

## **Drive Module – Investigation:**

This help sheet will allow you to identify if a drive chip has failed and is causing your system not to function correctly.

1. Use the instructions below to open your controller.
2. Power off the system.
3. Remove all drive module, noting carefully where they came from.
4. Replace one drive module and replace the cover.
  - a. Test the system by powering it on.
5. If there is no fault repeat steps 2 and 3, until the controller shows a fault.
6. Once a fault is located the last drive module installed is the faulty unit.
7. Identify which location this was installed
  - a. Check the accessory attached to that particular connect for any damage, pay particular attention to the cable.
8. Remove the faulty drive chip and continue with step 2 and 3 until all faulty modules have been identified.

Note: The remainder of the unit will function if the faulty drive module is removed, hence if you have spare drive modules in the controller you can temporarily use these to allow the system to continue working while awaiting the replacement drive module.

### **Contents:**

- How to open the case of the H30
- How to open the case of the H29 and ES9
- Identification of drive modules in the H30 and H29.
- Identification of drive modules in the ES9
- Identifying the type of drive modules you have.

## How to open the case of the H30.

### Instructions

1. Ensure the controller is disconnected from all ancillaries and mains power.
2. Unscrew the three cross head screws on the rear of the ProScan controller, as indicated in Figure a.
3. Unscrew the three flat head screws on the top and sides of the ProScan controller as indicated in Figure a.
4. Push the top of the controller away from the front as indicated by the arrow in Figure a.
5. Lift the top of the controller off the unit.
6. Ensure you are static safe.
7. Begin the removal and installation of drive chips, see above.
8. Undo the screws and pull the chip out vertically.
9. When replacing drive chips ensure that the screw holes line up with the screw sockets in the board.
10. Secure the drive chip in place with the supplied screws.
11. Replace the top of the controller and secure with the three flat head and 3 cross head screws.

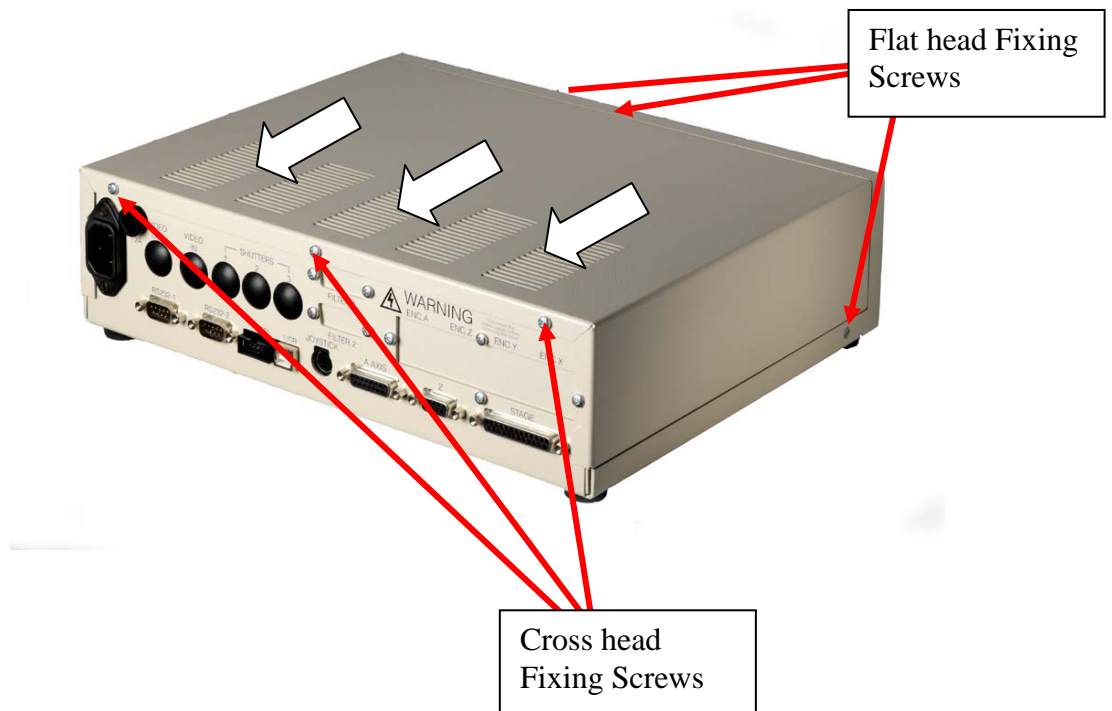


Figure a: Location of ProScan fixing screws.

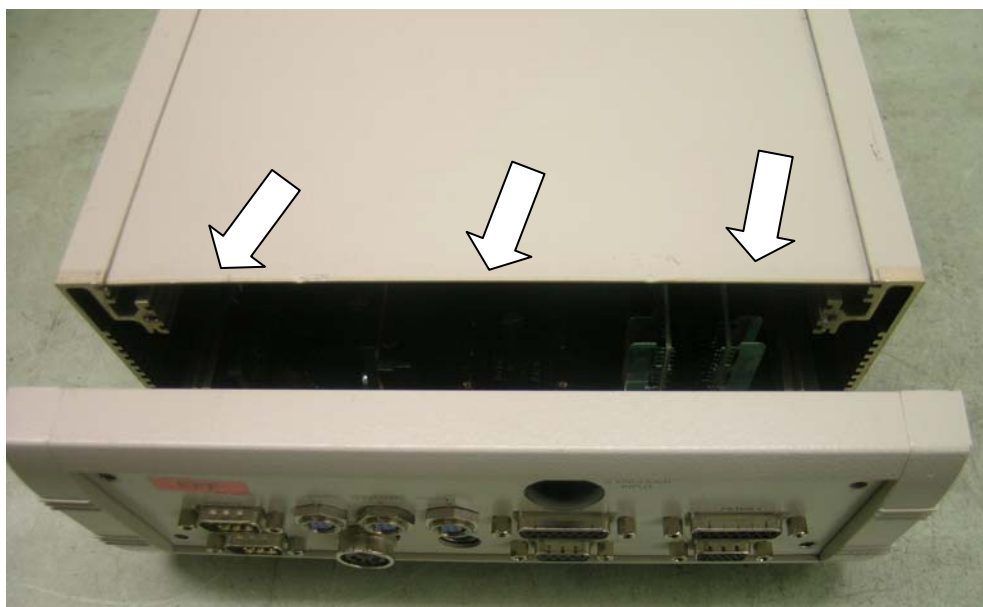
ES9 and H29 controllers can be disassembled in using the following instructions.

#### Instructions

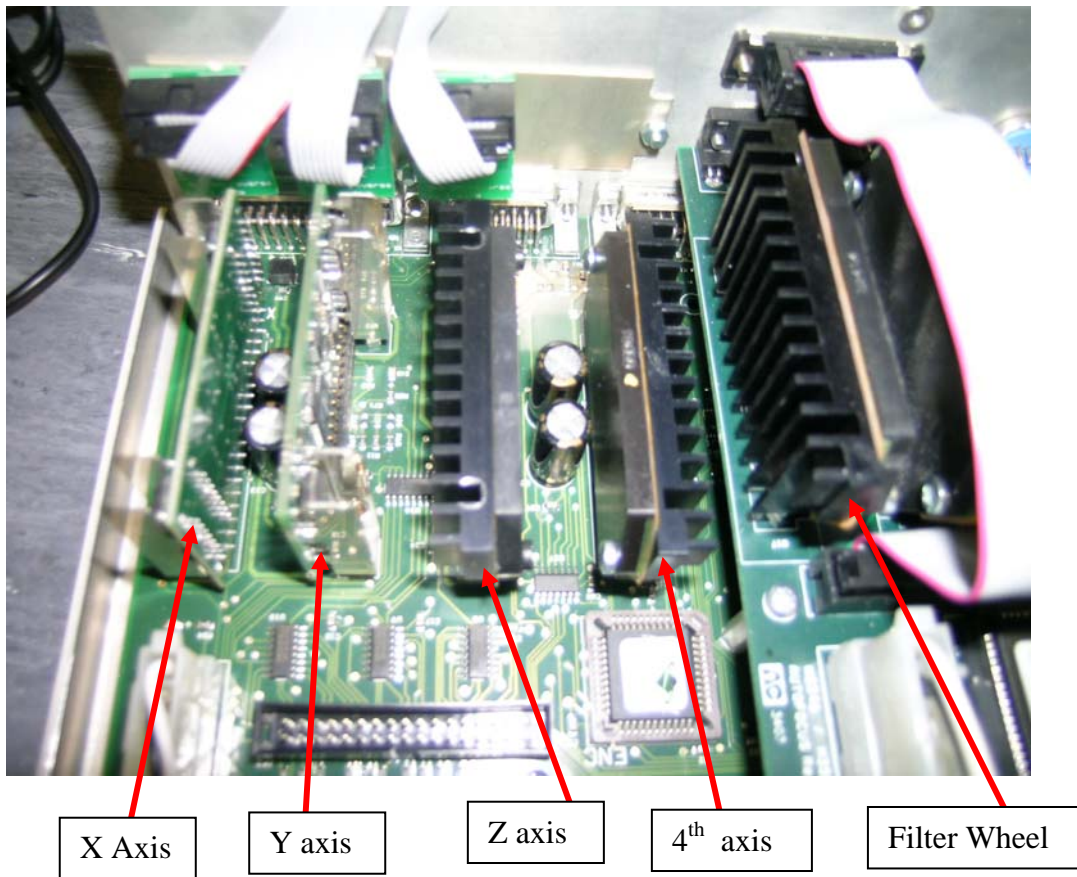
12. Ensure the controller is disconnected from all ancillaries and mains power.
13. Unscrew the four hex nuts at the back of the unit as indicated in Figure a.
14. Pull the back of the controller off the unit, the printed circuit board will pull out of the remainder of the box. **DO NOT** pull the back of the unit all the way out, only pull the back until a third of the board is exposed.



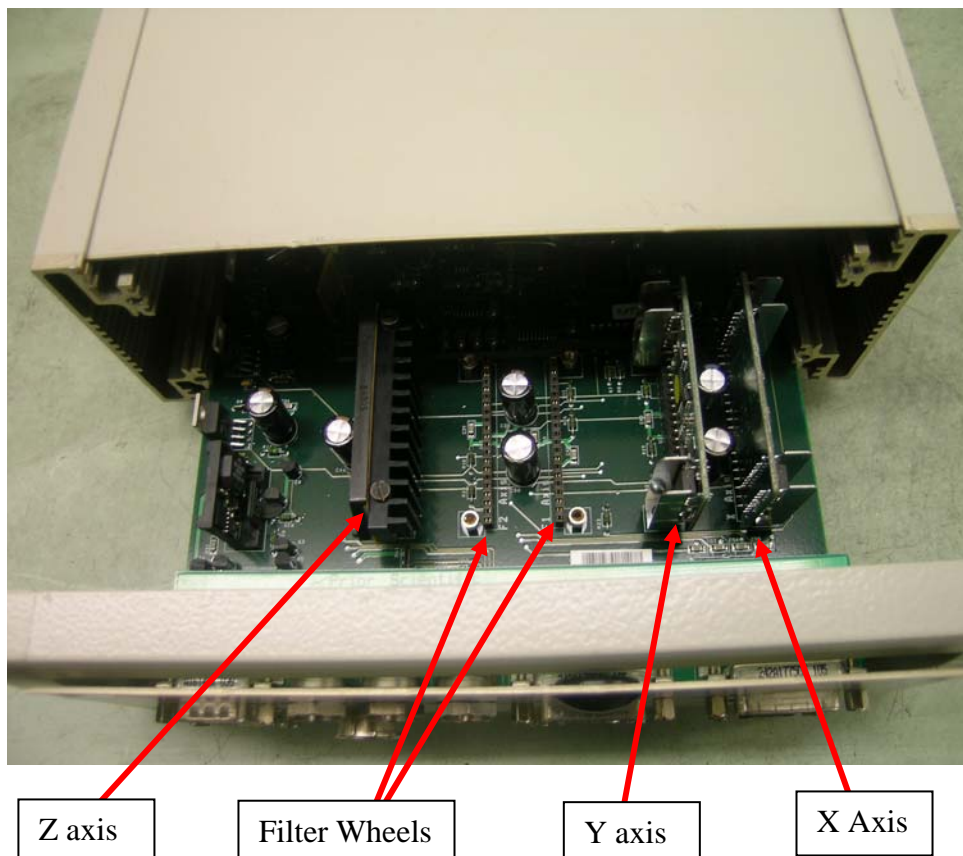
*Figure a: Location of OptiScan fixing screws.*



**Identification of drive modules in the H30 and H29.**



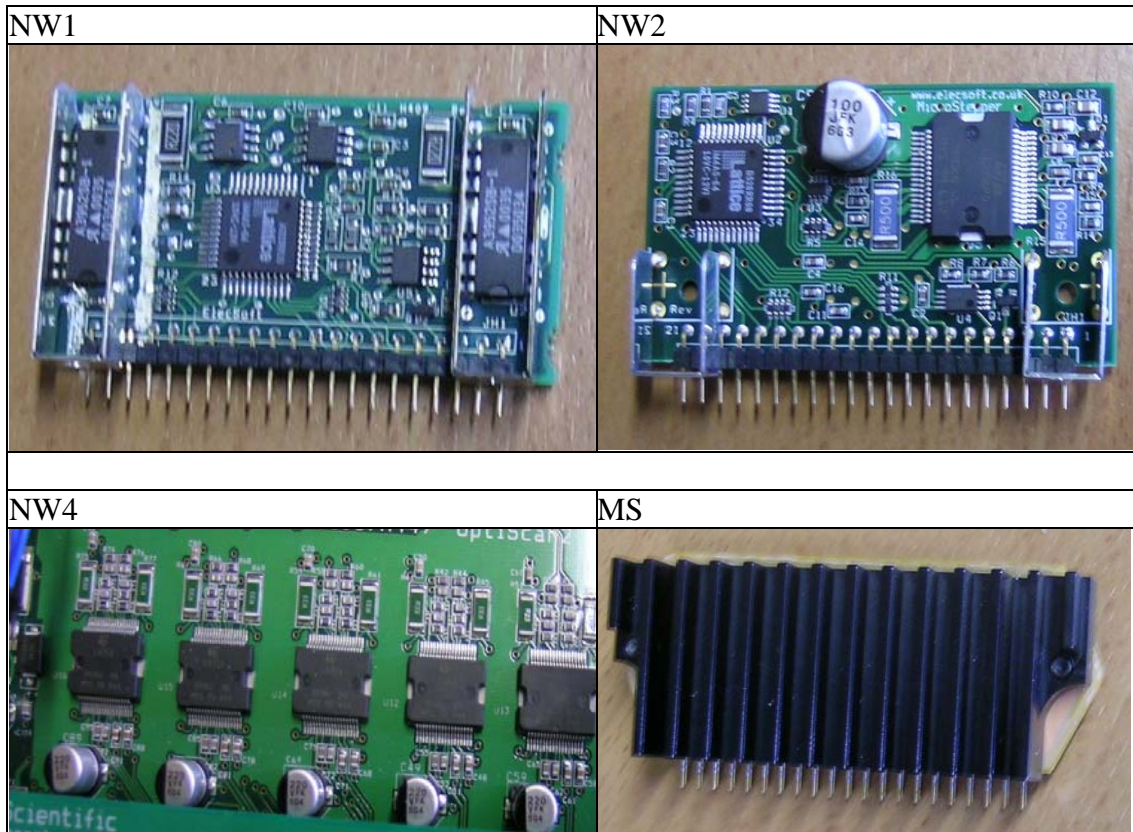
**Identification of drive modules in the ES9.**



## Identifying your drive modules:

There are 5 types of drive chips used in the Prior controllers, NW1, NW2, NW4, MS, MS+. The NW1 and MS are almost obsolete but can be found in older equipment, OptiScan and ProScan, current ProScan II controllers can have NW2 or MS+ chips and OptiScan II controllers have NW4 chips.

The following pictures show the differences between the drive chips.



There is no visible difference between an MS and an MS+ chip.