 | Placing E1 or E13 Repeaters In Service Using 2G Repeater Test Set | 332-206-510 | 2 | J98619A Subscriber Loop — Message and Signal Repeater — Tests and Adjustments |
| 332-200-303 | 1 | Placing Repeaters In Service Without the Use of a Repeater Test Set | 332-207-100 | 1 | E7 Repeaters — Introduction |
| 332-200-500 | 3 | General Information on Tests and Inspections | 332-207-101 | 1 | E7 Repeater — Theory |
| 332-200-501 | 3 | Electron Tubes — Visual Checks, Measurements and Adjustment of Applied Voltages | 332-207-121 | 1 | E7 Repeater — Application to MTWX Circuits |
| 332-200-502 | 2 | Monitoring Tests | 332-207-301 | 1 | E7 Repeaters — Line-Up |
| 332-200-503 | 2 | Effective Gain Measurement — Method A — Using E Repeater Test and Test Oscillator | 332-207-311 | 1 | E7 Repeaters — Maintenance |
| 332-200-504 | 2 | Effective Gain Measurement — Method B — Using E Repeater Test Set and Noise Generator | 332-3 SPECIAL SERVICE LINES — LINE-UP | | |
| 332-200-505 | 2 | Effective Gain Measurement — Method C — Using 2G Repeater Test Set and Test Oscillator | 332-310-501 | 1 | Special Service Overall Line-UP — Off-Premises Station Lines with E6 Repeaters |
| 332-200-506 | 2 | Effective Gain Measurement — Method D — Using 2G Repeater Test Set and Noise Generator | 332-310-551 | 1 | Special Service Link Line-Up — PBX to Central Office 2-Wire Link — Using E6 Repeaters |
| 332-200-507 | 1 | Effective Gain Measurement — Method E — Measurements of Gain Peaks and Valleys — Using E Repeater Test Set | 332-310-552 | 1 | Special Service Link Line-Up — Central Office to Central Office — 2-Wire Link Using E6 Repeaters |
| 332-200-508 | 1 | Effective Gain Measurements — Method F — Measurements of Gain Peaks and Valleys — Using 2G Repeater Test Set | 332-310-553 | 1 | Special Service Link Line-Up — Central Office To Station 2-Wire — Link Using E6 Repeaters |
| E Type Repeaters | | | 332-4 PILOT WIRE REGULATORS, ECHO SUPPRESSORS, TOLL CONFERENCE GROUPING CIRCUITS AND AUXILIARY EQUIPMENT | | |
| 332-200-509 | 2 | Circuit Net Loss Measurement — Method A — Using A Test Oscillator | Pilot Wire Regulators | | |
| 332-200-510 | 2 | Circuit Net Loss Measurement — Method B — Using a Noise Generator | Add332-400-100 | 1 | |
| 332-200-511 | 3 | Gain Tests for Repeater In A Standard 600 Ohm Circuit — Method A — Using the E Repeater Test Set | 332-400-100 | 2 | 4A Pilot Wire Transmission Regulating System |
| 332-200-512 | 2 | Gain Tests for Repeater In A Standard 600 Ohm Circuit — Method B — Using the 2G Repeater Test Set | 332-400-300 | 2 | 4A and 5A System — Initial Line-Up and Maintenance Procedures |
| Add332-206-100 | 1 | | 332-400-500 | 3 | 4A System — Tests and Adjustments |
| 332-206-100 | 1 | E Type Repeaters — E6 Repeater | Add332-401-100 | 1 | |
| 332-206-101 | 1 | E6 Repeater Disabler (J99253L) — Description | 332-401-100 | 1 | 5A System — Description |
| 332-206-110 | 2 | J98619A Subscriber Loop — Message and Signal Repeater | 332-401-500 | 3 | 5A System — Tests and Adjustments |
| 332-206-123 | 1 | 830C Network — Description | 332-402-100 | 1 | Regulated Circuit Units — Gain Corrections |
| 332-206-153 | 1 | 837C Network — Description | Echo Suppressors | | |
| 332-206-502 | 1 | E6 Repeater Line-up — on Nonloaded Cable | 332-410-101 | 1 | 1A Suppressor — With Enabler and Disabler |
| | | | 332-410-102 | 3 | 1A Suppressor — Modification for Use On Telephotograph Circuits |
| | | | 332-410-103 | 1 | 1A Suppressor — With Enabler and Disabler — Equipped with 326-Type Mercury Relays — Description |
| | | | <input type="checkbox"/> 332-410-300 | 5 | 1A Suppressor — Circuit Order and Maintenance Test Intervals |
| | | | | | <i>Information now contained in ETL 332-001-011.</i> |
| | | | 332-410-301 | 2 | 1A Suppressor — Test from Trunk Terminals |

SECTION 332-000-000

| Section Number | Issue | Subject |
|----------------|-------|---|
| 332-410-500 | 5 | 1A Suppressor and Disabler — Tests and Adjustments |
| 332-410-501 | 1 | 1A Echo Suppressor and Disabler Equipped with 326-Type Mercury Relays — Tests and Adjustments |
| 332-412-101 | 1 | 3A Echo Suppressor — Description |
| 332-412-102 | 1 | 3B Echo Suppressor — Description |
| 332-412-300 | 1 | 3A Echo Suppressor — Circuit Order and Maintenance Test Intervals |
| 332-412-500 | 1 | 3A Echo Suppressor — Line-up |
| 332-412-502 | 1 | 3B Echo Suppressor — Line-up |

1A Compandor

| | | |
|-----------------|---|----------------------------------|
| Add 332-420-100 | 1 | |
| 332-420-100 | 1 | Description |
| 332-420-300 | 1 | Circuit Order and Periodic Tests |
| 332-420-500 | 2 | Testing Methods |

Toll Conference Grouping Circuits — 6 Outlet Arrangement

| | | |
|-------------|---|--|
| 332-430-100 | 3 | Switching Pad Non-Gain and Cord Circuit Repeater Offices |
| 332-430-300 | 3 | Periodic Tests and Trouble Investigations — Switching Pad Non-Gain and Cord Circuit Repeater Offices |

Toll Conference Grouping Circuits — 6 Outlet Arrangement With Repeaters

| | | |
|-------------|---|--|
| 332-430-500 | 3 | Tests and Adjustments — Switching Pad Non-Gain and Cord Circuit Repeater Offices |
| 332-431-100 | 2 | Six Outlet V Repeatered Volcas Arrangement |
| 332-431-300 | 2 | Periodic Tests and Adjustments — Six Outlet V Repeatered Volcas Arrangement |
| 332-431-500 | 3 | Six Outlet V Repeatered Arrangement — Tests and Adjustments — Volcas for 22 Type Repeaters Used with Toll Conference Grouping Circuits |
| 332-432-100 | 2 | Volcas for 22 Type Repeaters Used with Toll Conference Grouping Circuits |
| 332-432-300 | 2 | Periodic Tests and Trouble Investigation |

Toll Conference Grouping Circuits — 6 Outlet Arrangement Without Repeaters

| Section Number | Issue | Subject |
|----------------|-------|---|
| 332-432-500 | 2 | Tests and Adjustments — Non-Repeatered Toll Conference Grouping Circuit |
| 332-433-100 | 1 | Three Outlet Arrangement — Non-Repeatered |
| 332-435-100 | 1 | Multipoint Conference Bridge — Description |
| 332-435-500 | 1 | Multipoint Conference Bridge — Tests and Adjustments |

Auxiliary Equipment

| | | |
|-------------|---|---|
| 332-450-100 | 3 | Composite Sets and Associated Hybrid Transformers |
| 332-450-500 | 1 | Testing and Balancing Composite Sets and Associated Line or Hybrid Transformers |

332-8 4-WIRE TERMINATING SETS AND PRECISION BALANCING NETWORKS

Terminating Sets

| | | |
|-------------|---|--|
| 332-800-101 | 2 | 1A and 1K Terminating Set — Description |
| 332-800-102 | 2 | 1B and 1L Terminating Sets — Description |
| 332-800-103 | 2 | 1C and 1F Terminating Set — Description |
| 332-800-104 | 1 | 1D Terminating Set — Description |
| 332-800-105 | 1 | 1G Terminating Set — Description |
| 332-800-106 | 1 | 1H Terminating Set — Description |
| 332-800-107 | 1 | 1J Terminating Set — Description |

Networks

| | | |
|-------------|---|----------------------------------|
| 332-852-100 | 1 | 4066 Type Networks — Description |
| 332-852-101 | 2 | 4066A Network — Description |
| 332-852-102 | 1 | 4066B Network — Description |
| 332-852-103 | 1 | 4066C Network — Description |
| 332-852-104 | 1 | 4066D Network — Description |
| 332-852-105 | 1 | 4066E Network — Description |
| 332-852-106 | 1 | 4066F Network — Description |
| 332-852-107 | 1 | 4066G Network — Description |
| 332-852-108 | 1 | 4066H Network — Description |