UPKEEP WORK UNITS
CENTRAL OFFICE EQUIPMENT — CIRCUIT
FORMS E-4407A AND E-4407B

CONTENTS PAGE

1. GENERAL

1.01 This section describes the method of counting and reporting equipment items of Central Office Equipment using Form E-4407A, Central Office Equipment — Circuit (Excluding Carrier Telephone), and Form E-4407B, Central Office Equipment — Circuit (Carrier Telephone) for the purpose of determining the number of work units for this type of equipment.

1.02 This section is reissued for the following reasons:

(a) To revise Form E-4407A (1-65) to delete Line 19, TWX CONCENTRATING UNIT. The revised form will not be available until present stocks of Form E-4407A (5-64) are exhausted.

(b) To revise completely Form E-4407B (1-65) to provide work units for transistorized carriers coded N2, N3, and T including the transistorized N1A repeater; to combine Type H carrier repeater and terminal, Type M carrier terminal and Type EB terminal counts with "other type" of carrier; to combine Type L carrier master group, submaster group, supergroup and group counts on one line of the form. The new form should be used as soon as supplies can be conveniently secured.

(c) The alphabetical list is corrected to make the above changes and to make the following additional clarification changes:

EQUIPMENT NAME	LINE NO.
Amplifier-"K" Carrier Auxiliary Test	33-A#
Amplifier-"N" Carrier Flat Gain (2)	20-B
Compandor	12-A
Concentrator, Subscriber Line	33-A#
Data Terminal B1	33-A#
Equalizer Equipment-Deviation	33-A#
Expandor (See Compandor)	—
Regulator, Carrier Line, "N & ON2" Type Deviation	33-A#
Repeaters, Telephone, Type 22V4, 24V4, & 44V4	11-A
Repeaters, Telephone, Type V4 (Except 22, 24, or 44)	10-A
Test Equipment, Signal, Type SS1 Bay Mounted	X

1.03 Section 015-100-010 covers general instructions applicable to all upkeep work unit forms. Section 015-000-000 contains a list of the sections describing the individual forms.

1.04 These forms provide for a special work unit allowance to cover travel time to and from unattended offices. Where the work unit form covers both the home office and unattended offices maintained out of the home office, it is assumed that a separate subtotal of work units in the unattended offices only will be determined in order to calculate the additional unattended office allowance (see Line 35 on Form E-4407A and Line 46 on Form E-4407B). For this purpose, an unattended office is defined as one in which all the craft work is performed by forces based at another office (i.e., forces who normally report to another office). An office, therefore, where one or more of the force normally report for work should ***not*** be considered as "unattended."

1.05 As indicated in Section 015-100-010, "Generally the count of plant items should be on an installed basis." For the purpose of this section, "installed" means either in service or available for immediate use either by patching, cross-connecting or local wiring. Spare "plug-in type" units of equipment, i.e., units not plugged into equipment bays, should not be counted.

2. DESCRIPTION OF FORM E-4407A

2.01 ***Column A: No. of Plant Items: Other Co.:*** This column is for showing plant items on which work is performed for another company, when required by local instructions.

2.02 ***Column B: No. of Plant Items: Total:*** This column is for showing total plant items on which work is performed.

2.03 ***Column C: W.U. per Plant Item:*** These are the work unit factors which, when multiplied by the plant items, give the number of work units.

2.04 ***Column D: Work Units per Quarter: Other Co.:*** Enter for each kind of plant item the result obtained by multiplying the number of plant items in Column A by the work unit factor in Column C. Computations should be expressed to the nearest whole number.

2.05 ***Column E: Work Units per Quarter: Total:*** Enter for each kind of plant item the result obtained by multiplying the number of plant items in Column B by the work unit factor in Column C. Computations should be expressed to the nearest whole number.

Line Terminal Equipment

2.06 ***Line 1: Phantom, Composite or Filter Set:*** Covers phantom sets, phantom equalizing sets, composite sets, filter sets, phantom composite sets and phantom composite equalizing sets. A filter set consists of a high-pass and/or low-pass filter.

Count plant items for each of the above, as follows:

(a) Phantom set (2 coils) — 1 item

(b) Phantom equalizing set — 1 item

(c) Repeating coil group (4 coils) — 2 items

(d) Simplex sets — 1/2 item

(e) Intermediate composite set — 1 item

(f) Terminal composite set — 1 item

(g) Transfer or filter set — 1 item

(h) Phantom composite set — 1 item

(i) Phantom composite equalizing set — 1 item

2.07 ***Line 2: Signaling Circuits: Single Frequency: Tube Type:*** Covers tube type single frequency signaling circuits associated with line terminal equipment.

Count one plant item for each tube type single frequency signaling circuit.

2.08 ***Line 3: Signaling Circuits: Single Frequency: Transistor Type:*** Covers transistor type single frequency signaling circuits associated with line terminal equipment.

Count one plant item for each transistor type single frequency signaling circuit.

2.09 ***Line 4: Signaling Circuits: Composite, Simplex or DX:*** Covers composite signaling circuits used in connection with intertoll dial and simplex or DX signaling circuits. Also includes pulse link repeaters.

Count one plant item for each signaling circuit and each pulse link repeater.

2.10 ***Line 5: Signaling Circuits: Other:*** Covers all signaling circuits not covered by Lines 2, 3 and 4. Includes all types of dc, 20, 135 and 1000-cycle signaling circuits except those associated with intertoll trunk equipment (see Form E-4406). Also includes signal converters.

Count one plant item for each signaling circuit.

2.11 ***Line 6: 4-Wire Term. Sets, Res. or Coil Hybrids:*** Covers 4-wire terminating sets, and resistance or coil hybrids. Does not cover signaling circuits associated with terminal equipment.

Count one plant item for each 4-wire terminating set, each resistance hybrid and each coil hybrid.

Testboards, Serviceboards and Test Panel Equipment

2.12 *Line 7: Testboard or Serviceboard:* Covers all testboards and telegraph serviceboards.

Count one plant item for each bay or position.

2.13 *Line 8: Test Position:* Covers wire chief's test desks, No. 6 type transmission measuring sets, No. 7 type transmission testboards, mobile testing equipment, T.V.O.C. bays, sealed test terminals, V.F. patch bays, automatic outgoing intertoll trunk test bays and 118-type telegraph transmission measuring sets. Also includes 1C pad bays, circuit patch bays associated with No. 4 and No. 5 crossbar switching systems.

Count one plant item for each bay or test position.

2.14 *Line 9: Test Panel:* Covers miscellaneous test panels which have been installed in addition to, or in place of, testboard positions. Also includes miscellaneous patching bays except the circuit patch bays associated with No. 4 and No. 5 crossbar switching systems.

Count one plant item for each test panel and each miscellaneous patching bay.

Telephone Repeater Equipment

2.15 *Line 10: Repeaters: V or E Type:* Covers V or E type repeaters excepting 22, 24 and 44 type repeaters.

Count one plant item for each repeater (i.e., each two amplifiers).

2.16 *Line 11: Repeaters: 22 or 44 Type:* Covers 22-type, 24-type, and 44-type regulating and nonregulating telephone repeaters. (Allowance for regulating networks is included on Line 14.)

Count one plant item for each repeater.

2.17 *Line 12: Echo Supp. or Compandor:* Covers echo suppressors and compandors and associated test panels.

Count one plant item for each echo suppressor and each compandor.

2.18 *Line 13: Line Balancing Network Circuit:* Covers all equipment in the repeater network circuit on the side of the repeater connected to outside plant facilities but excludes the repeater network circuit on the switchboard or switching equipment side of terminal repeaters.

Count one plant item for each terminal 2-wire repeater and count two plant items for each intermediate 2-wire repeater.

2.19 *Line 14: Pilot Wire Regulator System:* Covers pilot wire transmission regulators (including regular and spare master regulators), bridge circuits and master, submaster and repeater network relays associated with regulator circuits.

Count one plant item for each complete pilot wire regulating system.

Telegraph Equipment

2.20 *Line 15: Repeaters: Regenerative Type:* Covers regenerative repeaters used on teletypewriter circuits. A regenerative repeater consists of one 2-way unit.

Count one plant item for each repeater.

2.21 *Line 16: Repeaters: Other Type:* Covers grounded, differential, or bridge polar duplex, single line, polarential, one-way polar, 2-way polar, terminal and intermediate telegraph repeaters and associated monitoring sets. (144-type coupling units should be counted on Line 33.)

Count one plant item for each repeater.

2.22 *Line 18: Teletypewriter:* Covers teletypewriters installed in central offices.

Count one plant item for each teletypewriter.

2.23 *Line 21: Carrier: V.F. and H.F. Term:* Covers voice-frequency and high-frequency carrier telegraph terminal equipment.

Count one plant item for each channel.

Program and Video Equipment

2.24 ***Line 22: Amplifier (Program and T.V. Audio):*** Covers program transmission circuit and includes amplifiers, input and output coils, equalizers, volume indicators and monitoring equipment.

Count one plant item for each amplifier assigned to a permanent circuit or network. Where 44A1 repeaters are used, count two amplifiers for each repeater.

2.25 ***Line 23: Program Switching Equipment:*** Covers switching equipment used for switching or reversing program amplifiers and loops.

Count one plant item for each complete switching or reversing circuit. (One plant item includes all the equipment which operates as the result of a single switching operation.)

2.26 ***Line 24: Amplifier — Video:*** Covers the amplifiers used in providing transmission for video.

Count one plant item for each of the following amplifiers.

(a) Input Amplifier

(b) Intermediate Amplifier

(c) Output Amplifier

(d) Receiving Terminal Amplifier

(e) Video Distribution Amplifier

(f) Clamper Amplifier

2.27 ***Line 25: Video Switching Equipment:*** Covers switching equipment used for switching or reversing video amplifiers or loops.

Count one plant item for each input and each output.

Example: A panel with 10 inputs and 10 outputs should be counted as 20 plant items.

2.28 ***Line 26: Video Monitor:*** Covers video monitors used at T.V. operating centers and other locations.

Count one plant item for each video monitor.

2.29 ***Line 27: T.V. Terminal:*** Covers coaxial T.V. terminal equipment used when video is assigned to L Carrier over coaxial.

Count one plant item for each coaxial T.V. terminal.

Miscellaneous Equipment

2.30 ***Line 28: Amplifier (Other):*** Covers all one-way amplifiers not covered by other lines of this or other forms. In general, includes amplifiers used for grouping arrangements, such as news services, Musak, etc.

Count one plant item for each amplifier.

2.31 ***Line 31: Special Misc. Item: — Type A:*** This line is for use only for the following items:

(a) ***Digital Data Transmitter:*** Count 8 plant items for each digital data transmitter.

(b) ***Digital Data Receiver:*** Count 16 plant items for each digital data receiver.

(c) ***Trouble Detector — Transfer and Control:*** Count 4 plant items for each trouble detector. Factor includes allowance for associated transfer and control unit.

(d) ***Data Test Position:*** Count 124 plant items for the combination of data test and jack bays making up the test position.

(e) ***Common User Group:*** Count 496 plant items for each common user group serving one air-ground site. Factor includes allowance for line and controller, channels, trunks, jack bays, test frame, and trouble indicator.

(f) ***Dual Facilities:*** Count 12 plant items for each dual facility equipment associated with one A trunk and one B trunk.

2.32 ***Line 32: Special Misc. Item — Type B:*** This line is for use only for the following item:

(a) ***TASI System Terminal:*** Count 1360 plant items for each TASI system terminal.

2.33 ***Line 33: Other Equipment (Per Bay):*** Covers equipment not covered by another line of this or other work unit form as indicated in the following:

(a) Equipment in a bay in which ***none*** of the equipment in that bay is covered by another line of this or other work unit form.

Determine, to nearest one-quarter bay, the amount of equipment (other than fuses, jack panels, ballast lamps and portable testing apparatus) and record this as the number of plant items.

(b) Equipment in a bay in which ***some*** of the equipment is covered by another line of this or other work unit form.

(1) If the equipment that is covered by another line of this or other work unit form ***is unrelated*** to the other equipment in that bay, determine to the nearest one-quarter bay the amount of this other equipment (other than fuses, jack panels, ballast lamps and portable testing equipment) and record this as the number of plant items.

(2) If the equipment that is covered by another line of this or other work unit form ***is related*** to the other equipment in that bay, no plant items should be counted.

Note: Where equipment is installed outdoors or in cabinets, an estimate should be made of the bay or bays it would occupy if installed in bays in the central office.

2.34 ***Line 34: Total Lines 1 Through 33:*** Enter the sums of Lines 1 through 33 in Columns D and E.

2.35 ***Line 35: Unattended Office Allowance:*** Enter the total work units for unattended offices (see Par. 1.04) on this line. Multiply Columns A and B by .10 and record in Columns D and E.

2.36 ***Line 36: Total Work Units:*** Enter the sum of Lines 34 and 35.

2.37 ***Line 37: Number of Frames (Bays) + Positions):*** Enter the number of bays and positions of equipment included in the inventory. Partially equipped bays should be estimated to nearest one-quarter bay. Where equipment is installed outdoors or in cabinets, an estimate should be made of the bay or bays it would occupy if installed in bays in the central office.

2.38 ***Lines 38 and 39: This Form Includes Equip. in Attended or Unattended Offices As Checked:*** Enter an "X" in the appropriate box to show whether this form covers equipment in both attended and unattended offices, in attended offices only, or in unattended offices only.

2.39 ***Line 40: Upkeep Hours on this Equipment Charged to:*** Enter the subaccount to which upkeep hours for repairs of equipment on this form are charged. Use one sheet for each subaccount.

2.40 ***City-Office, District, Division, Company-Area, Qtr. Ending:*** Complete form by filling in office, district, division, company and area. In quarter ending, show either March 31, June 30, September 30 or December 31, and the year.

3. DESCRIPTION OF FORM E-4407B

3.01 ***Column A: No. of Plant Items: Other Co.:*** This column is for showing plant items on which work is performed for another company, when required by local instructions.

3.02 ***Column B: No. of Plant Items: Total:*** This column is for showing total plant items on which work is performed.

3.03 ***Column C: W.U. per Plant Item:*** These are the work unit factors which, when multiplied by the plant items, give the number of work units.

3.04 ***Column D: Work Units per Quarter: Other Co.:*** Enter for each kind of plant item the result obtained by multiplying the number of plant items in Column A by the work unit factor in Column C. Computations should be expressed to nearest whole number.

3.05 ***Column E: Work Units per Quarter: Total:*** Enter for each kind of plant item the result obtained by multiplying the number of plant items in Column B by the work unit factor in Column C. Computations should be expressed to the nearest whole number.

C Carrier Equipment

3.06 ***Line 1: Repeater:*** Covers C Carrier telephone repeaters.

Count one plant item for each repeater.

3.07 ***Line 2: Terminal:*** Covers C Carrier telephone terminal equipment but excludes 2A and 2B pilot channels (see Line 3).

Count one plant item for each C Carrier terminal.

3.08 ***Line 3: Pilot Channel 2A or 2B:*** Covers 2A and 2B pilot channels associated with C Carrier.

Count one plant item for each receiving terminal and count two plant items for each intermediate repeater.

3.09 ***Line 4: Volume Limiter:*** Covers volume limiters associated with C Carrier.

Count one plant item for each channel equipped with a volume limiter.

J Carrier Equipment

3.10 ***Line 5: Repeater:*** Covers repeaters used at intermediate offices on J Carrier.

Count one plant item for each repeater.

3.11 ***Line 6: Group:*** Covers group equipment used on J Carrier.

Count one plant item for each (2-way) group.

K Carrier Equipment

3.12 ***Line 7: Amplifier:*** Covers the line and twist amplifiers on K Carrier systems.

Count one plant item for each K line or twist amplifier.

3.13 ***Line 8: Group:*** Covers group equipment used on K Carrier telephone systems.

Count one plant item for each (2-way) group.

L-1 Carrier Equipment

3.14 ***Line 9: H.F. Line Amplifier:*** Covers the "plug-in type" transmitting, receiving, flat gain, and auxiliary amplifiers on L-1 Carrier.

Count one plant item for each plug-in amplifier. (See Par. 1.05.)

3.15 ***Line 10: H.F. Line Regulator:*** Covers plug-in regulators used with amplifiers in terminal, auxiliary, and main stations on L-1 Carrier. (See Form E-4409 for additional work units for maintenance centers.)

Count one plant item for each plug-in regulator.

L-3 Carrier Equipment

3.16 ***Line 11: H.F. Line Amplifier:*** Covers plug-in line amplifiers and flat amplifiers used on L-3 Carrier.

Count one plant item for each plug-in amplifier. (See Par. 1.05.)

3.17 ***Line 12: H.F. Line Regulator:*** Covers plug-in regulators used on L-3 Carrier. (See Form E-4409 for additional work units for maintenance centers.)

Count one plant item for each plug-in regulator. (See Par. 1.05.)

L-Type Carrier Equipment

3.18 ***Line 15: GRP., Supergrp., Submaster and Master:*** Covers group, supergroup, submaster group and master group equipment used on Type L Carrier.

Count one plant item for each (one-way) group, supergroup, submaster group and master group.

J, K and L Channel Bank

3.19 ***Line 16: J, K and L Channel Bank:*** Covers channel bank equipment used on J, K and L Carrier.

Count one plant item for each channel bank of 12 channels.

N and O Carrier Equipment

3.20 ***Line 18: Repeater — Tube Type — N:*** Covers N Carrier vacuum tube repeaters.

Count one plant item for each repeater. (See Par. 1.05.)

3.21 ***Line 19: Repeater — Tube Type — O and ON:*** Covers O Carrier vacuum tube repeaters and ON vacuum tube repeaters.

Count one plant item for each repeater. (See Par. 1.05.)

3.22 ***Line 20: Repeater — Transistor Type:*** Covers N Carrier transistorized repeaters.

Count one plant item for each repeater. (See Par. 1.05.)

3.23 ***Line 21: Terminal — N1 — Group:*** Covers N1 Carrier group equipment.

Count one plant item for each (2-way) group. (See Par. 1.05.)

3.24 ***Line 22: Terminal — N1 — Channel Unit:*** Covers N1 Carrier channel unit equipment.

Count one plant item for each channel unit. (See Par. 1.05.)

3.25 ***Line 23: Terminal — O — Group and O.W. Junction:*** Covers O Carrier group equipment and the group equipment in the open wire side of "ON" junction equipment.

Count one plant item for each (2-way) group. (See Par. 1.05.)

3.26 ***Line 24: Terminal — O — Channel Unit:*** Covers O Carrier channel unit equipment.

Count one plant item for each channel unit. (See Par. 1.05.) (Exclude twin channel units.)

3.27 ***Line 25: Terminal — ON — Group and Cable Junction:*** Covers ON Carrier group equipment and the group equipment in the cable side of ON junction equipment.

Count one plant item for each (2-way) group. (See Par. 1.05.)

3.28 ***Line 26: Terminal — ON—Channel Unit:*** Covers ON Carrier channel unit equipment.

Count one plant item for each channel unit. (See Par. 1.05.) (Exclude twin channel units.)

3.29 ***Line 27: Terminal — N2—Group:*** Covers N2 Carrier group equipment.

Count one plant item for each (2-way) group. (See Par. 1.05.)

3.30 ***Line 28: Terminal — N2 — Channel:*** Covers N2 Carrier channel equipment.

Count one plant item for each (2-way) channel. (See Par. 1.05.)

3.31 ***Line 29: Terminal — N3 — Group and Channel Group:*** Covers N3 Carrier group and channel group equipment.

Count one plant item for each (2-way) group and each (2-way) channel group. (See Par. 1.05.)

3.32 ***Line 30: Terminal — N3 — Channel:*** Covers N3 Carrier channel equipment.

Count one plant item for each (2-way) channel. (See Par. 1.05.)

3.33 ***Line 33: Repeater:*** Covers T Carrier repeaters.

Count one plant item for each repeater. (See Par. 1.05.)

3.34 ***Line 34: Terminal (Per Channel):*** Covers T Carrier terminal equipment including terminal power supply.

Count one plant item for each channel terminal.

Commercial Type Carrier Equipment

3.35 ***Line 40: Repeater:*** Covers any commercial make of carrier repeater (2-way) or amplifier (one-way).

Count one plant item for each repeater or for each two amplifiers.

3.36 ***Line 41: Terminal:*** Covers any commercial make of carrier terminal.

Count one plant item for each channel terminal.

Other Type Carrier Equipment

3.37 ***Line 42: Repeater:*** Covers any Western Electric Company carrier repeater not listed above.

Count one plant item for each repeater or for each two amplifiers.

3.38 ***Line 43: Terminal:*** Covers any Western Electric Company carrier terminal not listed above.

Count one plant item for each channel terminal.

Miscellaneous Equipment

3.39 ***Line 44: Misc. Equipment (Per Bay):*** Covers equipment not covered by another line of this or other work unit form as indicated below:

(a) Equipment in a bay in which ***none*** of the equipment in that bay is covered by another line of this or other work unit form.

Determine, to nearest one-quarter bay, the amount of equipment (other than fuses, jack panels, ballast lamps and portable testing apparatus) and record this as the number of plant items.

(b) Equipment in a bay in which ***some*** of the equipment is covered by another line of this or other work unit form.

(1) If the equipment that is covered by another line of this or other work unit form ***is unrelated*** to the other equipment in that bay, determine to the nearest one-quarter bay the amount of this other equipment (other than fuses, jack panels, ballast lamps and portable testing equipment) and record this as the number of plant items.

(2) If the equipment that is covered by another line of this or other work unit form ***is related*** to the other equipment in that bay, no plant items should be counted.

Note: Where equipment is installed outdoors or in cabinets, an estimate should be made of the bay or bays it would occupy if installed in bays in the central office.

3.40 ***Line 45: Total Lines 1 Thru 44:*** Enter the sums of Lines 1 through 44 in Columns D and E.

3.41 ***Line 46: Unattended Office Allowance:*** Enter the total work units for unattended offices (see Par. 1.04) on this line. Multiply Columns A and B by .10 and record in Columns D and E.

3.42 ***Line 47: Total Work Units:*** Enter the sum of Lines 45 and 46.

3.43 ***Line 48: Number of Frames (Bays + Positions):*** Enter the number of bays and positions of equipment included in the inventory. Partially equipped bays should be estimated to nearest one-quarter bay. Where equipment is installed outdoors or in cabinets, an estimate should be made of the bay or bays it would occupy if installed in bays in the central office.

3.44 ***Line 49: This Form Includes Equipment in Attended or Unattended Offices As Checked:*** Enter an "X" in the appropriate box to show whether this form covers equipment in both attended and unattended offices, in attended offices only, or in unattended offices only.

3.45 ***Line 50: Upkeep Hours on this Equipment Charged to:*** Enter the subaccount to which upkeep hours for repairs of equipment on this form are charged. Use one sheet for each subaccount.

3.46 ***City-Office, District, Division, Company-Area, Qtr. Ending:*** Complete form by filling in office, district, division, company and area. In quarter ending, show either March 31, June 30, September 30 or December 31, and the year.

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FORM E-4407-A
(1-65)

UPKEEP WORK UNITS

CENTRAL OFFICE EQUIPMENT - CIRCUIT

(EXCLUDING CARRIER TELEPHONE)

	PLANT ITEM			A NO. OF PLANT ITEMS OTHER CO.	B NO. OF PLANT ITEMS TOTAL	C W.U. PER PLANT ITEM	D WORK UNITS PER QUARTER OTHER CO. (A x C)	E WORK UNITS PER QUARTER TOTAL (B x C)
	LINE TERMINAL EQUIPMENT							
1	PHANTOM, COMPOSITE OR FILTER SET					.13		
2	SIGNALING CIRCUITS	SINGLE FREQ.	TUBE TYPE			2.49		
3			TRANSISTOR TYPE			1.38		
4		COMPOSITE, SIMPLEX OR DX				.44		
5		OTHER				1.16		
6	4 WIRE TERM. SETS, RES. OR COIL HYBRIDS					.31		
	TEST BOARDS, SERVICE BOARDS AND TEST PANEL EQUIPMENT							
7	TEST OR SERVICE BOARD (BAY OR POS.)					11.60		
8	TEST POSITION					6.44		
9	TEST PANEL					2.13		
	TELEPHONE REPEATER EQUIPMENT							
10	REPEATERS	V OR E TYPE				1.40		
11		22 OR 44 TYPE				2.22		
12	ECHO SUPP. OR COMPANDOR					5.78		
13	LINE BALANCING NETWORK CIRCUIT					.67		
14	PILOT WIRE REGULATOR SYSTEM					31.40		
	TELEGRAPH EQUIPMENT							
15	REPEATERS	REGENERATIVE TYPE				12.65		
16		OTHER TYPE				4.76		
17								
18	TELETYPEWRITER					23.20		
19								
20								
21	CARRIER	V.F. & H.F. TERM. (PER CHAN.)				3.96		
	PROGRAM AND VIDEO EQUIPMENT							
22	AMPLIFIER (PROGRAM & T.V. AUDIO)					5.42		
23	PROGRAM SWITCHING EQUIPMENT					.98		
24	AMPLIFIER - VIDEO					11.60		
25	VIDEO SWITCHING EQUIPMENT					.98		
26	VIDEO MONITOR					24.80		
27	T.V. TERMINAL					43.10		
	MISCELLANEOUS EQUIPMENT							
28	AMPLIFIER (OTHER)					1.20		
29								
30								
31	SPECIAL MISC. ITEM - TYPE A					1.00		
32	SPECIAL MISC. ITEM - TYPE B					10.00		
33	OTHER EQUIPMENT (PER BAY)					22.00		
34	TOTAL LINES 1 THRU 33			xx	xx	xx		
35	UNATTENDED OFFICE ALLOWANCE			*	*	.10		
36	TOTAL WORK UNITS			(LINES 34 + 35)		xx		
37	NUMBER OF FRAMES (BAYS + POSITIONS)			xx				

38 THIS FORM INCLUDES EQUIP. IN ATTENDED OR UNATTENDED OFFICES AS CHECKED

39 BOTH TYPES OF OFFICES ☐ ATTENDED OFFICES ONLY ☐ UNATTENDED OFFICES ONLY * ☐

40 UPKEEP HOURS ON THIS EQUIPMENT CHARGED TO

ACCOUNT ☐

CITY-OFFICE	
DISTRICT	
DIVISION	
COMPANY-AREA	
QTR. ENDING	

* ON FORMS COVERING UNATTENDED OFFICES ONLY, LINE 35 COL.A = LINE 34 COL.D AND LINE 35 COL.B = LINE 34 COL.E

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UPKEEP WORK UNITS
CENTRAL OFFICE EQUIPMENT – CIRCUIT
CARRIER TELEPHONE

FORM E-4407-B
(1-65)

	TYPE CARRIER	PLANT ITEM			A NO. OF PLANT ITEMS OTHER CO.	B NO. OF PLANT ITEMS TOTAL	C W.U. PER PLANT ITEM	D WORK UNITS PER QUARTER OTHER CO. (A × C)	E WORK UNITS PER QUARTER TOTAL (B × C)
1	C	REPEATER					9.33		
2		TERMINAL					25.10		
3		PILOT CHANNEL 2A OR 2B					10.30		
4		VOLUME LIMITER					7.07		
5	J	REPEATER					4.58		
6		GROUP					1.87		
7	K	AMPLIFIER					1.42		
8		GROUP					1.60		
9	L-1	H.F. LINE AMPLIFIER					2.31		
10		H.F. LINE REGULATOR					.49		
11	L-3	H.F. LINE AMPLIFIER					3.33		
12		H.F. LINE REGULATOR					.84		
13									
14									
15	L- TYPE	GRP., SUPERGRP., SUBMASTER & MASTER					.40		
16	J, K & L CHANNEL BANK						5.82		
17									
18	N & O	REPEATER	TUBE TYPE	N			4.00		
19				O & ON			4.62		
20			TRANSISTOR TYPE				2.00		
21		TERMINAL	N1	GROUP			1.04		
22				CHANNEL UNIT			2.72		
23			O	GROUP & O.W. JUNCTION			1.16		
24				CHANNEL UNIT			3.02		
25			ON	GROUP & CABLE JUNCTION			1.16		
26				CHANNEL UNIT			3.02		
27			N2	GROUP			.52		
28				CHANNEL			1.36		
29			N3	GROUP & CHANNEL GRP.			.52		
30				CHANNEL			2.04		
31									
32									
33	T	REPEATER					1.11		
34		TERMINAL (PER CHANNEL)					1.40		
35									
36									
37									
38									
39									
40	COMMERCIAL TYPE	REPEATER					4.71		
41		TERMINAL (PER CHANNEL)					2.36		
42	OTHER TYPE	REPEATER					4.75		
43		TERMINAL (PER CHANNEL)					2.92		
44	MISC. EQUIPMENT (PER BAY)						22.00		
45	TOTAL LINES 1 THRU 44				XX	XX	XX		
46	UNATTENDED OFFICE ALLOWANCE				*	*	.10		
47	TOTAL WORK UNITS				(LINE 45 + LINE 46)		XX		
48	NUMBER OF FRAMES (BAYS + POSITIONS)				XX				

49	THIS FORM INCLUDES EQUIPMENT IN ATTENDED OR UNATTENDED OFFICES AS CHECKED				
	BOTH TYPES OF OFFICES		ATTENDED OFFICES ONLY		UNATTENDED OFFICES ONLY*	

50	UPKEEP HOURS ON THIS EQUIPMENT CHARGED TO ACCOUNT	CITY-OFFICE DISTRICT DIVISION COMPANY-AREA QTR. ENDING

* ON FORMS COVERING UNATTENDED OFFICES ONLY, LINE 46 COL.A=LINE 45 COL.D AND LINE 46 COL.B=LINE 45 COL.E

ALPHABETICAL LIST OF EQUIPMENT

Central Office Equipment — Circuit

(Excluding Carrier Telephone) — Form E-4407A

Central Office Equipment — Circuit — Carrier Telephone — Form E-4407B

Throughout this Alphabetical List the letter "A" or "B" in the Line No. column indicates the line number on Form E-4407A or E-4407B where the item is to be inventoried.

"X" in the Line No. column means that the item is not counted in the inventory.

"#" in the Line No. column after 33-A and 44-B means that the item should be counted on Line 33 of Form E-4407A or on Line 44 of Form E-4407B only if it meets the requirements covered in the text. In general, an item of equipment in a bay of related equipment ***is not counted on Line 33-A or 44-B.***

EQUIPMENT NAME	LINE NO.
ALARM EQUIPMENT	
1000-Cycle Off Frequency Alarm	33-A#
Alarm Location Circuit, L Carrier Pilot Alarm (See Pilot Alarm Location Circuit)	—
Alarm Trunk Circuit, "K" Carrier Repeater Stations	33-A#
Audible Alarm in Private Line Service Positions	33-A#
Audible and Visual Alarm Circuit	33-A#
Auxiliary Signal Circuit (V.F. Patch Bay, TDM, H.F., etc.)	33-A#
B-1 Alarm and Control System	33-A#
Carrier Failure (43A-1 Telegraph System)	X
Carrier Failure, Type VF 2-S (40-Type Telegraph Systems)	33-A#
Emergency Alarm System (Fire Alarm Circuit)	33-A#
Gas Pressure Alarm Circuit	33-A#
Grid Supply Alarm and Transfer Circuit Pilot Channel Control, "K" Carrier	33-A#
Individual Alarm Circuit for "K" Type Carrier System	33-A#
ALARM EQUIPMENT (Cont'd)	
Individual Alarm Circuit for "L" Type Carrier System	33-A#
Level Alarm Circuit	33-A#
N-1 Carrier Telephone Alarm Equipment	33-A#
Open Circuit Alarm (Telegraph)	33-A#
Radio Station Guardian Alarm Circuit	33-A#
Service Alarm No. 2 Telegraph Serviceboard	33-A#
Supervisory Alarm Relay (43A-1 Telegraph System)	X
AMPLIFIER	
1U Amplifier-Rectifier (See Test Equipment 40B TMS)	—
1W Noise Amplifier-Rectifiers (See Test Equipment 43A Noise M.S.)	—
Amplifier-Rectifier Circuit Pilot Indicator, L Carrier	33-A#
Audio Monitor, 124-Type	28-A
Blocking, S.F. (Includes Associated Network)	28-A
Bridging, Balanced Video	24-A
Carrier Terminal, Single Side Band (See Program Carrier Terminal SSB.)	—

EQUIPMENT NAME	LINE NO.
AMPLIFIER (Cont'd)	
Clamper 1B Video (Amplifier Only. For Rectifier, see E-4410)	24-A
Distribution, Video	24-A
In-Amplifier Type A-2 Video System	24-A
"J" Carrier-Line Type (See Repeater)	—
K-1 Carrier-Deviation Regulator — Automatic (See Regulator, "K" Carrier)	—
K-1 Carrier-Deviation Regulator — Manual (See Regulator, "K" Carrier)	—
"K" Carrier-Line Type	
Intermediate	7-B
Terminal	7-B
"K" Carrier-Twist Type	
Intermediate	7-B
Terminal	7-B
K1-K2 Carrier-Junction Type	33-A#
"K" Carrier Auxiliary Test	33-A#
L-1 Carrier Line-Auxiliary (Plug-in)	9-B
L-1 Carrier Line Flat Gain (Plug-in)	9-B
L-1 Carrier Line Receiving (Plug-in)	9-B
L-1 Carrier Line Transmitting (Plug-in)	9-B
L-3 Carrier-Flat (Plug-in)	11-B
L-3 Carrier-Line (Plug-in)	11-B
Monitor Private Line Service Bay	28-A
"N" Carrier Flat Gain (2)	20-B
Out-Amplifier Type A-2 Video System	24-A
Program, 14-Type (Includes Bridge Circuits)	22-A
Receiving Terminal, Video (RTA)	24-A
Type 12C VA and VB Program (Includes Bridge Circuit	22-A
Type 29A Program (Includes Bridge Circuits)	22-A
Type 44A, Modified for Program	22-A
Type 100	28-A
Type V-3 (See Repeaters)	—

EQUIPMENT NAME	LINE NO.
AOIT AND ATTC—FRAME (See Test Equipment)	—
BALANCING NETWORK (See Network Circuits)	—
BATTERY DISTRIBUTING FUSE BAY	X
BLOCKING CONDENSER CIRCUITS (See Condenser Circuits)	—
BLOCKING NETWORKS — DC	33-A#
BRANCHING AND BRIDGING CIRCUITS, PROGRAM (See Program Branching and Bridging Equipment, Carrier Systems)	—
BRIDGE CIRCUITS, PROGRAM AUDIO (See Amplifier, Program)	—
BRIDGE CIRCUITS, V.F. (Private Line Service)	33-A#
CALL CIRCUITS, SLEEVE RELAYS	33-A#
CALLING-IN, LOOP PAD AND WAVE SHAPING CIRCUIT (No. 2 and No. 9 Telegraph Serviceboards)	33-A#
CARRIER LINE SWITCHING AND TEST PILOT SUPPLY EQUIPMENT, "K" CARRIER	33-A#
(Covers any or all of the following:)	
Amplifier Battery Supply Circuit	
Amplifier Switching Circuit	
Carrier Line Switching Circuit	
Test Pilot Supply Amplifier Circuit	
Test Pilot Supply Distributing Circuit	
Test Pilot Supply Oscillator Circuit	
CARRIER SUPPLY CIRCUITS, TELEGRAPH	
40B-1 Carrier Supply Bay, and Motor Generator (See E-4410, Motor Generator Sets)	—
140A-1 Carrier Supply Base Oscillator	33-A#
140A-1 Carrier Supply Channel Frequency Oscillator	33-A#

EQUIPMENT NAME	LINE NO.
CARRIER SUPPLY CIRCUITS, TELEGRAPH (Cont'd)	
140A-1 Carrier Supply Distributing Circuit	33-A#
140A-1 Carrier Supply Level Alarm	33-A#
140A-1 Carrier Supply Low Voltage Alarm and Transfer Circuit	33-A#
140A-1 Carrier Supply Voltmeter Test Circuit	33-A#
Service Monitor Panel, 140A Carrier Supply	33-A#
CARRIER SUPPLY EQUIPMENT	
57A Oscillator (L-3) Pilot Supply	33-A#
Carrier Frequency Generator Bay, L-3	33-A#
(Covers any or all of the following:)	
520 KC Harmonic Generator Panel	
13 MC Carrier Amplifier Panel	
14.04 MC Carrier Amplifier Panel	
15.6 MC Carrier Amplifier Panel	
18.2 MC Carrier Amplifier Panel	
Carrier and Pilot Generator Unit	
Intermediate Frequency Converter Panel	
Primary Frequency Converter Panel	
Transfer and Control Panel, 13.0, 14.04, 15.6 and 18.2 MC	
Channel Carrier Supply Equipment J, K and L Carrier	33-A#
(Covers any or all of the following:)	
4 KC Harmonic Generator	
124 KC Filter	
Odd Channel Distributing Panel	
Even Channel Distributing Panel	
Generator Transfer Panel	
Group Carrier Filter Panel	
EB Bank Carrier Oscillator Circuit, 3700-Cycle	33-A#
Group Carrier Supply Bay-L Carrier	33-A#
(Covers the following:)	
Group Carrier Amplifier	
Group Carrier Distributing Panel	

EQUIPMENT NAME	LINE NO.
CARRIER SUPPLY EQUIPMENT (Cont'd)	
Pilot Generator Bay, L-3	33-A#
(Covers any or all of the following:)	
Pilot Generator Panel, 308, 556, 2064, 3096, 7266, 8320 KC	
Pilot Transfer Panel, 308, 556, 2064, 3096, 7266, 8320 KC	
Pilot Supply and Primary Frequency Bay Equipment, L-1	33-A#
(Covers any or all of the following:)	
4 KC Frequency Supply	
4 KC Harmonic Generator Panel	
92 KC Group Pilot Distributing Panel	
Frequency Comparison Panel	
Pilot Supply, 64, 556, 2064, 3096 KC	
Synchronizing Frequency Amplifier	
Primary Carrier and Pilot Distributing Bay, L-3	33-A#
(Covers any or all of the following:)	
4139 KC TV Reference Frequency Panel	
Carrier Emergency Alarm Panel	
Idle Indicator Relays for Carrier Supply	
Pilot Combining Panel, 308, 556, 2064, 3096, 7266, 8320 KC	
Pilot Distributing Panel	
Primary Carrier Distributing Panel, 13.0, 14.04, 15.6 and 18.2 MC	
Stand-by Pilot Alarm Panel	
Transfer Relay Unit for Carrier Supply L-3	
S.F. Signaling Supply Oscillator Unit	33-A#
S.F. Signaling Supply Transfer Unit	33-A#
Supergroup Carrier Supply Bay "L" Carrier	33-A#
(Covers any or all of the following:)	
124 KC Harmonic Generator Panel	
Supergroup Carrier Amplifier	
Supergroup Carrier Distributing Panel	

EQUIPMENT NAME	LINE NO.
CARRIER SUPPLY EQUIPMENT (Cont'd)	
Supply Bay-Type "J" Carrier (Covers any or all of the following:)	33-A#
5 KC Oscillator Panel	
Carrier Generator Circuit	
Carrier Generator Transfer Circuit	
Group Carrier Supply Alarm Circuit	
Group Carrier Supply Amplifier	
Pilot Channel Supply Equipment	
Supply Bay-Type "K" Carrier (Covers any or all of the following:)	33-A#
120 KC Amplifier and Filter	
120 KC Distributing Amplifier and Filter	
120 KC Distributing Panel	
Carrier Generator Transfer	
Pilot Channel Supply	
Pilot Channel Supply Alarm Amplifier Rectifier	
Pilot Channel Supply Alarm and Emergency Filter	
Pilot Channel Supply Stabilizing and Distributing Panel	
Supply Bay-Type "N3" Carrier (Covers any or all of the following:)	33-A#
Primary Distribution Panel	
Harmonic Generator and Filter	
Carrier Supply Alarm Panel	
Power Supply	
4 KC Oscillator and Amplifier Units	
Carrier Supply Dual Amplifier Units	
Carrier Supply Doubler Amplifier Units	
CARRIER SYSTEM	
Program Terminals (See Program Carrier Terminal)	—

EQUIPMENT NAME	LINE NO.
CARRIER TELEGRAPH	
40A-1 Carrier Telegraph Terminal Equipment	21-A
40B-1 Carrier Telegraph Terminal Equipment	21-A
40C-1 Carrier Telegraph Terminal Equipment	21-A
40C-1 V.F. CXR Modified for Overseas	21-A
43A-1 Carrier Telegraph Channel Terminal Equipment	21-A
Double Modulation, Diversity (Scrambler for Overseas)	21-A
All Other Carrier Telegraph Terminals	21-A
CARRIER TERMINALS	
"C" Type	2-B
"H" Type	43-B
Commercial Type	41-B
EB Terminals	43-B
"T" Type	34-B
CHANNEL BANK EQUIPMENT	
Type A-1, A-2, A-3, A-4, A-5 for Use with J, K and L Carrier	16-B
CHANNEL UNIT EQUIPMENT	
"N1" Type Carrier	22-B
"N2" Type Carrier	28-B
"N3" Type Carrier	30-B
"O" Type Carrier	24-B
"ON" Type Carrier	26-B
"O" Twin Channel Carrier Unit	X
COAXIAL PATCH CORD TEST CIRCUIT (See Test Panel)	—
COILS, HYBRID	6-A
COILS, REPEAT, ALL TYPES	1-A
COILS, REPEAT, BALANCING, ALL TYPES	1-A
COILS, RETARD, ALL TYPES	X

EQUIPMENT NAME	LINE NO.
COMMON TALK BATTERY CIRCUITS	33-A#
COMPANDOR	12-A
COMPOSITE BALANCE SETS, ALL TYPES	1-A
COMPOSITE SETS, ALL TYPES	1-A
COMPOSITE SIGNALING (See Signaling Circuits)	—
COMPOSITE SIGNALING LINE BAY (See Testboards, Telephone)	—
CONCENTRATOR, SUBSCRIBER LINE	33-A#
CONDENSER CIRCUITS USED WITH 10-TYPE RINGERS	33-A#
CONDENSER, ELECTROLYTIC CHARGING CIRCUIT	9-A
CONFERENCE BRIDGE CIRCUIT	33-A#
CONFERENCE HOLD AND DISABLING CIRCUIT, TOLL	33-A#
CONFERENCE SERVICE CIRCUIT, TOLL	33-A#
CONFERENCE TRUNK, TOLL	33-A#
CONVERTERS, SIGNALING (See Signaling Circuits)	—
CORD CIRCUITS, TELEGRAPH	
Auxiliary Teletypewriter	33-A#
Direct — Leg Monitor	33-A#
Direct — Leg Teletypewriter	33-A#
Legs Patching	33-A#
Loop Monitoring and Meter Test	33-A#
Neutral	33-A#
Telegraph Connecting	33-A#
Telegraph Cord and Set Circuit	33-A#
Telephone Cord and Set Circuit (No. 2 and No. 9 Telegraph Serviceboards)	33-A#
Teletypewriter Cord and Set Circuit	33-A#
Test Signal	33-A#
Trouble Indicator	33-A#
COUPLING UNITS	
144 Type	33-A#
CROSSTALK BALANCING BAYS, "K" CARRIER	33-A#
DATA TERMINAL B1	33-A#
DELAY EQUALIZERS, PRIVATE LINE SERVICES — (See Equalizer Equipment)	—
DIRECTOR CIRCUIT FOR SPLIT OPERATION ASSOCIATED WITH 106-TYPE REGENERATIVE REPEATER	33-A#
DISTRIBUTING CIRCUIT, NEGATIVE 330-VOLT (No. 2 and No. 9 Telegraph Testboards)	33-A#
DUAL USE SWITCHING RELAYS (See Switching Circuits, Telegraph)	—
EB TWO-CHANNEL SYSTEM (See Carrier Terminals)	—
ECHO SUPPRESSOR	
Type 1A	12-A
Type 44A	12-A
VOLCAS (Telephone Repeater Voice Operated Loss Control and Suppressor Circuit)	12-A
EQUALIZER EQUIPMENT	
Deviation	33-A#
Private Line Service	33-A#
Program Transmission	33-A#
Telegraph	33-A#
Television Transmission	33-A#
EXPANDOR (See Compandor)	—
FILTERS	
Type 32	1-A
Type 128	1-A
FLAT GAIN REGULATOR, "K" CARRIER (See Regulator, "K" Carrier)	—
FUSE BAYS	X

EQUIPMENT NAME	LINE NO.
PATCHING BAYS (Cont'd)	
L-3 Carrier Line Bay	8-A
L-3 Miscellaneous Jack Field and Switching Equipment (Primary Board, SW Control Indicating and Order Wire Jacks)	33-A#
No. 2 Telegraph Facility Board (See Testboards, Telegraph)	—
Order Wire Jack Field Terminations	X
Seal Test Terminal, "K" Carrier	8-A
Supergroup High Frequency	8-A
Tandem	8-A
TDL Line Bay	8-A
Voice Frequency (All Type Carrier System)	8-A
PILOT ALARM LOCATION CIRCUIT, L CARRIER (See Test Panel, Telephone)	—
PILOT CARRIER SUPPLY (See Carrier Supply)	—
PILOT CHANNEL, TYPE "C" CARRIER	3-B
PILOT CHANNEL CONTROL CIRCUIT, TYPE "J" CARRIER	33-A#
PILOT WIRE REGULATOR, "K" CARRIER (See Regulator)	—
PILOT WIRE REGULATOR SYSTEM (Voice Circuit)	14-A
PLUGGING-UP CIRCUIT FOR LINE OR LOOP LEGS (Telegraph)	33-A#
POSITION ALARM RELAYS (No. 9 Telegraph Serviceboard)	33-A#
POSITION AND POWER CONTROL CIRCUIT (No. 9 Telegraph Serviceboard)	33-A#
POSITION CIRCUITS, 17-C TESTBOARD	X
POWER CONTROL BAY, L CARRIER	33-A#

EQUIPMENT NAME	LINE NO.
POWER SUPPLY 85-VOLT REGULATED TUBE RECTIFIER, "K" CARRIER GRID SUPPLY (See Rectifier E-4410)	—
POWER SUPPLY CIRCUIT, 55-VOLT AC "K" CARRIER	33-A#
PROGRAM BRANCHING AND BRIDGING EQUIPMENT, CARRIER SYSTEMS	33-A#
PROGRAM CARRIER TERMINAL SINGLE SIDEBAND	33-A#
PROGRAM SWITCHING EQUIPMENT (See Switching Arrangements)	—
PULSE LINK, AUXILIARY SIGNALING (See Signaling Circuits)	—
PULSE LINK REPEATERS, AUXILIARY	4-A
RECORDERS	
Esterline Angus (Bay Mounted)	9-A
Multipen Recorder (Bay Mounted)	9-A
Varian and All Other Chart Type (Bay Mounted)	9-A
RECTIFIER, NEGATIVE 330-VOLT (See Rectifier, E-4410)	—
RECTIFIER, REGULATED TUBE 85-VOLT GRID SUPPLY, "K" CARRIER (See Rectifier, E-4410)	—
REGULATOR, CARRIER LINE	
"J" Carrier Regulating Amplifier (See Repeater)	—
"L-1" Type H.F. Line (Plug-in)	10-B
"L-3" Type H.F. Line (Plug-in)	12-B
"N and ON2" Type Deviation	33-A#
REGULATOR, "K" CARRIER SYSTEM	
Amplifier Type (See Amplifier)	—
K-1 Carrier-Deviation — Automatic	33-A#
K-1 Carrier-Deviation — Manual	33-A#

EQUIPMENT NAME	LINE NO.
SIGNALING CIRCUITS	
64C-1 Selector Signaling System (Telegraph)	33-A#
Answering Jack Relay Circuit for Morse Subscribers Calling-in Signal	X
Auxiliary Pulse Link Signaling Circuit	4-A
Auxiliary Signal Circuit (VF, TDM, and H.F. Patch Bays) (See Alarment)	—
Composite Signaling	4-A
Converters	5-A
Dial Long Lines	33-A
Long Trunk Circuits	33-A
Ringer Type 10 (20-cycle to DC)	5-A
Ringer Type 11 (20-cycle to 20-cycle)	5-A
Ringer Type 20 (135-cycle — DC)	5-A
Ringer Type 21 (135-cycle — 20-cycle)	5-A
Ringer Type 22 (135-cycle—135-cycle)	5-A
Ringer Type 30 (1000-cycle — DC)	5-A
Ringer Type 31 (1000-cycle—20-cycle)	5-A
Ringer Type 32 (1000-cycle — 135-cycle)	5-A
Selective Signaling Units for Private Line Service Using Standard 20-, 135- and 1000-Cycle Signaling Equipment	5-A
S.F. Units, Tube Type	2-A
S.F. Units, Transistor Type	3-A
Signal Lead Extension Circuit, Type EMX-1 (DX-1)	4-A
Signal Lead Extension Circuit, Type EMX-2 (DX-2)	4-A
SS-1 Selective Signaling System for Order Wire (See Telephone Order Wire)	—
SS-1 Selective Signaling System for Private Line Services	33-A#
SIGNALING SUPPLY AND DISTRIBUTING CIRCUIT, 1000-CYCLE	33-A#
SINGLE SIDEBAND PROGRAM EQUIPMENT (See Program Carrier Terminal S.S.B.)	—
SUBMASTER GROUP CARRIER EQUIPMENT, TYPE L	15-B
SUBSCRIBERS LINE TEST UNIT (No. 9 Telegraph Serviceboard)	33-A#
SUPERGROUP CARRIER EQUIPMENT, TYPE L	15-B
SUPERGROUP CONNECTOR CIRCUIT, L CARRIER	44-B#
SUPPRESSION CIRCUIT LINE NOISE (Telegraph)	33-A#
SUPPRESSION CIRCUIT, TELEGRAPH THUMP	33-A#
SWITCHING ARRANGEMENTS	
Amplifier Reversing Circuit, Program	23-A
Carrier Line Switching, "K" Carrier (See Carrier Line Switching and Test Pilot Supply Equipment, "K" Carrier)	—
Control and Reversing Circuit, Program	23-A
L-1 Carrier Line Switch and Switch Control Circuit	44-B#
Line Switching Relay and Preselection Circuit, Program	23-A
Metallic Reversing Control Circuit, Program	23-A
Primary Control and Reversing Circuit, Program	23-A
Secondary Control and Reversing Circuit, Program	23-A
Switch Relay	33-A#
TD-Radio Remote-Control Circuit for 223-Type Switches (DC Control and Sequence Signal Control)	33-A
Transfer Relays	33-A#
V-1 Telephone Repeater (See Test Panel)	—
Video Pushbutton Switch Panel	25-A
Video Switching and Control System (TV Program SW)	25-A

EQUIPMENT NAME	LINE NO.
SWITCHING ARRANGEMENTS FOR PRIVATE LINE SERVICES (Typical Types)	33-A#
2-Wire — 4-Wire Switch Circuits	
Auxiliary Control Relays	
Cable Line Relays	
Idle Loop Switching Relays	
Loop Switching Relays	
Multistation Line EQ and Other Similar Circuits	
SWITCHING CIRCUITS, TELEGRAPH	
Dual Use Switching Relays (Telegraph)	33-A#
Legs Switching (No. 2 and No. 9 Telegraph Serviceboards)	33-A#
Repeat Cycle (Telegraph)	33-A#
All Other	33-A#
SWITCHING, "K" CARRIER LINE (See Carrier Line Switching and Test Pilot Supply, Type "K")	—
SWITCHING, MULTILINE	
L-3 Carrier Automatic Line Switching (Receiving)	44-B
L-3 Carrier Automatic Line Switching (Transmitting)	44-B
TELEPHONE LINE CIRCUITS FOR TELEGRAPH	
Telephone Line Circuits for Loop	33-A#
TELEPHONE ORDER WIRE 600-1500 CYCLE RECEIVING PANEL FOR SELECTIVE SIGNALING	33-A#
TELEPHONE ORDER WIRE EQUIPMENT FOR USE WITH 600-1500 CYCLE SELECTIVE SIGNALING AND 1000 CYCLE RINGDOWN SIGNALING	33-A#
TELEPHONE ORDER WIRE EQUIPMENT USING SS-1 SELECTIVE SIGNALING SYSTEM (Covers any or all of the following:)	33-A#
100-Ohm Sleeve Relay Unit	
500-Ohm Sleeve Relay Unit	
1800-Ohm Sleeve Relay Unit	

EQUIPMENT NAME	LINE NO.
TELEPHONE ORDER WIRE EQUIPMENT USING SS-1 SELECTIVE SIGNALING SYSTEM (Cont'd)	
Code Area Unit	
Dial Connecting Unit	
Dial Transfer Unit	
Hybrid Coil Unit	
Loudspeaker Multiple Bridge Unit	
Telephone Unit	
Timer and Termination Unit	
TELEPHONE ORDER WIRE EQUIPMENT WITH DC SELECTIVE SIGNALING	33-A#
TELEPHONE ORDER WIRE AND ALARM EQUIPMENT, N-1 CARRIER	33-A#
TELEPHONE ORDER WIRE SEQUENCE SIGNALING EQUIPMENT (Covers any or all of the following:)	33-A#
Auxiliary Sequence Signaling Unit	
Multiple Connector Unit	
Sequence Signaling Receiver	
Sequence Signaling Transmitter	
Sequence Signaling Translator	
Sequence Signaling Unit	
Telephone Unit	
Transmitter Control Unit	
Trunk Unit Arranged for 20-Cycle Signaling	
Trunk Unit, Arranged for DC Signaling	
Trunk Unit for PBX or CO Line	
Vibrating Reed Selectors	
TELEPHOTO LEVEL COMPENSATOR CIRCUIT (See Level Compensator Circuit Telephoto 71A-1)	—
TELETYPEWRITER EQUIPMENT	
14 Reperforator	18-A
14-Type Teletypewriter	18-A
15-Type Teletypewriter	18-A
19-Type Teletypewriter	18-A

EQUIPMENT NAME	LINE NO.
TELETYPEWRITER EQUIPMENT (Cont'd)	
20-Type Teletypewriter	18-A
28-Type Teletypewriter	18-A
81-B-1 Cutting Arrangement	33-A#
200 ABTD (15-Type Modified for ATTC)	18-A
Concentrator-Distributor	33-A#
Nontyping Selector	33-A#
Sotus	33-A#
Transmitter-Distributor	33-A#
TELEVISION MONITOR (See Video Monitor)	—
TELEVISION OPERATING POSITION KEY AND TELEPHONE SET EQUIPMENT	8-A
TELEVISION TERMINALS	
"L" Carrier Type B-2, C-2, B-3, C-3, R-3 or T-3 (For Rectifier, see E-4410)	27-A
TERMINATING SETS, 2-WIRE	33-A
TERMINATING SETS, 4-WIRE	
All Types	6-A
Resistance Hybrid	6-A
TESTBOARDS, TELEGRAPH	
No. 2 Facility Board	7-A
No. 2 Service	7-A
No. 4 Type	7-A
No. 5 Type (Modified)	7-A
No. 9 Type	7-A
No. 9B Type	7-A
No. 10A Type	7-A
No. 15 Type	7-A
TESTBOARDS, TELEPHONE	
Composite Signaling Line Bay	8-A
Intermediate Data Bridge Bays	8-A
Private Line Service	7-A

EQUIPMENT NAME	LINE NO.
TESTBOARDS, TELEPHONE (Cont'd)	
Trouble Reporting Position for 17-B and 17-C Testboards (1st attempt) 4 Positions — 1 Testboard	7-A
Type 17-B	7-A
Type 17-C	7-A
Type 18-B	7-A
Type No. 4	7-A
Type No. 5	7-A
Type No. 8	7-A
TEST EQUIPMENT, TELEGRAPH	
Portable	X
118C Type Telegraph Transmission Measuring Set (Includes Jack, Key, Lamp and Meter Circuit at Testboard Position)	8-A
160A-1 Carrier Telegraph Test Set	8-A
165C-1 Transmission Measuring Set (See Test Panel, Telegraph)	—
TEST EQUIPMENT, TELEPHONE	
Portable	X
2A Toll Test Unit	8-A
6A Transmission Measuring System	8-A
6C Oscillator	8-A
6E Oscillator	8-A
7B Transmission Testboard	8-A
13A Oscillator	8-A
17B Oscillator	8-A
27A Sending Console for Transmission Measurement	8-A
27B Receiving Console for Transmission Measurement, L-3 Carrier	8-A
31A Visual Transmission Measuring Set	8-A

EQUIPMENT NAME	LINE NO.
TEST EQUIPMENT, TELEPHONE (Cont'd)	
37A or 37C Cosine Equalizer Adjustment Set	8-A
40B Transmission Measuring System (Includes 43A Noise Measuring Circuit)	33-A#
40B Transmission Measuring System (Mobile Bay)	8-A
43A Noise Measuring Circuit (See Test Equipment 40B TMS)	—
44A Transmission Measuring System	8-A
46A Transmission Measuring System (Phase and Delay L-1 Circuit)	8-A
53A Mobile Oscillator	8-A
92 KC Transmission Measuring Circuit L Carrier High-Frequency Bays	9-A
AOIT Frame	8-A
ATTC Frame	8-A
"C" Carrier Mobile Test Bay	8-A
"D" Spec. Analyzer, L-1 Carrier (97B)	8-A
L-1 Test Bench (Regulator Repair and Repeater Test Equipment) (3 Bays = 1 Test Position) (For Rectifier, see E-4410)	8-A
L-3 Test Bench (4 Bays = 1 Test Position) (For Rectifiers, see E-4410)	8-A
"N" and "ON" Carrier Mobile Test Bay	8-A
Oscillator 14A	8-A
Oscillator 19C Bay Mounted	X
Oscillator 6010B	8-A
Signal, Type 1A Bay Mounted	X
Signal, Type SS1 Bay Mounted	X
Singing Point Type 2E Bay Mounted 17-C Testboard	X
TEST PANEL, TELEGRAPH	
6th Pulse Suppression Test Set	9-A
119C Telegraph Signal Distorting Test Set (Includes All Extension Circuits)	9-A
TEST PANEL, TELEGRAPH (Cont'd)	
165A Test Set	X
165B Test Set	X
165C Test Set	9-A
Cord Continuity Test Circuit	9-A
Loop Adjust Indicating Circuit	9-A
"N" Response Test Set	9-A
Polar Relay Test Panel, 111A-2 (See Test Panel, Telephone)	9-A
Signal Analyzer, TSA-2A TOWACO	X
Stability Test Set, 117A-1, 117B-1	9-A
Stelma Multichannel Distortion Monitor	9-A
Telegraph Monitoring Panel, 40B Carrier	9-A
Telegraph Signal Biasing Circuit, 119A (Includes All Extension Circuits)	9-A
TOWACO Telegraph Monitor, TSM-1	X
Transmitter Start Circuit, 81-B-1	9-A
TEST PANEL, TELEPHONE	
1B Impedance Bridge Desk (See Test Equipment, 7B TMB)	—
20- and 135-Cycle Ringer Test Panel	9-A
20-Cycle DC Signaling Test Circuit	9-A
22-Type Repeater, Jack Field	X
44-Type Repeater, Jack Field	X
111A-2 Relay Test Panel for Polar Relays	9-A
116A-1, B-1, C-1 Relay Test Panel for Polar Relays	9-A
523A Ringer Test Panel	9-A
525A Panel Testing and Adjusting Set	9-A
546A Ringer Test Panel	9-A
1000-Cycle DC Ringer Signaling Test Circuit	9-A
Alarm Location Panel, L-3 and L-1	9-A
"C" Carrier Testing Circuit	9-A

EQUIPMENT NAME	LINE NO.
TEST PANEL, TELEPHONE (Cont'd)	
Composite Ringer Test Circuit	9-A
Cord Position Test Circuit	9-A
Echo Suppressor Jack Field	X
Esterline Angus Recorder, Bay Mounted (See Recorders)	—
Gas Pressure Alarm Circuit, No. 5 Toll Testboard (See Alarm Equipment)	—
Jack Field, Program, 124-Type Amplifier and Bridge Circuit Jacks	X
L-3 Auxiliary Station Test Jacks, and Switches	X
Monitor and Talk 511E Panel	9-A
Monitor and Talk, 4-Wire for Open Wire and Cable Conductors "C", "H", "EB" and Echo Suppressors	9-A
Patch Cord Test Circuit, "L" Carrier Telephone (Coaxial)	9-A
S.F. 1600-Cycle Testing Circuit	9-A
S.F. 2600-Cycle Testing Circuit	9-A
Telephone Repeater Filament Activity Test Circuit for Use with 1/2 Amp. Tubes	9-A
Testing and Adjusting Circuit for 1000-Cycle Two-Tube Ringers	9-A
Testing and Maintenance Test Circuit for 1000-20 and 1000-135 Cycle Intermediate Ringers and 1000-20 Cycle Terminal Ringers	9-A
Transmission Measuring Auxiliary Test Circuit for Use with V-F Amplifiers (V-1 Amplifier Switching Circuit)	9-A
V-1 and V-3 Repeater Jack Field	X
Visual Transmission Measuring Set (Rec. D-178982, Send. D-178981)	8-A

EQUIPMENT NAME	LINE NO.
TEST PANEL, TELEPHONE (Cont'd)	
VOLCAS* Telephone and Test Circuit (*Voice Operated Loss Control Suppressor)	9-A SC
Also See Test Equipment	—
TEST POSITIONS (See Patching Bays)	—
TRANSFER RELAYS (See Switching Arrangements)	—
TRUNK CIRCUITS	
2-Way Automatic, Ringdown, Local Station, Dial PBX and All Other Intra- and Interoffice Plant Communication Trunk Circuits	
Excludes all Toll and Toll Connecting Trunk Circuit Equipment Counted on Other Forms	33-A#
V.F. CHANNEL PATCH JACK CIRCUITS (See Patching Bays)	—
VIDEO MONITOR	
81A Monitoring Oscilloscope for Television Monitoring	26-A
"A" Scope	26-A
KS-5799 L-1	26-A
KS-15654 L-1	26-A
R.C.A. Color	26-A
VIDEO SWITCHING EQUIPMENT (See Switching Arrangements)	—
VOLUME LIMITER CIRCUIT FOR "C" CARRIER TELEPHONE TERMINALS	4-B
WAVESHAPING, LOOP PADS AND CALLING-IN CIRCUIT (No. 2 and No. 9 Telegraph Serviceboards)	33-A#
WIRE ENTRANCE LINKS, TD-2 (Exclude Amplifier and Amplifier Panel) (Count Amplifier on Line 15-B)	33-A#