N1-GDO 6 Repairs

A. Introduction:

The GDO 6 has been designed to operation domestic roller door requirements. The operations and features are explained in the user manual. If the door is well maintained there is no reason the Opener should require regular servicing.
A PG3 programmer can be a useful service tool that can provide service personnel historic information about the use of the Opener.
The first level of troubleshooting should be to determine if the fault is with the door or the Opener. All Opener repairs should be carried out at a sub assembly level. There are only 5 major sub assemblies.

B. Sub Assemblies:

1. Geared Motor Assembly
2. Control Board
3. Timing Quad Gray Assembly
4. Ring Gear
5. Transformer

1. Geared Motor Assembly #00376

Symptoms: Slow or laboured motor drive, Noisy motor, damaged motor end cap.

The motor assembly includes gears, motor armature and an end bell brush assembly. Although it is recommended to repair by replacement some motor assy can be repaired.

a. Servicing a motor assy will involves the replacement of the end bell (which includes the motor brush contacts)
b. Armature contacts can become carbonised and it recommended clean/polish these contacts.
c. If unable to solve a problem then the complete motor assy should be replaced.

When disassembling the motor, take time to note the exact order of the parts. Incorrect re-assembly can cause excessive current use or make the motor rotate in the wrong direction. It is recommended once assembly is completed to perform a final test by connecting the motor to an external power supply. The current usage should be approximately 1 Amp and the gear rotation should be CLOCKWISE.

2. Control Board #00975

Symptoms: Burnt out motors, no power, will not code in remotes, will not complete limit set up, error code

Repairs to the control board PCB should not be undertaken. It is more economical to repair by replacement. From time to time improvements and extra feature are included with firmware upgrades to the Control Board.

3. Timing Assembly (Quad Gray) #01732

Symptoms: obstruction errors, unable to complete set up, motor drives a small distance and stops, limits move, cracked or damaged plastic parts

Repair by replacement.

4. Ring Gear #16020

Symptoms: door hard to use when Opener disengaged, premature wear on motor assy

The large plastic ring gear connects the Motor assembly to the Door drum. Usually these do not wear out but have been known to be a little out of round. The gear movement is restricted partial during a single rotation. This can be tested with the Opener moved away from the Door drum and disengaged. The force required to rotate the gear should be less than 4Kg force.
Repair by replacement.
When fitting a new gear ensure a small amount of grease is used on the holding washer/cir clip.

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5. **Transformer & EMI terminal #0202X & 01443**
   Symptoms: no power
   Test if the AC voltage is being supplied to the control board. Check the wiring or repair by replacement.

C. GDO 6 Fault Codes:

The faulty status is given by the number of beeps. This is emitted every time the OSC function is activated.

No of beeps		
1	PH2 Fault	Faulty timing assy
2	Gray jump fault	Check timing assy & control board function
3	Missed fault	Check timing assy & control board function
4	Hand fault	Reset unit or replace control board
5	Memory fault	Control board failure
6	Overflow fault	Reset unit or replace control board

D. Typical faults:

- Mechanical faults, motor struggles, small movements
  - Check door weight.
  - Check Motor end bell for signs of damage, loose armature
  - Motor needs servicing
- Not setting limits ALPS
  - Photo sensor faulty, replace timing assy.
  - Control Board faulty
  - Timing assy connection faulty
- Light not working
  - Replace lamps
  - No power
  - Faulty transformer or EMC terminal
  - Faulty control board