

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 A heart (♥) indicates a new or reissued item which, because of its limited need, has not been distributed on standing orders. Locations requiring these items should place regular (one-time) orders for them.

1.05 "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:

- 332-0 Indexes, Equipment Test Lists, and General Information
 - 1 Amplifier Type Telephone Repeaters
 - 2 Negative Impedance Repeaters and Impedance Compensators
 - 3 Customer Loops — Long Route Design
 - 4 Pilot Wire Regulators, Echo Suppressors, Toll Conference Grouping Circuits and Auxiliary Equipment
 - 6 Voice-Frequency Consolidated Equipment Arrangements
 - 7 4-Wire Extension
 - 8 4-Wire Terminating Sets and Precision Balancing Networks
 - 9 Combined Transmission and Signaling Repeaters

3. INDEXES

Section Number	Issue	Subject
332-0 INDEXES, EQUIPMENT TEST LISTS, AND GENERAL INFORMATION		
• 332-000-000	93	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	3	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

Section Number	Issue	Subject
Add 332-010-100	1	
332-010-100	2	Voice Frequency Telephone Repeaters — General Instructions
332-010-101	2	Procedure for Investigating Gains of Telephone Repeaters
Add 332-011-100	1	
332-011-100	1	Repeater Attendant's Telephone Set
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
332-017-100	1	Voiceband Multipoint Split Bridge With Gain, Equalization and Test Access — Identification

332-1 AMPLIFIER TYPE TELEPHONE REPEATERS

22 Type Repeaters

Add 332-100-100	3	
332-100-100	1	22A1
332-100-101	1	22A2 and D-87797
Add 332-100-102	2	
332-100-102	1	Circuits and Apparatus Associated With 22A1, 22A2 and D-87797
332-100-103	2	Modified for 4-Wire Operation
332-100-104	1	Arranged for AC Operation
Add 332-100-300	2	
332-100-300	3	22A1, 22A1 (HE), D-87797 and 22A2 — Operating Requirements and Limits
Add 332-100-500	3	
332-100-500	2	22A1, D-87797 and 22A2 — Tests and Adjustments
Add 332-100-501	1	
332-100-501	2	Arranged for AC Operation — Tests and Adjustments

NOTICE

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

SECTION 332-000-000

Section Number	Issue	Subject	Section Number	Issue	Subject
44 Type Repeaters			332-106-102	1	44V4B Repeater Mounting Shelf — Description
Add 332-101-100	3		332-115-101	1	849A Network — Description
332-101-100	1	44A1	332-115-102	1	849B Network — Description
Add 332-101-101	1		332-115-103	1	849C Network — Description
332-101-101	1	Circuits and Apparatus Associated With the 44A1	332-115-104	1	849D Network — Description
332-101-102	2	Regulating Network Lockup Circuit for Telephoto Services	332-115-105	1	849E Network — Description
Add 332-101-300	1		332-115-106	1	849F Network — Description
332-101-300	5	Operating Requirements and Limits	332-115-107	1	849G Network — Description
Add 332-101-500	1		332-115-108	1	849H Network — Description
332-101-500	2	Tests and Adjustments	332-116-101	2	359A Equalizer — Description
V1 Type Repeaters			332-116-102	2	359B Equalizer — Description
Add 332-102-100	1		332-116-103	1	359C Equalizer — Description
332-102-100	2	V1 Telephone Repeater and Associated Equipment	332-116-104	2	359D Equalizer — Description
332-102-101	1	Repeater Switching Circuit	332-116-105	1	359E Equalizer — Description
332-102-300	6	Circuit Order and Periodic Tests	332-116-106	2	359F Equalizer — Description
Add 332-102-500	2		332-116-107	1	359G Equalizer — Description
332-102-500	4	Tests and Adjustments	332-116-108	1	359H Equalizer — Description
V3 Type Repeaters			332-116-109	1	359J Equalizer — Description
332-103-100	2	Description	332-116-110	1	359K Equalizer — Description
332-103-101	1	Bay Arrangements	332-116-111	1	359L Equalizer — Description
332-103-300	3	Circuit Order and Periodic Tests	332-116-112	3	359M Equalizer — Description
332-103-500	4	Tests and Adjustments on V3 Amplifier	332-116-113	1	359N Equalizer — Description
332-103-501	2	V1 and V3 Telephone Repeaters — Associated Equipment Tests and Adjustments	332-116-114	1	359P Equalizer — Description
332-103-502	2	Adjustment of Battery Supply Circuits	332-116-115	1	359R Equalizer — Description
V4 Type Repeaters			332-116-201	3	Strapping Charts for 359A and 359D Equalizers
Add 332-104-100	1		332-116-214	1	Strapping Charts for 359P Equalizer When Using 227A, B, C, D, E or F Amplifiers
332-104-100	1	V4 Telephone Repeater	332-117-101	2	648A Filter — Description
332-104-102	2	24V4B Telephone Repeater	332-119-101	1	332A Relay — Description
332-104-103	1	F58122 Amplifier	332-119-102	1	333A Relay — Description
332-104-500	1	Initial Line-up	332-120-100	1	424V4B Repeater Mounting Shelf — Description
332-104-501	2	227 Type Amplifiers — Tests and Adjustments	332-121-100	1	3-Way 4-Wire Bridging Repeater — Description
332-104-503	1	F58122 Amplifier — Tests and Adjustments	332-121-101	1	3-Way 4-Wire Bridging Repeater — Test Extender — Description
332-105-101	2	24V4A Repeater Mounting Shelf — Description	332-121-500	1	3-Way 4-Wire Bridging Repeater — Tests and Adjustments
332-105-102	1	24V4B Repeater Mounting Unit — Description	332-130-100	1	306A Repeater Unit — Description
Add 332-105-103	1				
332-105-103	2	24V4C Repeater Mounting Shelf — Description			
Add 332-105-104	1				
332-105-104	1	24V4D Repeater Mounting Shelf — Description			
332-106-101	1	44V4A Repeater Mounting Shelf — Description			

Section Number	Issue	Subject	Section Number	Issue	Subject
332-130-101	1	4229A Network — Description	332-200-504	2	Effective Gain Measurement — Method B — Using E Repeater Test Set and Noise Generator
332-131-100	1	Voice Operated Switched Gain Repeater — Description	332-200-505	2	Effective Gain Measurement — Method C — Using 2G Repeater Test Set and Test Oscillator
332-131-500	1	Voice Operated Switched Gain Repeater — Test and Adjustment	332-200-506	2	Effective Gain Measurement — Method D — Using 2G Repeater Test Set and Noise Generator
332-140-100	1	215A Repeater — Description	332-200-507	1	Effective Gain Measurement — Method E — Measurements of Gain Peaks and Valleys — Using E Repeater Test Set
332-140-200	1	215A Repeater — Installation and Maintenance	332-200-508	1	Effective Gain Measurements — Method F — Measurements of Gain Peaks and Valleys — Using 2G Repeater Test Set
332-2 NEGATIVE IMPEDANCE REPEATERS AND IMPEDANCE COMPENSATORS			332-200-509	2	Circuit Net Loss Measurement — Method A — Using a Test Oscillator
E Type Repeaters			332-200-511	3	Gain Tests for Repeater in a Standard 600 Ohm Circuit — Method A — Using the E Repeater Test Set
332-200-000	3	E1 Telephone Repeater — General Information	332-200-512	2	Gain Tests for Repeater in a Standard 600 Ohm Circuit — Method B — Using the 2G Repeater Test Set
332-200-100	1	General Information on Placing Repeaters In Service	332-205-100	1	Impedance Compensators — Description
332-200-101	1	Taking Repeater Out of Service and Analyzing Trouble	332-205-500	1	Impedance Compensators — Tests and Adjustments
332-200-102	1	Taking an E1 or E3 Repeater Out of Service and Preparing for Trouble Analysis	Add 332-206-100	1	
332-200-103	1	Taking E2 or E23 Repeater Out of Service and Preparing for Trouble Analysis	332-206-100	1	E6 Repeater
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	332-206-101	1	E6 Repeater Disabler (J99253U) — Description
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	332-206-102	1	E6 Repeater Solid-State Disabler SD-97023-01 — Description
Add 332-200-106	1		332-206-120	1	Subscriber Loop — Remote Message Repeater — Description
332-200-106	1	Network Strapping by Use of Charts — E13 or E23 Bridged Repeaters	332-206-121	1	830A Network — Description
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	332-206-122	1	830B Network — Description
332-200-300	1	Placing E1 or E13 Repeaters In Service Using E-Repeater Test Set	332-206-123	1	830C Network — Description
332-200-301	1	Placing E2 or E23 Repeaters In Service Using E-Repeater Test Set	332-206-124	2	830D Network — Description
332-200-302	1	Placing E1 or E13 Repeaters In Service Using 2G Repeater Test Set	332-206-125	1	830E Network — Description
332-200-303	1	Placing Repeaters In Service Without the Use of a Repeater Test Set	332-206-126	1	830F Network — Description
332-200-500	3	General Information on Tests and Inspections	332-206-127	4	830G Network — Description
332-200-501	3	Electron Tubes — Visual Checks, Measurements and Adjustment of Applied Voltages	332-206-128	1	830H Network — Description
332-200-502	2	Monitoring Tests	332-206-129	1	E6 Range Extender — Description
332-200-503	2	Effective Gain Measurement — Method A — Using E Repeater Test and Test Oscillator	332-206-130	1	E6B Range Extender — Description and Installation
			332-206-131	1	830J Network — Description
			332-206-151	1	837A Network — Description

SECTION 332-000-000

Section Number	Issue	Subject
332-206-152	1	837B Network — Description
332-206-153	1	837C Network — Description
332-206-154	2	837D and J99380AA — Description
332-206-155	2	837E and J99380AB — Description
332-206-156	1	837F Network — Description
332-206-157	4	837G and J99380AC — Description
• 332-206-158	1	837J Network — Description
332-206-200	2	E6 Repeater — Alignment Procedure
332-206-221	1	830A Network — Installation and Prescription Settings
332-206-222	1	830B Network — Installation and Prescription Settings
332-206-223	1	830C Network — Installation and Initial Settings
332-206-225	1	830E Network — Installation and Prescription Settings
332-206-227	2	830G Network — Installation and Prescription Settings
332-206-228	1	830H Network — Installation and Prescription Settings
332-206-229	1	E6 Range Extender — Installation
332-206-231	1	830J Network — Installation and Prescription Settings
332-206-251	1	837A Network — Installation and Prescription Settings
332-206-252	1	837B Network — Installation and Prescription Settings
332-206-253	1	837C Network — Installation and Prescription Settings
332-206-254	2	837D and J99380AA — Installation and Initial Settings
332-206-255	2	837E and J99380AB — Installation and Prescription Settings
332-206-256	1	837F Network — Installation and Prescription Settings
332-206-257	3	837G and J99380AC — Installation and Prescription Settings
• 332-206-258	1	837J Network — Installation and Prescription Settings
332-206-500	2	E6 Repeater — Routine Tests and Adjustments
332-206-520	1	Subscriber Loop — Remote Message Repeater — Maintenance Tests
332-207-100	1	E7 Repeaters — Introduction
332-207-101	1	E7 Repeater — Theory

Section Number	Issue	Subject
332-207-121	1	E7 Repeater — Application to MTWX Circuits
332-207-301	1	E7 Repeaters — Line-Up
332-207-311	1	E7 Repeaters — Maintenance
332-208-100	1	Negative Impedance Converter — Description
332-210-100	4	Range Extender With Gain (REG) — Description and Operation
332-210-500	4	Range Extender With Gain (REG) — Initial Alignment and Tests
332-211-100	1	Signaling Range Extender (SRE) — Description and Operation
332-211-500	1	Signaling Range Extender (SRE) — Operational Tests

332-3 CUSTOMER LOOPS — LONG ROUTE DESIGN

332-310-510	1	E6 Repeater Lineup — Subscriber Loops
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332-4 PILOT WIRE REGULATORS, ECHO SUPPRESSORS, TOLL CONFERENCE GROUPING CIRCUITS AND AUXILIARY EQUIPMENT

Pilot Wire Regulators

Add 332-400-100	1	
332-400-100	2	4A Pilot Wire Transmission Regulating System
332-400-300	2	4A and 5A System — Initial Line-Up and Maintenance Procedures
332-400-500	3	4A System — Tests and Adjustments
Add 332-401-100	1	
332-401-100	1	5A System — Description
332-401-500	3	5A System — Tests and Adjustments
332-402-100	1	Regulated Circuit Units — Gain Corrections

Echo Suppressors

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
332-410-301	2	1A Suppressor — Test From Trunk Terminals
Add 332-410-500	1	
332-410-500	5	1A Suppressor and Disabler — Tests and Adjustments
Add 332-410-501	1	
332-410-501	1	1A Echo Suppressor and Disabler Equipped With 326-Type Mercury Relays — Tests and Adjustments
332-412-101	2	3A Echo Suppressor — Description
332-412-102	2	3B Echo Suppressor — Description

Section Number	Issue	Subject	Section Number	Issue	Subject
Add 332-412-500	1		Add 332-435-100	1	
332-412-500	2	3A Echo Suppressor — Lineup	332-435-100	1	Multiport Conference Bridge — Description
Add 332-412-502	1		Add 332-435-500	2	
332-412-502	2	3B Echo Suppressor — Lineup	332-435-500	1	Multiport Conference Bridge — Tests and Adjustments
♥ 332-413-100	1	2A Echo Suppressor — Description	♥ 332-436-100	1	Specialized Network Conferencing Systems (SNCS) — Description, Methods of Operation, and Test Procedures
♥ 332-413-300	1	2A Echo Suppressor — Circuit Order and Maintenance Test Intervals	♥ 332-436-101	1	Specialized Network Conferencing Systems (SNCS) — Executive Intercompany Conferencing Arrangement (EICA) — Description, Method of Operation, and Test Procedures
332-414-100	2	4A Echo Suppressor — Description	♥ 332-436-110	1	Specialized Network Conferencing Systems (SNCS) — Pulsecom Model 1682-1 Time Division Conference Bridge — Description, Methods of Operation, and Test Procedures
332-414-105	1	4A Echo Suppressor — J68914TA Test Extender — Description	♥ 332-436-120	1	Specialized Network Conferencing (SNCS) — Conference Control Switching Circuit (CCSC) — Description, Method of Operation, and Test Procedures
332-414-200	1	4A Echo Suppressor — Installation Tests			
332-414-500	1	4A Echo Suppressor — Trouble Location			
1A Compandor			Auxiliary Equipment		
Add 332-420-100	1		332-450-100	3	Composite Sets and Associated Hybrid Transformers
332-420-100	1	Description	332-450-500	1	Testing and Balancing Composite Sets and Associated Line or Hybrid Transformers
332-420-300	1	Circuit Order and Periodic Tests			
332-420-500	2	Testing Methods			
• 332-421-100	1	N3 Compandor Applique Circuit General Description			
Toll Conference Grouping Circuits — 6 Outlet Arrangement			332-6 VOICE-FREQUENCY CONSOLIDATED EQUIPMENT ARRANGEMENTS		
332-430-100	3	Switching Pad Non-Gain and Cord Circuit Repeater Offices	Using E-Type SF Signaling Units		
332-430-300	3	Periodic Tests and Trouble Investigations — Switching Pad Non-Gain and Cord Circuit Repeater Offices	332-600-101	1	Description and Application of J98617J-2 Bay
			332-600-102	1	Maintenance Provisions
Toll Conference Grouping Circuits — 6 Outlet Arrangement With Repeaters			Customer's Premises Facility Terminal for Type F Signaling System		
332-430-500	3	Tests and Adjustments — Switching Pad Non-Gain and Cord Circuit Repeater Offices	332-601-100	1	Description
332-431-100	2	Six Outlet V Repeated Volcas Arrangement	332-601-200	1	Identification, Connections, and Installation
332-431-300	2	Periodic Tests and Adjustments — Six Outlet V Repeated Volcas Arrangement	332-601-500	1	Maintenance and Lineup
332-431-500	3	Six Outlet V Repeated Arrangement — Tests and Adjustments — Volcas for 22 Type Repeaters Used With Toll Conference Grouping Circuits	Customer Premises Facility Terminal for Metallic Facility Terminal Plug-In Equipment		
332-432-100	2	Volcas for 22 Type Repeaters Used With Toll Conference Grouping Circuits	332-610-100	2	General Description
332-432-300	2	Periodic Tests and Trouble Investigation	332-610-200	2	Installation
			332-610-500	2	Maintenance and Testing Information
Toll Conference Grouping Circuits — 6 Outlet Arrangement Without Repeaters			332-7 4-WIRE EXTENSION		
332-432-500	2	Tests and Adjustments — Non-Repeated Toll Conference Grouping Circuit	332-700-101	1	4182A Network — Description
332-433-100	1	Three Outlet Arrangement — Non-Repeated	332-700-102	1	4182B Network — Description
332-434-100	1	4233A Network — 4-Way, 4-Wire Bridge — Description	332-700-103	2	4182C Network — Description

SECTION 332-000-000

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

Terminating Sets

Section Number	Issue	Subject
332-800-101	2	1A and 1K — Description
332-800-102	2	1B and 1L — Description
332-800-103	3	1C, 1F, and 1M — Description
332-800-104	2	1D and 1N — Description
332-800-105	1	1G — Description
332-800-106	1	1H — Description
332-800-107	1	1J — Description
332-800-108	1	1P — Description

Data on Balancing Equipment

332-851-101	2	115-Type Networks for Toll Message and Program Circuits
Add 332-851-102	3	
332-851-102	1	Line Balance Network Data
Add 332-851-103	3	
332-851-103	1	Exchange Line Balancing Network Data

Networks

332-852-100	1	4066 — Description
332-852-101	3	4066A — Description
332-852-102	1	4066B — Description
332-852-103	1	4066C — Description
332-852-104	1	4066D — Description
332-852-105	1	4066E — Description
332-852-106	1	4066F — Description
332-852-107	2	4066G — Description
332-852-108	1	4066H — Description
332-852-109	1	4066K — Description and Settings

332-9 COMBINED TRANSMISSION AND SIGNALING REPEATERS

J98619A Subscriber Loop

332-906-110	2	Message and Signal Repeater
332-906-510	2	Tests and Adjustments

Metallic Facility Terminal

332-910-100	1	(J99343) — Description
332-910-101	2	Shelf, Frame, Power Panel, and Distributing Frame Arrangements — Description
332-910-102	1	Test Extender (J99343TB) — SD-1C485-02 — Description and Operation

Section Number Issue Subject

332-910-180	1	General Applications Information
332-911-101	1	Loop Signaling Repeater (J99343AA, AB, AC, AD, AE) — SD-1C359-01 — Description
332-911-102	1	Loop Signaling Extender (J99343CA, CB, CC) — SD-1C359-01 — Description
332-911-103	1	DX1 and DX1/DX2 Signaling Units (J99343DA, DB) — SD-1C359-01 — Description
332-911-104	2	Ringdown Signaling Units (J99343EA, EB, EC) — SD-1C359-01 — Description
332-911-105	1	Loop-Start and Ground-Start to DX or E&M — Signaling Converters (J99343FA, FB, FC, FD)
332-911-106	1	Signaling Lead Access Unit (J99343MA) — SD-1C359-01 — Description
332-911-201	1	Signaling Units — Installation and Testing
332-912-101	1	2-Wire Transmission Units (J99343BA, BB, BC) — SD-1C359-01 — Description
332-912-111	1	2-Wire Repeaters (J99343PA, PB, PC, PD, PE, PF) — SD-1C359-01 — Description
332-912-121	1	4-2 Wire Repeaters (J99343RB, RC) — 2-4 Wire Intermediate Repeaters (J99343RD, RE) — SD-1C359-01 — Description
332-912-131	2	4-4 Wire Repeaters (J99343RA, SBI) — 2-4 Wire Repeater (J99343RA) — SD-1C359-01 — Description
332-912-141	1	2-Wire Dual Repeater (J99343PI) — SD-1C359-01 — Description
332-912-201	1	2-Wire Transmission Units (J99343BA, BB, BC) SD-1C359-01 — Installation and Testing
332-912-211	1	2-2 Repeaters (J99343PA, PB, PC, PD, PE, PF) — SD-1C359-01 — Installation and Testing
332-912-212	1	Prescription Settings for 2-2 Repeaters (J99343PA, PB, PC, PD, PE, PF)
332-912-221	1	4-2 Wire Repeaters (J99343RB, RC) — 2-4 Wire Intermediate Repeaters (J99343RD, RE) — SD-1C359-01 — Installation and Testing
332-912-222	1	Prescription Settings for 4-2 and 2-4 Repeaters (J99343RB, RC, RD, RE)
332-912-231	1	4-Wire Transmission Units (J99343SA, SA, SB) — SD-1C359-01 — Installation and Testing
332-912-232	1	Prescription Equalizer Settings for 4-Wire Transmission Units (J99343RA, SA, SB)
332-912-241	1	2-Wire Dual Repeater (J99343PI) — SD-1C359-01 — Installation and Testing
332-912-250	1	Amplitude and Delay Equalizer (J99343SN) — SD-1C359-01 Description and Installation