VINKOR ADJUSTABLE POT CORE

ASSEMBLY, ALIGNMENT AND ADJUSTMENT NOTES

The correct assembly and alignment of Vinkor assemblies is essential to ensure a stable component, and to avoid breaking the Ferroxcube cup cores when tightening the fixing bush.

For optimum results the following procedure is recommended: (*This information should be read in conjunction with the exploded view in Fig. 1.*)

ASSEMBLY AND MECHANICAL ALIGNMENT

1. All mating surfaces of the cup cores (7 and 9) should be clean and free from any foreign material. Cleaning can be carried out with most of the normal cleaning fluids, e.g., trichlorethylene, applied with a lint free cloth, or in a cleaning bath.

2. The wound coil former (8) (preferably unimpregnated) should be placed in the cup cores and the leads brought out radially through the appropriate slots. There are two ways of fitting the tag plate (11): the method used depends on the gauge of the lead-out wires and is detailed below.

   (a) **Heavy gauge wire.** Lay the tag plate on the studded end of the core assembly (9) so that the two locating lugs are inserted into the slots of the pot core. Make sure that the datum pip between the soldering tags is correctly orientated, so that the lead-out wires may be taken directly to the tags specified on the wiring diagram. The leads are then soldered to the appropriate tags and the assembly is inserted into the container (10) so that the recesses of the tag plate located in the rolled rim of the container.

   (*b*) **Light gauge wire.** First, place the tag plate in the container and ensure that it is correctly located in the rolled rim. The leads are directed axially out of the slots in the studded end of the pot core assembly, and are then threaded through the appropriate slots in the tag plate as the pot core assembly is inserted into the container. Finally the lead-out wires are soldered to the correct tags with reference to the datum pip and wiring diagram.

3. When the pot core assembly and its associated tag plate are made up and in the container, the correct alignment plug (Fig. 2) is inserted through the central hole of the cores until its shoulder rests on the Ferroxcube core. Place the spring washer (5) over the alignment plug so that the periphery of the washer is in contact with the cup core.

4. Insert the locking plate (4) on top of the spring and rotate it through one eighth of a turn. The locking tab on the edge of the container may now be pressed into the adjacent slot in the locking plate.
5. Screw the short, unslotted end of the fixing bush (3) into the locking plate. The assembly is now properly aligned under the correct pressure and is ready for an inductance check. Before a measurement of inductance is made it is important to remove the assembly plug. It may be preferred to have the fixing bush partly screwed into the locking plate before assembly. There is no reason why this should not be so, provided that the inner end of the bush does not project beyond the surface of the locking plate.
6. For a permanent assembly which is not receiving varnish impregnation it is recommended that a screw locking compound is applied to the threads of the locking plate and fixing bush.
7. If the pot core assembly is to be impregnated then the assembly plug should be replaced with one that has been covered with a suitable releasing agent such as silicone grease. It should be secured in position, e.g., by passing binding wire across the slot in the fixing bush. The thread on the fixing bush should also be protected.
8. After impregnation the assembly plug may be extracted using a 6BA screw as an extractor.

ELECTRICAL ADJUSTMENT

9. Prior to this operation the adjuster has not been involved in the assembly. To avoid accidental damage it should not be screwed in and out of the pot core before the latter is ready for adjustment.
10. Insert the adjuster, screwdriver end uppermost, into the central hole. Using an insulated, non-ferrous screwdriver*, screw the adjuster down in a clockwise direction until it reaches the bottom of its travel, or until it has reached the approximate mid-range position (found by experience and reference to the appropriate adjustment curve). Vary the position of the adjuster until the required inductance or resonance frequency is obtained.
11. Adjustment may either be carried out before incorporating the pot core with its associated equipment or it may be preferred to adjust it in situ.

* A special screwdriver type DT.2047 can be supplied.

(1) Nut

(2) Crinkle washer

(3) Fixing bush

(4) Locking plate

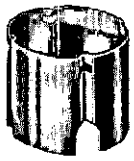
(5) Conical spring washer

(6) Adjuster

(7) Ferroxcube cup core

(8) Coil former single or multi-section

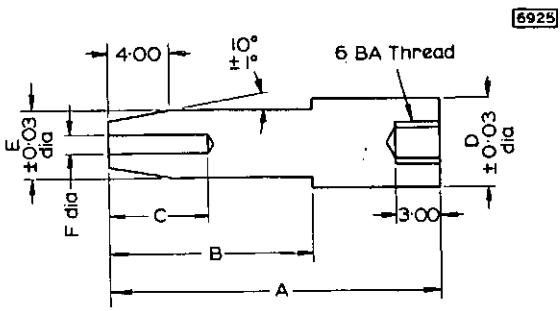
(9) Ferroxcube cup core



(10) Container

(11) Tag plate

Fig. 1. EXPLODED VIEW OF VINKOR ASSEMBLY



All dimensions in mm
Tolerances ± 0·15 unless otherwise stated
Material : Mild steel

Fig. 2

ALIGNMENT PLUG TYPES AND SIZES

DIMENSIONS

Type number	A	B	C	D	E	F	Pot core size
DT2032	19.50	11.00	5.50	5.90	4.55	1.20	18
DT2033	22.00	13.40	6.50	5.90	4.55	1.20	21
DT2034	24.70	15.80	7.50	5.90	5.34	1.50	25
DT2035	27.70	18.60	8.50	8.70	5.34	1.50	30
DT2036	32.00	22.60	10.50	8.70	5.34	1.50	35