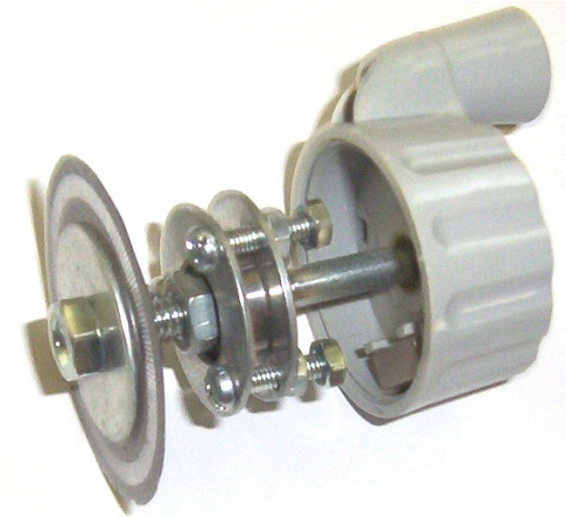


VK3BKO Shaft encoder:



The shaft encoder is made with a roller ball bearing clamped between two Car mud-flap washers. The centers of two washers are drilled to 15mm diameter to allow space for the nuts that clamp the shaft (a bolt) onto the inner part of the roller ball bearing. Three 4mm diameter holes are drilled (120 deg apart) in each washer for three 4mm screws that are used to clamp the bearing between the washers and for mounting the shaft encoder to the front panel.

The shaft is a 1/4 inch bolt with the head cut off. You may need to file the thread on the 1/4 inch bolt to allow the bearing to fit onto the bolt thread. Or use a 6mm outside diameter bolt.

Two Car Mud-flap washers with two nuts clamp the optical disk on to the shaft.

Parts:

4 x Car mud-flap washers, 1.25 inch (31.75mm) outside diameter with 1/4 inch hole.

1 x 1/4 inch bolt (select one that has a shaft 6mm diameter, the size varies) or any bolt with an outside diameter of 6mm.

4 x Nuts to fit above bolt

3 x 4mm 35mm long metal thread screws (cut to length)

6 x 4mm Nuts for above screws

3 x 4mm washers

1 x 6mm inside diameter, 19mm outside diameter, 6mm wide roller ball bearing

1 x knob (with 6mm shaft) (Rockby Electronics - Australia)

Weight to balance the knob (cut a fishing sinker) an unbalanced knob will always turn when you don't want it to.

All the above parts except for the roller ball bearing, fishing sinker and knob can be purchased from BUNNINGS WAREHOUSE (in Australia).

The above shaft encoder was designed to be used with the PIC-a-STAR - PICnMIX Optical disk and Encoder circuit that uses a Honeywell HLC2705 Encoder IC.

Roderick Wall, VK3BKO.