

MODUS 2 manual CMM upgrade kit

System overview

A Renishaw manual CMM retrofit transforms your manual machine into a fast 'walk in' measurement facility.

Renishaw's MODUS 2 metrology software suite now includes a manual machine option that provides users of manual CMMs the opportunity to access sophisticated measurement capability with a simple, easy to use tool and support for the complete range of Renishaw's touch trigger probes.

To complement the software, Renishaw has compiled a number of kits to boost the capability and usability of manual machines. As well as the MODUS 2 software, the kits include controller, power supply, 3-way footswitch, scale and readheads for 3 axes (if required), plus all the necessary cabling and connectors.

Upgrade outdated software with MODUS 2 for manual CMMs

MODUS 2 for manual CMMs has been developed to deliver unprecedented levels of clarity and usability, making it readily usable to both expert and occasional users. The software displays the full virtual environment, including: the CMM from its CMM library, the probe head and the part fixture if present.

If an inspection program exists for the part, a series of operator prompts guide the user through the inspection sequence. If no program exists there are three methods available for feature measurement:

- selecting it from the CAD model,
- selecting the feature from the Inspection toolbox,
- simply taking points on the feature and allowing MODUS 2 to automatically detect the feature type.

Quicker and easier machine operation

On manual CMMs the operator often needs to simultaneously hold the CMM and interact with the software. To optimise interaction MODUS 2 supports a touch screen monitor that provides a more convenient alternative to searching for and using the mouse. Additionally, the 3-way footswitch allows hands free interaction for many frequently used functions, such as 'delete point', enabling/disabling the probe and completing a measurement.



Renishaw retrofit machine

UCC MMI controller

The controller in the kit is UCC MMI (manual machine interface) acting as a counter card for the CMM scales and as probe interface for the touch trigger probe.



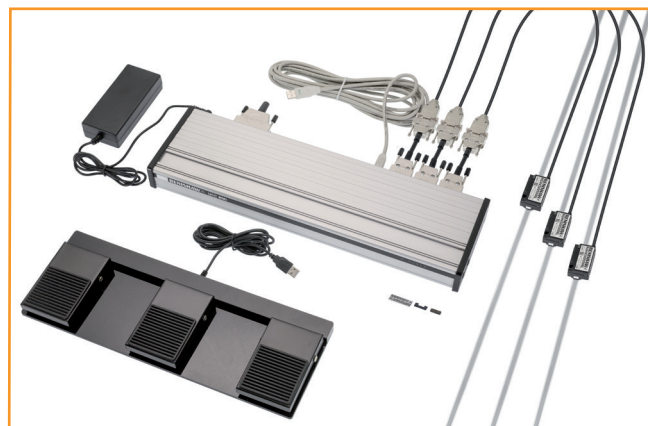
Mechanical adjustments that will transform your machine

If required, an RTL40-S steel scale and RG45 optical encoders are available. The RTL40 steel scale offers optimal resilience and durability, and is very easy and safe to clean.

Kit specification

Competitively priced kit includes controller, software, 3 axes of encoder components and footswitch

- MODUS 2 M3 metrology software with key
- UCC MMI with power supply
- RGH45 and RTL40-S steel scale for 3 axes with reference marks (if required)
- User configurable 3-way footswitch
- Cabling and connection kits.



Part specification	UCC MMI	RGH45/RTL40-S	3-way footswitch
			
Dimensions	Height: 43 mm Depth: 130 mm Width: 435 mm	Height: 44 mm Depth: 27 mm Width: 17 mm <i>Scale length is kit dependent</i>	Height: 30 mm Depth: 130 mm Width: 360 mm
Weight	1.2 kg (without cables)	N/A	0.9 kg
USB	1.1	N/A	2.0
Scale length	N/A	RTL40-S: up to 5000 mm	N/A
Scale pitch	N/A	40 µm	N/A
Read heads	3-axis (x, y, z) read heads	N/A	N/A
Probe connections	TP20, TP1, TP2 and TP6 touch-trigger probes	N/A	N/A
Power supply	24 V, 72 W PSU	N/A	N/A
Digital	YES	Resolutions from 10 µm to 0.1 µm	N/A
Operating temperature	N/A	0 °C to +55 °C	N/A
Thermal expansion	N/A	~ 10.6 µm/m/°C	N/A

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