## **CP40II Cone Penetrometer**

Quick, easy and accurate collection of cone index data combined with GPS co-ordinates

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rimik

Sand Carlin

Available From:

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## **Instrument Features**

#### The instrument of choice for quick, accurate and easy collection of cone-index data.

#### An essential tool for soil studies involving compaction, trafficability and moisture distribution.

Using the CP40II in field, cone index values up to 5600kPa (using the 130mm<sup>2</sup> ASAE cone) can be measured to depths of 750mm and recorded quickly by one person. Insertions are automatically recorded and stored in files that comprise the cone index data in addition to time, date, GPS location and more.

During an insertion the screen will display the following:

- Insertion depth
- Insertion speed
- Cone index value

Once an insertion is completed the screen displays a graph of the data recorded. This affords the operator an immediate visual feedback about the soil profile just recorded. Previously recorded insertions stored in memory can also be displayed.

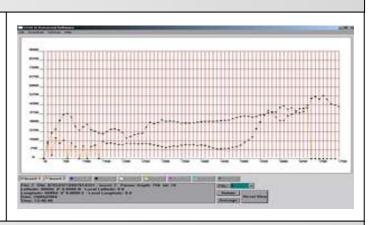
File numbers are automatically incremented at the completion of each file. During each insertion the speed of penetration is constantly monitored. If the set maximum speed is exceeded an alarm will sound or the instrument may optionally terminate the insertion. This ensures the highest quality of data is recorded. A terminated insertion gives the user the option to save truncated insert.

The internal battery voltage is monitored and displayed on-screen. Automatic power off occurs once the battery discharges to a predetermined level. This prevents battery damage occurring if the unit is unintentionally left powered on.

### **Software Features**

#### The software includes the following features:

- Display a graph of all inserts within a file number, as well as an average graph for all inserts within a file number.
- Retrieve data from CP40II, saving for later use with CP40II Software or export to CSV or Excel formats.
- Set CP40II parameters and set a site name with the CP40II Retrieval Software.



## **Specifications**

Assembled Weight (without GPS):	3.9kg	Maximum Insertion Depth	750mm
Packed Weight including case:	11kg	Operating Temperature:	-10 to 60°C
Assembled Dimensions (without GPS):	560x1073x130mm	Baud Rate/Download Speed:	9600bps
Case Dimensions:	470x358x175mm	Battery Life:	30000mAh
Max Small Cone Index:	5600kPa, 75kg	Continuous use without GPS:	11½hrs
Max Large Cone Index:	2200kPa, 75kg	Continuous use with GPS:	8hrs
Resolution:	0.03kg	Standby Time:	26hrs

# Cone Penetrometer Feature Comparison (Export)

FEATURE	CP300	CP40II	
Metric or Imperial Units	M & I	M	
Maximum Depth	750	750	
Battery Voltage	3.0V	6.0V	
Battery Capacity	2400mAH	3000mAH	
Memory (# of insertions)	500	2046	
Insertion Grouping Capability	$\checkmark$	$\checkmark$	
Maximum Group Size	255	10	
Site Name	Fixed	User Set	
Pressure Accuracy	0.50%	0.25%	
Depth Accuracy	+/- 5mm	+/- 2mm	
Depth Increments (Metric)	10/15/20/25	10/15/20/25	
Depth Increments (Imperial)	0.5"/0.75"/1"	×	
Load Cell	100kg	50/75/100kg	
Cone Selection	ASAE Set and EURO Set	ASAE Set and EURO Set	
LCD Screen (2 line x 16 charater)	$\checkmark$	×	
Full Graphic Screen	×	$\checkmark$	
GPS Kit - Optional	×	$\checkmark$	
Wired In-field Insertion Output	$\checkmark$	$\checkmark$	

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COMPONENT	CP300-ASAE	CP300-Euro	CP40II-ASAE	CP40II-Euro
Fitted Case	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Instrument with fitted load cell	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Handles - 2 off	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Shaft - 2 piece	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Target	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Cone - 130mm² @ 30°- ASAE	$\checkmark$	×	$\checkmark$	×
Cone - 323mm² @ 30°- ASAE	$\checkmark$	×	$\checkmark$	×
Cone - 100mm <sup>2</sup> @ 60°- Euro	×	$\checkmark$	×	$\checkmark$
Cone - 200mm² @ 60°- Euro	×	$\checkmark$	×	$\checkmark$
Cone - 330mm² @ 60°- Euro	×	$\checkmark$	×	$\checkmark$
Cone - 500mm² @ 60°- Euro	×	$\checkmark$	×	$\checkmark$
Wear Guide - ASAE	$\checkmark$	×	$\checkmark$	×
Wear Guide - Euro 100/500	×	$\checkmark$	×	$\checkmark$
Wear Guide - Euro 200/330	×	$\checkmark$	×	$\checkmark$
8mm Spanner - 2 off	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
13mm Spanner - 1 off	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
GPS Kit	×	×	$\checkmark$	$\checkmark$
GPS Retaining Knobs	×	×	$\checkmark$	$\checkmark$
Calibration Bolt	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
USB Cable	$\checkmark$	$\checkmark$	×	×
Serial Cable	×	×	$\checkmark$	$\checkmark$
Serial to USB converter cable	×	×	$\checkmark$	$\checkmark$
Rimik Penetrometer Reader Software	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Software Manual	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Instruction Manual	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

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