

**EQUIPMENT TEST LIST**  
**RELAYS**

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| 20.53 STRBG-CRLSN 207, 228 & 244-TYPE . . . . .              | 13   | 1.01 This section provides an index and informa-<br>tion access system to locate the standard tests<br>applicable to equipment listed in the preceding table<br>of contents. Test classification and frequency of peri-<br>odic routine are also provided.    |      |
| 20.54 STRBG-CRLSN 245, 253 & 257-TYPE . . . . .              | 14   | 1.02 This Equipment Test List (ETL) is reissued to<br>incorporate changes which are indicated by an<br>arrow to the left of each line which has been changed.   |      |
| 20.55 STRBG-CRLSN 263 & 285-TYPE . . . . .                   | 15   | 1.03 Comments on this section should be made by<br>following the instructions in Bell System<br>Practices (BSP), Section 000-010-015.   |      |
| 20.56 STRBG-CRLSN 366-TYPE . . . . .                         | 15   | 1.04 Routine test information is arranged in the<br>following order from left to right: Section<br>number, issue/addendum, test letter or paragraph<br>number, test title, test class, frequency, and the last<br>space is for a locally assigned job number. |      |
| 20.57 WESTON 705, 723, 813 & 1035<br>METER-TYPE . . . . .    | 16   | 1.05 Section 010-300-011 provides Equipment Test<br>List instructions.  |      |
| 20.58 LFE 281-M-II & 281-M-III METER-TYPE<br>. . . . .       | 16   |   |      |
| 20.59 LFE 385-M, 391-M & 723-M METER-TYPE<br>. . . . .       | 16   |   |      |
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## 20.0 RELAYS

## ◆ 20.1 RELAYS; RESISTOR-CAPACITOR TIMED RELAY INTERRUPTER

## ◆ SELECT ONLY ONE CATEGORY

## ◆ TEST USING KS-7361, KS-7608 &amp; 35-TYPE TEST SET

|   |                   |   |  |        |       |
|---|-------------------|---|--|--------|-------|
| ◆ | 040-009-501 (2/1) | A | USING KS-7361 PERCENT BREAK METER, KS-7608 IMPULSE COUNTER, AND 35-TYPE TEST SET | MW 24M | ----- |
|---|-------------------|---|--|--------|-------|

## ◆ TEST USING PULSE CHECKING TEST SET

|   |                   |   |                                      |        |       |
|---|-------------------|---|--------------------------------------|--------|-------|
| ◆ | 040-009-501 (2/1) | B | USING PULSE CHECKING TEST SET J94723 | MW 24M | ----- |
|---|-------------------|---|--------------------------------------|--------|-------|

## ◆ TEST USING RA SIGNALING TEST SET

|   |                   |   |   |        |       |
|---|-------------------|---|---|--------|-------|
| ◆ | 040-009-501 (2/1) | C | USING 4A SIGNAL TEST SET NOTE: TYPICAL RELAY-"PG", "KP", "P", "CKP" | MW 24M | ----- |
|---|-------------------|---|---|--------|-------|

## ◆ 20.2 RELAYS; PULSE PRTG RELAY

## ◆ SELECT ONLY ONE CATEGORY

## ◆ REQTS USING PULSE TEST SET SD-31481-01 &amp; PLS REP TST SET J64722A

|   |                   |  |   |      |       |
|---|-------------------|--|---|------|-------|
| ◆ | 040-011-711 (2/0) |  | PULSE REPEATING RELAYS PULSE REQTS TA1 TO TF2 USING REPEATING TST SET J64722A | MW * | ----- |
|---|-------------------|--|---|------|-------|

|   |                   |  |  |      |       |
|---|-------------------|--|--|------|-------|
| ◆ | 040-012-711 (9/0) |  | PULS RPT RELS-TST SET J34717A OR TST SET J34720A | MW * | ----- |
|---|-------------------|--|--|------|-------|

## ◆ REQTS USING 2B-1 TEST SET

|   |                    |  |  |      |       |
|---|--------------------|--|--|------|-------|
| ◆ | 040-011-712 (11/1) |  | PULS RPT RELS PULSING REQTS TA1 THROUGH TF2 USING 2B-1 SIG TST SET J64730B ETC | MW * | ----- |
|---|--------------------|--|--|------|-------|

|   |                   |  |                              |      |       |
|---|-------------------|--|------------------------------|------|-------|
| ◆ | 040-012-712 (3/0) |  | PULS RPT RELS-TST SET J64730 | MW * | ----- |
|---|-------------------|--|------------------------------|------|-------|

## ◆ REQTS USING 4A SIGNALING TEST SET

|   |                   |  |  |      |       |
|---|-------------------|--|--|------|-------|
| ◆ | 040-011-713 (1/0) |  | PULS RPT PULSING REQTS TA1 THROUGH TF2 USING 4A SIG TST SET J94743 | MW * | ----- |
|---|-------------------|--|--|------|-------|

|   |                   |  |  |      |       |
|---|-------------------|--|--|------|-------|
| ◆ | 040-012-711 (9/0) |  | PULS RPT RELS-TST SET J34717A OR TST SET J34720A | MW * | ----- |
|---|-------------------|--|--|------|-------|

## 20.3 RELAYS; AIR NAV LTG CKT

## SELECT ONLY ONE CATEGORY

## ◆ SINGLE &amp; 2-CIRCUIT SWITCHES

|   |                   |      |   |       |       |
|---|-------------------|------|---|-------|-------|
| ◆ | 040-663-701 (5/0) | 2.02 | (2.02A) LUBRICATE SINGLE & 2-CKT SWITCHES | MW 6M | ----- |
|---|-------------------|------|---|-------|-------|

## ◆ 3-CIRCUIT SWITCHES

|   |                   |      |                                      |       |       |
|---|-------------------|------|--------------------------------------|-------|-------|
| ◆ | 040-663-701 (5/0) | 2.02 | (2.02B & C) LUBRICATE 3-CKT SWITCHES | MW 3M | ----- |
|---|-------------------|------|--------------------------------------|-------|-------|

## ◆ 20.4 RELAYS; KS15513 WESTINGHOUSE ELEC CORP

## FOR ALL UNITS

|   |                   |      |   |        |       |
|---|-------------------|------|---|--------|-------|
| ◆ | 040-664-701 (3/0) | 2.03 | (2.03A) LUBRICATE CLUTCH PINION BEARING | MW 12M | ----- |
|---|-------------------|------|---|--------|-------|

|   |  |      |                                      |        |       |
|---|--|------|--------------------------------------|--------|-------|
| ◆ |  | 2.03 | (2.03B OR C) LUBRICATE MOTOR BEARING | MW 36M | ----- |
|---|--|------|--------------------------------------|--------|-------|

## ◆ TROUBLE TESTS

|   |                   |      |                               |    |       |
|---|-------------------|------|-------------------------------|----|-------|
| ◆ | 040-664-701 (3/0) | 2.05 | ARMATURE FREEDOM OF OPERATION | TT | ----- |
|---|-------------------|------|-------------------------------|----|-------|

|   |  |      |                |    |       |
|---|--|------|----------------|----|-------|
| ◆ |  | 2.06 | CONTACT FOLLOW | TT | ----- |
|---|--|------|----------------|----|-------|

|   |  |      |                                   |    |       |
|---|--|------|-----------------------------------|----|-------|
| ◆ |  | 2.07 | LATCH ARMS & CONTACT FINGERS SEPN | TT | ----- |
|---|--|------|-----------------------------------|----|-------|

|   |  |      |             |    |       |
|---|--|------|-------------|----|-------|
| ◆ |  | 2.08 | CLUTCH OPRN | TT | ----- |
|---|--|------|-------------|----|-------|

|   |  |      |                     |    |       |
|---|--|------|---------------------|----|-------|
| ◆ |  | 2.09 | TRIP MECHANISM OPRN | TT | ----- |
|---|--|------|---------------------|----|-------|

|   |  |      |            |    |       |
|---|--|------|------------|----|-------|
| ◆ |  | 2.10 | MOTOR OPRN | TT | ----- |
|---|--|------|------------|----|-------|

|   |                                     |      |  |        |       |
|---|-------------------------------------|------|--|--------|-------|
| ◆ | 040-664-701 (3/0)                   | 2.11 | TIMING REQTS   | TT     | ----- |
| ◆ |                                     | 2.12 | ELECTRICAL REQTS                                     | TT     | ----- |
| ◆ |                                     | 2.13 | TEMPERATURE  | TT     | ----- |
| ◆ | 20.5 RELAYS; KS15513 EAGLE SIG CORP |      |  |        |       |
|   | FOR ALL UNITS                       |      |  |        |       |
| ◆ | 040-665-701 (1/0)                   | 2.01 | CHECK RELAY & COVER MOUNTING                         | MW 12M | ----- |
| ◆ |                                     | 2.02 | CLEAN RELAY  | MW 12M | ----- |
|   |                                     | 2.03 | LUBRICATION  | MW 12M | ----- |
| ◆ | TROUBLE TESTS                       |      |  |        |       |
| ◆ | 040-665-701 (1/0)                   | 2.05 | CONTACT SEPN   | TT     | ----- |
| ◆ |                                     | 2.06 | CAM & CONTACT FINGER SEPN                            | TT     | ----- |
| ◆ |                                     | 2.07 | FINGER & LIFT PLATE SEPN                             | TT     | ----- |
| ◆ |                                     | 2.08 | CYCLE CHANGE GEAR POSITION                           | TT     | ----- |
| ◆ |                                     | 2.09 | GEAR ENGMT   | TT     | ----- |
| ◆ |                                     | 2.10 | CLUTCH OPRN  | TT     | ----- |
| ◆ |                                     | 2.11 | CAMSHAFT OPRN  | TT     | ----- |
| ◆ |                                     | 2.12 | MOTOR OPRN   | TT     | ----- |
| ◆ |                                     | 2.13 | TIMING REQTS   | TT     | ----- |
| ◆ |                                     | 2.14 | ELECTRICAL REQTS                                     | TT     | ----- |
| ◆ |                                     | 2.15 | TEMPERATURE  | TT     | ----- |
|   | 20.6 RELAYS; UB-TYPE                |      |  |        |       |
|   | TROUBLE TESTS                       |      |  |        |       |
|   | 040-520-701 (5/0)                   | 2.01 | CLEAN & INSPECT CONTACTS                             | TT     | ----- |
|   |                                     | 2.02 | RELAY MTG  | TT     | ----- |
|   |                                     | 2.03 | VERTICAL CLRNC                                       | TT     | ----- |
|   |                                     | 2.04 | COVER SPG, COVER GUIDE PRESSURE & COVER CAP<br>TYTNS | TT     | ----- |
|   |                                     | 2.05 | CONTACT ALNMT  | TT     | ----- |
|   |                                     | 2.06 | SPG TANG POSITION & CARD CLRNC                       | TT     | ----- |
|   |                                     | 2.07 | ADJG STUD CLRNC                                      | TT     | ----- |
|   |                                     | 2.08 | ADJG NUT TYTNS                                       | TT     | ----- |
|   |                                     | 2.09 | ADJG NUT LOCKNUT TYTNS                               | TT     | ----- |
|   |                                     | 2.10 | D-178259 & D-178260 ATTBL SEPR APPL                  | TT     | ----- |
|   |                                     | 2.11 | ARMTR POSITION                                       | TT     | ----- |
|   |                                     | 2.12 | ARMTR TRAVEL   | TT     | ----- |
|   |                                     | 2.13 | SPG TENSION  | TT     | ----- |
|   |                                     | 2.14 | ARMTR BACK TENSION                                   | TT     | ----- |
|   |                                     | 2.15 | SPG SEPN   | TT     | ----- |
|   |                                     | 2.16 | CONTACT MAKE & BREAK                                 | TT     | ----- |
|   |                                     | 2.17 | ELECTRICAL REQTS                                     | TT     | ----- |
|   |                                     | 2.18 | TMG REQTS  | TT     | ----- |

## 20.7 RELAYS; Y-TYPE

## TROUBLE TESTS

|                   |      |   |    |       |
|-------------------|------|---|----|-------|
| 040-522-701 (9/0) | 2.01 | CLEAN & INSPECT CONTACTS                                    | TT | ----- |
|                   | 2.02 | RELAY MTG   | TT | ----- |
|                   | 2.03 | VERTICAL CLRNC  | TT | ----- |
|                   | 2.04 | COVER SPG, COVER GUIDE PRESSURE & COVER CAP TYTNS           | TT | ----- |
|                   | 2.05 | CONTACT ALNMT   | TT | ----- |
|                   | 2.06 | SPG TANG POSITION & CARD CLRNC                              | TT | ----- |
|                   | 2.07 | ADJG STUD CLRNC   | TT | ----- |
|                   | 2.08 | ADJG NUT TYTNS  | TT | ----- |
|                   | 2.09 | D-167911 MAGNETIC SEPR APPL                                 | TT | ----- |
|                   | 2.10 | ARMTR POSITION  | TT | ----- |
|                   | 2.11 | ARMTR TRAVEL  | TT | ----- |
|                   | 2.12 | SPG TENSION   | TT | ----- |
|                   | 2.13 | POSITION OF X' BUFFER SPG DSGNTD F                          | TT | ----- |
|                   | 2.14 | ARMTR BACK TENSION  | TT | ----- |
|                   | 2.15 | SPG STUD CLRNC  | TT | ----- |
|                   | 2.16 | SPG STRTNS  | TT | ----- |
|                   | 2.17 | SPG SEPN  | TT | ----- |
|                   | 2.18 | STUD GAP  | TT | ----- |
|                   | 2.19 | CONTACT MAKE  | TT | ----- |
|                   | 2.20 | CONTACT SEPN  | TT | ----- |
|                   | 2.21 | CONTACT SEQ   | TT | ----- |
|                   | 2.22 | ELECTRICAL REQTS  | TT | ----- |
| 040-937-701 (8/0) | 2.01 | (2.01 - 2.16) U, Y, & UA-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |

## 20.8 RELAYS; D-80493 THERMAL RELAY

## TROUBLE TESTS

|                   |      |                          |    |       |
|-------------------|------|--------------------------|----|-------|
| 040-601-701 (2/0) | 2.01 | CLEAN & INSPECT CONTACTS | TT | ----- |
|                   | 2.02 | RELAY MTG                | TT | ----- |
|                   | 2.03 | RELAY COVER              | TT | ----- |
|                   | 2.04 | ASSEMBLY TYTNS           | TT | ----- |
|                   | 2.05 | CONTACT & SPG ALNMT      | TT | ----- |
|                   | 2.06 | SPG TANG POSITION        | TT | ----- |
|                   | 2.07 | TIMING                   | TT | ----- |

## 20.9 RELAYS; D-81211 BELLOWS RELAY

## TROUBLE TESTS

|                   |      |                          |    |       |
|-------------------|------|--------------------------|----|-------|
| 040-602-701 (1/0) | 2.01 | CLEAN & INSPECT CONTACTS | TT | ----- |
|                   | 2.02 | RELAY MTG                | TT | ----- |
|                   | 2.03 | LOCKNUTS TYTNS           | TT | ----- |
|                   | 2.04 | CONTACT ALNMT            | TT | ----- |

|   |      |                            |    |       |
|---|------|----------------------------|----|-------|
| 040-602-701 (1/0)   | 2.05 | CONTACT SEPN               | TT | ----- |
|   | 2.06 | BELLOWS                    | TT | ----- |
|   | 2.07 | BLOCKADE OPRN              | TT | ----- |
|   | 2.08 | BELLOWS LEAKAGE            | TT | ----- |
|   | 2.09 | CASE LEAKAGE               | TT | ----- |
| 20.10 RELAYS; D-85083   |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-603-701 (2/0)   | 2.01 | CLEAN & INSPECT CONTACTS   | TT | ----- |
|   | 2.02 | RELAY MTG                  | TT | ----- |
|   | 2.03 | RELAY TERMINALS & NUTS     | TT | ----- |
|   | 2.04 | AIR GAP                    | TT | ----- |
| 20.11 RELAYS; KS-5323 C&H AUTO REV CUR RELAY                  |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-630-701 (3/0)   | 2.01 | CONTACT SURFACES           | TT | ----- |
|   | 2.02 | CONTACT SEPN               | TT | ----- |
|   | 2.03 | CONTACT PRESSURE           | TT | ----- |
|   | 2.04 | OPRG TEST                  | TT | ----- |
| 20.12 RELAYS; KS-5323-01 & KS-15572 C&H AUTO REV CUR RELAY    |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-631-701 (1/0)   | 2.01 | OPERATION                  | TT | ----- |
|   | 2.02 | CONTACT SURFACES           | TT | ----- |
|   | 2.03 | CONTACT SEPN               | TT | ----- |
|   | 2.04 | CONTACT PRESSURE           | TT | ----- |
| 20.13 RELAYS; KS-5342, KS-5348, KS-5561 & KS-5662 AM RELAY    |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-632-701 (8/0)   | 2.01 | SHUNT & SHUNT LEADS TYTNS  | TT | ----- |
|   | 2.02 | CONTACT CLEANING           | TT | ----- |
|   | 2.03 | POINTER FREEDOM OF MVMT    | TT | ----- |
|   | 2.04 | CONTACT & POINTER ACCURACY | TT | ----- |
|   | 2.05 | SHUNT TEMPERATURE          | TT | ----- |
| 20.14 RELAYS; KS-5787, KS-15570, KS-15573 & KS-15796 AM RELAY |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-632-701 (8/0)   | 2.01 | SHUNT & SHUNT LEADS TYTNS  | TT | ----- |
|   | 2.02 | CONTACT CLEANING           | TT | ----- |
|   | 2.03 | POINTER FREEDOM OF MVMT    | TT | ----- |
|   | 2.04 | CONTACT & POINTER ACCURACY | TT | ----- |
|   | 2.05 | SHUNT TEMPERATURE          | TT | ----- |
| 20.15 RELAYS; KS-15802 & KS-15803 AM RELAY                    |      |                            |    |       |
| TROUBLE TESTS   |      |                            |    |       |
| 040-632-701 (8/0)   | 2.01 | SHUNT & SHUNT LEADS TYTNS  | TT | ----- |
|   | 2.02 | CONTACT CLEANING           | TT | ----- |

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|   |       |      |                             |    |       |
|---|-------|------|-----------------------------|----|-------|
| 040-632-701   | (8/0) | 2.03 | POINTER FREEDOM OF MVMT     | TT | ----- |
|   |       | 2.04 | CONTACT & POINTER ACCURACY  | TT | ----- |
|   |       | 2.05 | SHUNT TEMPERATURE           | TT | ----- |
| 20.16 RELAYS; KS-5350, KS-5451 & KS-5738 CONT RELAY |       |      |                             |    |       |
| TROUBLE TESTS                                       |       |      |                             |    |       |
| 040-633-701   | (8/0) | 2.01 | RELAY MTG & ASSEMBLY TYTNS  | TT | ----- |
|   |       | 2.02 | ARMTR FREEDOM OF OPRN       | TT | ----- |
|   |       | 2.03 | CONTACT CLEANING            | TT | ----- |
|   |       | 2.04 | CONTACT ALNMT               | TT | ----- |
|   |       | 2.05 | CONTACT SEPN                | TT | ----- |
|   |       | 2.07 | CONTACT SEQ                 | TT | ----- |
|   |       | 2.08 | CONTACT PRESSURE            | TT | ----- |
|   |       | 2.09 | ELECTRICAL REQTS            | TT | ----- |
| 20.17 RELAYS; KS-15503 & KS-15806 CONT RELAY        |       |      |                             |    |       |
| TROUBLE TESTS                                       |       |      |                             |    |       |
| 040-633-701   | (8/0) | 2.01 | RELAY MTG & ASSEMBLY TYTNS  | TT | ----- |
|   |       | 2.02 | ARMTR FREEDOM OF OPRN       | TT | ----- |
|   |       | 2.03 | CONTACT CLEANING            | TT | ----- |
|   |       | 2.04 | CONTACT ALNMT               | TT | ----- |
|   |       | 2.05 | CONTACT SEPN                | TT | ----- |
|   |       | 2.07 | CONTACT SEQ                 | TT | ----- |
|   |       | 2.08 | CONTACT PRESSURE            | TT | ----- |
|   |       | 2.09 | ELECTRICAL REQTS            | TT | ----- |
| 20.18 RELAYS; KS-15598 CONT RELAY                   |       |      |                             |    |       |
| TROUBLE TESTS                                       |       |      |                             |    |       |
| 040-633-701   | (8/0) | 2.01 | RELAY MTG & ASSEMBLY TYTNS  | TT | ----- |
|   |       | 2.02 | ARMTR FREEDOM OF OPRN       | TT | ----- |
|   |       | 2.03 | CONTACT CLEANING            | TT | ----- |
|   |       | 2.04 | CONTACT ALNMT               | TT | ----- |
|   |       | 2.05 | CONTACT SEPN                | TT | ----- |
|   |       | 2.06 | SPG CLRNC                   | TT | ----- |
|   |       | 2.07 | CONTACT SEQ                 | TT | ----- |
|   |       | 2.08 | CONTACT PRESSURE            | TT | ----- |
|   |       | 2.09 | ELECTRICAL REQTS            | TT | ----- |
| 20.19 RELAYS; KS-5453 VOLTAGE RELAY                 |       |      |                             |    |       |
| TROUBLE TESTS                                       |       |      |                             |    |       |
| 040-635-701   | (3/0) | 2.01 | ALNMT                       | TT | ----- |
|   |       | 2.02 | CONTACT ARM FREEDOM OF MVMT | TT | ----- |
|   |       | 2.03 | PLUNGER FREEDOM OF MVMT     | TT | ----- |
|   |       | 2.04 | SPIRAL ADJG SPG             | TT | ----- |
|   |       | 2.05 | POSITION OF CONTACTS        | TT | ----- |

|  |      |                                   |    |       |
|--|------|-----------------------------------|----|-------|
| 040-635-701 (3/0)  | 2.06 | CONTACT SURFACE                   | TT | ----- |
|  | 2.07 | OPRG REQTS                        | TT | ----- |
|  | 2.08 | HLDR EFFECT                       | TT | ----- |
|  | 2.09 | COIL TEMPERATURE                  | TT | ----- |
| 20.20 RELAYS; KS-5596 THRM TM-DELAY RELAY                  |      |                                   |    |       |
| TROUBLE TESTS  |      |                                   |    |       |
| 040-640-701 (2/0)  | 2.01 | CONTACTS                          | TT | ----- |
|  | 2.02 | CONTACT ASSEMBLY CLMP SCREW TYTNS | TT | ----- |
|  | 2.03 | OPERATE TIME                      | TT | ----- |
| 20.21 RELAYS; KS-5639 DBL COIL-MLT CT CONT RELAY           |      |                                   |    |       |
| TROUBLE TESTS  |      |                                   |    |       |
| 040-641-701 (1/1)  | 2.01 | CONTACTS CLEANING & RMVG BUILDUP  | TT | ----- |
|  | 2.02 | RELAY MTG & TYTNS OF CPNT         | TT | ----- |
|  | 2.03 | CONTACT ALNMT                     | TT | ----- |
|  | 2.04 | CONTACT SEQ                       | TT | ----- |
|  | 2.05 | CONTACT SEPN                      | TT | ----- |
|  | 2.06 | CONTACT PRESSURE                  | TT | ----- |
|  | 2.07 | ARMTR FREEDOM OF OPRN             | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS                  | TT | ----- |
|  | 2.09 | COILS & CONTACT TEMPERATURE       | TT | ----- |
| 20.22 RELAYS; KS-5656 & KS-5658 DBL COIL-MLT CT CONT RELAY |      |                                   |    |       |
| TROUBLE TESTS  |      |                                   |    |       |
| 040-642-701 (1/0)  | 2.01 | RELAY MTG                         | TT | ----- |
|  | 2.02 | CONTACT SURFACES                  | TT | ----- |
|  | 2.03 | CONTACT ALNMT                     | TT | ----- |
|  | 2.04 | CONTACT SEPN                      | TT | ----- |
|  | 2.05 | CONTACT SEQ                       | TT | ----- |
|  | 2.06 | CONTACT PRESSURE                  | TT | ----- |
|  | 2.07 | ELECTRICAL REQTS                  | TT | ----- |
|  | 2.08 | TEMPERATURE                       | TT | ----- |
| 20.23 RELAYS; KS-5721 MERCURY RELAY                        |      |                                   |    |       |
| TROUBLE TESTS  |      |                                   |    |       |
| 040-643-701 (2/0)  | 2.01 | RELAY MTG                         | TT | ----- |
|  | 2.02 | TUBE ALNMT                        | TT | ----- |
|  | 2.03 | ELECTRICAL REQTS                  | TT | ----- |
|  | 2.04 | COIL TEMPERATURE                  | TT | ----- |
| 20.24 RELAYS; KS-5723 THRM TM-DELAY RELAY                  |      |                                   |    |       |
| TROUBLE TESTS  |      |                                   |    |       |
| 040-644-701 (1/0)  | 2.01 | CONTACT SURFACES                  | TT | ----- |
|  | 2.02 | CONTACT PRESSURE                  | TT | ----- |
|  | 2.03 | RELAY MTG                         | TT | ----- |

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|--|------|--------------------------------|----|-------|
| 040-644-701 (1/0)                              | 2.04 | ELECTRICAL REQTS               | TT | ----- |
|  | 2.05 | CONTACT TEMPERATURE            | TT | ----- |
| 20.25 RELAYS; KS-5923 CURRENT OR VOLTAGE RELAY |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-645-701 (1/0)                              | 2.01 | CONTACTS                       | TT | ----- |
|  | 2.02 | POINTER FREEDOM OF MVMT        | TT | ----- |
|  | 2.03 | ADJBL CONTACT ARMS             | TT | ----- |
|  | 2.04 | INDICATION ACCURACY            | TT | ----- |
|  | 2.05 | CONTACT ACCURACY               | TT | ----- |
| 20.26 RELAYS; KS-7801 - KS-7850                |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-647-701 (2/0)                              | 2.01 | OPERATE & RELEASE TIMING REQTS | TT | ----- |
| 20.27 RELAYS; KS-6902, KS-6903 & KS-7252       |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-646-701 (3/0)                              | 2.01 | CONTACTS CLEANING              | TT | ----- |
|  | 2.02 | RELAY MTG                      | TT | ----- |
|  | 2.03 | TYTNS OF ASSEMBLY              | TT | ----- |
|  | 2.04 | ARMTR FREEDOM OF MVMT          | TT | ----- |
|  | 2.05 | CONTACT SEPN                   | TT | ----- |
|  | 2.06 | CONTACT PRESSURE               | TT | ----- |
|  | 2.07 | CONTACT SEQ                    | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS               | TT | ----- |
| 20.28 RELAYS; KS-13542 & KS-13543 THRM RELAY   |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-660-701 (1/0)                              | 2.01 | OPERATE & RELEASE TIMING REQTS | TT | ----- |
| 20.29 RELAYS; KS-13782 & KS-13977 THRM RELAY   |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-660-701 (1/0)                              | 2.01 | OPERATE & RELEASE TIMING REQTS | TT | ----- |
| 20.30 RELAYS; KS-13991 & KS-14082 THRM RELAY   |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-660-701 (1/0)                              | 2.01 | OPERATE & RELEASE TIMING REQTS | TT | ----- |
| 20.31 RELAYS; KS-13767                         |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-661-701 (1/0)                              | 2.01 | RELAY MTG                      | TT | ----- |
|  | 2.02 | CONTACT SURFACES               | TT | ----- |
|  | 2.03 | CONTACT ALNMT                  | TT | ----- |
|  | 2.04 | CONTACT SEPN                   | TT | ----- |
|  | 2.05 | ELECTRICAL REQTS               | TT | ----- |
| 20.32 RELAYS; KS-14499 POLZD RELAY             |      |                                |    |       |
| TROUBLE TESTS                                  |      |                                |    |       |
| 040-662-701 (1/0)                              | 2.01 | CONTACTS CLEANING              | TT | ----- |

|  |      |                                       |    |       |
|--|------|---------------------------------------|----|-------|
| 040-662-701 (1/0)                            | 2.02 | RELAY MTG                             | TT | ----- |
|  | 2.03 | CONTACT ALNMT                         | TT | ----- |
|  | 2.04 | CONTACT ADJG SCREW & STOP SCREW TYTNS | TT | ----- |
|  | 2.05 | RESISTOR RESISTANCE                   | TT | ----- |
|  | 2.06 | CONTACT SEPN                          | TT | ----- |
|  | 2.07 | CONTACTS & ASSOCD STOP SCREWS CLRNC   | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS                      | TT | ----- |
| 20.33 RELAYS; KS-15516 TYPE CONTROL RELAY    |      |                                       |    |       |
| TROUBLE TESTS                                |      |                                       |    |       |
| 040-666-701 (1/1)                            | 2.01 | CONTACTS CLEANING & RMVG BUILDUP      | TT | ----- |
|  | 2.02 | RELAY MTG & TYTNS OF CPNT             | TT | ----- |
|  | 2.03 | CONTACT ALNMT                         | TT | ----- |
|  | 2.04 | CONTACT SEQ                           | TT | ----- |
|  | 2.05 | CONTACT SEPN                          | TT | ----- |
|  | 2.06 | CONTACT PRESSURE                      | TT | ----- |
|  | 2.07 | ARMTR FREEDOM OF OPRN                 | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS                      | TT | ----- |
| 20.34 RELAYS; KS-15517 & KS-15726 CONT RELAY |      |                                       |    |       |
| TROUBLE TESTS                                |      |                                       |    |       |
| 040-667-701 (3/0)                            | 2.01 | RELAY MTG & TYTNS OF ASSEMBLY         | TT | ----- |
|  | 2.02 | ARMTR FREEDOM OF OPRN                 | TT | ----- |
|  | 2.03 | CLEANING CONTACTS                     | TT | ----- |
|  | 2.04 | CONTACT ALNMT                         | TT | ----- |
|  | 2.05 | CONTACT SEPN                          | TT | ----- |
|  | 2.06 | CONTACT SEQ                           | TT | ----- |
|  | 2.07 | CONTACT PRESSURE                      | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS                      | TT | ----- |
|  | 2.09 | TEMPERATURE                           | TT | ----- |
| 20.35 RELAYS; KS-15518 THRM TM-DELAY RELAY   |      |                                       |    |       |
| TROUBLE TESTS                                |      |                                       |    |       |
| 040-668-701 (3/0)                            | 2.01 | RELAY MTG & TYTNS OF ASSEMBLY         | TT | ----- |
|  | 2.02 | CONTACT SURFACES                      | TT | ----- |
|  | 2.03 | ELECTRICAL REQTS                      | TT | ----- |
| 20.36 RELAYS; KS-15519 TYPE CONT RELAY       |      |                                       |    |       |
| TROUBLE TESTS                                |      |                                       |    |       |
| 040-669-701 (1/1)                            | 2.01 | CONTACTS CLEANING & RMVG BUILDUP      | TT | ----- |
|  | 2.02 | RELAY MTG & TYTNS OF CPNT             | TT | ----- |
|  | 2.03 | CONTACT ALNMT                         | TT | ----- |
|  | 2.04 | CONTACT SEPN                          | TT | ----- |
|  | 2.05 | CONTACT PRESSURE                      | TT | ----- |
|  | 2.06 | ARMTR FREEDOM OF OPRN                 | TT | ----- |

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|--|------|------------------------------|----|-------|
| 040-669-701 (1/1)                                      | 2.07 | ELECTRICAL REQTS             | TT | ----- |
| 20.37 RELAYS; KS-15528 & KS-15756 CONT RELAY           |      |                              |    |       |
| TROUBLE TESTS  |      |                              |    |       |
| 040-670-701 (1/0)                                      | 2.01 | RELAY MTG & TYYS OF ASSEMBLY | TT | ----- |
|  | 2.02 | CLEANING CONTACTS            | TT | ----- |
|  | 2.03 | CONTACT ALNMT                | TT | ----- |
|  | 2.04 | CONTACT SEQ                  | TT | ----- |
|  | 2.05 | CONTACT SEPN                 | TT | ----- |
|  | 2.06 | CONTACT PRESSURE             | TT | ----- |
|  | 2.07 | ARMTR FREEDOM OF OPRN        | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS             | TT | ----- |
|  | 2.09 | COILS & CONTACT TEMPERATURE  | TT | ----- |
| 20.38 RELAYS; KS-15623 THRM OVLD RELAY                 |      |                              |    |       |
| TROUBLE TESTS  |      |                              |    |       |
| 040-672-701 (1/0)                                      | 2.01 | RELAY MTG                    | TT | ----- |
|  | 2.02 | CONTACT SURFACES             | TT | ----- |
|  | 2.03 | CONTACT PRESSURE             | TT | ----- |
|  | 2.04 | CONTACT CLRNC                | TT | ----- |
|  | 2.05 | TIMING                       | TT | ----- |
|  | 2.06 | RELAY REQTS                  | TT | ----- |
|  | 2.07 | COILS & CONTACT TEMPERATURE  | TT | ----- |
| 20.39 RELAYS; KS-15863 CONT RELAY                      |      |                              |    |       |
| TROUBLE TESTS  |      |                              |    |       |
| 040-673-701 (1/0)                                      | 2.01 | RELAY MTG & TYYS OF ASSEMBLY | TT | ----- |
|  | 2.02 | CLEANING CONTACTS            | TT | ----- |
|  | 2.03 | CONTACT ALNMT                | TT | ----- |
|  | 2.04 | CONTACT SEQ                  | TT | ----- |
|  | 2.05 | CONTACT SEPN                 | TT | ----- |
|  | 2.06 | CONTACT PRESSURE             | TT | ----- |
|  | 2.07 | ARMTR FREEDOM OF OPRN        | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS             | TT | ----- |
|  | 2.09 | COILS & CONTACT TEMPERATURE  | TT | ----- |
| 20.40 RELAYS; KS-16022, KS-16195 & KS-16388 THRM RELAY |      |                              |    |       |
| TROUBLE TESTS  |      |                              |    |       |
| 040-674-701 (2/0)                                      | 2.01 | TIMING REQTS                 | TT | ----- |
|  | 2.02 | ELECTRICAL REQTS             | TT | ----- |
| 20.41 RELAYS; KS-16620 L1                              |      |                              |    |       |
| TROUBLE TESTS  |      |                              |    |       |
| 040-675-701 (1/0)                                      | 2.01 | CLEANING CONTACTS            | TT | ----- |
|  | 2.02 | RELAY MTG                    | TT | ----- |
|  | 2.03 | CONTACT ALNMT                | TT | ----- |

|  |      |                                  |    |       |
|--|------|----------------------------------|----|-------|
| 040-675-701 (1/0)                            | 2.04 | ARMTR FREEDOM OF MVMT            | TT | ----- |
|  | 2.05 | CONTACT SEPN                     | TT | ----- |
|  | 2.06 | CONTACT PRESSURE                 | TT | ----- |
|  | 2.07 | STUD GAP                         | TT | ----- |
|  | 2.08 | ELECTRICAL REQ T                 | TT | ----- |
| 20.42 RELAYS; DASHPOT TYPE                   |      |                                  |    |       |
| TROUBLE TESTS                                |      |                                  |    |       |
| 040-801-701 (2/0)                            | 2.01 | CONTACTS CLEANING                | TT | ----- |
|  | 2.02 | DASHPOT OIL SUPPLY               | TT | ----- |
|  | 2.03 | COVER SPG TENSION                | TT | ----- |
|  | 2.04 | OPRG LEVER MVMT                  | TT | ----- |
|  | 2.05 | CONTACT ALNMT                    | TT | ----- |
|  | 2.06 | CONTACT SEPN                     | TT | ----- |
|  | 2.07 | CONTACT FOLLOW                   | TT | ----- |
|  | 2.08 | SPG ALNMT                        | TT | ----- |
|  | 2.09 | OPRG LEVER CLRNC                 | TT | ----- |
|  | 2.10 | PLUNGER STROKE                   | TT | ----- |
|  | 2.11 | SPEED                            | TT | ----- |
|  | 2.12 | FRICTION LOCK TYTNS              | TT | ----- |
| 20.43 RELAYS; A.E.CO. HIGH-LOW VOLTAGE RELAY |      |                                  |    |       |
| TROUBLE TESTS                                |      |                                  |    |       |
| 040-802-701 (1/0)                            | 2.1  | TEST REQTS                       | TT | ----- |
| 20.44 RELAYS; A.S.CO. W/O KS DESIG           |      |                                  |    |       |
| TROUBLE TESTS                                |      |                                  |    |       |
| 040-804-701 (1/1)                            | 2.01 | CONTACTS CLEANING & RMVG BUILDUP | TT | ----- |
|  | 2.02 | RELAY MTG & TYTNS OF CPNT        | TT | ----- |
|  | 2.03 | CONTACT ALNMT                    | TT | ----- |
|  | 2.04 | CONTACT SEQ                      | TT | ----- |
|  | 2.05 | CONTACT SEPN                     | TT | ----- |
|  | 2.06 | CONTACT PRESSURE                 | TT | ----- |
|  | 2.07 | ARMTR FREEDOM OF OPRN            | TT | ----- |
|  | 2.08 | ELECTRICAL REQTS                 | TT | ----- |
| 20.45 RELAYS; A.E.CO. HORZ-TYPE              |      |                                  |    |       |
| TROUBLE TESTS                                |      |                                  |    |       |
| 040-803-701 (2/0)                            | 2.01 | CLEANING CONTACTS                | TT | ----- |
|  | 2.02 | RELAY MTG                        | TT | ----- |
|  | 2.03 | RELAY VERTICAL CLRNC             | TT | ----- |
|  | 2.04 | CONTACT ALNMT                    | TT | ----- |
|  | 2.05 | ARMTR MVMT                       | TT | ----- |
|  | 2.06 | RESIDUAL AIRGAP                  | TT | ----- |
|  | 2.07 | HEELPIECE AIRGAP                 | TT | ----- |

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|---|------|-------------------------------------|----|-------|
| 040-803-701 (2/0)                                       | 2.08 | ARMTR TRAVEL                        | TT | ----- |
|   | 2.09 | STUD GAP                            | TT | ----- |
|   | 2.10 | RSTRG SPG TENSION                   | TT | ----- |
|   | 2.11 | STRNS OF SPG                        | TT | ----- |
|   | 2.12 | SPG GAUGING                         | TT | ----- |
|   | 2.13 | ELECTRICAL REQTS                    | TT | ----- |
| 20.46 RELAYS; STRUTHER-DUNN W/O KS DESIG                |      |                                     |    |       |
| TROUBLE TESTS   |      |                                     |    |       |
| 040-810-701 (2/1)                                       | 2.01 | CLEANING CONTACTS & RMVG BUILDUP    | TT | ----- |
|   | 2.02 | RELAY MTG & TYTNS OF CPNT           | TT | ----- |
|   | 2.03 | CONTACT ALNMT                       | TT | ----- |
|   | 2.04 | CONTACT SEQ                         | TT | ----- |
|   | 2.05 | CONTACT SEPN                        | TT | ----- |
|   | 2.06 | SPG CLRNC                           | TT | ----- |
|   | 2.07 | CONTACT PRESSURE                    | TT | ----- |
|   | 2.08 | ARMTR FREEDOM OF OPRN               | TT | ----- |
|   | 2.09 | ELECTRICAL REQTS                    | TT | ----- |
| 20.47 RELAYS; W.L.CO, A-B CO & WEST. CORP. W/O KS DESIG |      |                                     |    |       |
| TROUBLE TESTS   |      |                                     |    |       |
| 040-811-701 (1/1)                                       | 2.01 | CONTACTS CLEANING & RMVG BUILDUP    | TT | ----- |
|   | 2.02 | RELAY MTG & TYTNS OF CPNT           | TT | ----- |
|   | 2.03 | CONTACT ALNMT                       | TT | ----- |
|   | 2.04 | CONTACT SEQ                         | TT | ----- |
|   | 2.05 | CONTACT SEPN                        | TT | ----- |
|   | 2.06 | CONTACT PRESSURE & FOLLOW           | TT | ----- |
|   | 2.07 | ELECTRICAL REQTS                    | TT | ----- |
| 20.48 RELAYS; KS-3067, KS-5013 & KS-5483                |      |                                     |    |       |
| TROUBLE TESTS   |      |                                     |    |       |
| 040-816-701 (11/0)                                      | 2.01 | SPG ASSEMBLY & ARMTR BACKSTOP TYTNS | TT | ----- |
|   | 2.02 | CONTACT SURFACE                     | TT | ----- |
|   | 2.03 | CONTACT ALNMT                       | TT | ----- |
|   | 2.04 | CONTACT SEQ                         | TT | ----- |
|   | 2.05 | CONTACT PRESSURE                    | TT | ----- |
|   | 2.06 | CONTACT GAP                         | TT | ----- |
|   | 2.07 | RELAY MTG                           | TT | ----- |
|   | 2.08 | ELECTRICAL REQTS                    | TT | ----- |
| 20.49 RELAYS; KS-5635, KS-6319 & KS-6724                |      |                                     |    |       |
| TROUBLE TESTS   |      |                                     |    |       |
| 040-816-701 (11/0)                                      | 2.01 | SPG ASSEMBLY & ARMTR BACKSTOP TYTNS | TT | ----- |
|   | 2.02 | CONTACT SURFACE                     | TT | ----- |
|   | 2.03 | CONTACT ALNMT                       | TT | ----- |

|   |      |   |    |       |
|---|------|---|----|-------|
| 040-816-701 (11/0)                            | 2.04 | CONTACT SEQ   | TT | ----- |
|   | 2.05 | CONTACT PRESSURE  | TT | ----- |
|   | 2.06 | CONTACT GAP   | TT | ----- |
|   | 2.07 | RELAY MTG   | TT | ----- |
|   | 2.08 | ELECTRICAL REQTS  | TT | ----- |
| 20.50 RELAYS; KS-15601                        |      |   |    |       |
| TROUBLE TESTS                                 |      |   |    |       |
| 040-816-701 (11/0)                            | 2.01 | SPG ASSEMBLY & ARMTR BACKSTOP TYTNS                             | TT | ----- |
|   | 2.02 | CONTACT SURFACE   | TT | ----- |
|   | 2.03 | CONTACT ALNMT   | TT | ----- |
|   | 2.04 | CONTACT SEQ   | TT | ----- |
|   | 2.05 | CONTACT PRESSURE  | TT | ----- |
|   | 2.06 | CONTACT GAP   | TT | ----- |
|   | 2.07 | RELAY MTG   | TT | ----- |
|   | 2.08 | ELECTRICAL REQTS  | TT | ----- |
| 20.51 RELAYS; KS-5381 & KS-8854 RELAY SETS    |      |   |    |       |
| TROUBLE TESTS                                 |      |   |    |       |
| 040-816-701 (11/0)                            | 2.01 | SPG ASSEMBLY & ARMTR BACKSTOP TYTNS                             | TT | ----- |
|   | 2.02 | CONTACT SURFACE   | TT | ----- |
|   | 2.03 | CONTACT ALNMT   | TT | ----- |
|   | 2.04 | CONTACT SEQ   | TT | ----- |
|   | 2.05 | CONTACT PRESSURE  | TT | ----- |
|   | 2.06 | CONTACT GAP   | TT | ----- |
|   | 2.07 | RELAY MTG   | TT | ----- |
|   | 2.08 | ELECTRICAL REQTS  | TT | ----- |
| 20.52 RELAYS; STRBG-CRLSN 194-TYPE            |      |   |    |       |
| TROUBLE TESTS                                 |      |   |    |       |
| 040-821-701 (4/0)                             | 2.01 | CONTACTS CLEANING   | TT | ----- |
|   | 2.02 | CONTACT ALNMT   | TT | ----- |
|   | 2.03 | SPG ASSEMBLY TYTNS  | TT | ----- |
|   | 2.04 | SPG STRTNS  | TT | ----- |
|   | 2.05 | ARMTR TRAVEL  | TT | ----- |
|   | 2.06 | CONTACT PRESSURE  | TT | ----- |
|   | 2.07 | CONTACT SEPN  | TT | ----- |
|   | 2.08 | ELECTRICAL REQTS  | TT | ----- |
|   | 2.09 | RELAY MTG   | TT | ----- |
|   | 2.10 | OPRD ARMTR AIR GAP  | TT | ----- |
| 040-970-701 (1/0)                             | 1.01 | (1.01 - 1.12) STRBG-CRLSN TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |
| 20.53 RELAYS; STRBG-CRLSN 207, 228 & 244-TYPE |      |   |    |       |
| TROUBLE TESTS                                 |      |   |    |       |

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|-------------------|------|---|----|-------|
| 040-821-701 (4/0) | 2.01 | CONTACTS CLEANING   | TT | ----- |
|                   | 2.02 | CONTACT ALNMT   | TT | ----- |
|                   | 2.03 | SPG ASSEMBLY TYTNS  | TT | ----- |
|                   | 2.04 | SPG STRTNS  | TT | ----- |
|                   | 2.05 | ARMTR TRAVEL  | TT | ----- |
|                   | 2.06 | CONTACT PRESSURE  | TT | ----- |
|                   | 2.07 | CONTACT SEPN  | TT | ----- |
|                   | 2.08 | ELECTRICAL REQTS  | TT | ----- |
|                   | 2.11 | RELAY MTG   | TT | ----- |
|                   | 2.12 | COVER NUT TYTNS   | TT | ----- |
|                   | 2.13 | COVER TYTNS   | TT | ----- |
|                   | 2.14 | STUD & STOP CLRNC   | TT | ----- |
|                   | 2.15 | SPG SEPN  | TT | ----- |
|                   | 2.16 | RTNG SCREWS TYTNS   | TT | ----- |
|                   | 2.17 | ARMTR FREEDOM OF MVMT   | TT | ----- |
|                   | 2.18 | KS-7744 SEPR APPL   | TT | ----- |
|                   | 2.19 | RESIDUAL AIR GAP  | TT | ----- |
|                   | 2.20 | STUD GAP  | TT | ----- |
|                   | 2.21 | CONTACT FOLLOW  | TT | ----- |
| 040-970-701 (1/0) | 1.01 | (1.01 - 1.12) STRBG-CRLSN TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |

20.54 RELAYS; STRBG-CRLSN 245, 253 & 257-TYPE

TROUBLE TESTS

|                   |      |                       |    |       |
|-------------------|------|-----------------------|----|-------|
| 040-821-701 (4/0) | 2.01 | CONTACTS CLEANING     | TT | ----- |
|                   | 2.02 | CONTACT ALNMT         | TT | ----- |
|                   | 2.03 | SPG ASSEMBLY TYTNS    | TT | ----- |
|                   | 2.04 | SPG STRTNS            | TT | ----- |
|                   | 2.05 | ARMTR TRAVEL          | TT | ----- |
|                   | 2.06 | CONTACT PRESSURE      | TT | ----- |
|                   | 2.07 | CONTACT SEPN          | TT | ----- |
|                   | 2.08 | ELECTRICAL REQTS      | TT | ----- |
|                   | 2.11 | RELAY MTG             | TT | ----- |
|                   | 2.12 | COVER NUT TYTNS       | TT | ----- |
|                   | 2.13 | COVER TYTNS           | TT | ----- |
|                   | 2.14 | STUD & STOP CLRNC     | TT | ----- |
|                   | 2.15 | SPG SEPN              | TT | ----- |
|                   | 2.16 | RTNG SCREWS TYTNS     | TT | ----- |
|                   | 2.17 | ARMTR FREEDOM OF MVMT | TT | ----- |
|                   | 2.18 | KS-7744 SEPR APPL     | TT | ----- |
|                   | 2.19 | RESIDUAL AIR GAP      | TT | ----- |
|                   | 2.20 | STUD GAP              | TT | ----- |

|             |       |      |   |    |       |
|-------------|-------|------|---|----|-------|
| 040-821-701 | (4/0) | 2.21 | CONTACT FOLLOW  | TT | ----- |
| 040-970-701 | (1/0) | 1.01 | (1.01 - 1.12) STRBG-CRLSN TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |

## 20.55 RELAYS; STRBG-CRLSN 263 &amp; 285-TYPE

## TROUBLE TESTS

|             |       |      |   |    |       |
|-------------|-------|------|---|----|-------|
| 040-821-701 | (4/0) | 2.01 | CONTACTS CLEANING   | TT | ----- |
|             |       | 2.02 | CONTACT ALNMT   | TT | ----- |
|             |       | 2.03 | SPG ASSEMBLY TYTNS  | TT | ----- |
|             |       | 2.04 | SPG STRTNS  | TT | ----- |
|             |       | 2.05 | ARMTR TRAVEL  | TT | ----- |
|             |       | 2.06 | CONTACT PRESSURE  | TT | ----- |
|             |       | 2.07 | CONTACT SEPN  | TT | ----- |
|             |       | 2.08 | ELECTRICAL REQTS  | TT | ----- |
|             |       | 2.11 | RELAY MTG   | TT | ----- |
|             |       | 2.12 | COVER NUT TYTNS   | TT | ----- |
|             |       | 2.13 | COVER TYTNS   | TT | ----- |
|             |       | 2.14 | STUD & STOP CLRNC   | TT | ----- |
|             |       | 2.15 | SPG SEPN  | TT | ----- |
|             |       | 2.16 | RTNG SCREWS TYTNS   | TT | ----- |
|             |       | 2.17 | ARMTR FREEDOM OF MVMT   | TT | ----- |
|             |       | 2.18 | KS-7744 SEPR APPL   | TT | ----- |
|             |       | 2.19 | RESIDUAL AIR GAP  | TT | ----- |
|             |       | 2.20 | STUD GAP  | TT | ----- |
|             |       | 2.21 | CONTACT FOLLOW  | TT | ----- |
| 040-970-701 | (1/0) | 1.01 | (1.01 - 1.12) STRBG-CRLSN TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |

## 20.56 RELAYS; STRBG-CRLSN 366-TYPE

## TROUBLE TESTS

|             |       |      |                       |    |       |
|-------------|-------|------|-----------------------|----|-------|
| 040-821-701 | (4/0) | 2.01 | CONTACTS CLEANING     | TT | ----- |
|             |       | 2.02 | CONTACT ALNMT         | TT | ----- |
|             |       | 2.03 | SPG ASSEMBLY TYTNS    | TT | ----- |
|             |       | 2.04 | SPG STRTNS            | TT | ----- |
|             |       | 2.05 | ARMTR TRAVEL          | TT | ----- |
|             |       | 2.06 | CONTACT PRESSURE      | TT | ----- |
|             |       | 2.07 | CONTACT SEPN          | TT | ----- |
|             |       | 2.08 | ELECTRICAL REQTS      | TT | ----- |
|             |       | 2.22 | RELAY MTG             | TT | ----- |
|             |       | 2.23 | COVER NUT TYTNS       | TT | ----- |
|             |       | 2.24 | ARMTR YOKE TYTNS      | TT | ----- |
|             |       | 2.25 | SPG SEPN              | TT | ----- |
|             |       | 2.26 | ADJG SCREWS TYTNS     | TT | ----- |
|             |       | 2.27 | ARMTR FREEDOM OF MVMT | TT | ----- |

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|  |       |      |   |    |       |
|--|-------|------|---|----|-------|
| 040-821-701  | (4/0) | 2.28 | ARMTR & YOKE CLRNC  | TT | ----- |
|  |       | 2.29 | KS-7743 SEPR APPL   | TT | ----- |
|  |       | 2.30 | OPRD ARMTR AIR GAP  | TT | ----- |
|  |       | 2.31 | STUD GAP  | TT | ----- |
| 040-970-701  | (1/0) | 1.01 | (1.01 - 1.12) STRBG-CRLSN TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |
| 20.57 RELAYS; WESTON 705, 723, 813 & 1035 METER-TYPE |       |      |   |    |       |
| TROUBLE TESTS  |       |      |   |    |       |
| 040-826-701  | (6/0) | 2.01 | RELAY & COVER MTG   | TT | ----- |
|  |       | 2.02 | POINTER FREEDOM OF MVMT   | TT | ----- |
|  |       | 2.03 | POINTER SETTING   | TT | ----- |
|  |       | 2.04 | ELECTRICAL REQTS  | TT | ----- |
|  |       | 2.05 | SOLENOID OPRN   | TT | ----- |
| 20.58 RELAYS; LFE 281-M-II & 281-M-III METER-TYPE    |       |      |   |    |       |
| TROUBLE TESTS  |       |      |   |    |       |
| 040-826-701  | (6/0) | 2.01 | RELAY & COVER MTG   | TT | ----- |
|  |       | 2.02 | POINTER FREEDOM OF MVMT   | TT | ----- |
|  |       | 2.03 | POINTER SETTING   | TT | ----- |
|  |       | 2.04 | ELECTRICAL REQTS  | TT | ----- |
|  |       | 2.05 | SOLENOID OPRN   | TT | ----- |
| 20.59 RELAYS; LFE 385-M, 391-M & 723-M METER-TYPE    |       |      |   |    |       |
| TROUBLE TESTS  |       |      |   |    |       |
| 040-826-701  | (6/0) | 2.01 | RELAY & COVER MTG   | TT | ----- |
|  |       | 2.02 | POINTER FREEDOM OF MVMT   | TT | ----- |
|  |       | 2.03 | POINTER SETTING   | TT | ----- |
|  |       | 2.04 | ELECTRICAL REQTS  | TT | ----- |
|  |       | 2.05 | SOLENOID OPRN   | TT | ----- |
| 20.60 RELAYS; 245, 254, 263 & 264-TYPE               |       |      |   |    |       |
| TROUBLE TESTS  |       |      |   |    |       |
| 040-247-701  | (5/1) | 2.01 | CONTACTS CLEANING   | TT | ----- |
|  |       | 2.02 | RELAY & RELAY MAGNET MTG  | TT | ----- |
|  |       | 2.03 | RTNG SPG TENSION  | TT | ----- |
|  |       | 2.04 | ARMTR FREEDOM OF MVMT   | TT | ----- |
|  |       | 2.05 | ARMTR OVERLAP   | TT | ----- |
|  |       | 2.06 | ARMTR BACKSTOP SCREW & POLE PIECE CLRNC                         | TT | ----- |
|  |       | 2.07 | ARMTR TRAVEL  | TT | ----- |
|  |       | 2.08 | BACKSTOP SCREW LOCKNUT TYTNS                                    | TT | ----- |
|  |       | 2.09 | CONTACT ALNMT   | TT | ----- |
|  |       | 2.10 | OPRG SPG TENSION  | TT | ----- |
|  |       | 2.11 | SPG CLRNC   | TT | ----- |
|  |       | 2.12 | CONTACT SEPN  | TT | ----- |

|   |      |  |    |       |
|---|------|--|----|-------|
| 040-247-701 (5/1)                       | 2.13 | CONTACT MAKE   | TT | ----- |
|   | 2.14 | ELECTRICAL REQTS   | TT | ----- |
| 20.61 RELAYS; AK-TYPE                   |      |  |    |       |
| TROUBLE TESTS                           |      |  |    |       |
| 040-504-701 (7/0)                       | 2.01 | CONTACTS CLEANING  | TT | ----- |
|   | 2.02 | RELAY MTG  | TT | ----- |
|   | 2.03 | VERTICAL CLRNC   | TT | ----- |
|   | 2.04 | CONTACT COVER TYTNS  | TT | ----- |
|   | 2.05 | BALG SPG TENSION   | TT | ----- |
|   | 2.06 | ARMTR BACK TENSION   | TT | ----- |
|   | 2.07 | MVBL TWIN CONTACT SPG  | TT | ----- |
|   | 2.08 | CONTACT MAKE & BREAK   | TT | ----- |
|   | 2.09 | CONTACT SEQ  | TT | ----- |
| 040-931-701 (4/1)                       | 1.01 | (1.01 - 1.04) AK-TYPE RELAY REQTS CONDENSED SECTION          | TT | ----- |
| 20.62 RELAYS; AF, AG & AJ WIRE-SPG TYPE |      |  |    |       |
| TROUBLE TESTS                           |      |  |    |       |
| 040-502-701 (9/2)                       | 2.01 | CONTACTS CLEANING  | TT | ----- |
|   | 2.02 | RELAY MTG  | TT | ----- |
|   | 2.03 | VERTICAL CLRNC   | TT | ----- |
|   | 2.04 | CONTACT COVER TYTNS  | TT | ----- |
|   | 2.05 | CONTACT COVER CLRNC  | TT | ----- |
|   | 2.06 | CROSSTALK SHIELD TYTNS                                       | TT | ----- |
|   | 2.07 | ARMTR POSITION   | TT | ----- |
|   | 2.08 | BALG SPG TENSION   | TT | ----- |
|   | 2.09 | ARMTR BACK TENSION   | TT | ----- |
|   | 2.10 | MVBL TWIN SPG POSITION                                       | TT | ----- |
|   | 2.11 | CONTACT MAKE & BRAKE   | TT | ----- |
|   | 2.12 | CONTACT SEQ  | TT | ----- |
|   | 2.13 | BUFFER SPG POSITION  | TT | ----- |
|   | 2.14 | BUFFER SPG TENSION   | TT | ----- |
|   | 2.15 | ELECTRICAL REQTS   | TT | ----- |
|   | 2.16 | PURSE RPTG REQTS   | TT | ----- |
|   | 2.17 | TIMING REQTS   | TT | ----- |
| 040-930-701 (6/0)                       | 1.01 | (1.01 - 1.08) AF, AG & AJ-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |
| 20.63 RELAYS; B & G-TYPE                |      |  |    |       |
| TROUBLE TESTS                           |      |  |    |       |
| 040-506-701 (7/2)                       | 2.01 | CONTACTS & RELAY CLEANING                                    | TT | ----- |
|   | 2.02 | RELAY MTG  | TT | ----- |
|   | 2.03 | COVER CLRNC  | TT | ----- |
|   | 2.04 | COVER GAP  | TT | ----- |

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|                   |      |   |    |       |
|-------------------|------|---|----|-------|
| 040-506-701 (7/2) | 2.05 | CONTACT ALNMT   | TT | ----- |
|                   | 2.06 | ADJG SCREW TYTNS  | TT | ----- |
|                   | 2.07 | D-93568 REMVBL PAPER ARMTR STOP APPL                      | TT | ----- |
|                   | 2.08 | P-231534 REMVBL METAL ARMTR STOP POSITION                 | TT | ----- |
|                   | 2.09 | D-95367 REMVBL PAPER BACKSTOP POSITION                    | TT | ----- |
|                   | 2.10 | CONTACT FOLLOW  | TT | ----- |
|                   | 2.11 | FLEXIBLE FRONT CONTACT SPG POSITION                       | TT | ----- |
|                   | 2.12 | MINIMUM FRONT CONTACT MAKE                                | TT | ----- |
|                   | 2.13 | CONTACT SEPN  | TT | ----- |
|                   | 2.14 | ARMTR TRAVEL  | TT | ----- |
|                   | 2.15 | CONTACT SEQ   | TT | ----- |
|                   | 2.16 | ARMTR & CONTACT SPG #2 CLRNC                              | TT | ----- |
|                   | 2.17 | ARMTR & MOTION LIMITING BRKT CLRNC                        | TT | ----- |
|                   | 2.18 | ADJG SCREWS POSITION                                      | TT | ----- |
|                   | 2.19 | ELECTRICAL REQTS  | TT | ----- |
|                   | 2.20 | ARMTR TENSION SPG POSITION                                | TT | ----- |
|                   | 2.21 | FLASHING REQT A   | TT | ----- |
|                   | 2.22 | FLASHING REQT B   | TT | ----- |
|                   | 2.23 | FLASHING REQT C   | TT | ----- |
| 040-932-701 (3/0) | 2.01 | (2.01 - 2.11) B & G-TYPE RELAY REQTS<br>CONDENSED SECTION | TT | ----- |

20.64 RELAYS; U & UA-TYPE

TROUBLE TESTS

|                    |      |   |    |       |
|--------------------|------|---|----|-------|
| 040-518-701 (12/0) | 2.01 | CONTACTS & RELAY CLEANING                     | TT | ----- |
|                    | 2.02 | RELAY MTG                                     | TT | ----- |
|                    | 2.03 | VERTICAL CLRNC                                | TT | ----- |
|                    | 2.04 | COVER SPG & GUIDE PRESSURE AND CAP TYTNS      | TT | ----- |
|                    | 2.05 | CONTACT ALNMT                                 | TT | ----- |
|                    | 2.06 | SPG TANG POSITION                             | TT | ----- |
|                    | 2.07 | ADJG STUD CLRNC                               | TT | ----- |
|                    | 2.08 | ADJG NUT TYTNS                                | TT | ----- |
|                    | 2.09 | ADJG NUT LOCKNUT TYTNS                        | TT | ----- |
|                    | 2.10 | D-178259, D-178260 & D-178261 ATTBL SEPR APPL | TT | ----- |
|                    | 2.11 | D-180479 & D-180480 ATTBL SEPR APPL           | TT | ----- |
|                    | 2.12 | ARMTR POSITION                                | TT | ----- |
|                    | 2.13 | ARMTR TRAVEL                                  | TT | ----- |
|                    | 2.14 | SPG TENSION                                   | TT | ----- |
|                    | 2.15 | POSITION OF X' BUFFER SPG DSGNTD F            | TT | ----- |
|                    | 2.16 | ARMTR BACK TENSION                            | TT | ----- |
|                    | 2.17 | SPG STUD CLRNC                                | TT | ----- |
|                    | 2.18 | SPG STRTNS                                    | TT | ----- |

|             |        |      |  |    |       |
|-------------|--------|------|--|----|-------|
| 040-518-701 | (12/0) | 2.19 | SPG SEPN   | TT | ----- |
|             |        | 2.20 | STUD GAP   | TT | ----- |
|             |        | 2.21 | CONTACT MAKE   | TT | ----- |
|             |        | 2.22 | CONTACT SEPN   | TT | ----- |
|             |        | 2.23 | CONTACT SEQ  | TT | ----- |
|             |        | 2.24 | ELECTRICAL REQTS   | TT | ----- |
|             |        | 2.25 | PULS-RPTG REQTS  | TT | ----- |
| 040-937-701 | (12/0) | 2.01 | (2.01 - 2.16) U, Y & UA-TYPES RELAY REQTS<br>CONDENSED SECTION | TT | ----- |

## 20.65 RELAYS; E, EA, F, H, R &amp; T-TYPES

## TROUBLE TESTS

|             |       |      |   |    |       |
|-------------|-------|------|---|----|-------|
| 040-510-701 | (9/0) | 2.01 | CONTACTS & RELAY CLEANING   | TT | ----- |
|             |       | 2.02 | RELAY MTG   | TT | ----- |
|             |       | 2.03 | VERTICAL CLRNC  | TT | ----- |
|             |       | 2.04 | COVER SPG & GUIDE PRESSURE AND CAP TYTNS                                | TT | ----- |
|             |       | 2.05 | KS-7246 SEPR APPL   | TT | ----- |
|             |       | 2.06 | ARMTR & ADJG NUT STKG   | TT | ----- |
|             |       | 2.07 | CONTACT ALNMT   | TT | ----- |
|             |       | 2.08 | SPG TANG POSITION   | TT | ----- |
|             |       | 2.09 | ARMTR & SPG STUD CLRNC  | TT | ----- |
|             |       | 2.10 | ADJG STUD CLRNC   | TT | ----- |
|             |       | 2.11 | ADJG NUT TYTNS  | TT | ----- |
|             |       | 2.12 | ADJBL STOP TYTNS  | TT | ----- |
|             |       | 2.13 | ADJBL STOP PIN POSITION   | TT | ----- |
|             |       | 2.14 | ARMTR TRAVEL  | TT | ----- |
|             |       | 2.15 | SPG STRTNS  | TT | ----- |
|             |       | 2.16 | SPG SEPN  | TT | ----- |
|             |       | 2.17 | CONTACT PRESSURE  | TT | ----- |
|             |       | 2.18 | STUD GAP  | TT | ----- |
|             |       | 2.19 | CONTACT SEPN  | TT | ----- |
|             |       | 2.20 | CONTACT FOLLOW  | TT | ----- |
|             |       | 2.21 | SPG SEQ   | TT | ----- |
|             |       | 2.22 | ELECTRICAL REQTS  | TT | ----- |
|             |       | 2.23 | TIMING REQTS  | TT | ----- |
|             |       | 2.24 | PULS-RPTG REQTS   | TT | ----- |
| 040-933-701 | (3/0) | 1.01 | (1.01 - 1.08) E, EA, F, H, R & T-TYPES RELAY<br>REQTS CONDENSED SECTION | TT | ----- |

## 20.66 RELAYS; J-TYPE

## TROUBLE TESTS

|             |       |      |                           |    |       |
|-------------|-------|------|---------------------------|----|-------|
| 040-512-701 | (8/0) | 2.01 | CONTACTS & RELAY CLEANING | TT | ----- |
|             |       | 2.02 | RELAY MTG                 | TT | ----- |
|             |       | 2.03 | RELAY COVER CLRNC         | TT | ----- |

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|             |       |      |  |    |       |
|-------------|-------|------|--|----|-------|
| 040-512-701 | (8/0) | 2.04 | COVER & COVER CAP TYTNS                            | TT | ----- |
|             |       | 2.05 | D-95367 REMVBL PAPER BACKSTOPS APPL                | TT | ----- |
|             |       | 2.06 | CONTACT ALNMT                                      | TT | ----- |
|             |       | 2.07 | ADJG SCREWS POSITION                               | TT | ----- |
|             |       | 2.08 | ADJG SCREWS TYTNS                                  | TT | ----- |
|             |       | 2.09 | CONTACT SPG TENSION                                | TT | ----- |
|             |       | 2.10 | ARMTR TRAVEL                                       | TT | ----- |
|             |       | 2.11 | CONTACT FOLLOW                                     | TT | ----- |
|             |       | 2.12 | CONTACT SEPN                                       | TT | ----- |
|             |       | 2.13 | ARMTR TENSION                                      | TT | ----- |
|             |       | 2.14 | ELECTRICAL REQTS                                   | TT | ----- |
|             |       | 2.15 | ARMTR TENSION SPG POSITION                         | TT | ----- |
|             |       | 2.16 | POSITION OF SPG ATTD TO ARMTR                      | TT | ----- |
| 040-934-701 | (4/0) | 1.01 | (1.01 - 1.06) J-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |

## 20.67 RELAYS; L, N &amp; S-TYPES

## TROUBLE TESTS

|             |       |      |   |    |       |
|-------------|-------|------|---|----|-------|
| 040-514-701 | (5/0) | 2.01 | CONTACTS & RELAY CLEANING                                 | TT | ----- |
|             |       | 2.02 | RELAY MTG   | TT | ----- |
|             |       | 2.03 | COVER & COVER CAP TYTNS                                   | TT | ----- |
|             |       | 2.04 | COVER GUIDE POSITION                                      | TT | ----- |
|             |       | 2.05 | COVER & CONTACT BRKT CLRNC                                | TT | ----- |
|             |       | 2.06 | CONTACT ALNMT   | TT | ----- |
|             |       | 2.07 | CONTACT SPG & RETRACTILE SPG CLRNC                        | TT | ----- |
|             |       | 2.08 | SCREWS TYTNS  | TT | ----- |
|             |       | 2.09 | ARMTR MVMT  | TT | ----- |
|             |       | 2.10 | CONTACT SCREW BRKT PRESSURE                               | TT | ----- |
|             |       | 2.11 | CONTACT SCREW BRKT POSITION                               | TT | ----- |
|             |       | 2.12 | BASE GAP  | TT | ----- |
|             |       | 2.13 | CONTACT SPG PRESSURE                                      | TT | ----- |
|             |       | 2.14 | ARMTR TRAVEL  | TT | ----- |
|             |       | 2.15 | CONTACT SEPN  | TT | ----- |
|             |       | 2.16 | ELECTRICAL REQTS  | TT | ----- |
| 040-935-701 | (2/0) | 1.01 | (1.01 - 1.09) L, N & S-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |

## 20.68 RELAYS; M-TYPE

## TROUBLE TESTS

|             |       |      |                           |    |       |
|-------------|-------|------|---------------------------|----|-------|
| 040-516-701 | (3/0) | 2.01 | CONTACTS & RELAY CLEANING | TT | ----- |
|             |       | 2.02 | RELAY MTG                 | TT | ----- |
|             |       | 2.03 | ASSY TYTNS                | TT | ----- |
|             |       | 2.04 | CONTACT & SPG ALNMT       | TT | ----- |
|             |       | 2.05 | SPG TANG POSITION         | TT | ----- |

|                                    |      |   |    |       |
|------------------------------------|------|---|----|-------|
| 040-516-701 (3/0)                  | 2.06 | ARMTR STUD CLRNC  | TT | ----- |
|                                    | 2.07 | ADJG STUD CLRNC   | TT | ----- |
|                                    | 2.08 | ADJG NUT TYTNS  | TT | ----- |
|                                    | 2.09 | ARMTR TRAVEL  | TT | ----- |
|                                    | 2.10 | OPRD ARMTR AIR GAP  | TT | ----- |
|                                    | 2.11 | LATCH & ARMTR STUD GAP                                    | TT | ----- |
|                                    | 2.12 | LOCKNUT TYTNS   | TT | ----- |
|                                    | 2.13 | LATCH & CONTACT SPG CLRNC                                 | TT | ----- |
|                                    | 2.14 | ECCENTRIC STOP LKG SCREW TYTNS                            | TT | ----- |
|                                    | 2.15 | SPG STRTNS  | TT | ----- |
|                                    | 2.16 | SPG SEPN  | TT | ----- |
|                                    | 2.17 | CONTACT PRESSURE  | TT | ----- |
|                                    | 2.18 | STUD GAP  | TT | ----- |
|                                    | 2.19 | CONTACT SEPN  | TT | ----- |
|                                    | 2.20 | CONTACT FOLLOW  | TT | ----- |
|                                    | 2.21 | SPG SEQ   | TT | ----- |
|                                    | 2.22 | ELECTRICAL REQTS  | TT | ----- |
|                                    | 2.23 | LATCH SPG TENSION   | TT | ----- |
| 040-516-811 (1/0)                  | 3.01 | (3.01 - 3.04) WE LUBG COMP#3 APPL                         | TT | ----- |
| 040-936-701 (2/0)                  | 1.01 | (1.01 - 1.13) M-TYPE RELAY REQTS CONDENSED SECTION        | TT | ----- |
| <b>20.69 RELAYS; W.E. 253-TYPE</b> |      |   |    |       |
| <b>TROUBLE TESTS</b>               |      |   |    |       |
| 040-250-701 (7/0)                  | 2.01 | (2.01 - 2.04) ELECTRICAL REQTS                            | TT | ----- |
|                                    | 2.05 | CONTACTS & RELAY CLEANING                                 | TT | ----- |
|                                    | 2.06 | CONTACT ALNMT   | TT | ----- |
|                                    | 2.07 | ARMTR TRAVEL, CONTACT SEPN & CONTACT SPG PRESSURE         | TT | ----- |
| 040-903-701 (1/0)                  | 1.01 | (1.01 - 1.04) W.E. 253-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |
| <b>20.70 RELAYS; 186-TYPE</b>      |      |   |    |       |
| <b>TROUBLE TESTS</b>               |      |   |    |       |
| 040-224-701 (6/0)                  | 2.01 | CONTACTS & RELAY CLEANING                                 | TT | ----- |
|                                    | 2.02 | RELAY MTG   | TT | ----- |
|                                    | 2.03 | ARMTR MVMT  | TT | ----- |
|                                    | 2.04 | CONTACT ALNMT   | TT | ----- |
|                                    | 2.05 | D-97950 REMVBL ARMTR STOP APPL                            | TT | ----- |
|                                    | 2.06 | FLEXIBLE CONTACT SPG POSITION                             | TT | ----- |
|                                    | 2.07 | ARMTR CLRNC   | TT | ----- |
|                                    | 2.08 | CONTRACT SEPN   | TT | ----- |
|                                    | 2.09 | CONTACT FOLLOW  | TT | ----- |
|                                    | 2.10 | ARMTR AIR GAP   | TT | ----- |

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|             |       |      |  |    |       |
|-------------|-------|------|--|----|-------|
| 040-224-701 | (6/0) | 2.11 | ELECTRICAL REQTS                                     | TT | ----- |
| 040-901-701 | (3/0) | 1.01 | (1.01 - 1.06) 186-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |

20.71 RELAYS; 280-TYPE

TROUBLE TESTS

|             |       |      |  |    |       |
|-------------|-------|------|--|----|-------|
| 040-267-701 | (6/2) | 2.01 | CONTACTS & RELAY CLEANING                            | TT | ----- |
|             |       | 2.02 | RELAY MTG  | TT | ----- |
|             |       | 2.03 | COVER CLRNC  | TT | ----- |
|             |       | 2.04 | COVER CAP  | TT | ----- |
|             |       | 2.05 | FLEXIBLE CONTACT SPG ALNMT                           | TT | ----- |
|             |       | 2.06 | BIASING SPG POSITION                                 | TT | ----- |
|             |       | 2.07 | ARMTR & SPOOL CLRNC                                  | TT | ----- |
|             |       | 2.08 | CONTACT ALNMT  | TT | ----- |
|             |       | 2.09 | CONTACT SCREWS & BIASING STUD TYTNS                  | TT | ----- |
|             |       | 2.10 | POLE-PIECE SCREW TYTNS                               | TT | ----- |
|             |       | 2.11 | CONTACT TRAVEL                                       | TT | ----- |
|             |       | 2.12 | ELECTRICAL REQTS                                     | TT | ----- |
|             |       | 2.13 | CONTACT MAKE   | TT | ----- |
|             |       | 2.14 | PULSE RPTG REQTS                                     | TT | ----- |
| 040-905-701 | (3/0) | 1.01 | (1.01 - 1.07) 280-TYPE RELAY REQTS CONDENSED SECTION | TT | ----- |

20.72 RELAYS; 271, 282 & 310-TYPE

TROUBLE TESTS

|             |       |      |  |    |       |
|-------------|-------|------|--|----|-------|
| 040-260-701 | (5/0) | 2.01 | CONTACTS & RELAY CLEANING                            | TT | ----- |
|             |       | 2.02 | RELAY MTG  | TT | ----- |
|             |       | 2.03 | VERTICAL CLRNC                                       | TT | ----- |
|             |       | 2.04 | COVER SPG & COVER GUIDE PRESSURE AND COVER CAP TYTNS | TT | ----- |
|             |       | 2.05 | CONTACT ALNMT  | TT | ----- |
|             |       | 2.06 | SPG TANG POSITIONNN                                  | TT | ----- |
|             |       | 2.07 | ADJG STUD CLRNC                                      | TT | ----- |
|             |       | 2.08 | ADJG NUT TYTNS                                       | TT | ----- |
|             |       | 2.09 | ARMTR POSITION                                       | TT | ----- |
|             |       | 2.10 | ARMTR TRAVEL   | TT | ----- |
|             |       | 2.11 | SPG TENSION  | TT | ----- |
|             |       | 2.12 | POSITION OF X' BUFFER SPG DSGNTD F                   | TT | ----- |
|             |       | 2.13 | ARMTR BACK TENSION                                   | TT | ----- |
|             |       | 2.14 | SPG STUD CLRNC                                       | TT | ----- |
|             |       | 2.15 | SPG STRTNS   | TT | ----- |
|             |       | 2.16 | SPG SEPN   | TT | ----- |
|             |       | 2.17 | BIMETALLIC CONTACT SPG CLRNC                         | TT | ----- |
|             |       | 2.18 | STUD GAP   | TT | ----- |

|  |       |      |   |    |       |
|--|-------|------|---|----|-------|
| 040-260-701                            | (5/0) | 2.19 | CONTACT MAKE  | TT | ----- |
|  |       | 2.20 | CONTACT SEPN  | TT | ----- |
|  |       | 2.21 | CONTACT SEQ   | TT | ----- |
|  |       | 2.22 | ELECTRICAL REQTS  | TT | ----- |
| 040-904-701                            | (2/0) | 1.01 | (1.01 - 1.13) 271, 282 & 310-TYPE RELAY REQTS<br>CONDENSED SECTION      | TT | ----- |
| 20.73 RELAYS; 206, 227, 231 & 239-TYPE |       |      |   |    |       |
| TROUBLE TESTS                          |       |      |   |    |       |
| 040-228-701                            | (7/0) | 2.01 | CONTACTS & RELAY CLEANING   | TT | ----- |
|  |       | 2.02 | RELAY MTG   | TT | ----- |
|  |       | 2.03 | COVER CLRNC   | TT | ----- |
|  |       | 2.04 | COVER GAP   | TT | ----- |
|  |       | 2.05 | FLEXIBLE CONTACT SPG ALNMT  | TT | ----- |
|  |       | 2.06 | BIASING SPG POSITION  | TT | ----- |
|  |       | 2.07 | ARMTR & SPOOL CLRNC   | TT | ----- |
|  |       | 2.08 | CONTACT ALNMT   | TT | ----- |
|  |       | 2.09 | CONTACT & BIASING SCREW TYTNS   | TT | ----- |
|  |       | 2.10 | POLE-PIECE SCREW TYTNS  | TT | ----- |
|  |       | 2.11 | CONTACT TRAVEL  | TT | ----- |
|  |       | 2.12 | CONTACT MAKE  | TT | ----- |
|  |       | 2.13 | (2.13 - 2.14) ADJMTS A & B REQTS  | TT | ----- |
|  |       | 2.15 | (2.15 - 2.18) ADJMTS 1 - 13 REQTS                                       | TT | ----- |
| 040-902-701                            | (2/0) | 1.01 | (1.01 - 1.10) 206, 227, 231 & 239-TYPE RELAY<br>REQTS CONDENSED SECTION | TT | ----- |