

**TECHNICAL  
MANUAL**

**apollo**

**AV1  
Underwater  
Scooter**

**FRONT COVER**

**A Manual for Repair and Maintenance Technicians**

## CAUTION

This manual is designed to help technicians who are already experienced in workshop procedures and know how to handle tools.

**Only experienced technicians should attempt to use this manual.**

Improper use of tools could result in personal injury or at the least damage to the AV1 scooter.

To use this presentation effectively a parts exploded view must be on hand to determine the correct assembly order plus to check if any parts are missing prior to reassembly.

Throughout the assembly care must be taken when tightening screws into the plastic components, overtightening could result in threads being stripped and the replacement of major body parts.



**AV1**

## **TOOLING REQUIREMENTS**

**No.1 Philip's tip screwdriver**

**No.2 Philip's tip screwdriver**

**Small drill (approx. 1/8")**

**Multi-meter**

**6" Flat blade screwdriver**

**Heavy duty O ring pick**

## FRONT COVER REPAIRS

The majority of repairs carried out on the front cover are due to breakage of the 'on/off' button. Occasionally the technician will be required to replace the reed switch.

The reed switch can be tested by using a multi-meter. The meter must be set to check resistance. Connect as shown to the reed switch pins.

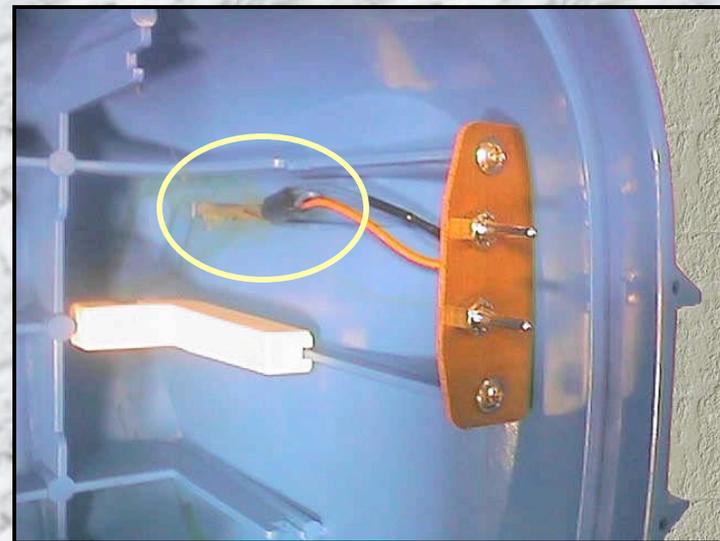


## FRONT COVER REPAIRS

With the multi-meter connected press the on/off button, if the reed switch is functioning the circuit is completed and the meter will display zero.

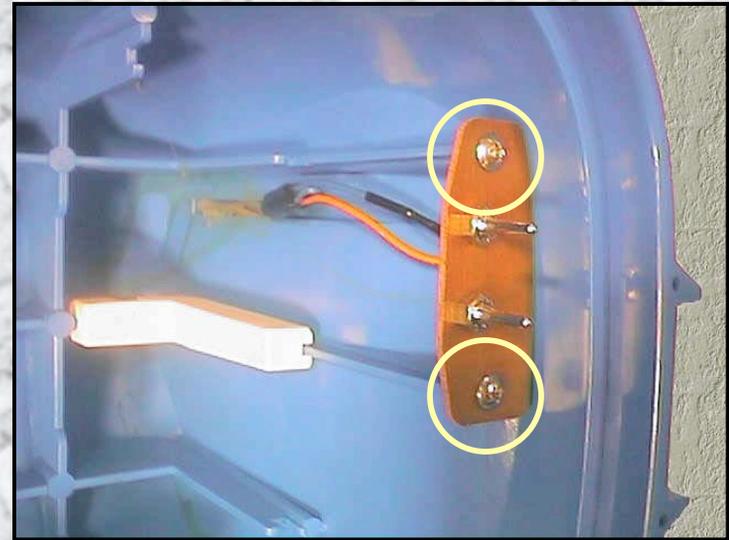


The reed switch is glued to the front cover with contact cement.



## FRONT COVER REPAIRS

If the reed switch requires replacing the whole switch is replaced. Simply remove the two Philip's head screws securing the adaptor plate to the front cover. Then peel out the glued section of the switch.



When gluing the switch back into position be sure to test its position with the multi-meter before finally gluing. If incorrectly positioned it is possible for the reed switch to be 'on' permanently and only turned off by depressing the button.

## FRONT COVER REPAIRS

To replace a broken button, first the screw covers (plastic plugs) must be removed to gain access to the handle cover retaining screws.

Make a small hole in the top of the cover, a twist drill turned by hand can be used to make the hole. **Do not use an electric drill, the head of the screw or the drill will be damaged.** Use a heavy duty probe in the hole a prise out the cover.

There are two Philip's head screws holding the handle outer cover in position. Remove the two screws.

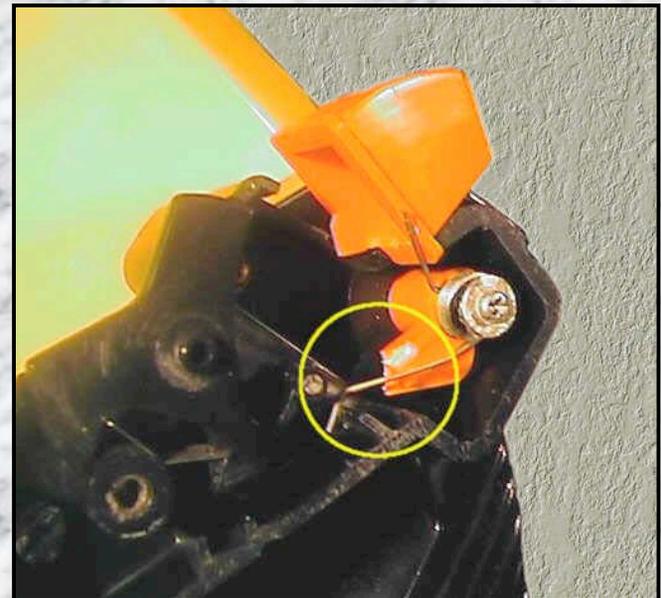


## FRONT COVER REPAIRS

Carefully lift off the cover, if the button is broken parts could fall out including the button return spring.



Note the position of the spring before removing, this could help with refitting. Remove the button retaining screw together with the spring and metal sleeve.



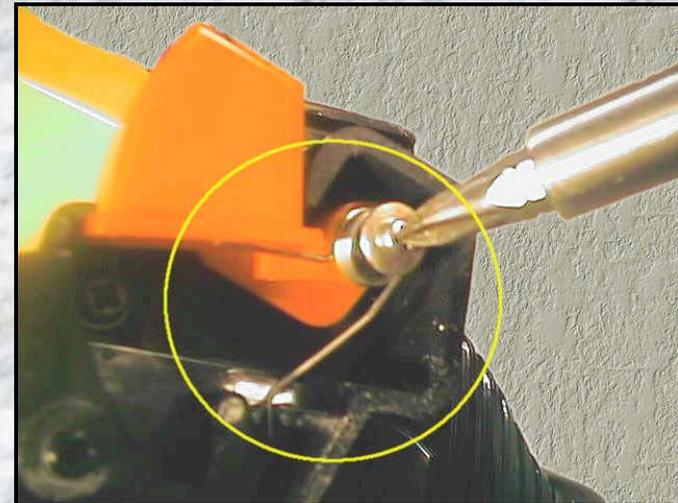
## FRONT COVER REPAIRS

Align the new switch button on the magnet holder shaft.



Fit the retaining screw and spring sleeve. Do not over tighten the screw - it is secured into a plastic thread.

Refit the return spring ensuring it is acting on the button.



## FRONT COVER REPAIRS

Refit the handle cover, secure it with two Philip's head screws and washers. Replace the screw covers with two new items, make sure they are aligned square and push them home by hand.



Other handles on the front cover are removed the same way, first remove the screw covers then undo the securing screws.