

R. L. DRAKE LINEAR AMPLIFIER RELAY REPLACEMENT

The enclosed relay is a general replacement relay for the R. L. Drake L-4/L-4B/L-7/L-75 linear amplifiers. Over the years various relays made by several manufacturers were used in these amplifiers. Before disconnecting and removing the existing relay from your amplifier, please compare the appropriate drawing that pertains to your amp and note the locations and connections. It is best to write this information down before unsoldering any wires!

Perform the following modifications/preliminary wiring changes to the new relay.

- () Locate the leads that connect the armature contacts to the terminals of contacts 7 & 10 (A & C in the pictorials). Disconnect these two leads at the back side of terminals 7 (A) & 10 (C) leaving the other ends attached to the armature contacts. The 2 disconnected leads will be connected to the RF INPUT and RF OUTPUT connectors after the relay is installed in the amplifier.
- () Install the following jumper leads on the new relay.
- () Connect a 5/8" wire jumper between the relay coil terminal and the back side terminal 7.
- () Connect a 5/8" wire jumper between the opposite relay coil terminal and the back side of terminal 10.
- () Connect a 1-1/4" solid wire jumper between terminals 1 and 3.
- () Install a 1N4007 diode or 22 Ω 1/4W resistor/1N4007 diode combination between terminals 7 and 10 as applicable for your specific model.
- () Unsolder all leads attached to the old relay and remove.
- () Mount the new relay and connect the leads per the attached drawing specific to your model amplifier.

HARBACH ELECTRONICS, LLC

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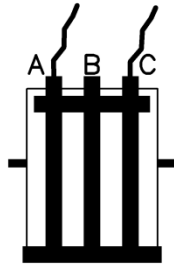
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DRAKE L-4 & L-4B

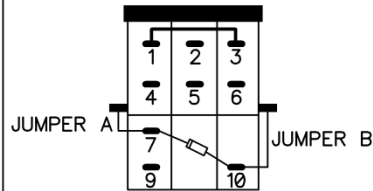
TOP VIEW
ARMATURE CONTACTS



ARMATURE CONNECTIONS

A	RF OUTPUT FROM WATT METER BOARD
B	NO CHANGE
C	RF INPUT

REAR VIEW
CONNECTION LUGS



REAR LUG CONNECTIONS

1	JUMPERED TO LUG 3
2	GREEN WIRE FROM AGC POT & POWER CONNECTOR PIN 5
3	JUMPERED TO LUG 1
4	COAX CENTER FROM C49 LOAD CAPACITOR
5	ORANGE WIRE FROM GRID METER BOARD
6	COAX CENTER FROM S1A BAND SWITCH OR LP FILTER ON SOME UNITS
7	RED WIRE FROM STANDBY SWITCH, JUMPER A FROM COIL & CATHODE OF DIODE
9	YELLOW WIRE FROM FILAMENT TRANSFORMER
10	BLUE WIRE FROM VOX CONNECTOR (& D5 ON SOME UNITS), JUMPER B FROM COIL & ANODE OF DIODE

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DRAKE L-4 & L-4B REPLACEMENT
RELAY CONNECTIONS & WIRING

REV: A

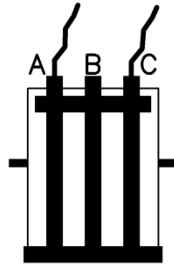
DATE: 08 MARCH 2015

DRAWN BY: JTW

SHEET 1

DRAKE L-7

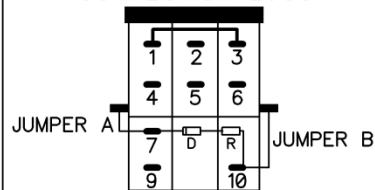
TOP VIEW
ARMATURE CONTACTS



ARMATURE CONNECTIONS

A	RF OUTPUT FROM WATT METER BOARD
B	NO CHANGE
C	RF INPUT

REAR VIEW
CONNECTION LUGS



REAR LUG CONNECTIONS

1	JUMPERED TO LUG 3
2	RED WIRE FROM AGC POT & POWER CONNECTOR PIN 5
3	JUMPERED TO LUG 1
4	HEAVY RED FROM C46 LOAD CAPACITOR
5	ORANGE WIRE FROM METER SWITCH BOARD
6	COAX CENTER FROM S1A BAND SWITCH OR LP FILTER ON SOME UNITS
7	BLUE WIRE FROM STANDBY SWITCH, JUMPER A FROM COIL & CATHODE OF DIODE
9	YELLOW WIRE FROM FILAMENT TRANSFORMER
10	WHITE WIRE FROM VOX CONNECTOR/C32, JUMPER B FROM COIL & ONE END OF 22 OHM 1/4W RESISTOR
NOTE: OTHER END OF 22 OHM 1/4W RESISTOR CONNECTED TO ANODE OF DIODE	

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DRAKE L-7 REPLACEMENT RELAY
CONNECTIONS & WIRING

REV: A

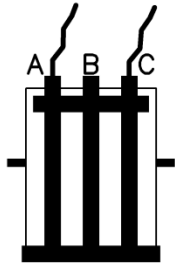
DATE: 08 MARCH 2015

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SHEET 1

DRAKE L-75

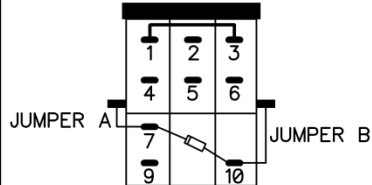
TOP VIEW
ARMATURE CONTACTS



ARMATURE CONNECTIONS

A	RF INPUT
B	NO CHANGE
C	RF OUTPUT

REAR VIEW
CONNECTION LUGS



REAR LUG CONNECTIONS

1	JUMPERED TO LUG 3
2	RED WIRE FROM AGC POT R6 & R47
3	JUMPERED TO LUG 1 & C55 25pF CAPACITOR TO COAX SHIELD TO C38 LOAD CAPACITOR
4	BARE WIRE FROM LP FILTER & C1 25pF CAPACITOR TO GROUND
5	GREEN WIRE FROM C56/R50
6	COAX CENTER FROM C38 LOAD CAPACITOR
7	GRAY WIRE FROM R56/C56, JUMPER A FROM COIL & CATHODE OF DIODE
9	VIOLET WIRE FROM CR4
10	WHITE WIRE FROM S3 STANDBY SWITCH, JUMPER B FROM COIL & ANODE OF DIODE

HARBACH ELECTRONICS, LLC

DRAKE L-75 REPLACEMENT RELAY
CONNECTIONS & WIRING

REV: A

DATE: 08 MARCH 2015

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SHEET 1