

# J&S Technical Information

## Refractometer - OF89031

For Testing Antifreeze, Battery Electrolyte and Windscreen Washer Fluid.

### Operation

Aim the front end of the refractometer in the direction of a bright light, and adjust the adjusting ring of diopter (5) until the scales can be seen clearly on the screen.

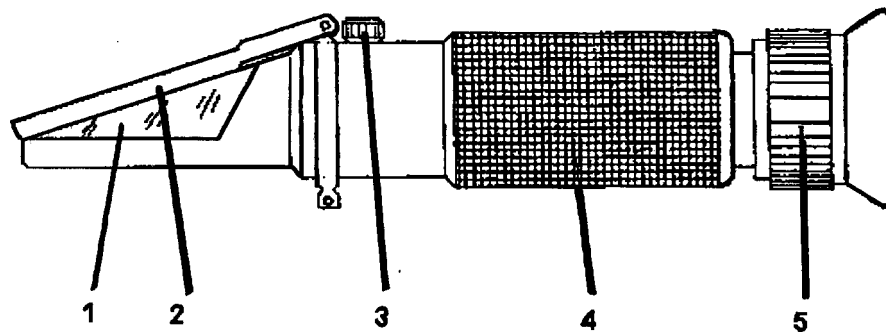
### Calibration

Open the cover plate (2) drop one or two drops of pure distilled water on the surface of the prism (1) close the cover plate and press it lightly, then adjust the correcting screw (3) to make the light/dark boundary coincide with the water line.

Open the cover plate (2) and wipe the water off the surfaces of the prism and cover plate with a soft cloth, then drop one or two drops of the liquid to be tested on the prism surface, close the cover plate and press it lightly.

The reading taken on the light/dark divide is the freezing point of the liquid, or the indication of the state of charge of the battery cell tested.

After use, wipe the liquid off the prism surface and cover plate with a soft cloth.



### Maintenance

Adjusting the calibration and testing the sample should be done under the same temperature, if the temperature fluctuates greatly, the calibration should be repeated once every 30 minutes.

The prism must be cleaned completely, because any residual impurity on it could cause errors when measuring subsequent samples

Because the battery liquid contains sulphuric acid, it must be sampled by using a glass rod or the pipette supplied. Take care to avoid contact with skin and eyes.

After use, do not wash the tool under running water, or the water may get into the tube.

As this is a precision optical instrument, you should handle it gently. Do not touch or scratch the optical surfaces. It should be kept in a dry environment with clean and non-corrosive air, so as to prevent the surfaces turning mouldy or foggy.

Please avoid strong shocks during transportation.

