

Palintest®



SOIL KITS

DRINKING WATER WASTEWATER **SOIL** PROCESS WATER POOL AND SPA

Who we are

Palintest aim to be the best global provider of water and environmental analysis equipment that enable critical environmental decisions to be made with confidence.

Palintest develop, manufacture and support a comprehensive range of advanced water and environmental testing equipment. From our United Kingdom headquarters we export to over 100 countries across the globe. Our products are used in a wide variety of applications to protect the environment and safeguard public health.

Part of the successful Halma plc, since 1983, our roots begin in the 1870s with the Wilkinson & Simpson Ltd. manufacturing facility and include Dr Thomas Palin's development of the DPD method, the standard approach for disinfection control worldwide.

Palintest today has a worldwide workforce with local offices in China, Australia, USA and the Middle East. For your local Palintest contact see the back cover of this brochure or visit www.palintest.com.



A HALMA COMPANY

Soil Nutrient Testing

Soil is a precious but non-renewable resource, sustaining life across the globe by providing the basis for healthy food production, fuel, fibres for clothing and medicinal products. Protecting and managing soil health demands a focus on soil macronutrients and micronutrients to ensure soil is capable of supporting a growing population while protecting the environment.



With 30 years of development and manufacturing experience included, Palintest soil test kits deliver:

- Simplified soil testing methods validated against standard laboratory approaches
- Suitability for field or laboratory use – provided in robust field cases for in-the-field soil testing using simple test methods that are equally applicable to soil test labs requiring an economical nutrient testing solution
- Data management and technical support – store, share, manage and map the soil analysis data produced using the Aqua Pal app and secure Palintest Portal. Access a complete range of supporting information via our website

Find out more about the soil nutrient parameters and test kit options available in the Palintest Soil Kit range using our handy selection guide overleaf.

Choose Your Soil Kit

						
		SK 100 Soil pH/Lime Requirement Kit	SK 200 Soil Fertility Kit	SK 300 Soil Management Kit	SKW 400 Professional Soil Management Kit	SKW 500 Complete Soil Kit
Parameter	Soil pH	•	•	•	•	•
	Lime Requirement	•	•	•	•	•
	Nitrate Nitrogen (N)		•	•	•	•
	Phosphate Phosphorus (P)		•	•	•	•
	Potassium (K)		•	•	•	•
	Magnesium (Mg)			•	•	•
	Calcium			•	•	•
	Conductivity			•	•	•
	Salinity				•	•
	Aluminium					•
	Ammonia Nitrogen					•
	Chloride					•
	Copper					•
	Iron					•
	Manganese					•
	Sulphate Sulphur (S)					•
Test Equipment	Soiltest 10 Bluetooth				•	•
	N/P/Mg Tester Block		•	•		
	Double Tube Assembly (K)		•	•		
	Multiparameter Pocket Sensor				•	•
	Soil pH Tester Block	•	•	•		
	Pocket Conductivity Sensor			•		
Case		Hard case with protective foam inner	Soft shoulder case with protective foam inner	Soft shoulder case plus hard case, both with protective foam inner	IP67 Waterproof case with integral work surface	IP67 Waterproof case with integral work surface

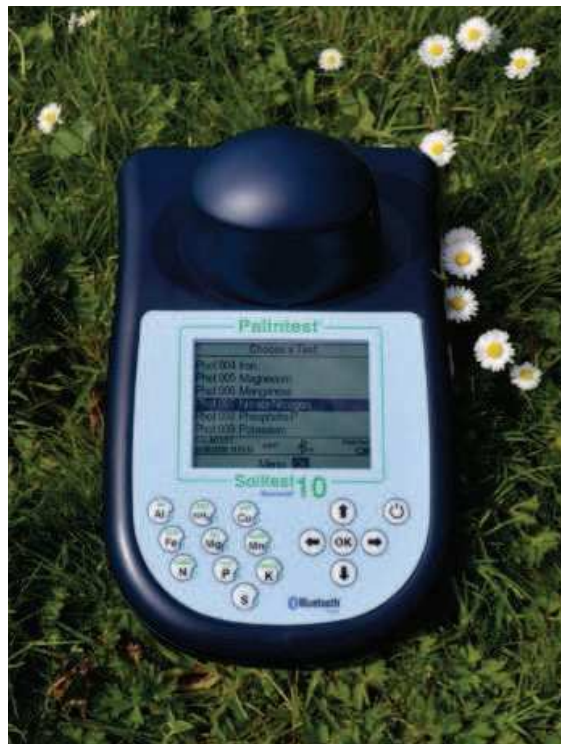
Introducing the Soiltest 10 Bluetooth®

Now with Bluetooth SMART connectivity, the Soiltest 10 Bluetooth® delivers accurate soil nutrient testing in a robust and portable photometer.

Features include:

- Mains or battery powered and completely waterproof – ideal for portable use during field soil nutrient studies or permanently sited in the laboratory
- Complete range of parameters – access the 10 tests directly from the keypad and add up to 30 more methods as required
- Bluetooth® SMART and USB connectivity – download results from the 500 data point memory using either the waterproof USB port or Bluetooth SMART connection to iOS or Android devices

The Soiltest 10 Bluetooth is included in both the SKW 400 Professional Soil Management Kit and the SKW 500 Complete Soil Kit.



Technical Specification

Instrument Type	Dual light source colorimeter offering direct-reading of pre-programmed test calibrations, Absorbance and Transmittance.
Peak Wavelengths:	450nm, 500nm, 550nm, 570nm, 600nm, 650nm
Accuracy:	±1.0% T
Display:	320 x 240 pixel LCD with backlight and contrast adjustment for all light conditions
User Interface:	On-screen prompts available in English, French, Spanish, German, Italian, Turkish and Mandarin (Chinese).
Size (W x L x H) and Weight	150 x 250 x 70mm, 975 g
IP Rating:	IP67
Power Supply	3 x 1.5v 'AA' batteries, mains power delivered via USB port
Connectivity	Palintest Bluetooth SMART (4.0) profile and USB for data download, software upload
Memory Capacity:	Up to 500 data sets. Each data set includes date, time, Sample ID, Operator ID, method number, method name, result, units

SKW 500 Complete Soil Kit

Combining the accuracy of the Soiltest 10 photometer with the simplicity of Palintest soil test methods, the SKW 500 provides agronomists, soil scientists and farming professionals alike with a robust portable soil laboratory for macronutrients and micronutrients.



The SKW 500 includes:

- Simple yet reliable test protocols for macronutrients (soil pH, N/P/K), micronutrients and trace minerals including sulphur, manganese and magnesium
- Includes the waterproof and Bluetooth-enabled Soiltest 10 photometer plus the Multiparameter Pocket Sensor for laboratory accuracy in the field
- Provided in an IP67 rugged field case including all reagents and apparatus to begin soil testing immediately

Packed with 30 years of experience of simplifying soil nutrient testing, the SKW 500 Complete Professional Soil Kit brings the soil laboratory to the field.

Ordering Information

SKW 500	Complete Soil Kit
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Technical Specification

Size (W x L x H)	555 x 428 x 211 mm
Weight	10.5 kg



Soil tests included:

Parameter	Range*
Soil pH	0 - 14
Lime Requirement	0 - 34 tonne/ha
Conductivity	0 - 19.9 mS/cm
Salinity	0 - 1%
Nitrate Nitrogen	0 - 25 mg/I N
Phosphate Phosphorus	0 - 150 mg/I P
Potassium	0 - 450 mg/I K
Magnesium	0 - 500 mg/I Mg
Calcium	0 - 2500 mg/I Ca
Aluminium	0 - 50 mg/I Al
Ammonia	0 - 75 mg/I N
Chloride	0 - 1000 mg/I Cl
Copper	0 - 25 mg/I Cu
Iron	0 - 25 mg/I Fe
Manganese	0 - 25 mg/I Mn
Sulphur	0 - 300 mg/I S

*Ranges can be extended

SKW 500 Complete Soil Kit Contents

Photometric Testing Hardware	Soiltest 10 Bluetooth, waterproof USB cable, cuvette rack, 8 cuvettes, Check Standards set with certificate
Electrochemical Testing Hardware	Multiparameter Pocket Sensor, pH 4.0/7.0/10.0 buffer solutions, conductivity calibration standard
Reagents	Complete reagent set for 50 tests per each specified parameter including extraction and test reagents
Sample Preparation/Accessories	De-ion pack, soil sample bags, soil scoops, filter funnels and paper, sample container/dilution tubes, syringes, crush/stir rods, cuvette brush
Ancillaries	Integrated work surface, instructions, protective foam inserts, IP67 waterproof lockable carry case

SKW 400 Professional Soil Management Kit

The SKW 400 Professional Soil Management Kit provides fundamental soil nutrient testing capability with the space to add up to seven additional soil reagent packs.



Packed with robust soil testing hardware using simplified versions of laboratory soil testing methods, the SKW 400 includes:

- Simple, field-ready soil test methods for macro nutrients (soil pH, N/P/K), calcium, magnesium and conductivity
- Includes both the Bluetooth SMART enabled Soiltest 10 photometer and the Multiparameter Pocket Sensor
- Protected by a waterproof field case with integral work surface for soil testing in any location

Make the critical soil nutrient decisions in the field using the SKW 400 Professional Soil Management Kit.

Ordering Information

SKW 400	Professional Soil Management Kit
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Technical Specification

Size (W x L x H)	555 x 428 x 211 mm
Weight	9.5 kg



Soil tests included:

Parameter	Range*
Soil pH	0 - 14
Lime Requirement	0 - 34 tonne/ha
Conductivity	0 - 19.9 mS/cm
Salinity	0 - 1%
Nitrate Nitrogen	0 - 25 mg/l N
Phosphate Phosphorus	0 - 150 mg/l P
Potassium	0 - 450 mg/l K
Magnesium	0 - 500 mg/l Mg
Calcium	0 - 2500 mg/l Ca

*Ranges can be extended

Kit Contents

Photometric Testing Hardware	Soiltest 10 Bluetooth, waterproof USB cable, cuvette rack, 8 cuvettes, Check Standards set with certificate
Electrochemical Testing Hardware	Multiparameter Pocket Sensor, pH 4.0/7.0/10.0 buffer solutions, conductivity calibration standard
Reagents	Complete reagent set for 50 tests per each specified parameter including extraction and test reagents
Sample Preparation/Accessories	De-ion pack, soil sample bags, soil scoops, filter funnels and paper, sample container/dilution tubes, syringes, crush/stir rods, cuvette brush
Ancillaries	Integrated work surface, instructions, protective foam inserts, IP67 waterproof lockable carry case

SK 300 Soil Management Kit

Measure soil pH, conductivity, N/P/K, magnesium and calcium using simple visual test methods in a durable soil test kit designed for field use.



The Palintest SK 300 Soil Management Kit delivers soil nutrient testing for crop yield improvement and plant nutrition monitoring. The kit includes:

- Visual test equipment and reagents for soil pH, lime requirement, nitrogen (N), phosphorus (P) and potassium (K) macronutrients plus magnesium and calcium testing
- Pocket Conductivity Sensor for soil conductivity and soluble salt testing for areas of salinization concern
- Provided in a shoulder bag and hard case containing all components required to commence soil testing immediately

Manage soil and crop nutrition effectively using the simple visual soil test methods and Pocket Conductivity Sensor included in the SK 300 Soil Management Kit.

Ordering Information

SK 300	Soil Management Kit
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Kit Contents

Visual Testing Hardware	Soiltester for soil pH. Soiltester for Nitrogen (N), Phosphorus (P) and Magnesium (Mg). Double Tube Assembly for Potassium (K). Tablet count container for Calcium (Ca)
Electrochemical Testing Hardware	Pocket Conductivity Sensor for soil conductivity and salinity including calibration standard
Reagents	Complete reagent set for 50 tests for soil pH, lime requirement, nitrogen, phosphorus, potassium, magnesium and calcium including extraction and test reagents
Sample Preparation/Accessories	De-ion pack, soil sample bags, soil scoops, filter funnels and paper, sample container/dilution tubes, syringe, crush/stir rods, cuvette brush
Ancillaries	Shoulder bag and hard case

SK 200 Soil Fertility Kit

Measure soil pH and N/P/K in a simple visual soil test kit containing reagents and hardware for effective soil fertility monitoring.



The Palintest SK 200 Soil Fertility Kit is ideal for agricultural soil testing and soil nutrient studies:

- Measure soil pH, lime requirement and nitrogen, phosphorus and potassium (N/P/K) macronutrients using simple visual soil testing methods
- Complete soil test kit including reagents and hardware contained in a single shoulder case
- Developed specifically for portable use by a range of users such as agronomists, farming and fertiliser professionals

Improve crop yield and protect the environment from over-fertilisation with simple soil macronutrient testing in a portable soil test kit.

Ordering Information

SK 200	Soil Fertility Kit
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Kit Contents

Visual Testing Hardware	Soiltester for soil pH. Soiltester for Nitrogen (N) and Phosphorus (P). Double Tube Assembly for Potassium (K).
Reagents	Complete reagent set for 50 tests for soil pH, lime requirement, nitrogen, phosphorus and potassium including extraction and test reagents
Sample Preparation/Accessories	De-ion pack, soil sample bags, soil scoops, filter funnel and paper, sample container/dilution tubes, crush/stir rods, cuvette brush
Ancillaries	Shoulder bag

SK 100 Soil pH and Lime Requirement Kit

Soil pH is the most important single parameter for soil testing, providing not just information about the acidity or alkaline nature of soil but also the availability of key nutrients.



The Palintest SK 100 Soil pH and Lime Requirement Kit delivers simple visual testing for horticulturalists, professional gardeners and farmers. Included in the SK 100 are:

- pH Soiltester and reagents for 50 tests
- clear visual soil pH testing with no requirement for calibration or maintenance
- Lime Requirement buffer tablets – enhance soil pH testing by a simple follow-on test to calculate lime dosing needs
- Provided in a robust field case to protect and store kit components including the unique Mini De-ion bottle

The SK 100 is a fundamental part of every crop or plant professional's toolkit, delivering rapid and reliable soil pH and lime requirement testing.

Ordering Information

SK 100	Soil pH and Lime Requirement Kit
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Kit Contents

Visual Testing Hardware	Soiltester for soil pH and lime requirement
Reagents	Complete reagent set for 50 soil pH and lime requirement tests
Sample Preparation/ Accessories	Mini De-ion bottle, soil scoop, crush/stir rod, cuvette brush
Ancillaries	Hard case

Soil Test Reagents

Formulated specifically for simplified soil test methods, Palintest Soil Test Reagents are provided in a convenient format for both field and laboratory use.

Key features include:

- Tablet format reagents - stable for up to 10 years, easy to use and suitable for any location
- Available as convenient Combination Packs including both Extract and test reagents and as individual reagent packs

Each pack contains sufficient reagents for at least 50 tests as standard

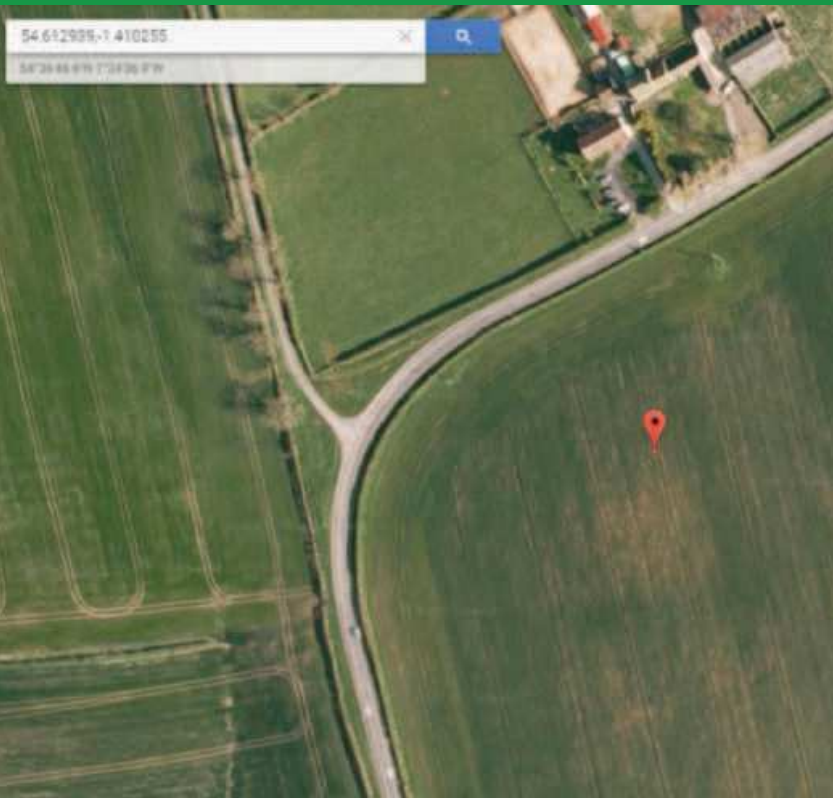
Palintest Soil Test Reagents are compatible with current and previous model Soil Test Kits.

		Combination Packs									
		SKR 001 Soil Nitrogen Pack	SKR 002 Soil Phosphorus Pack (V)	SKR 003 Soil Phosphorus Pack (P)	SKR 004 Soil Potassium Pack	SKR 005 Soil Magnesium/Calcium Pack	SKR 006 Soil Aluminium Pack	SKR 007 Soil Ammonia Pack	SKR 008 Soil Copper Pack	SKR 009 Soil Iron Pack	SKR 010 Soil Manganese Pack
Part Code	Description										
ST-2106	Extract N Powder	•									•
ST-2116	Extract P		•	•							
ST-2127	Extract K Powder				•						
ST-2136	Extract A					•	•	•			
ST-2146	Extract C								•	•	
ST-2200	Soil pH										
ST-2210	Lime Buffer										
ST-2237	Nitratetest N Powder	•									•
ST-2240	Nitricol N	•									
ST-2260	Phosphate P		•	•							
ST-2275	Acidifying S			•							
ST-2276	Acidifying S		•								
ST-2280	Potassium K				•						
ST-2297	Calcium S					•					
ST-2320	Ammonia S							•			
ST-2345	Aluminium S						•				
ST-2367	Chloride S										
ST-2370	Iron MR S									•	
ST-2395	Manganese S										•
ST-2410	Sulphate S										
ST-2440	Magnecol S					•					
ST-2455	Coppercol S							•			

Individual Packs

Soil Kit Accessories

Boost your soil test kit with mobile soil data management, result sharing and secure data storage. Replace or replenish key hardware with the SK 600 Soil Kit Accessory Pack.



Aqua Pal App and the Palintest Portal

Download the free Aqua Pal app for iOS and Android devices and enjoy:

- Automatic upload of soil test data from the Soiltest 10 Bluetooth and manual upload of soil results from alternative test equipment
- Manage, share and GPS tag soil test results from any location when field testing
- Store, report and share data from the secure Palintest Portal using any internet browser

The Aqua Pal app integrates with the Palintest Portal for enhanced data reporting and control.



SK 600 Soil Kit Accessory Pack

Replenish components in your soil test kit with a convenient pack containing a selection of the most commonly required replacement hardware.



Ordering Information

SK 600	Soil Kit Accessory Pack
Contents	De-ion pack, filter funnel, filter papers, soil sample bags, soil scoops, sample container/dilution tubes, syringes, crush rods, cuvette brush