SITE survey. APP

SITE SURVEY REPORT

Electrical Installation Record

Prepared for	Mr and Mrs D. Hartley
Date	15 Oct 2026
Site	Ivy Cottage, Clee Lane
Prepared by	R. Lyons

FORM

Electrical Installation Record

1. Work

Project	Ivy Cottage, Clee Lane: consumer unit change and new kitchen circuits (completed example)
Client	Mr and Mrs D. Hartley
Site	Ivy Cottage
Site address	Ivy Cottage, Clee Lane, Ludlow
Date completed	15 Oct 2026
Time	16:30
Contractor and registration scheme number	Spark Right Electrical, NICEIC 604412
Type of work	Consumer unit replacement
Extent of the work covered	New 10-way RCBO consumer unit under the stairs, two new kitchen circuits (oven radial and ring) and existing circuits reconnected and tested. TT supply with the existing earth rod by the back door, tested and kept.

> The notes on the IET model Electrical Installation Certificate say it is used for a new installation, for an addition or alteration that introduces one or more new circuits, and for replacing a consumer unit or distribution board. An addition or alteration that does not introduce a new circuit may go on a Minor Electrical Installation Works Certificate.

Is the work in a dwelling in England?	Yes

> Approved Document P: in a dwelling, installing a new circuit, replacing a consumer unit, or any addition or alteration to existing circuits in a special location (such as the space around a bath or shower) is notifiable. It must be certified by a registered competent person, a registered third-party certifier or a building control body.

> This is a site record of the work and test results, not the certificate itself. The formal certificate and its schedules are issued from the registration scheme's or certification software.

2. Supply and earthing

Earthing arrangement	TT
Supply	Single-phase
External earth fault loop impedance Ze (Ω)	71
Prospective fault current (kA)	1.2

Main switch rating (A)	100
Main earthing conductor size (mm²)	16
Earth electrode resistance (Ω)	68
Earth electrode position	Earth rod in its pit in the gravel path, 1 m left of the back door · 52.367210, -2.720140 (SO 51063 74595, ±5 m)
Main protective bonding connected to	Water, Oil
Distribution board or consumer unit	Consumer unit, under-stairs cupboard

Photos of the board and labelling





3. Circuits and tests

Circuits 1: 1

Circuit number	1
Description	Kitchen ring (new)
Protective device	RCBO type B
Rating (A)	32
RCD type	Type A
Live conductor (mm²)	2.5
Protective conductor (mm²)	1.5
Continuity R1 + R2 (Ω)	0.38
Insulation resistance test voltage	500 V

Insulation resistance, live to live (MΩ)	200
Insulation resistance, live to earth (MΩ)	200
Minimum for this test voltage (MΩ)	1
Insulation resistance against the minimum	At or above the minimum
Polarity	Correct
Earth fault loop impedance Zs, measured (Ω)	71.4
Maximum permitted Zs for this device (Ω)	1667
Measured Zs as a share of the maximum (%)	4
Zs against the maximum	Within the maximum
RCD operating time at rated residual current (ms)	24
RCD time against 300 ms	Within 300 ms
Result	Pass

Circuits 2: 2

Circuit number	2
Description	Oven radial (new)
Protective device	RCBO type B
Rating (A)	32
RCD type	Type A
Live conductor (mm²)	6
Protective conductor (mm²)	2.5
Continuity R1 + R2 (Ω)	0.21
Insulation resistance test voltage	500 V
Insulation resistance, live to live (MΩ)	200
Insulation resistance, live to earth (MΩ)	200
Minimum for this test voltage (MΩ)	1
Insulation resistance against the minimum	At or above the minimum
Polarity	Correct

Earth fault loop impedance Zs, measured (Ω)	71.2
Maximum permitted Zs for this device (Ω)	1667
Measured Zs as a share of the maximum (%)	4
Zs against the maximum	Within the maximum
RCD operating time at rated residual current (ms)	19
RCD time against 300 ms	Within 300 ms
Result	Pass

Circuits 3: 3

Circuit number	3
Description	Downstairs sockets (existing)
Protective device	RCBO type B
Rating (A)	32
RCD type	Type A
Live conductor (mm²)	2.5
Protective conductor (mm²)	1.5
Continuity R1 + R2 (Ω)	0.62
Insulation resistance test voltage	500 V
Insulation resistance, live to live (MΩ)	95
Insulation resistance, live to earth (MΩ)	60
Minimum for this test voltage (MΩ)	1
Insulation resistance against the minimum	At or above the minimum
Polarity	Correct
Earth fault loop impedance Zs, measured (Ω)	71.6
Maximum permitted Zs for this device (Ω)	1667
Measured Zs as a share of the maximum (%)	4
Zs against the maximum	Within the maximum

RCD operating time at rated residual current (ms)	27
RCD time against 300 ms	Within 300 ms
Result	Pass

Circuits 4: 5

Circuit number	5
Description	Upstairs lighting (existing)
Protective device	RCBO type B
Rating (A)	6
RCD type	Type A
Live conductor (mm²)	1.5
Protective conductor (mm²)	1
Continuity R1 + R2 (Ω)	1.12
Insulation resistance test voltage	500 V
Insulation resistance, live to live (MΩ)	150
Insulation resistance, live to earth (MΩ)	0.8
Minimum for this test voltage (MΩ)	1
Insulation resistance against the minimum	Below the minimum

> Below the minimum insulation resistance in BS 7671 Table 64 (1 MΩ at a 500 V or 1000 V test, 0.5 MΩ for SELV and PELV at 250 V). Investigate before the circuit is put into service.

Polarity	Correct
Earth fault loop impedance Zs, measured (Ω)	72.1
Maximum permitted Zs for this device (Ω)	1667
Measured Zs as a share of the maximum (%)	4
Zs against the maximum	Within the maximum
RCD operating time at rated residual current (ms)	27
RCD time against 300 ms	Within 300 ms
Result	Fail

What failed and what was done	Insulation resistance to earth 0.8 MΩ, traced to a damaged junction box in the loft. Box replaced and the circuit retested at 120 MΩ before it was put back into service.
Circuits recorded	4
Circuits failed	1
Circuits passed	3
Insulation resistance below the minimum	1
Zs above the maximum entered	0
RCD over 300 ms	0
Polarity faults	0

> One or more readings above are outside a limit. Each one needs a note of what was found and done, and a retest, before the circuit is put into service.

4. Inspection and departures

Inspected and correct	Cables selected and installed correctly, Protective devices suit the circuits, Isolation and switching, Fire barriers and sealing, Labels and warning notices, Surge protection considered, Additional protection by RCD where required
Comments on the existing installation	Circuit 5 (upstairs lighting) had a damaged junction box in the loft, replaced as part of this work. Zs values are on a TT supply, so the maximum entered is the BS 7671 Table 41.5 value for a 30 mA RCD (1667 Ω).
Are there any departures from BS 7671?	No
Recommended date of next inspection	15 Oct 2036

5. Sign-off

Did one person do the design, construction and inspection and testing?	Yes
Design: name	R. Lyons
Design: signature	
Client name	D. Hartley

Client signature

