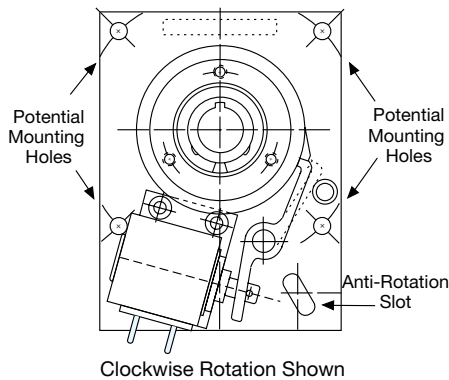


# CB Mounting Requirements

While Warner Electric wrap spring clutches are self-contained, packaged products, which are easy to mount, a few simple precautions should be taken to ensure maximum life.

All Warner Electric wrap spring clutch products are designed to be installed in parallel shaft applications where they are fully supported by the shaft on which they are mounted.

Each clutch/brake backing plate assembly has three or four mounting holes, plus an anti-rotation slot, and is designed to serve as a torque arm rather than as a rigid mounting plate. The plate should be restrained from rotating by a pin or shoulder bolt, while allowing for the plate to float axially. The anti-rotation device must be capable of withstanding the braking torque required by the load.



**Important: Do not rigidly mount unit. Plate must be allowed to “float” axially.**

On CB type units, the input rotation is always connected to the input hub, and the output is always through the shaft through the hollow bore of the clutch/brake.

Connecting the unit to the parallel shaft may be accomplished by pinning (for sizes 4, 5 and 6 with 1 in. bore) or by key and set screw (for sizes 6 with 3/4 bore, 8 and 10). Size 2 uses a clamp collar.

When connecting the parallel shaft to the CB by using a belt, chain or gear drive, the input hub’s radial bearing load capacity must not be exceeded. (See chart in next column). It may be necessary to counter bore or bearing

mount the input pulley sprocket or gear.

## Maximum Radial Bearing Load at Maximum Speed

- CB-2 = 7.5 lbs.
- CB-4 = 14 lbs.
- CB-5/Super CB-5 = 32 lbs.
- CB-6/Super CB-6 = 63 lbs.
- CB-8/Super CB-8 = 300 lbs.
- CB-10/Super CB-10 = 500 lbs.

CB and Super CB style clutch/brakes are designed for horizontal shaft mounting. While it is possible to mount units vertically, vertically mounted units will see lower life than those mounted horizontally due to the wear between hubs resulting from gravity.

## Horizontal Mounting

Figure 1 illustrates an ideal CB mounting. The unit is attached to the output shaft with both a key and set screws. The plate is restrained from rotating, but not from axial movement, reducing the side load on the CB’s internal plate bearing.

In cases where easy access to the input is desirable, the clutch/brake can be mounted on a stub shaft. However, the unit must still be fully supported, while overhung loads on the input member must be avoided to maintain the life of the radial bearing.

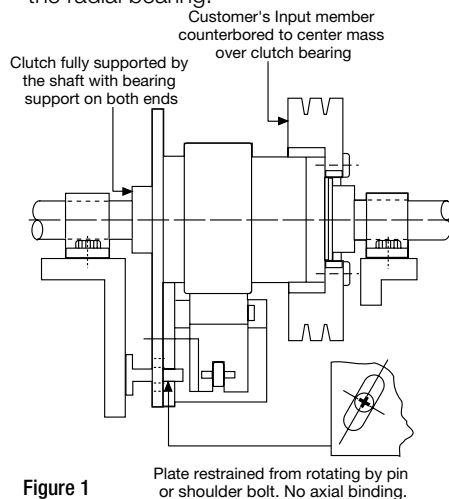


Figure 1

Figures 2 and 3 illustrate alternate mounting configurations for achieving proper support. Inputs are usually face-mounted to the input hub of the CB unit as shown in Figure 1. This type of mounting is facilitated by the drilled and tapped holes provided in the free hub flange. The configuration shown in Figure 2 is a possibility, if the radial load on the input hub of the CB is small compared to the specified load.

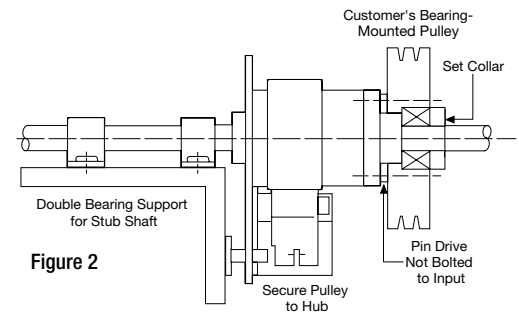


Figure 2

If the application contains a substantial radial bearing load, arrange the pulley over the centerline of the clutch free hub as illustrated in Figure 3. Place one support bearing as close to the pulley as possible, using a torque arm for anti-rotation.

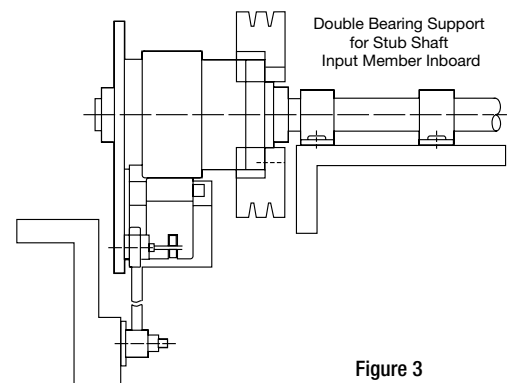


Figure 3

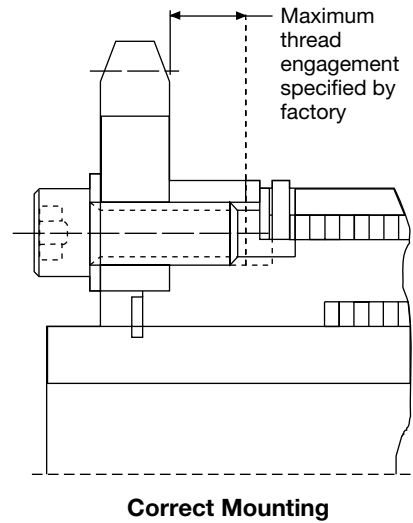
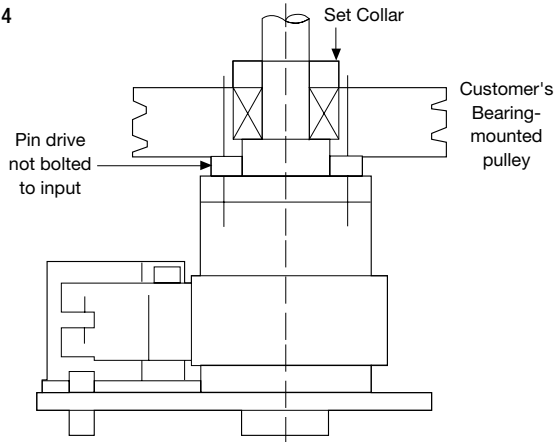
The smaller CB units (sizes 2, 4 and 5) have pilot holes in the output shaft, which guide drilling through the machine shaft for attaching the unit with a pin.

# CB Mounting Requirements

## Vertical Mounting

When it is necessary to mount a unit vertically, mount it so the input hub is oriented in the upward position as illustrated in Figure 4.

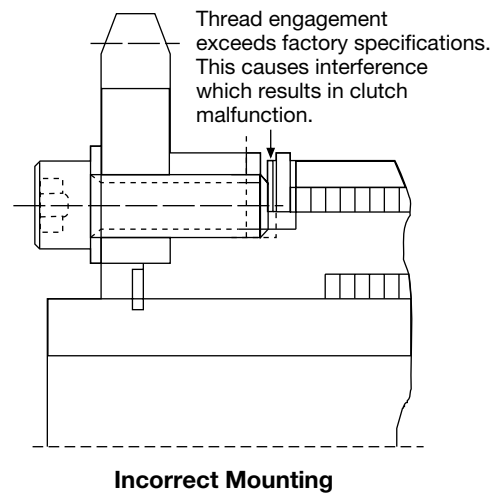
Figure 4



## Thread Engagement Requirements

Just a reminder . . . While mounting a sprocket or pulley to the input hub of your CB-2, CB-4, CB-5, CB-6, CB-8 or CB-10 the screws/bolts used must not protrude through the flange or hub. This will interfere or jam the control collar assembly, therefore causing the clutch to malfunction by failing to “drive” or causing the clutch to “slip.” Please refer to the following chart for maximum thread engagement:

CB-2	= .150 in.
CB-4	= .280 in.
CB-5/Super CB-5	= .350 in.
CB-6/Super CB-6	= .312 in.
CB-8/Super CB-8	= .360 in.
CB-10/Super CB-10	= .500 in.



For further information and/or assistance, please call Warner Electric Technical Support at 800-825-9050.