

**NUMERICAL INDEX — DIVISION 169
RECTIFIERS AND FILAMENT SUPPLIES**

1. GENERAL

- 1.01** This section provides an index of System-issued sections in Division 169.
- 1.02** This section reverted to Issue 1 in February 1975. Prior to that date there had been 99 issues of the section.
- 1.03** A bullet (●) indicates an item that has been added or changed since the previous issue of the index.
- 1.04** 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.
- 1.05** A spade (♠) indicates an item not on microfiche. This index indicates the latest issue for hard-copy BSPs. In some cases, the microfiche BSP will reflect the next higher issue as a result of the reduced distribution interval.
- 1.06** "Add" is the abbreviation for Addendum.

**Section
Number Issue Subject**

169-210-801	8	Electron Tube Type — (Formerly Tungar) — Unregulated and Manually Regulated — Replacement Parts and Procedures
169-215-201	2	Miscellaneous Semiconductor Type — (Metallic) — Installation
169-215-301	9	Miscellaneous Semiconductor Type — Operating Methods
169-215-302	3	Miscellaneous Ferroresonant-Type — Operating Methods
169-215-801	1	Stacks Used in Lorain Products Corporation — T603B1 Power Supply and J86256 Metallic and Semiconductor-Type — Replacement Parts and Procedures

2. LAYERS

2.01 This division is arranged in layers as follows:

- 169-0 Index and Equipment Test Lists
- 2 Rectifiers — Located on Customer or Telephone Company Premises
- 4 Rectifiers — Located on Customer Premises
- 6 Rectifiers and Filament Supplies — Located on Telephone Company Premises
- 7) -

169-230-101	2	Regulated Tube Type — Description
Add 169-230-301	1	
169-230-301	8	J86207A, D, G, H, K, L, M, and U — Operating Methods
169-232-301	5	J86207E and J86207J, L4, L5, and L6 — Operating Methods
169-234-301	4	J86207W — Operating Methods
169-238-301	3	J86231A — Operating Methods
169-245-301	4	J87211A and B Rectifiers — 48 and 24 Volts, 11 Amperes — Operating Method

3. INDEX

**Section
Number Issue Subject**

169-0 INDEX AND EQUIPMENT TEST LISTS

- ♠ 169-000-000 49 Numerical Index — Division 169 — Rectifiers and Filament Supplies

169-001 Equipment Test Lists (ETL)

- 169-001-011 7 J-Code Rectifiers — Power Systems Equipment
- 169-001-012 6 KS-Type Rectifiers — Power Systems Equipment
- 169-001-013 13 Miscellaneous Rectifiers — Power Systems Equipment

169-250-301	1	J87215 — Semiconductor Type — Operating Methods
169-254-301	4	J87228A — 130 Volts, 10 Amperes — Operating Methods
169-255-301	9	J87223 — 48 Volts, 100 Amperes — Operating Methods
169-256-301	4	J87224 — Operating Methods
169-256-801	1	J87224 Rectifier — Error Detector Cards — Piece-Part Data
169-257-301	5	J87229 — 130 Volts, 30 Amperes — Operating Methods
169-260-301	2	J87232A — 24 Volts, 30 Amperes — Operating Methods
Add 169-261-301	1	
169-261-301	1	J87233A — 48 Volts, 30 Amperes — Operating Methods
169-262-301	5	Rectifiers and Charge-Failure Alarm Relays — KS-15661 Type — Operating Methods
169-263-301	1	J87320A — Operating Methods

169-2 RECTIFIERS — LOCATED ON CUSTOMER OR TELEPHONE COMPANY PREMISES

- 169-205-301 1 Mercury Arc — Operating Methods
- 169-205-501 2 Mercury Arc — Tests and Inspections
- 169-210-101 1 Miscellaneous Electron Tube Type — (Formerly Tungar) — Description
- 169-210-301 6 Miscellaneous Electron Tube Type — (Formerly Tungar) — Operating Methods
- 169-210-501 1 Miscellaneous Electron Tube Type — (Formerly Tungar) — Tests and Inspections

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

SECTION 169-000-000

Section Number	Issue	Subject	Section Number	Issue	Subject
169-265-301	3	KS-15678 Type — Operating Methods	169-606-301	2	J86219A — Operating Methods
169-267-301	2	J87434A, Lists 1 and 3 — 24 Volts, 35 Amperes — Operating Methods	169-606-302	4	J86219B L1, L2, and L3 — Operating Methods
169-267-305	2	J87435A, Lists 1, 3, 10, and 30 — 48 Volts, 35 Amperes — Operating Methods	169-607-301	5	J86221A — Electron Tube Type — Automatic Regulation — Operating Methods
169-271-301	2	KS-19231 L1 and L2 — Operating Methods	169-608-301	5	J86225 — Operating Methods
169-4 RECTIFIERS — LOCATED ON CUSTOMER PREMISES			169-609-301	5	J86226 — Operating Methods
169-429-301	3	J86281A — Operating Methods	169-610-301	4	J86227 — Operating Methods
169-430-100	2	J87202A	169-611-301	2	J86228A and J86228B — 400 Volts, 0.1 Ampere — Operating Methods
169-431-301	1	J87242A — Operating Methods	169-612-301	2	J86239A — Operating Methods
169-432-301	1	J87243A — Operating Methods	169-612-303	3	J86239C — Operating Methods
169-433-301	1	J87244A — Operating Methods	Add 169-612-811	1	
169-445-301	1	KS-5663, L8, L9, and L10 — Operating Methods	169-612-811	5	Rectifier Stacks and Rectifier Baskets of KS-5651, KS-5651-01, KS-5651-02, KS-15689, J86239A, J86239B, J86239C, J86249A, J86249B, and J86249C Rectifiers — Replacement Parts and Procedures
169-465-301	3	KS-15668 L1, L2, and L3 — Operating Methods	169-613-301	12	J86240A and J86240B — Operating Methods
169-466-301	1	(Battery Charging) — KS-19921 L1 — Operating Methods	169-614-301	2	J86241 — Operating Methods
169-467-301	2	KS-20121 L1, L2, L3, and L4 Rectifiers — Operating Methods	169-615-301	2	J86242 — Operating Methods
169-469-301	1	J87328A — 24 Volts, 15 Amperes — Operating Methods	169-616-301	2	J86243A — Operating Methods
169-470-301	1	J87329A — 48 Volts, 15 Amperes — Operating Methods	Add 169-617-301	3	
169-471-301	1	J29361F-1 — 48 Volts, 50 Amperes — No. 3 and No. 5A Crossbar — Operating Methods	169-617-301	7	J86244A — Operating Methods
169-472-301	2	KS-21090 — Operating Methods	169-618-301	5	J86249A, B, and C Rectifiers and J86249E, L2 Relay Output Control — Operating Methods
169-472-302	2	KS-21091 — Operating Methods	Add 169-618-303	2	
169-472-303	1	KS-21195 — Operating Methods	169-618-303	4	J86249A, B, and C Rectifiers and J86249E L1 Electronic Control — Operating Methods
169-472-304	1	KS-21421 L1, L2 — Operating Methods	Add 169-618-305	3	
169-6) RECTIFIERS AND FILAMENT SUPPLIES — LOCATED ON TELEPHONE COMPANY PREMISES			169-618-305	3	J86249A, B, and C Rectifiers and J86249E L3 Electronic Control — Operating Methods
169-7)			169-620-301	2	J86263A, 48-Volt and J86263B, 24-Volt — Regulated Metallic Type — 30 Amperes — Operating Methods
169-602-301	1	X-61756A-2 — Tube Type — Automatic Regulation — Operating Methods	169-621-101	1	J86264A — Metallic Type — Manual Regulation — Single-Cell Charger — 210 Amperes — Description
169-603-302	5	J86207B, J86207R, J86207T and J86216A — Operating Methods	169-621-301	4	J86264A and KS-15687 L1, L2, L3, and L4 (Single-Cell Chargers) — Operating Methods
169-603-303	7	J86207C and J86207F — Operating Methods	169-622-301	6	J86266A — 130 Volts, 24 Amperes — Operating Methods
169-603-319	6	J86207P and J86207S — Operating Methods	Add 169-623-301	1	
169-603-816	3	J86207P, J86207S, J86263A, and J86263B—Rectifiers—Modifications	169-623-301	4	J86273 — 48 Volts, 200 Amperes — Current-Regulated Output Control — Operating Methods
169-604-301	2	J86217A — Operating Methods	Add 169-623-306	1	
169-605-301	2	J86218A — Operating Methods	169-623-306	4	J86273 — 48 Volts, 200 Amperes — Voltage-Regulated Output Control — Operating Methods

Section Number	Issue	Subject	Section Number	Issue	Subject
169-624-301	1	J86277A — Metallic Type — Manual Regulation — Operating Methods	169-650-301	2	J87275 Rectifier — Semiconductor-Type — Automatic Regulation — Operating Methods
169-624-302	1	J86277B — Metallic Type — Manual Regulation — Operating Methods	169-651-301	1	J87346 Rectifier — Semiconductor-Type — Automatic Regulation — Operating Methods
169-625-301	3	J86278A — Semiconductor Type — Manually Regulated — Operating Methods	Add 169-652-301	1	
169-625-302	2	J86278B — Semiconductor Type — Manually Regulated — Operating Methods	169-652-301	1	J87358 — Ferroresonant Controlled — Operating Methods
169-626-301	3	J86280A — Semiconductor Type — Manually Regulated — Operating Methods	169-652-305	2	J87436A, Lists 1, 2, and 3 — + or -24 Volts, 100 Amperes — Operating Methods
169-627-301	1	J86286A — Metallic Type — Manually Regulated — Operating Methods	169-652-306	2	J87437A, Lists 1, 2, and 3 — + or -48 Volts, 100 Amperes — Operating Methods
169-628-301	1	J86288A — Metallic Type — Manually Regulated — Operating Methods	169-652-307	3	J87438A, Lists 1, 2, and 4 — + or -24 Volts, 200 Amperes — Operating Methods
Add 169-630-301	1		169-652-308	3	J87439A, Lists 1, 2, and 4 — + or -48 Volts, 200 Amperes — Operating Methods
169-630-301	5	J86295A — 48 Volts, 200 Amperes Voltage-Regulated Output Control — 23- or 24-Cell Operation (Regular Cells Only) — Operating Methods	169-652-324	1	J87447A, 24 Volts, 15 Amperes — Operating Methods
Add 169-630-302	1		169-652-326	1	J87448A, 48 Volts, 15 Amperes — Operating Methods
169-630-302	5	J86295A — 48 Volts, 200 Amperes — Voltage-Regulated Output Control — 23- or 24-Cell Operation (Regular Cells Only) — Operating Methods	169-660-301	3	KS-5651 and KS-5651-01 — Electronic Control — Operating Methods
Add 169-630-303	1		169-660-302	4	KS-5651 and KS-5651-01 — Relay-Type Output Control — Operating Methods
169-630-303	5	J86295A — 48 Volts, 200 Amperes — Current-Regulated Output Control — 23-, 25-, or 27-Cell Plant (Regular and Emergency Cells) — Operating Methods	Add 169-660-306	1	
169-631-301	6	J86296 — 48 Volts, 400 Amperes — Voltage-Regulated Output Control for 23-, 25-, or 27-Cell Plant (Regular and Emergency Cells) — Operating Methods	169-660-306	2	KS-5651-02 Rectifier Unit — Relay-Type Output Control — Operating Methods
169-631-302	6	J86296 — 48 Volts, 400 Amperes — Voltage-Regulated Output Control for 23-Cell Operation (Regular Cells Only) — Operating Methods	169-660-311	2	KS-5651-02 Rectifier Unit — Electronic Control — Operating Methods
169-631-303	5	J86296 — 48 Volts, 400 Amperes — Current-Regulated Output Control for 23-, 25-, or 27-Cell Plant (Regular and Emergency Cells) — Operating Methods	169-661-301	1	KS-5669 — Operating Methods
169-633-301	3	J86298A — Semiconductor Type — Automatic Regulation — Operating Methods	169-662-301	3	KS-5928 L5 and KS-15620 L4 — Operating Methods
169-635-301	1	J87200A — Semiconductor Type — Manually Regulated — Operating Methods	169-663-301	1	KS-5789 — Operating Methods
169-636-301	3	J87201A, L1 and J87201B, L1 — Operating Methods	169-680-301	1	KS-15123, list 2 — Operating Methods
169-642-301	3	J87207A L1 and J87207B L1 — Operating Methods	169-681-301	1	KS-15135 — Automatically Regulated — Metallic Type — 24 Volts, 6 Amperes — Operating Methods
169-648-301	8	J87222 — 24 Volts, 100 Amperes — Operating Methods	169-682-301	6	KS-15620, L1, L2, L3, L6 and L10 — Operating Methods
169-649-301	4	J87249A and J87249B — Rectifiers—Operating Methods	169-682-302	4	Rectifiers — KS-15620 — Ferroresonant Type — Operating Methods
			169-683-301	1	KS-15655 — Metallic Type — Automatic Regulation — Operating Methods
			Add 169-685-301	1	
			169-685-301	4	KS-15689, L1 Rectifier and KS-15689, L3, Electronic Control — Operating Methods
			169-685-306	2	KS-15689 — Relay-Type Output Control — Operating Methods

SECTION 169-000-000

Section Number	Issue	Subject
169-686-301	2	Inverter, Regulated — KS-15737 — Operating Methods
169-687-301	3	KS-15885 Rectifier — Operating Methods
169-688-301	4	Rectifiers — KS-15894, L1, L2, and L3 — Operating Methods
Add 169-689-301	1	
169-689-301	2	Rectifiers — KS-15898 L1, L2, and L3 — Operating Methods
169-692-301	2	KS-15907, L1 (Portable) — KS-15907, L2 (Rack Mounted) — Operating Methods
169-696-301	1	KS-15911, L2 and L3 — Operating Methods
169-701-301	1	Filament Supply — KS-15915, L1 — Operating Methods
169-703-301	1	KS-15999 L2 — Operating Methods
Add 169-704-301	1	
169-704-301	2	KS-19210, L1 — 24 Volts, 400 Amperes — Operating Methods
Add 169-704-311	1	
169-704-311	1	KS-19210 — Trouble Locating
169-704-312	3	KS-19210 L11 and L12 — 24 Volts, 400 Amperes Operating Methods
Add 169-704-313	1	
169-704-313	1	KS-19210 L23 and L24 — +24 Volts, 400 Amperes — Operating Methods
Add 169-704-701	1	
169-704-701	1	KS-19210 24-Volt Rectifier, All List — S1 Switch (S3 Switch for L1 and L3) — Tests, Inspections, Cleaning, and Adjustments
Add 169-705-301	1	
169-705-301	2	KS-19210, L2 and L7 — 24 Volts, 400 Amperes — Operating Methods
Add 169-706-301	1	
169-706-301	2	KS-19210, L3 — 24 Volts, 400 Amperes — Operating Methods
Add 169-707-301	1	
169-707-301	3	KS-19210 L4 and L9 — 24 Volts, 400 Amperes — Operating Methods
Add 169-708-301	1	
169-708-301	2	KS-19211, L1 — 24 Volts, 800 Amperes — Operating Methods
169-708-311	1	KS-19211 L1 — 24 Volts, 800 Amperes — Trouble Locating
169-708-701	1	KS-19211 24-Volt Rectifier — DC Output Switch — Tests, Inspections, Cleaning, and Adjustments
Add 169-709-301	1	
169-709-301	3	KS-19211, L2 and L7 — 24 Volts, 800 Amperes — Operating Methods
169-709-311	1	KS-19211 L2 and L7 — 24 Volts, 800 Amperes — Trouble Locating

Section Number	Issue	Subject
Add 169-710-301	1	
169-710-301	2	KS-19211, L3 — 24 Volts, 800 Amperes — Operating Methods
169-710-311	1	KS-19211 L3, 24 Volts 800 Amperes — Trouble Locating
Add 169-711-301	1	
169-711-301	2	KS-19211, L4 and L9 — 24 Volts, 800 Amperes — Operating Methods
169-711-311	1	KS-19211 L4, L9, L11, and L12 — 24 Volts, 800 Amperes — Trouble Locating
Add 169-711-312	1	
169-711-312	2	KS-19211, L11 and L12 — 24 Volts, 800 Amperes — Operating Methods
Add 169-712-301	1	
169-712-301	5	KS-19212, L1 and L2, — 24 Volts, 1600 Amperes — Operating Methods
169-712-701	1	KS-19212 and KS-19215 — L1, L2, L3, L4, L11, and L12 Rectifiers — SW1 and SW2 Switches — Tests, Inspections, Cleaning, and Adjustments
Add 169-713-301	1	
169-713-301	3	KS-19212, L3 and L4 — 24 Volts, 1600 Amperes — Operating Methods
169-713-311	1	KS-19212, L1 and L2, — 24 Volts, 1600 Amperes — Trouble Locating
Add 169-713-312	1	
169-713-312	4	KS-19212, L11 and L12 — 24 Volts, 1600 Amperes — Operating Methods
169-715-301	2	KS-19213 L2 — 48 Volts, 800 Amperes — Operating Methods
169-715-701	2	KS-19213, 48-Volt Rectifier — DC Output Switch — Tests, Inspections, Cleaning, and Adjustments
169-716-301	2	KS-19213 L3 — 48 Volts, 800 Amperes — Operating Methods
169-717-301	3	KS-19213 L5 and L9 — 48 Volts, 800 Amperes — Operating Methods
169-718-301	2	KS-19213 L6 and L7 — 48 Volts, 800 Amperes — Operating Methods
169-718-311	1	KS-19213 — 48 Volts, 800 Amperes — Trouble Locating
169-718-312	4	KS-19213, L11 and L12, Rectifiers — 48 Volts, 800 Amperes — Operating Methods
169-720-301	3	KS-19214 L2 and L5 Voltage-Regulated Output Control — 48 Volts, 800 Amperes — Operating Methods
169-720-332	2	KS-19214 — Solid State Ammeter Relays — Operating Methods
169-720-701	1	KS-19214 48-Volt Rectifiers — S1 and S2 Switches — Tests, Inspections, Cleaning, and Adjustments

Section Number	Issue	Subject	Section Number	Issue	Subject
169-721-301	2	KS-19214 L3 and L6 — 48 Volts, 800 Amperes — Operating Methods	169-730-702	2	KS-19791 L11 and L12 — 48-Volt Rectifiers — DC Output S2 Switch — Tests, Inspections, Cleaning, and Adjustments
169-721-311	1	KS-19214 — 48 Volts, 800 Amperes — Trouble Locating	Add 169-731-301	2	
169-721-312	3	KS-19214 L11 and L12 — 48 Volts, 800 Amperes — Operating Methods	169-731-301	2	KS-19792 L11 and L12 — 48 Volts, 1600 Amperes — Operating Methods
Add 169-722-301	2		169-731-302	3	KS-19793 L11 and L12 — 48 Volts, 1600 Amperes — Operating Methods
169-722-301	5	KS-19215, L1 and L2, Rectifiers — 48 Volts, 1600 Amperes — Operating Methods	169-731-311	2	KS-19792 L11 and L12 — 48 Volts, 1600 Amperes — Trouble Locating
Add 169-723-301	3		Add 169-731-312	1	
169-723-301	4	KS-19215, L3 and L4 — 48 Volts, 1600 Amperes — Operating Methods	169-731-312	2	KS-19793 L11 and L12 — 48 Volts, 1600 Amperes — Trouble Locating
169-723-311	1	KS-19215 — 48 Volts, 1600 Amperes — Trouble Locating	169-731-701	2	KS-19792 48-Volt — KS-20040 24-Volt — S1 and S2 Switches — Tests, Inspections, Cleaning, and Adjustments
Add 169-723-312	2		169-731-702	1	KS-19793 L11 and L12 — 48-Volt Rectifiers — S2 and S3 Switches — Tests, Inspections, Cleaning, and Adjustments
169-723-312	3	KS-19215, L11 and L12 — 48 Volts, 1600 Amperes — Operating Methods	169-732-301	1	KS-19700 L1 Rectifier — 12-Volt, 400-Ampere — Operating Methods
Add 169-724-301	1		169-735-301	3	KS-20039, L11, L12, L23, and L24, — 24 Volts, 800 Amperes — Operating Methods
169-724-301	3	KS-19216 L1 and L2 — 130 Volts, 300 Amperes — Operating Methods	169-735-311	1	KS-20039 — 24 Volts, 800 Amperes — Trouble Locating
169-724-311	1	KS-19216 L1 and L2 — 130 Volts, 300 Amperes — Trouble Locating	169-736-301	5	KS-20040 L11 and L12 Rectifier — 24 Volts, 1600 Amperes — Operating Methods
169-724-701	2	KS-19216 130-Volt Rectifier — S6 Switch — Tests, Inspections, Cleaning, and Adjustments	169-736-311	2	KS-20040, L11 and L12 — 24 Volts, 1600 Amperes — Trouble Locating
169-726-301	2	KS-19356 L1 and L2 — 24 Volts, 1600 Amperes — Operating Methods	Add 169-741-301	2	
169-726-701	2	KS-19356 24-Volt Rectifier — S1 Switch — Tests, Inspections, Cleaning, and Adjustments	169-741-301	2	KS-20489 Rectifiers — 48 Volts, 400 Amperes — Operating Methods
Add 169-727-301	1		Add 169-741-311	1	
169-727-301	1	Rectifiers — KS-19356 L3 and L4 — 24 Volts, 1600 Amperes — Operating Methods	169-741-311	2	KS-20489 L11, L12, L21, and L22 — 48 Volts, 400 Amperes — Trouble Locating
169-727-311	1	KS-19356 — 24 Volts, 1600 Amperes — Trouble Locating	169-741-701	2	KS-20489, 48-Volt Rectifier — S3 Switch — Tests, Inspections, Cleaning, and Adjustments
169-727-312	3	KS-19356, L11 and L12 — 24 Volts, 1600 Amperes — Operating Methods	169-742-301	2	KS-20490, L11, L12, and L22, Rectifiers — 48 Volts, 400 Amperes — Operating Methods
169-728-301	3	KS-19424 L1, L2, and L3 — 12 Volts, 400 Amperes — Operating Methods	169-742-311	2	KS-20490 Rectifiers — 48 Volts, 400 Amperes — Trouble-Locating
169-729-301	2	KS-19412 (Test Voltage Supply) — Operating Methods	169-742-701	2	KS-20490 Rectifiers — DC Output (S1) Switch — Test, Inspection, Cleaning and Lubrication
169-730-301	3	KS-19790 L11 and L12 — 48 Volts, 800 Amperes — Operating Methods	169-743-301	5	KS-20491, L21, L22, L23, L24 — 24 Volts, 100 Amperes Lorain Products Corporation — Operating Methods
169-730-302	3	KS-19791 L11 and L12 — 48 Volts, 800 Amperes — Operating Methods	169-743-302	2	KS-20491, L21, L22, L23, and L24 — 24 Volts, 100 Amperes — ITT — North Electric Company — Operating Methods
169-730-311	1	KS-19790 — 48 Volts, 800 Amperes — Trouble Locating	169-743-311	2	KS-20491, L21, L22, L23, L24 — 24-Volt, 100 Ampere — Lorain Products Corporation — Trouble-Locating Information
169-730-312	2	KS-19791, L11 and L12, Rectifiers — 48 Volts, 800 Amperes — Trouble Locating			
169-730-701	1	KS-19790 and KS-20039 — L11 and L12 Rectifiers — DC Output (S3) Switch — Tests, Inspections, Cleaning, and Adjustments			

SECTION 169-000-000

Section Number	Issue	Subject	Section Number	Issue	Subject
• 169-743-312	2	KS-20491, L21, L22, L23, and L24 — 24 Volts, 100 Amperes — ITT — North Electric Company — Trouble Locating Information	169-746-305	1	KS-21113, Lists 1 and 2 Rectifiers — ACME Electric Company — 140 Volts, 200 Amperes — Trouble Locating
169-743-313	1	KS-20491, L21, L22, L23, L24 (SD-81997-02) 24 Volts 100 Amperes — Lorain Products Corporation — Trouble-Locating Information	169-748-301	1	KS-21520 Rectifier — 48 Volts, 400 Amperes — Lorain Products Corporation — Operating Methods
169-745-301	4	KS-20493, L21 and L22 — 48 Volts, 100 Amperes — Lorain Products Corporation — Operating Methods	Add 169-748-302	1	
169-745-302	2	KS-20493, L21 and L22, Rectifiers — ITT-North Electric Company — 48 Volts, 100 Amperes — Operating Methods	169-748-302	1	KS-21520 Rectifier — 48 Volts, 400 Amperes — Warren G-V Communications — Operating Methods
169-745-311	2	KS-20493, L21 and L22 — —48 Volts, 100 Amperes — Lorain Products Corporation — Trouble-Locating Information	169-748-311	1	KS-21520 — 48 Volts, 400 Amperes — Lorain Products Corporation — Trouble Locating
169-745-312	2	KS-20493, L21 and L22, Rectifiers — 48 Volts, 100 Amperes — ITT-North Electric Company — Trouble-Locating	169-748-312	1	KS-21520 — 48 Volts, 400 Amperes — Warren G-V Communications — Trouble Locating
169-746-301	1	KS-21113 L1 and L2 Rectifiers — Lorain Products Corporation — 152 Volts 200 Amperes — Operating Methods	169-748-501	1	KS-21520 — Tests, Inspections, Cleaning, and Adjustments — Lorain Products Corporation
Add 169-746-302	1		169-748-502	1	KS-21520 — Tests, Inspections, Cleaning, and Adjustments — Warren G-V Communications
169-746-302	2	KS-21113, L1 and L2, Rectifiers — ITT — North Electric Company — 140 Volts 200 Amperes — Operating Methods	169-749-301	1	KS-21522 — Lists 11, 12, 21, 22 — 48 Volts, 800 Amperes — ITT — North Electric Company — Operating Methods
169-746-303	1	KS-21113, L1 and L2 — 140 Volts, 200 Amperes — Acme Electric Company — Operating Methods	169-749-311	1	KS-21522, L11, L12, L21, and L22 — 48 Volts, 800 Amperes — ITT — North Electric Company — Trouble Locating
169-746-304	1	KS-21113 Rectifier — Warren Communications Company — 140 Volts, 200 Amperes — Operating Methods	169-749-501	1	KS-21522 — ITT — North Electric Company — DC Output (S1) Switch — Tests, Inspections, Cleaning, and Adjustments