



UPRS/UFM Mk II

QUICK-START GUIDE

V1.0

The Validation Centre (TVC) Limited

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1.0 Introduction

The UPRS / UFM is designed to enhance the integrity of subsea MPI and has been field-proven over many years' service all over the world. The unit enables measurement of magnetic field strength, ambient visible light, and ultra-violet irradiance with a single subsea module.

The UPRS / UFM allows the user to replicate previous workface MPI conditions on subsequent inspections, thus reducing the probability of spurious or missed indications. Initial inspections benefit from using a known and measured set-up.

TVC have made an improvement on earlier versions of the UPRS / UFM and the unit has a single flying lead to a combined probe head. This contains the UV and visible light sensors, together with the magnetometer probe, dramatically reducing the number of both penetrators and trailing cables.

Power is from internal Ni-MH battery, which will provide over 20 hours of continuous use. The unit will take around 12 hours to recharge from 'Battery Low' indication. The charging circuit allows the system to be recharged with no additional connectors or penetrators, by using the control knob and grab ring as the charging connections.

2.0 UV measurement

Place the measurement head at the position where UV levels need to be measured. Turn the control knob so the knob position indicator is to the right-hand side (*see Image 1, below*)



Image 1

The UPRS / UFM screen will come on and the UV indicator LED will illuminate. For ease of use, the screen background is **blue** to indicate **UV measurement**.

White light measurement

Place the measurement head at the position where white light levels need to be measured. Turn the control knob so the position indicator is at the top (*see Image 2, below*).

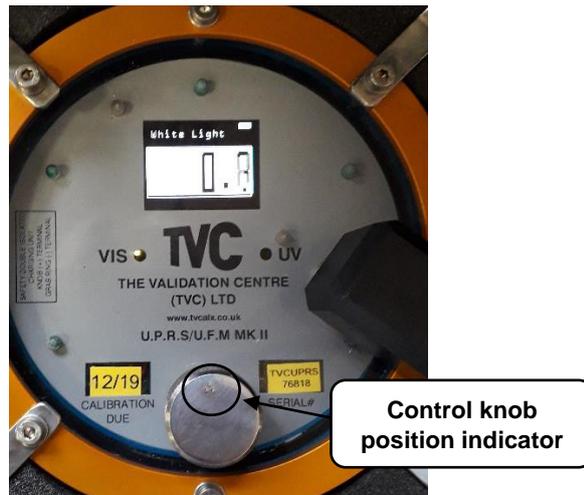


Image 2

The UPRS / UFM screen will come on and the Lux indicator LED will illuminate. For ease of use, the screen background is **white** to indicate **Lux measurement**.

Magnetic field measurement

Place the measurement head prongs at the position where magnetism levels need to be measured. Turn the control knob so the knob position indicator is to the left-hand side (see *Image 3, below*).

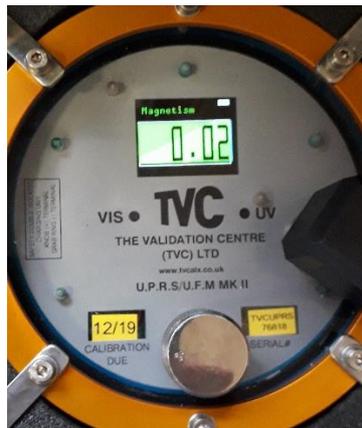


Image 3

The UPRS / UFM screen will come on and the UV and Lux indicator LED's will turn off. For ease of use the screen background is **green** to indicate **magnetism measurement**.

Battery charging

The UPRS / UFM has an internal 6 Volt Ni-MH battery which will last for up to 20 hours of operation. The display has an integral battery indicator, so the user can easily see when the battery requires charging.

To charge the battery, turn off the UPRS / UFM meter by rotating the control knob until the indicator is at the bottom (see *image 4, below*). Ensure the indicator LED's are both off and the screen black.

NB: The UPRS / UFM will not charge when switched on!

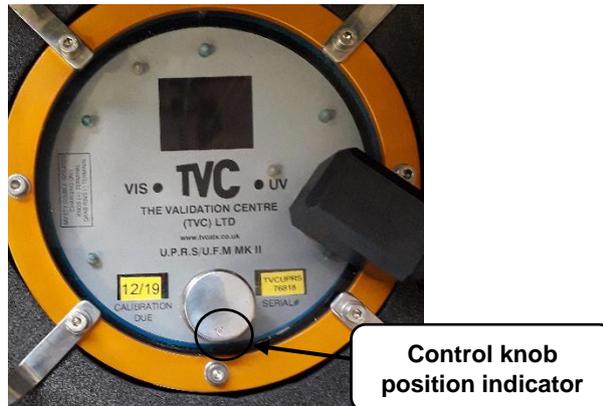


Image 4

Connect the battery charger with the **RED** connection to the control knob and the **BLACK** connection to the grab ring (see image 5, below).



Image 5

NB: Do not reverse these connections as damage to the unit will occur!!

Select the correct mains adaptor and fit to the battery charger. Plug the charger in to a suitable mains outlet. The charger unit will automatically select the correct input voltage within the range of 100 to 240 V AC. The indicator LED on the charger will show the charging status.