

# Operating Instructions

## RDX 4.0 Ground Screw Machine

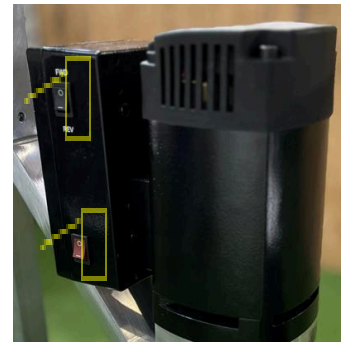


1. There are three switches on the controller.
  - A. Main Power switch (red)
  - B. Forward and Reverse switch FWD / REV (black)
  - C. Motor start switch (red)



B. Forward  
& Reverse

C. Motor  
start switch



### 2. Forward start operation

- Keep all switches to '0' mode before starting the motor.
- Connect the power supply.
- Select the Main Power Switch (A.) to position 'I'
- Select FWD (B.)
- Select Motor Start Switch (C.) to 'I'
- Machine will start to operate forward.
- To stop operation, select Motor Start Switch (C.) to '0'

### 3. Reverse start operation

- Keep all switches to '0' mode before starting the motor.
- Connect the power supply.
- Select the Main Power Switch (A.) to position 'I'
- Select REV (B.)
- Select Motor Start Switch (C.) to 'I'
- Machine will start to operate in reverse after approx. 5 seconds.
- To stop operation, select Motor Start Switch (C.) to '0'

### 4. Repeat the above steps for each new operation.

It is highly recommended to leave in Low Gear (L) as High Gear (H) can be too fast for the operator and reduces the torque significantly.

# The Do's & Don'ts - Please Read



## Do's

Store your machine properly, preferably in a protective case

1. If machines are subject to wet weather dry them off and leave them to air in a dry environment
2. Complete regular maintenance including general cleaning of machine, visual check of cables & brushes
3. Replace carbon brushes when required.
4. Replace power cable if damaged.
5. **Always ensure machine is fully stopped before switching between forward and reverse.**
6. **Always ensure machine is fully stopped before switching between speeds.**

## Don'ts

Leave machine exposed to adverse weather conditions for prolonged periods.

1. **Over stress machine installing incorrect diameter and/or length of screws.**
2. **Switch between forward and reverse whilst machine is running.**
3. **It is highly recommended to leave in Low Gear (L) as High Gear (H) can be too fast for the operator and reduces the torque significantly.**
4. Switch between speeds whilst machine is still running.
5. Continue to use machine if power cable is damaged.
6. Continue to use machine if carbon brushes need replaced



## Machine is intermittently working or comes to a complete stop

We find most of the time this is electrical and is either a broken cable or the machine needs the brushes replaced. The power cable is often subject to being strained whilst the machines are in operation and being moved about between screws. Often the cable breaks where it connects directly to the machine. We would suggest having the power cable replaced by a qualified person and check if your fault is now resolved.

Another common issue is the electrical carbon brushes are worn and need replaced. The brushes create an electrical contact between the fixed wiring and the motor that rotates your drive. Brushes are in pairs and can be easily replaced by removing the faulty brushes and replacing. We recommend these are always replaced in pairs by a qualified and/or competent person. The wear on carbon brushes will vary depending on the machine, the number of hours it is worked and how hard the machine has been worked. Intermittent running, sparking, smoking or a burning odour from the machine can be key indicators that brushes are worn and need replaced.

On rare occasion we have experienced gearboxes have been stripped. Ground screw turning machines are subject to a huge amount of strain, especially when installing ground screws into tough ground conditions. The gearboxes are simple in design, made up of a central input gear and several outer gears. This reduces the input RPM and produces lower RPM and greater torque which is required when installing ground screw.

Turning machines have different torque capacity and are vary in the build quality. If a machine of insufficient capacity is utilised in the installation of ground screws this can cause the gears to be stripped.

## Machine is not working in either forward or reverse

The most common cause for your machine not working in either forward or reverse is a fault on the forward/reverse switch. If the electrical contacts become burnt out the switch will need replaced. The main root cause is operator error, switching the machine between forward and reverse whilst the machine is still running kills the switch.

**Out of everything noted above, the most destructive is switching your machine between forward and reverse before switching the machine off and the drive coming to a complete standstill. This is not only very bad for the electrical unit, but it puts enormous stress on the gearbox with the sudden change of direction. Just think of jamming your car in reverse when it is still travelling forward, you wouldn't would you**

If we can be of any assistance, please do not hesitate to get in touch.