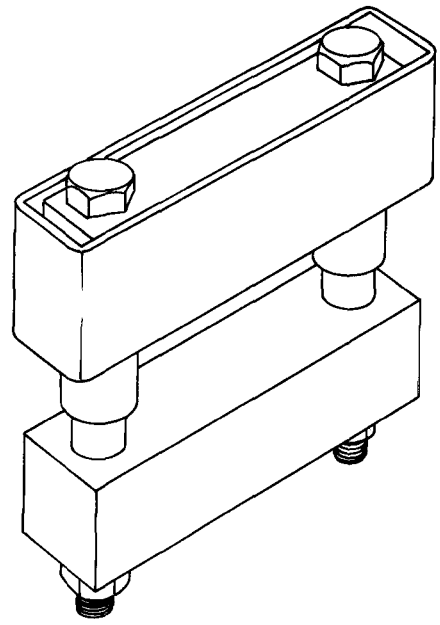
Press Pak
Mounting Clamp

SERIES 2500

2500 LBS. / 11 KN } CLAMP FORCE

The General Electric Company now offers the Series 2500, Press Pak, mounting clamp designed to facilitate single-, or double-side cooling of all GE Press Pak's.

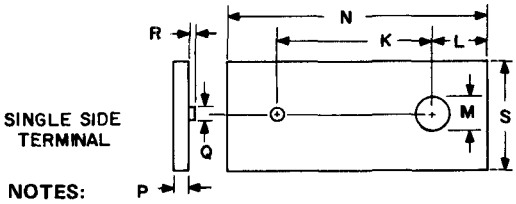


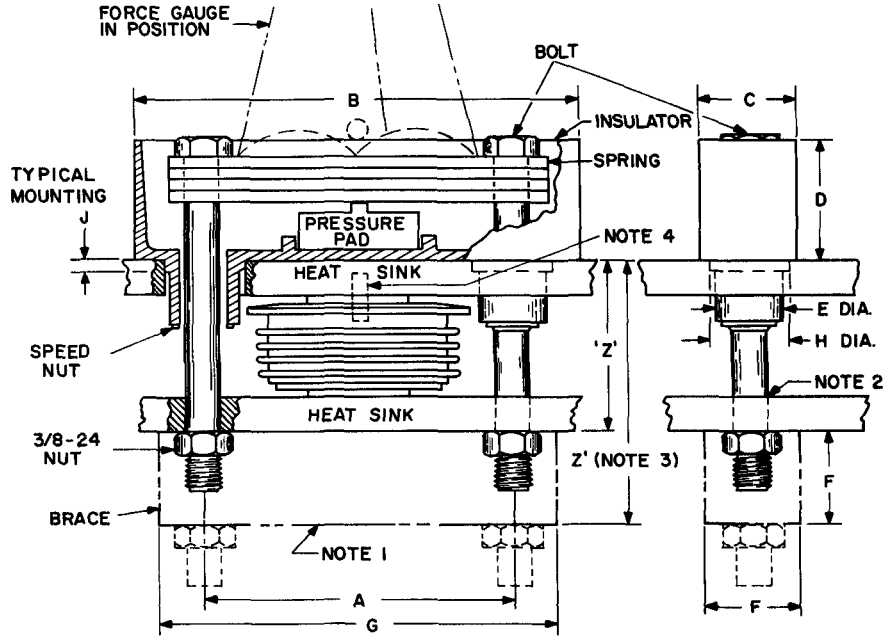
Special features of this clamp:

- Metal pivot insuring constant pressure in rugged applications over long periods.
- One-piece phenolic insulator gives 1" nominal creep distance.
- Use of special *Force Indicator Gauge* eliminates need for torque wrenches, inaccurate "flex" gauges, and *guesswork*.
- Various bolt lengths available to accommodate most mounting situations.
- No loose parts to complicate assembly.
- Stiffening *brace* to reinforce heat sink *available upon request*.
- *Single-side cooling terminal available upon request*.
- Positive, non-binding swivel action.

OUTLINE DRAWING

	INCHES		MM	
DIM.	MIN.	MAX.	MIN.	MAX.
A	3.095	3.105	78.6	79.0
B	—	4.520	—	114.5
C	—	1.000	—	25.4
D	1.230	1.270	31.2	32.2
E	.680	.700	17.28	17.77
F	—	1.000	—	25.4
G	3.940	4.060	100.0	103.1
H	.850	.860	21.60	21.83
J	.110	.140	2.80	3.55
K	2.177	2.197	55.30	55.79
L	.605	.645	15.37	16.37
M	.380	.392	9.66	9.95
N	3.480	3.520	88.40	89.40
P	.090	.095	2.29	2.40
Q	.125	.135	3.18	3.42
R	.025	.035	.64	.88
S	1.230	1.270	31.25	32.25





NOTES:

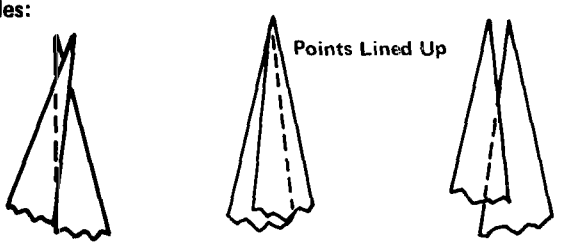
1. The backup brace should be used when the mounting web of the heatsink is not sufficiently thick to prevent the heatsink from behding when the clamp is tightened. Extruded aluminum heatsinks with mounting webs less than 3/8" thick require this brace in order to withstand the full 2500 lbs. mounting force. Refer to **MOUNTING PROCEDURE** for complete mounting instructions.
2. **Heatsink A:** Drill .890, + .020, − .000 holes on 3.1" ± .010 centers. Countersink holes approx. .015 x 45° on clamp insulator side.
   Heatsink B: Drill .437 ± .005 holes on 3.100 ± .010 centers.
3. When a brace is used, the "Z" dimension includes the one inch thickness of the brace. Refer to Table 11 for selection of the proper bolt length.
4. The semiconductor device to be mounted must be positively located in the center of the clamp. A 1/8" diameter by 1/4" long grooved or spring pin is recommended for locating the device. Use a No. 30 drill (0.1285" diameter) for the hole in the heatsink.

MOUNTING PROCEDURE

With the semiconductor positively located in place on the heatsink(s) (refer to Note 4 of Table 1), place the clamp in position with the bolts through the holes in the heatsink(s), and proceed as follows:

1. Refer to Device Specification Sheet for Preparation of Mounting Surface.
2. Tighten the nuts evenly until finger tight.
3. Tighten bolts 2½ turns each, using a 9/16 socket wrench on the bolt heads.
4. Place the Force Indicator Gauge firmly against the springs, as shown on the Outline Drawing, so that both ends and the middle are in solid contact with the springs. The upper points of the gauge will then indicate the spring deflection, or force; correct mounting force is indicated when the points coincide.

Examples:



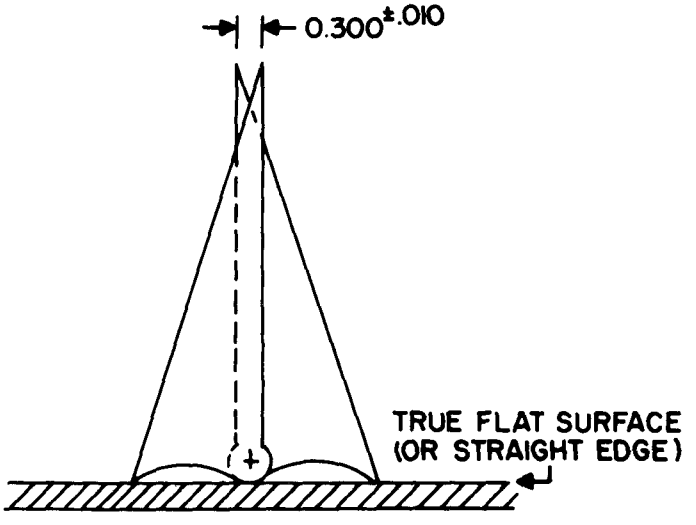
Less than rated force. Tighten nuts alternately 1/4 turn at a time until points coincide.

Correct force.

Excessive force. Loosen nuts and start over. *NEVER* try to adjust spring force by backing off the nuts, spring friction will produce false readings. Always start at Step. 1.

To Calibrate Force Gauge:

If the gauge is suspected of being out of calibration due to wear or damage, check it on a flat surface as shown below.



If the points are not 0.300 ± .010 apart, calibrate the gauge by filing the bottom contact points.

ORDERING INSTRUCTIONS

In order to select the proper clamp for a given application, it is necessary to know three mounting parameters:

- The correct force necessary to mount the semiconductor device.
- The length of the bolts necessary to span dimension "Z".
- The capability of the sink to withstand the mounting force without bending (refer to Note 1 of Table I).

Knowing these parameters, the proper clamp may be selected from Table II.

TABLE II – CLAMP SELECTION CHART

GE Device Type[4]	Recommended Mounting Force	Clamp Force	Allowable "Z"[1] Dimension (inches)	Bolt Length (inches)	Order Number[2,3]
C387, C388	2000-2500 (Lbs.) 8.9 – 11.0 (KN)	2200-2400 (Lbs.) 9.8 – 10.6 (KN)	1.375-2.125	3.50	HW2500G77
C397, C398			1.875-2.625	4.00	HW2500G78
C395			2.375-3.125	4.50	HW2500G79
C500 Family			3.375-4.125	5.50	HW2500G82
A500 Family			5.375-6.125	7.50	HW2500G83

Phenolic temperature beyond 125°C and spring temperature above 110°C is not permissable.

1. Refer to Outline Drawing and to Note 3 of Table I for determination of "Z" dimension.
2. If a brace is required, add suffix "B" to the order number, e.g. HW2500G72B.
3. If a terminal is required (used with a single side cooling), add the letter "T" to the order number, e.g. HW2500G72BT.
4. All group numbers or bolt lengths can be used with any device types.