



EV-1 Assembly Instructions

The EV-1 is a "state of the art" design and although its function may be considered very complicated, it was designed to be very user friendly from its inception. This tech sheet will guide you through the assembly procedure and help you identify the individual components and their relationship to each other, as well as how to service them.

The EV-1 has various bushings and bearings that serve to maintain clearances and provide load surfaces. These items are considered consumables and should be inspected and replaced as necessary.

1 A 10 strut mechanical diode is incorporated into the design of the EV-1 and should be inspected whenever the converter is opened for servicing.

2 24 Safe "D" Bolts (torqued to 27 ft lbs) around the perimeter of the converter secure the two converter halves together, and keep it in constant compression. They have a "d" shaped head that indexes into the billet drive cover. They require only a 12 point, 3/8ths socket on a ratchet to remove the 12 point nuts from them.

During reassembly these nuts should be installed finger tight first in a 12,6,3,9 pattern, then torqued to 27 ft lbs in the same pattern. There are also two offset dowels installed to ensure the two halves are in the proper orientation while they are bolted together.

The two halves of the converter are sealed by an "o" ring. The square cut "o" ring locates on the billet drive cover. This same "o" ring is used on the Ford C-6 Pump, to make it readily available at any local auto parts store. As a general rule the "o" ring should be replaced everytime the converter is opened up.

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3 Two threaded holes are provided in the top half of the converter to permit the use of jacking bolts to separate the halves easily.

4 The Pilot's function is to center the billet drive side of the converter in the rear of the crankshaft. The Pilot on the EV-1 is a .001 press fit. To install it, heat the pilot to expand it, this enables it to easily slip onto the converter. The Pilot also has a threaded hole in its center so a jack bolt can be used to remove it.

5 The Stator uses the same sealed bearing on both sides. These bearings have 5 notches on 1 side. The bearings are to be installed with the notched side toward the Stator.

The back of this tech sheet will identify all the components and their various positions within the converter. This will be your guide when reassembling the EV-1 to ensure the components are in their proper positions and are oriented correctly. This information will also be helpful when ordering replacement parts for freshening up your EV-1.

