

BELL SYSTEM PRACTICES
Private Branch Exchange
Installation and Maintenance

SECTION B490.646
Issue 2, June, 1954
AT&T Co Standard

RELAYS

L, N, AND S TYPES

(Reference Section for B461.006)

1. REQUIREMENTS

1.01 **Clearance Between Contact Spring and Retractable Spring:** Fig. 1(A) — Contact spring and its support shall not touch sides of slot in retractile spring in operated or unoperated position of armature. ←

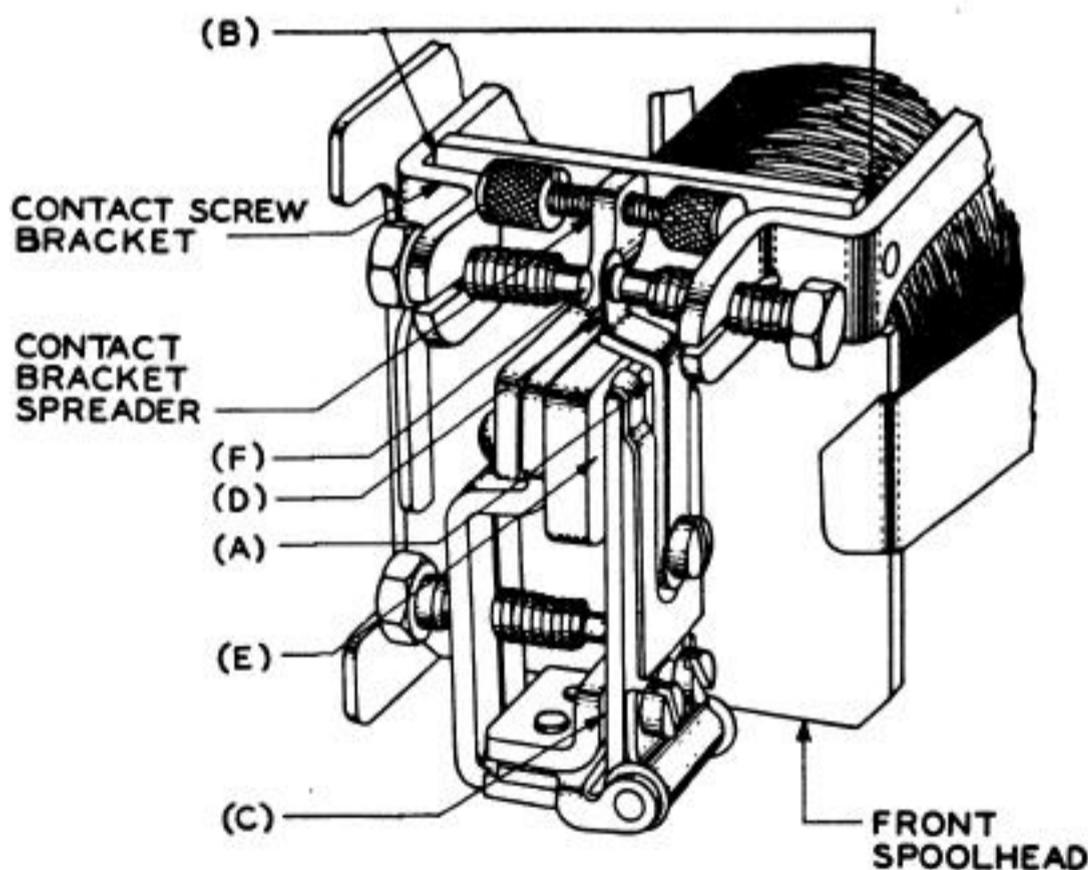


Fig. 1 — Relay Equipped With Contact Bracket Spreader

1.02 **Armature Movement:** Free in bearings (does not apply ←
to reed-type relays). ←

- 1.03 **Contact Screw Bracket Pressure:** 285 grams against spoolhead or nuts of contact bracket spreader. No. 62B gauge.
- 1.04 **Contact Screw Bracket Position** ↵
- (a) All relays:
- (1) Studs on brackets fall within slots in spoolhead.
- (b) Relays with contact bracket spreader, Fig. 1(B):
- (1) Min 0.006 inch between bracket and spoolhead.
- (2) 1/64 inch between top of spreader and cover, or insulate cover above spreader with single layer of scotch cellulose tape, if cover is not already so insulated. ↵
- 1.05 **Base Cap (Readjust Only):** Fig. 1(C) — Min 0.009 inch, Max 0.011 inch. No. 74D gauge. ↵
- 1.06 **Contact Spring Pressure**
- Relays With Flexible Contact Springs
- (a) Fig. 1(D): Min 3, Max 7 grams against spring support. No. 70F gauge. For "test" the requirement is met if contact spring rests on support at least within 1/16 inch of extreme end of support. ↵
- Relays With Solid Contact Springs
- (b) 400 grams against top edge of retractile spring or armature. No. 62B gauge with armature removed. For "test" the requirement is met if:
- (1) Contact spring rests on top edge of retractile spring or armature.
- (2) If contact spring rests on retractile spring, the top edge of retractile spring underneath contact spring shall rest on armature.
- 1.07 **Armature Travel:** Fig. 1(E) — Min 0.009 inch, Max 0.011 inch. No. 74D gauge.
- 1.08 **Contact Separation:** Fig. 1(F) — Min 0.003 inch, Max 0.005 inch. No. 74D gauge.
- 1.09 **Electrical Requirements:** For relays with covers, meet requirements with cover on, cover cap on or off.