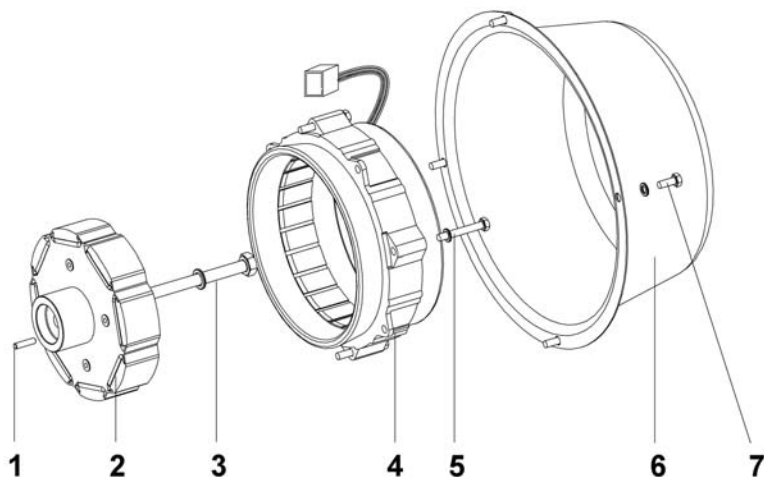


## Service instruction

### UC PMG Upfit Kit 45-0075A



Item	Description	Part Number	No.
1	5D X 20L DOWEL PIN	054-20505	1
2	UC-PMG ROTOR ASSY 34 WIDE	450-1039	1
3	M10X85 HEX HD BOLT SZP	015-41817	1
3	M10 SC LOCKWASHER SZP	028-31509	1
4	WOUND PMG ASSY UC 22/7	450-16077	1
5	UC22/7 PM STATOR BOLT & SPACER	450-15809	4
5	M6 SC LOCKWASHER SZP	028-31507	4
6	UC22/27 PM COVER	450-14360	1
7	M5X12 HEX HD SCR SZP	016-40614	4
7	M5 SC LOCKWASHER SZP	028-31506	4
8	UPFIT INSTRUCTIONS	NP- 060	1

#### Tools required:

17mm, 10mm and 8mm AF spanners

Hammer

Side cutters

0.1 non-magnetic feeler gauge

Draw (pull) wire, for pulling cable harness through

#### Abbreviations:

PMG – Permanent Magnet Generator

NDE – Non Drive End

M10 – 10 Millimetre Diameter bolt/nut

Nm – Newton/meters (force or torque)

AVR – Automatic Voltage Regulator

#### Scope:

Parts for up-fitting a PMG to a Non-PMG generator

## Fitting Instructions.

1. Remove terminal box lid
2. Remove the NDE cover (round sheet steel cover)
3. Remove one NDE air inlet cover
4. Unbolt and remove rotor transit bar (if still fitted) from NDE of the shaft (UC only)
5. Check M10 hole, in NDE of the shaft, is clean, check with the PMG bolt.
6. Knock the dowel pin into the 5mm hole in the NDE of the shaft.
7. Separate the rotors from the stator WARNING the rotor is highly magnetic take care not to damage the components.
8. Remove the plastic bag from the rotor. KEEP away from magnetic dust/dirt.
9. Check the resistances across P2, P3, & P4 on the PMG harness 3.8Ohms
10. Carefully offer the PMG rotor up to the generator shaft until the rotor sits on the dowel in the shaft. Do not use excessive force.
11. Tighten up M10 fixing bolt (to 45Nm) checking that the PMG rotor is correctly located on the shaft end spigot.
12. Feed the PMG harness leads through the hole in the NDE bracket (at the top of the PMG) up past the exciter stator and through the hole in the top cover (The same route as the exciter stator leads F1 and F2). Note HC generators: the harness must pass through a 'P' clip located on the inside of the NDE bracket, Use a draw wire to do this.
13. The PMG stator is mounted directly onto the NDE bracket, (UC22/27 frames ), or ready mounted on a frame which is clamped to the endbracket spigot by means of clamp washers (all HC frame sizes).
14. Offer the PM stator up to the rotor ensuring that the stator goes on squarely. Warning as the rotor is magnetic it will attract the stator bore.
15. Locate the stator approximately in the NDE bracket spigots with plastic connector in the 12 'o' clock position pointing outwards from the machine.
16. Using the hardware provided with the kit, clamp the stator in four positions tighten up evenly to ensure that the stator sits correctly in all four cast spigots.
17. With a 0 – 1mm feeler gauge ensure that there is clearance all the way around the rotor.
18. Connect the PMG harness with the push in connector and secure with cable ties ensure that the cable is clear of rotating parts.
19. When the installation is complete check the output before connecting to the AVR  
50Hz - ~170-180 volts. 60Hz ~ 200 – 216 volts balanced within +/- 1%.
20. Fit the external cover If changing the AVR follow the instruction supplied with the AVR.