

ELECTRICAL INSTALLATION CONDITION REPORT



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| Client: Neat Vehicles Ltd Address: Nunn Brook Road County Estate Sutton in Ashfield Nottinghamshire Nottingham NG17 2HU | Purpose of this report: Electrical Installation Condition report requested by the client Date(s) on which inspection and testing was carried out: 31/07/2019 |
|--|--|

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|---|--|
| Installation: XLRAEL 1500L439934 Occupier: Neat Vehicles Address: NDCS Vehicle XLRAEL 1500L439934 | Description of premises: Domestic N/A Commercial N/A Industrial N/A Other: Display Vehicle Estimated age of wiring system: 6 yrs Evidence of alterations or additions: N/A If yes estimated Age N/A yrs Date of previous inspection: 02/08/2018 |
| Record of Installation available: N/A Records held By: N/A | |

Extent of Electrical Installation covered by this report: All Circuits

Agreed limitations including the reasons (See regulation 634.2): None

Operational Limitations including the reasons (See page No. N/A): See notes below - Ze will Vary from site to site

Agreed with name: Na

This inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS7671:2008 (IET Wiring Regulations) as amended to July 2015. It should be noted that cables concealed within trunking and conduits, under floors, in roof spaces, and generally within the fabric of the building or underground, have NOT been inspected unless specifically agreed between the client and inspector prior to the inspection. An inspection should be made within an accessible roof space housing other electrical equipment.

General condition of the installations (In terms of electrical safety): Satisfactory - see section K

Overall assessment of the installation: Satisfactory

*An unsatisfactory assessment indicates that dangerous (code C1) and/or potentially dangerous (code C2) conditions have been identified.

Where the overall assessment of the suitability of the installation for continued use above is stated as SATISFACTORY, I recommend that any observations classified as 'Danger present' (code C1) or 'Potentially dangerous' (code C2) are acted upon as a matter of urgency. Investigation without delay is recommended for observations identified as 'further investigation required' (code F1). Observation classified as 'improvement recommended' (code C3) should be given due consideration. Subject to the necessary remedial action being taken I recommend that the installation is further inspected and tested by 31/07/2020

I, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by My signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including the observations and attached schedules, provides an accurate assessment of the condition of the electrical installation taking into account the stated extent and limitations in section D of this report.

Trading Title and address: Independent Testing Company, 26 Elinton Road, Creswell, Worksop, Notts, S60 4ES

NICEIC Enrolment Number: 026373

| | | | | | |
|--|------------------------------|-------------------|-------------------------|--|--|
| Inspected and tested by: | | | | | |
| Name: Ross Brooks | Position: Electrician | Signature: | Date: 01/08/2019 | | |
| Report authorised for issue by: | | | | | |
| Name: Mr Paul Newberry | Position: Electrician | Signature: | Date: 01/08/2019 | | |

The attached schedule(s) are part of this document and this report is valid only when they are attached to it.

0 Schedule(s) of inspection and **2** Schedule(s) of test results are attached

| Earthing Arrangements | | Number and Type of Live Conductors | | | | Nature of Supply Parameters | | | Supply protective device | | |
|---------------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------|------|-------------------------------------|----------------------|---------------------------|---------------------------|--|--|
| TN-S | N/A | a.c. | <input checked="" type="checkbox"/> | | d.c. | N/A | Nominal Voltage | $U^{(1)}$ 230 V | BS(EN) N/A | | |
| TN-C-S | <input checked="" type="checkbox"/> | 1-Phase (2 wire) | <input checked="" type="checkbox"/> | 1-Phase (3 wire) | N/A | 2 Wire | N/A | Nominal Voltage | $U_o^{(1)}$ 239 V | Type | |
| TN-C | N/A | 2-Phase (3 wire) | N/A | | | 3 Wire | N/A | Nominal frequency | $f^{(1)}$ 50 Hz | Commando Socket | |
| TT | N/A | 3-Phase (3 wire) | N/A | 3-Phase (4 wire) | N/A | Other | N/A | Prospective fault current | $I_{pf}^{(2)}$ 0.59 kA | Nominal current rating 32 A | |
| IT | N/A | Other | N/A | | | | | External loop impedance | $Z_e^{(2)}$ 0.42 Ω | Short circuit capacity N/A kA | |
| Confirmation of supply polarity | | | | | | <input checked="" type="checkbox"/> | Number of supplies 2 | | | (Note: (1) by enquiry, (2) by enquiry or by measurement) | |

| Means of earthing | | Details of installation Earth Electrode (where applicable) | | | | |
|------------------------------|-------------------------------------|--|--------------|--|-----------------------|-----|
| Distributor's facility | <input checked="" type="checkbox"/> | Type (e.g. rod(s), tape etc.) | N/A | | Location | N/A |
| Installation earth electrode | N/A | Resistance to Earth | N/A Ω | | Method of measurement | N/A |

Tick boxes and enter details as applicable

| | | | | | | | |
|--------------------|----------|--------|-----|---|-----------------|------------------------------------|-------------------------------------|
| Earthing Conductor | Material | Copper | csa | 6 | mm ² | Connection and Continuity Verified | <input checked="" type="checkbox"/> |
|--------------------|----------|--------|-----|---|-----------------|------------------------------------|-------------------------------------|

| | | | | | | | |
|------------------------------------|----------|--------|-----|----|-----------------|------------------------------------|-------------------------------------|
| Main protective bonding conductors | Material | Copper | csa | 16 | mm ² | Connection and Continuity Verified | <input checked="" type="checkbox"/> |
|------------------------------------|----------|--------|-----|----|-----------------|------------------------------------|-------------------------------------|

| Bonding of Incoming Service | | | | | Maximum Demand (Load) | | | |
|-----------------------------|-----|---------------------------|-----|------------------|-------------------------------------|----------------------|-----|--|
| Water installation pipes | N/A | Gas installation pipes | N/A | Structural Steel | <input checked="" type="checkbox"/> | Lightning protection | N/A | 32 Amps |
| Oil installation pipes | N/A | Other incoming service(s) | | | N/A | Please State | | Protective measure(s) against electric shock ADS |

| | | | | | | | | | | |
|----------------------------|-----------------------|--|-------------------|---|-------------------------------|----------------|-----|--|------------------|--------|
| Location | DB1 Hydraulics Locker | | | | Current rating | 63 | A | If RCD main switch | | |
| Type BS(EN) | 61008 RCD | | | | Fuse/Device rating or setting | N/A | A | Rated residual operation current, I Δ n | 30 mA | |
| Supply Conductors material | Copper | | Supply Conductors | 6 | mm ² | Voltage rating | 230 | V | Rated time delay | N/A ms |
| | | | csa | | | | | RCD Operating time at, I Δ n | N/A ms | |

Referring to the attached schedule(s) of Inspection and Test Results, and subject to the limitations specified at the Extent and Limitations of the Inspection and testing section.

No remedial action is required. N/A The following observations are made

| Item No | Observations | Code |
|---------|--|------|
| 1 | DB1 is not to ammendment 3 | C3 |
| 2 | 4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.4 Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5) | C3 |
| 3 | No surge Protection is fitted. | C3 |

One of the following codes, as appropriate, has been allocated to each of the observations made above to indicate to the person(s) responsible for the installation the degree of urgency for remedial action.

| | |
|---|---|
| C1 - Danger present. Risk of injury. Immediate remedial action required | 0 |
| C2 - Potentially dangerous - urgent remedial action required | 0 |
| C3 - Improvement recommended | 3 |
| F1 - Further investigation required without delay | 0 |

Note: this form is suitable for many types of smaller installations not exclusively domestic.

| Outcomes | Acceptable condition | ✓ | Unacceptable condition | State C1 or C2 | Improvement recommended | State C3 | Further investigation | FI | Not verified | N/A | Limitation | LIM | Not applicable | N/A |
|------------|--|---|------------------------|----------------|-------------------------|----------|-----------------------|----|--------------|-----|--------------------|----------|----------------|-----|
| Item No | Description | | | | | | | | | | Outcome | Comments | | |
| 1.0 | DISTRIBUTOR'S / SUPPLY INTAKE EQUIPMENT | | | | | | | | | | | | | |
| 1.1 | Condition of service cable | | | | | | | | | | ✓ | No | | |
| 1.2 | Condition of Service head | | | | | | | | | | ✓ | No | | |
| 1.3 | Condition of distributor's earthing arrangement | | | | | | | | | | ✓ | No | | |
| 1.4 | Condition of meter tails - Distributor/Consumer | | | | | | | | | | ✓ | No | | |
| 1.5 | Condition of metering equipment | | | | | | | | | | ✓ | No | | |
| 1.6 | Condition of Isolator (where present) | | | | | | | | | | ✓ | No | | |
| 2.0 | PRESENCE OF ADEQUATE ARRANGEMENTS FOR PARALLEL OR SWITCHED ALTERNATIVE SOURCES | | | | | | | | | | ✓ | No | | |
| 3.0 | EARTHING / BONDING ARRANGEMENTS (411.3; Chap 54) | | | | | | | | | | | | | |
| 3.1 | Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2) | | | | | | | | | | ✓ | No | | |
| 3.2 | Presence and condition of earth electrode connection where applicable (542.1.2.3) | | | | | | | | | | ✓ | No | | |
| 3.3 | Provision of earthing/bonding labels at all appropriate locations (514.13.1) | | | | | | | | | | ✓ | No | | |
| 3.4 | Confirmation of earthing conductor size (542.3; 543.1.1) | | | | | | | | | | ✓ | No | | |
| 3.5 | Accessibility and condition of earthing conductor at MET (543.9.2) | | | | | | | | | | ✓ | No | | |
| 3.6 | Confirmation of main protective bonding conductor sizes (544.1) | | | | | | | | | | ✓ | No | | |
| 3.7 | Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2) | | | | | | | | | | ✓ | No | | |
| 3.8 | Accessibility and condition of other protective bonding connections (543.3.2) | | | | | | | | | | ✓ | No | | |
| 4.0 | CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) | | | | | | | | | | | | | |
| 4.1 | Adequacy of working space / accessibility to consumer unit / distribution board (132.12; 513.1) | | | | | | | | | | ✓ | No | | |
| 4.2 | Security of fixing (134.1.1) | | | | | | | | | | ✓ | No | | |
| 4.3 | Condition of enclosure(s) in terms of IP rating etc (416.2) | | | | | | | | | | ✓ | No | | |
| 4.4 | Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5) | | | | | | | | | | C3 (see section K) | No | | |
| 4.5 | Enclosure not damaged/deteriorated so as to impair safety (Regulation 621.2 (iii)) | | | | | | | | | | ✓ | No | | |
| 4.6 | Presence of linked main switch (as required by 537.1.4) | | | | | | | | | | ✓ | No | | |
| 4.7 | Operation of main switch (functional check) (612.13.2) | | | | | | | | | | ✓ | No | | |
| 4.8 | Manual operation of circuit-breakers and RCDs to prove disconnection (612.13.2) | | | | | | | | | | ✓ | No | | |
| 4.9 | Correct identification of circuit details and protective devices (514.8.1; 514.9.1) | | | | | | | | | | ✓ | No | | |
| 4.10 | Presence of RCD quarterly test notice at or near consumer unit / distribution board (514.12.2) | | | | | | | | | | ✓ | No | | |
| 4.11 | Presence of non-standard (mixed) cable colour warning notice at or near consumer unit / distribution board (514.14) | | | | | | | | | | ✓ | No | | |
| 4.12 | Presence of alternative supply warning notice at or near consumer unit / distribution board (514.15) | | | | | | | | | | ✓ | No | | |
| 4.13 | Presence of other required labelling (please specify)(Section 514) | | | | | | | | | | ✓ | No | | |
| 4.14 | Examination of protective device(s) and base(s); correct type and rating (no signs of unacceptable thermal damage, arcing or overheating)(421.1.3) | | | | | | | | | | ✓ | No | | |
| 4.15 | Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.2) | | | | | | | | | | ✓ | No | | |
| 4.16 | Protection against mechanical damage where cables enter consumer unit / distribution board (522.8.1; 522.8.11) | | | | | | | | | | ✓ | No | | |
| 4.17 | Protection against electromagnetic effects where cables enter consumer unit / distribution board / enclosures (521.5.1) | | | | | | | | | | ✓ | No | | |
| 4.18 | RCD(s) provided for fault protection – includes RCBOs(411.4.9; 411.5.2; 531.2) | | | | | | | | | | ✓ | No | | |
| 4.19 | RCD(s) provided for additional protection - includes RCBOs (411.3.3; 416.1) | | | | | | | | | | ✓ | No | | |
| 4.20 | Confirmation of indication that SPD is functional (534.2.8) | | | | | | | | | | N/A | No | | |
| 4.21 | Confirmation that ALL conductor connections, including connections to busbars are correctly located in terminals and are tight and secure (526.1) | | | | | | | | | | ✓ | No | | |
| 4.22 | Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6) | | | | | | | | | | ✓ | No | | |
| 4.23 | Adequate arrangements where a generating set operates in parallel with the public supply (551.7) | | | | | | | | | | ✓ | No | | |
| 5.0 | FINAL CIRCUITS | | | | | | | | | | | | | |
| 5.1 | Identification of conductors (514.3.1) | | | | | | | | | | ✓ | No | | |
| 5.2 | Cables correctly supported throughout their run (522.8.5) | | | | | | | | | | LIM | No | | |
| 5.3 | Condition of Insulation of live parts (416.1) | | | | | | | | | | ✓ | No | | |

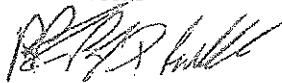
Note: this form is suitable for many types of smaller installations not exclusively domestic.

| Outcomes | Acceptable condition | ✓ | Unacceptable condition | State C1 or C2 | Improvement recommended | State C3 | Further investigation | FI | Not verified | N/V | Limitation | LIM | Not applicable | N/A |
|----------|---|---|------------------------|----------------|-------------------------|----------|-----------------------|----|--------------|---------------------|------------|----------|----------------|-----|
| Item No | Description | | | | | | | | | | Outcome | Comments | | |
| 6.0 | FINAL CIRCUITS (Continued) | | | | | | | | | | | | | |
| 5.4.0 | Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1) | | | | | | | | | | ✓ | No | | |
| 5.4.1 | To include the integrity of conduit and trunking systems (metallic and plastic) | | | | | | | | | | ✓ | No | | |
| 5.5 | Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523) | | | | | | | | | | ✓ | No | | |
| 5.6 | Coordination between conductors and overload protective devices (433.1; 533.2.1) | | | | | | | | | | ✓ | No | | |
| 5.7 | Adequacy of protective devices; type and rated current for fault protection (411.3) | | | | | | | | | | ✓ | No | | |
| 5.8 | Presence and adequacy of circuit protective conductors (411.3.1.1; 543.1) | | | | | | | | | | ✓ | No | | |
| 5.9 | Wiring system(s) appropriate for the type and nature of the installation and external influences (Section 522) | | | | | | | | | | ✓ | No | | |
| 5.10 | Concealed cables installed in prescribed zones (see section D. Extent and limitations) (522.6.202) | | | | | | | | | | LIM | No | | |
| 5.11 | Cables concealed under floors, above ceilings or in walls / partitions, adequately protected against damage (see Section D. Extent and limitations) (522.6.204) | | | | | | | | | | ✓ | No | | |
| 5.12.0 | Provision of additional protection by RCD not exceeding 30mA | | | | | | | | | | | | | |
| 5.12.1 | • For all socket-outlets of rating 20 A or less, unless an exception is permitted (411.3.3) | | | | | | | | | | ✓ | No | | |
| 5.12.2 | • For supply to mobile equipment not exceeding 32 A rating for use outdoors (411.3.3) | | | | | | | | | | ✓ | No | | |
| 5.12.3 | • For cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203) | | | | | | | | | | ✓ | No | | |
| 5.12.4 | • For cables concealed in walls / partitions containing metal parts regardless of depth (522.6.203) | | | | | | | | | | ✓ | No | | |
| 5.13 | Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527) | | | | | | | | | | ✓ | No | | |
| 5.14 | Band II Cables segregated / separated from Band I cables (528.1) | | | | | | | | | | ✓ | No | | |
| 5.15 | Cables segregated / separated from communications cabling (528.2) | | | | | | | | | | ✓ | No | | |
| 5.16 | Cables segregated / separated from non-electrical services (528.3) | | | | | | | | | | ✓ | No | | |
| 5.17.0 | Termination of cables at enclosures – indicate extent of sampling in Section D of the report (Section 526) | | | | | | | | | | | | | |
| 5.17.1 | • Connections soundly made and under no undue strain (526.6) | | | | | | | | | | ✓ | No | | |
| 5.17.2 | • No basic insulation of a conductor visible outside enclosure (526.8) | | | | | | | | | | ✓ | No | | |
| 5.17.3 | • Connections of live conductors adequately enclosed (526.5) | | | | | | | | | | ✓ | No | | |
| 5.17.4 | • Adequately connected at point of entry to enclosure (glands, bushes etc...) (522.8.5) | | | | | | | | | | ✓ | No | | |
| 5.18 | Condition of accessories including socket-outlets, switches and joint boxes (621.2 (iii)) | | | | | | | | | | ✓ | No | | |
| 5.19 | Suitability of accessories for external influences (512.2) | | | | | | | | | | ✓ | No | | |
| 5.20 | Adequacy of working space / accessibility to equipment (132.12; 513.1) | | | | | | | | | | ✓ | No | | |
| 5.21 | Single-pole switching or protective devices in line conductors only (132.14.1; 530.3.2) | | | | | | | | | | ✓ | No | | |
| 6.0 | LOCATION(S) CONTAINING A BATH OR SHOWER | | | | | | | | | | | | | |
| 6.1 | Additional protection for all low voltage (LV) circuits by RCD not exceeding 30mA (701.411.3.3) | | | | | | | | | | N/A | No | | |
| 6.2 | Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5) | | | | | | | | | | N/A | No | | |
| 6.3 | Shaver sockets comply with BS EN 61558-2-5 formerly BS 3535 (701.512.3) | | | | | | | | | | N/A | No | | |
| 6.4 | Presence of supplementary bonding conductors, unless not required by BS 7671: 2008 (701.415.2) | | | | | | | | | | N/A | No | | |
| 6.5 | Low Voltage (e.g. 230 volts) socket outlets at least 3m from Zone 1 (701.512.3) | | | | | | | | | | N/A | No | | |
| 6.6 | Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2) | | | | | | | | | | N/A | No | | |
| 6.7 | Suitability of accessories and control gear etc. for a particular zone (701.512.3) | | | | | | | | | | N/A | No | | |
| 6.8 | Suitability of current-using equipment for particular position within the location (701.55) | | | | | | | | | | N/A | No | | |
| 7.0 | OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS | | | | | | | | | | | | | |
| 7.1 | List all other special installations or locations present, if any. (Record separately the results of particular inspections applied). | | | | | | | | | Number of locations | 0 | No | | |

Name: Ross Brooks

Date: 01/08/2019

Signature:



Additional Supply No 1

| System Type(s) | | Number and Type of Live Conductors | | | | | Type of supply: | | | | Supply protective device characteristics | |
|----------------|-----|------------------------------------|----------------------|------------|--|--|----------------------------|-----------------------------|--|-----------------|--|--------------|
| TN-S | N/A | a.c. ✓ | | d.c. ✗ | | | Additional Incoming Supply | | | | BS(EN) | |
| TN-C-S | ✓ | 1-Phase (2 wire) ✓ | 1-Phase (3 wire) N/A | 2 Pole N/A | | | | Nature of Supply Parameters | | | | Commando Skt |
| TN-C | N/A | 2-Phase (3 wire) N/A | 3 Pole N/A | | | | | | | Nominal Voltage | U 230 V | Uo 230 V |
| TT | N/A | 3-Phase (3 wire) N/A | 3-Phase (4 wire) N/A | Other N/A | | | | | | | Nominal frequency | f 50 Hz |
| IT | N/A | Other N/A | | | | | | | | | Prospective fault current | Ipif 0.43 kA |
| | | | | | | | | | | | External loop impedance | Ze 0.58 Ω |
| | | | | | | | | | | | Nominal current rating | 16 A |
| | | | | | | | | | | | Short circuit Capacity | N/A kA |

| Means of Earthing | | Details of installation Earth Electrode (where applicable) | | | | |
|------------------------------|-----|--|-------|--|-----------------------|-----|
| Distributor's facility | ✓ | Type (eg rod(s), tape etc) | N/A | | Location | N/A |
| Installation earth electrode | N/A | Electrode resistance, R _A | N/A Ω | | Method of measurement | N/A |

| Main Switch or Circuit-Breaker | | Maximum Demand (load) | | Protective measure(s) against electric shock | |
|--|-------------------|--|-------------------------|--|-----|
| Type BS(EN) | 61008 RCD | 32 | Amps | ADS | |
| Voltage Rating | 230 V | Earthing and Protective Bonding Conductors | | | |
| No. of poles | 2 | Earthing Conductor | | Main protective bonding conductors | |
| Current Rating | 63 A | material: Copper | material: Copper | | |
| Supply Conductors material | Copper | csa: 6 mm ² | csa: 16 mm ² | | |
| Supply Conductors CSA | 6 mm ² | Continuity check | Continuity check | | |
| RCD operating current, I _{Δn} | 30 mA | Bonding of extraneous conductors | | | |
| RCD operating time at, I _{Δn} | N/A ms | Water installation pipes | N/A | Gas installation pipes | N/A |
| | | Oil installation pipes | N/A | Structural steel | ✓ |
| | | Other incoming service | N/A | N/A | |
| Please state | | | | | |

Where appropriate comments on the existing installation are to be found on page(s)

None

