



**BUCKLEYS**

MANUFACTURERS OF SPECIALIST TEST EQUIPMENT

# Flat Roof Leak Detectors

locate roof leaks in wet or dry weather conditions



# Dry Roof Pro'

Our Dry Roof Pro' enables inspectors to quickly and effectively test non-conductive roof finishes (such as bitumen, liquid-applied, single-ply and asphalt) for pinholes, porosity and other defects.



The Dry Roof Pro' provides a rapid method of testing a wide range of roofing membrane types and thicknesses of between 64µ and 25.6mm. The kit contains everything required to start testing immediately (even batteries and charger), all contained in a robust, high-visibility transit case.

The Dry Roof Pro' utilises the non-conductive properties of roof membranes as an electrical insulator. As the detector passes a defect in the membrane, the current required to complete an electrical circuit reduces due to the lower dielectric strength of the membrane. As an electrical circuit is created, current 'jumps' the gap to earth; triggering the detector unit's alarm.

**Buckleys' Dry Roof Pro' can test up to 2,000m<sup>2</sup> per day and can pinpoint the exact location of leaks and faults; even if they are invisible to the naked eye.**

## Features

- Test up to 2,000m<sup>2</sup> per day
- Pinpoint leaks which are too small to see with the naked eye
- Easy to use
- Audible & visual alarm indicators
- Clear LCD with backlight
- Automatic voltage selector
- Accurate sensitivity control
- Volume control for quiet environments
- Membrane keypad operation
- Microprocessor controlled
- Power limited to avoid coating damage
- One year back-to-base warranty
- Wide range of accessories and electrodes available



## Specifications

- Output voltage range: 2 to 40kV DC
- Sensitivity range: 10 to 450µA (pre-set to 350µA)
- Coating thickness range: 64µm to 25.6mm
- Built-in test voltage formula: NACE SP0274
- Battery type: D-Cell/LR20
- Battery life: 8 hours approx.
- Altitude: Up to 2000m
- Unit weight: 1.64Kg
- Unit dimensions: 172mm x 85mm x 235mm
- Handle weight: 720g
- Handle dimensions: 290mm x 85mm
- Packed weight: 13.6kg
- Packed dimensions: 510mm x 250mm x 630mm

## What's in the kit?

- Dry Roof Pro' unit, interconnecting lead & probe handle
- 2 x 332mm mid-section extension rods
- 1 x 332mm end-section extension rod
- Knurled thumb-nut & back-nut
- 450mm phosphor-bronze brush electrode
- Stainless-steel drum-brush electrode
- Pointed probe electrode
- Battery charger and 4 x rechargeable batteries
- 5m earth lead on reel
- 50m earth extension lead
- Shoulder bag
- Test voltage calculator
- ESD Anti-static wristband
- Instruction manual with calibration certificate
- Supplied in robust, loam-lined transit case



# Wet Roof Pro'

The Wet Roof Pro' has been designed to locate leaks on flat roofing systems which incorporate dielectric membrane overlays such as single-ply, asphalt, bitumen and liquid applied roofs. The Wet Roof Pro' uses the conductive properties of water (from either rainfall or a hose) to pinpoint leaks.



The kit comprises two main elements; a generator unit and a detector unit. The generator unit creates an electrical field across the roof surface via a 'boundary wire' which is positioned around the perimeter of the test area and connected to the positive terminal on the generator unit. The negative terminal is connected to a suitable earth on the building's structure.

Leaks in the roof membrane allow water to penetrate to the building's structure; creating a short circuit. The detector unit is connected to two hand-held test probes which are held in contact with the roof surface.

Capable of testing up to 400m<sup>2</sup> per day, the detector unit is able to direct the operator to the exact location of a leak by measuring the voltage differential between the test probes to determine the direction of current flow.

## Features

- Test up to 400m<sup>2</sup> per day
- Pinpoint leaks which are too small to see with the naked eye
- Directs user towards fault
- Easy to set up and use
- Test for leaks all year round
- Capable of testing any membrane thickness
- Selectable audible alarm
- Clear backlit LCD displays
- Membrane keypad operation
- Ergonomic detector case with neck strap
- Compact carry case and test probe container
- One year 'back-to-base' warranty
- Fully CE compliant



## Specifications

- Output pulse voltage: 32V DC
- Output power: <10 watts
- Max relative humidity: 80% non-condensing
- Operating altitude: Up to 2000m
- Temperature range +4°C to +40°C
- Mains voltage for charging: 100 to 240V AC 50/60 Hz
- Weights:
  - 2.1Kg (generator unit incl. batteries)
  - 0.58Kg (detector unit incl. batteries)
  - 17.5Kg (complete kit)
- Dimensions:
  - 169mm x 80mm x 235mm (generator unit)
  - 189mm x 37mm x 138mm (detector unit)
  - 559mm x 432mm x 266mm (transit case)
  - 559mm x 432mm x 266mm (full kit, packed)

## What's in the kit?

- Generator unit
- Detector unit
- 10m earth lead
- 10m boundary connection lead
- 2 x multi-section test probes
- 200m stainless steel boundary wire on a reel
- Red and black test probe connecting leads
- Seam probe tool
- Rechargeable batteries and charger included
- Black carrying bag for generator
- Case with adjustable neck strap for detector unit
- Wax crayons for marking faults
- Comprehensive instruction manual
- Supplied in robust, loam-lined transit case

# Typical flat roof types

## Concrete roof deck

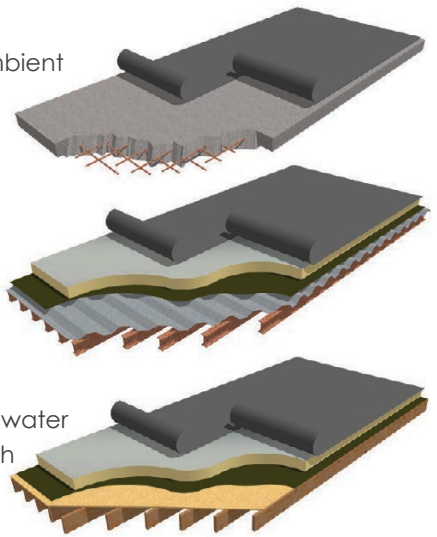
Concrete retains a surprisingly high water content. Even when concrete is 'dry', this ambient moisture content is enough to conduct current and test for leaks. Flaws in the membrane allow the detector to complete an electrical circuit to earth via the concrete and trigger the detector's alarm.

## Steel roof deck

The steel structure below the roof membrane – as well as foil-faced slab insulation – conducts electrical current to earth. Faults in the membrane provide a path for current to pass through and complete an electrical circuit, triggering the detector's alarm.

## Timber roof deck

Whilst the timber structure of the roof itself is non-conductive; foil-faced insulation and water which has 'tracked' to earth through leaks will provide enough conductivity to test with the Dry Roof Pro' or the Wet Roof Pro'. Many timber-deck roofs with foil-faced insulation have additional earth bonding to the insulation to aid the leak detection process.



# Accessories



Battery Charger  
6005-0001



Thumb-Nut & Back-Nut  
(Dry Roof Pro')  
6005-0465



High-Visibility Transit Case  
(Dry Roof Pro')  
6005-0457



Rechargeable D-Cell Battery  
6005-0022



Extension Rod Mid-Section  
(Dry Roof Pro')  
6005-0459



Extension Rod End-Section  
(Dry Roof Pro')  
6005-0460



Drum Brush Electrode  
(Dry Roof Pro')  
6005-0237



50m Earth Extension Lead  
(Dry Roof Pro')  
6005-0076



Interconnecting Lead  
(Dry Roof Pro')  
6005-0451



500mm Roller Electrode  
(Dry Roof Pro')  
6005-0231



ESD Anti-static Wristband  
(Dry Roof Pro')  
4016-0132



Yellow Wax Crayons  
6005-0050



Seam Probe Tool  
6005-0021



Carrying Bag  
(Dry Roof Pro')  
6005-0456



Test Voltage Calculator  
(Dry Roof Pro')  
6005-0083



Phosphor-Bronze Electrodes  
(Dry Roof Pro')  
(See Datasheet E1)



Detector Bag  
(Wet Roof Pro')  
6003-0026



Black 10m Earth Lead  
(Wet Roof Pro')  
6003-0018



Test Probe Carry Case  
(Wet Roof Pro')  
6003-0022



High-Visibility Transit Case  
(Wet Roof Pro')  
6003-0028



Red 10m 'Ring' Lead  
(Wet Roof Pro')  
6005-0013



200m Stainless Steel Wire  
(Wet Roof Pro')  
6005-0016



Black Detector Lead  
(Wet Roof Pro')  
6003-0017



Red Detector Lead  
(Wet Roof Pro')  
6003-0016



Test Probe Tip  
(Wet Roof Pro')  
6003-0023



Rechargeable AA-Cell  
(Wet Roof Pro')  
6003-0029



Carrying Bag  
(Wet Roof Pro')  
6003-0025



Test Probe Centre Section  
(Wet Roof Pro')  
6003-0022



Red Test Probe (3 Sections)  
(Wet Roof Pro')  
6003-0021



Black Test Probe (3 Sections)  
(Wet Roof Pro')  
6003-0020



Test Probe Lower Section  
(Wet Roof Pro')  
6003-0024



75mm Pointed Probe Electrode  
(Dry Roof Pro')  
6005-0236

Contact us for more information on Buckleys' range of roof leak detection equipment, call our sales team on +44 (0)1303 278888, email [sales@buckleys.co.uk](mailto:sales@buckleys.co.uk) or visit our website: [www.buckleysinternational.com](http://www.buckleysinternational.com)



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