



RENEWAL PARTS

Type CEH Loss-of-Excitation Relays

Ordering Instructions

1. Always specify the complete nameplate data of the relay.
2. Specify the quantity, catalog number (if listed), reference number (if listed), description, and this bulletin number.
3. Standard hardware, such as screws, bolts, nuts, washers, etc., is not listed in this bulletin. Such items should be purchased locally.
4. For prices, refer to the nearest office of the General Electric Company.
5. The upper or lower terminal block will be supplied with contact fingers in all positions and loose shorting bars. These parts are to be used as required.

How to Use this Bulletin

1. Relay models covered by this bulletin are listed in the left-hand column of the tabulation beginning on page 2.
2. To find the catalog number of a renewal part:
 - A. Referring to the illustrations on page 1, find the reference letter for the required part.
 - B. Locate the reference letter and/or description of the part in the column headings at the top of the tabulation.
 - C. Note the numeral at the intersection of the reference letter column and model number line. This numeral, when added to the reference letter, provides the key to the catalog number of the part, which is listed in the table on the page indicated.

Example:

To find the catalog number of the operating coil assembly for the Model 12CEH51A1A relay:

- A. Figure 2 on page 1 indicates that the reference letter for the operating coil assembly is "A".
- B. Locate reference letter "A" in the column headings on page 2.
- C. At intersection of the "A" column and Model 12CEH-51A1A line find the numeral 1. The complete reference symbol is therefore, "A-1". Referring to page 3 in the catalog, the number is found to be 721-127B8124G54 (one required per relay).

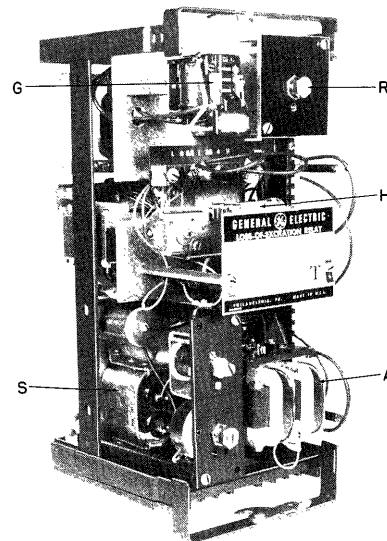


Fig. 1. Type CEH relay, front view

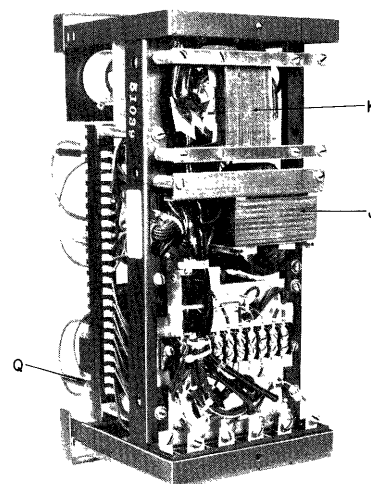


Fig. 2. Type CEH relay, rear view

GEF-3803, TYPE CEH RELAYS

| RELAY MODEL NUMBER | Operating Coil Assembly | Cylinder and Shaft Assembly | Upper Pivot Assembly | Jewel Bearing Assembly | Moving Contact and Spiral Assembly | Stationary Contact Assembly | Target/Seal-In Unit | Auxiliary Relay | Transformer and Tap Block Assembly | Transactor and Tap Block Assembly | Tap Plug | Resistor (R1) | Resistor (R2) | Resistor (R63) | Rheostat (R13) | Rheostat (R22) | Capacitor (C21) | End Plate | Terminal Block, Upper or Lower | Cover | P.C. Card | Resistor (R8, R11) | Resistor (R4, R5) | Reactor (X21) |
|--------------------|-------------------------|-----------------------------|----------------------|------------------------|------------------------------------|-----------------------------|---------------------|-----------------|------------------------------------|-----------------------------------|----------|---------------|---------------|----------------|----------------|----------------|-----------------|-----------|--------------------------------|-------|-----------|--------------------|-------------------|---------------|
| Page | *A | *B† | *C† | *D† | *E† | *F† | *G | *H | *J | *K | *L | *M† | *N† | P† | Q† | R† | S | T† | U | V† | W† | X† | Y† | Z† |
| 12CEH51A1A | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - |
| 12CEH51A3A | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 2 | 4 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A4A | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A5A | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 3 | 3 | 1 | 4 | 1 | 2 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A6A | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | - | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A7A | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 4 | 1 | 2 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A8A | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A9A | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A12A | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 3 | 1 | 3 | 3 | 1 | 4 | 1 | 2 | 1 | 1 | 1 | - | - | - | - |
| 12CEH51A13A | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | - | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | - | - | - | - |
| 12CEH52A1D | 4.5 | 1 | 1 | 1 | 1 | 1 | 2.4 | 2.2.3 | 2.3 | - | 1.2 | - | - | 2 | 1 | 2 | 3 | - | 2 | 2 | 1 | 1 | 1 | - |
| 12CEH52A2D | 4.5 | 1 | 1 | 1 | 1 | 1 | 5.6 | 2.2.3 | 2.3 | - | 1.2 | - | - | 2 | 1 | 2 | 3 | - | 2 | 2 | 2 | 1 | 1 | - |
| 12CEH52A3D | 6.7 | 1 | 1 | 1 | 1 | 1 | 2.4 | 2.2.3 | 2.3 | - | 1.2 | - | - | 2 | 1 | 2 | 3 | - | 2 | 2 | 2 | 1 | 1 | - |

* Recommended for stock for normal maintenance.
 † Not shown.

| Ref. Symbol | Fig. No. | Catalog Number | No. Per Relay |
|-------------|----------|----------------|---------------|
|-------------|----------|----------------|---------------|

TABLE A
OPERATING COIL ASSEMBLY

| | | | |
|-----|---|------------------|---|
| A-1 | 1 | 721-127B8124G54 | 1 |
| A-2 | 1 | 721-127B8124G56 | 1 |
| A-3 | 1 | 721-127B8124G98 | 1 |
| A-4 | 1 | 721-127B8124G74 | 1 |
| A-5 | 1 | 721-127B8124G75 | 1 |
| A-6 | 1 | 721-127B8124G99 | 1 |
| A-7 | 1 | 721-127B8124G100 | 1 |

TABLE B
CYLINDER AND SHAFT ASSEMBLY

| | | | |
|-----|---|----------------|---|
| B-1 | - | 721-127B8107G1 | 1 |
|-----|---|----------------|---|

TABLE C
UPPER PIVOT ASSEMBLY

| | | | |
|-----|---|----------------|---|
| C-1 | - | 721-165A9245G1 | 1 |
|-----|---|----------------|---|

TABLE D
JEWEL BEARING ASSEMBLY

| | | | |
|-----|---|---------------|---|
| D-1 | - | 721-6204096G1 | 1 |
|-----|---|---------------|---|

TABLE E
MOVING CONTACT AND SPIRAL ASSEMBLY

| | | | |
|-----|---|----------------|---|
| E-1 | - | 721-127B8127G1 | 1 |
|-----|---|----------------|---|

TABLE F
STATIONARY CONTACT ASSEMBLY

| | | | |
|-----|---|----------------|---|
| F-1 | - | 721-165A9237G1 | 1 |
|-----|---|----------------|---|

TABLE G
TARGET/SEAL-IN UNIT

| | | | |
|-----|---|-----------------|---|
| G-1 | 1 | 721-6293203G451 | 1 |
| G-2 | 1 | 721-6293203G436 | 1 |
| G-3 | 1 | 721-6293203G450 | 1 |
| G-4 | 1 | 721-6293203G435 | 1 |
| G-5 | 1 | 721-6293203G501 | 1 |
| G-6 | 1 | 721-6293203G500 | 1 |

TABLE H
AUXILIARY RELAY

| | | | |
|-----|---|-----------------|---|
| H-1 | 1 | 721-6418025P1 | 1 |
| H-2 | 1 | 721-6418025P426 | 1 |
| H-3 | 1 | 721-6418025P349 | 1 |

TABLE J
TRANSFORMER AND TAP BLOCK ASSEMBLY

| | | | |
|-----|---|-----------------|---|
| J-1 | 2 | 721-116B6792G53 | 1 |
| J-2 | 2 | 721-116B6792G89 | 1 |
| J-3 | 2 | 721-116B6792G90 | 1 |

TABLE K
TRANSACTOR AND TAP BLOCK ASSEMBLY

| | | | |
|-----|---|------------------|---|
| K-1 | 2 | 721-116B6792G54 | 1 |
| K-2 | 2 | 721-116B6792G69 | 1 |
| K-3 | 2 | 721-116B6792G114 | 1 |

TABLE L
TAP PLUG

| | | | |
|-----|---|---------------|---|
| L-1 | 2 | 721-3539529G1 | 5 |
| L-2 | 2 | 721-6059184P1 | 5 |

TABLE M
RESISTOR (R1)

| | | | |
|-----|---|------------------------------|---|
| M-1 | - | 721-403A322P17 (200 ohm) | 1 |
| M-2 | - | 721-403A322P26 (200 ohm) | 1 |
| M-3 | - | 721-403A322P80 (1650 ohm) | 1 |

| Ref. Symbol | Fig. No. | Catalog Number | No. Per Relay |
|-------------|----------|----------------|---------------|
|-------------|----------|----------------|---------------|

TABLE N
RESISTOR (R2)

| | | | |
|-----|---|-------------------------------|---|
| N-1 | - | 721-403A322P23 (850 ohm) | 1 |
| N-2 | - | 721-403A322P100 (1800 ohm) | 1 |
| N-3 | - | 721-403A322P119 (3500 ohm) | 1 |
| N-4 | - | 721-403A322P28 (3700 ohm) | 1 |

TABLE P
RESISTOR (R63)

| | | | |
|-----|---|--------------------|---|
| P-1 | - | 721-246A9115P502B | 1 |
| P-2 | - | 721-246A9114P152D2 | 1 |

TABLE Q
RHEOSTAT (R13)

| | | | |
|-----|---|---------------------|---|
| Q-1 | - | 721-246A9114PH252D2 | 2 |
| Q-2 | - | 721-246A9114PH501D2 | 1 |
| Q-3 | - | 721-246A9114PH102D2 | 1 |
| Q-4 | - | 721-246A9114PH751D2 | 1 |

TABLE R
RHEOSTAT (R13)

| | | | |
|-----|---|---------------------|---|
| R-1 | 1 | 721-246A9114PH252D2 | 1 |
| R-2 | 1 | 721-246A9114PH152D2 | 2 |

TABLE S
CAPACITOR (C21)

| | | | |
|-----|---|-------------------|---|
| S-1 | 1 | 721-246A9023P75A | 1 |
| S-2 | 1 | 721-246A9023P100C | 1 |
| S-3 | 1 | 721-246A9023P150A | 2 |

TABLE T
END PLATE

| | | | |
|-----|---|---------------|---|
| T-1 | - | 721-237C740P2 | 1 |
|-----|---|---------------|---|

TABLE U
TERMINAL BLOCK, UPPER OR LOWER

| | | | |
|-----|---|----------------|---|
| U-1 | - | 721-285A5176G1 | 1 |
| U-2 | - | 721-285A5176G1 | 2 |

TABLE V
COVER

| | | | |
|-----|---|----------------|---|
| V-1 | - | 721-6229807G3 | 1 |
| V-2 | - | 721-6229807G34 | 1 |

TABLE W
PRINTED CIRCUIT BOARD

| | | | |
|-----|---|-----------------|---|
| W-1 | - | 721-165B1987G10 | 1 |
| W-2 | - | 721-165B1987G1 | 1 |

TABLE X
RESISTOR (R8, R11)

| | | | |
|-----|---|-------------------|---|
| X-1 | - | 721-246A9115P802C | 2 |
|-----|---|-------------------|---|

TABLE Y
RESISTOR (R4, R5)

| | | | |
|-----|---|-------------------|---|
| Y-1 | - | 721-246A9115P502C | 1 |
|-----|---|-------------------|---|

TABLE Z
REACTOR (X21)

| | | | |
|-----|---|---------------|---|
| Z-1 | - | 721-6293287G3 | 1 |
|-----|---|---------------|---|

*Oil-filled capacitors (21F, 28F etc.) referenced in this bulletin are original design style numbers. Due to environmental constraints and other factors beyond PSM's control, orders for these series of capacitors will be supplied as shown in GEF-6001. Note that in some instances the replacement capacitor, while electrically interchangeable, may require mechanical modifications to the relay.



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