

# PRODUCT INFORMATION

## OSCILLOSCOPE WOW! SCOPE

POWERED BY



#VEHICLE  
EXPERTEERS



## WOW! SCOPE

Digital oscilloscopes with 2 or 4 channels for measuring signals and quantities on electrical components in the motor vehicle.

# OSCILLOSCOPE WOW! SCOPE

## Article overview

### 4-Channel WOW! Scope Starter Kit in box

Art. no. W070 500 400

### 4-Channel WOW! Scope Standard Kit in case

Art. no. W070 501 400

### 4-Channel WOW! Scope Advanced Kit in case

Art. no. W070 502 400

### 2-Channel WOW! Scope Starter Kit in box

Art. no. W070 500 200

### 2-Channel WOW! Scope Standard Kit in case

Art. no. W070 501 200

## Features and benefits

The unique features that the new diagnostic tools have are real benefits compared to other oscilloscopes and offer essential facilitations to the technicians:

**PicoBNC+ probe detection** improves oscilloscope setup, saving time, reducing errors, and allowing new users to gain confidence and assurance faster than with other oscilloscopes.

**PicoBNC+ powered probes** improve instrument maintenance, which means probes are always ready to use (no more dead batteries!) without battery limitations on the use of current clamps for long-term measurements.

**PicoBNC+ software control** enhances probe setup, providing automatic zeroing of current clamps and other probes, eliminating incorrect probe switch settings, and simplifying probe setup for the user.

**Channel status LEDs** facilitate technician support by clearly identifying which probes need to be connected to which channel and which channels are active.

**Probe swap protection** (with Automotive PicoScope 7) improves connection security, eliminating the possibility of accidental incorrect installation or measurement.

**PicoBNC+ resistance probes** improve measurement options, providing reliable dynamic testing when only resistance specifications are available, as well as real-time resistance change monitoring (wiggle test).

**PicoBNC+ temperature probes** improve measurement options, providing correlation of temperature and air conditioning performance errors to the time axis

## Technical data

Number of channels	4
Vertical resolution	12 bits (16 bits in enhanced resolution mode)
DC accuracy	±1% of full scale (2% on 50mV range)
Sensitivity	10 mV/div to 40 V/div
Input ranges (full scale)	±50 mV to ±200 V in 12 ranges
Input impedance	1 MΩ in parallel with 24 pF
Input type	Floating single-ended PicoBNC+ connector
Input coupling	Software selectable AC/DC
Input overvoltage protection	±250 V (DC + AC peak)
Buffer memory	250 M samples shared between active channels

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Waveform buffer	Up to 10,000 waveforms
Timebase ranges	5 ns/div to 5000 s/div
Bandwidth 2	0 MHz (10 MHz on $\pm 50$ mV range)
<b>MAXIMUM SAMPLING RATE (SINGLE SHOT)</b>	
1 channel in use	400 MS/s
2 channels in use	200 MS/s
3 or 2 channels in use	100 MS/s
<b>TRIGGERS</b>	
Source	Any input channel
Basic triggers	Auto, repeat, single, none
Advanced triggers	Rising edge, falling edge, edge with hysteresis, pulse width, runt pulse, dropout, windowed, logic
Maximum pre-trigger delay	Up to 100 % of capture length
Maximum post-trigger delay	Up to 4 billion samples
<b>SPECTRUM ANALYZER</b>	
Frequency range	DC to 20 MHz
Display modes	Magnitude, peak hold, average
<b>ENVIRONMENTAL</b>	
Operating temperature range	0 °C to 40 °C (15 °C to 30 °C for quoted accuracy)
Operating humidity range	5% to 80% RH, non-condensing
Storage temperature range	-20 to +60 °C
Storage humidity range	5 to 95% RH, non-condensing
<b>PHYSICAL CHARACTERISTICS</b>	
Dimensions	190 x 160 x 40 mm (approx 7.5 x 6.3 x 1.6 in)
Weight	<900 g (approx 2 lb)
<b>GENERAL</b>	
Additional accessories (supplied)	USB cable and Safety Guide
PC interface	USB 3.0 (USB 2.0 compatible)
Power requirements	Powered from USB port
Compliance	FCC (EMC), CE (EMC and LVD), RoHS compliant

## MEANING OF THE MOST IMPORTANT TECHNICAL DATA:

### VERTICAL RESOLUTION

The number of dots in the waveform from top to bottom. "12 bits" means 4,096 dots, which is more detail than you can see on the screen all at once. WOW! Scope stores the extra detail for when you zoom in.

### BANDWIDTH

For faster signals, more bandwidth gives a more faithful reproduction of the signal shape on the screen. WOW! Scope has enough bandwidth to display CAN bus and FlexRay signals accurately.

### WAVEFORM BUFFER

A memory that collects your most recent waveforms. If a waveform disappears off the screen, you can look back through the waveform buffer to find it.

### TRIGGER

This ensures that the scope captures the waveform at the right time and keeps it in a stable position on the screen. WOW! Scope can set up the trigger automatically, but if you want you can select special trigger modes to catch unusual waveforms that you might otherwise miss.

### BUFFER MEMORY

The number of dots in the waveform from left to right. If you don't have enough memory then the waveform won't show all the detail in the signal. WOW! Scope has more than enough memory, so you can zoom in thousands of times and still see a clear display and spot intermittent glitches.

### SAMPLING RATE

Like bandwidth, this is more important for fast signals. A high sampling rate ensures that you catch the high-frequency details of the signal.

# OSCILLOSCOPE WOW! SCOPE

## Delivery 4-Channel WOW! Scope

		4-CHANNEL WOW! SCOPE		
		Starter Kit in box	Standard Kit in case*	Advanced Kit in case*
Content	Article number	W070 500 400	W070 501 400	W070 502 400
1	Cable: USB2 4.5m	X	X	X
2	S Hook	X	X	X
3	Telescopic pack: 45x45 length 80-120mm	X	X	X
4	Finished Product PS4425A-90 WOW branded	X	X	X
5	Small crocodile clip (black)	X	X	X
6	Small crocodile clip (red)	X	X	X
7	Cable: USB 3.0 blue 1.8m	X	X	X
8	Battery clip 4mm socket (red)	X	X	X
9	Battery clip 4mm socket (black)	X	X	X
10	Flexible back pinning probe black	X	X	X
11	Flexible back pinning probe red	X	X	X
12	PicoBNC+ Insulated COP and signal probe	X	X	X
13	PicoBNC+ Test Lead: 4mm permanent ground 3m Blue	X	X	X
14	PicoBNC+ Test Lead: 4mm permanent ground 3m Red	X	X	X
15	PicoBNC+ Test Lead: 4mm permanent ground 3m Green	X	X	X
16	PicoBNC+ Test Lead: 4mm permanent ground 3m Yellow	X	X	X
17	Carry Case: 4425A Standard WOW!-branded		X	X
18	Electronics Acupuncture Probes		X	X
19	4mm shrouded to unshrouded adaptor black		X	X
20	4mm shrouded to unshrouded adaptor red		X	X
21	Breakout lead for ATC style fuses		X	X
22	Extension lead for mini style fuses		X	X
23	PicoBNC+ 2000A current clamp BNC		X	X
24	PicoBNC+ 60A Clamp		X	X
25	Extension lead for JCASE fuse			X
26	Breakout Lead 2 pin ACS			X
27	Extension lead for maxi style fuses			X
28	Premium 4-way breakout lead set new incl. Roll-Punch			X
29	Ultrasonic Parking Sensor Detector			X
30	Keyless Entry Detector			X
31	PicoBNC+ wide-range linear temperature probe			X
32	PicoBNC+ secondary ignition pickup			X
33	PicoBNC+ resistance test lead			X
34	PicoBNC+ automotive 10:1 scope probe Aftermarket			X

# OSCILLOSCOPE WOW! SCOPE

## Delivery 2-Channel WOW! Scope

		2-CHANNEL WOW! SCOPE	
		Starter Kit in box	Standard Kit in case*
Content	Article number	W070 500 200	W070 501 200
1	Cable: USB2 4.5m	X	X
2	S Hook	X	X
3	Telescopic pack: 45x45 length 80-120mm	X	X
4.1	2-channel 4225A-090 Scope - WOW	X	X
5	Small crocodile clip (black)	X	X
6	Small crocodile clip (red)	X	X
7	Cable: USB 3.0 blue 1.8m	X	X
8	Battery clip 4mm socket (red)	X	X
9	Battery clip 4mm socket (black)	X	X
10	Flexible back pinning probe black	X	X
11	Flexible back pinning probe red	X	X
12	PicoBNC+ Insulated COP and signal probe	X	X
13	PicoBNC+ Test Lead: 4mm permanent ground 3m Blue	X	X
14	PicoBNC+ Test Lead: 4mm permanent ground 3m Red	X	X
17	Carry Case: 4425A Standard WOW!-branded		X
18	Electronics Acupuncture Probes		X
19	4mm shrouded to unshrouded adaptor black		X
20	4mm shrouded to unshrouded adaptor red		X
21	Breakout lead for ATC style fuses		X
22	Extension lead for mini style fuses		X
23	PicoBNC+ 2000A current clamp BNC		X
24	PicoBNC+ 60A Clamp		X

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## Delivery pictures

