



THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

COMMUNICATION CONCERNING THE APPROVAL GRANTED ⁽¹⁾/ APPROVAL EXTENDED ⁽¹⁾/
~~APPROVAL REFUSED ⁽⁴⁾/ APPROVAL WITHDRAWN ⁽⁴⁾/ PRODUCTION DEFINITELY
DISCONTINUED ⁽¹⁾~~ OF A TYPE OF ELECTRICAL/ ELECTRONIC SUB-ASSEMBLY ⁽¹⁾ WITH
REGARD TO REGULATION NO. 10.05



Approval No: 10R-059700

Extension No: 01

1. Make (trade name of manufacturer): Brigade Electronics Group PLC
2. Type and general commercial description(s): BackEye 360° Camera System
3. Means of identification of type, if marked on the ~~vehicle/component/separate technical unit~~: ⁽¹⁾
BN360-200 / BN360-200 (XXX) which consists of: 1 x BN360-200-ECU / BN360-200-
ECU(XXX); 1 x BN360-200-INT / BN360-200-INT(XXX); 1 x BN360-200-PWR / BN360-200-
PWR(XXX); 4 x BN360-100C / BN360-100C(XXX); 1 x BN360-VBV-L4015 / BN360-VBV-
L4015(XXX); 1 x BN360-200-IR / BN360-200-IR(XXX); 1 x BN360-200-RC / BN360-200-
RC(XXX); 1 x BN360-CP-01 / BN360-CP-01(XXX)
Where XXX can represent any associated variant
- 3.1. Location of that marking: Adhesive Label applied to the ECU housing
4. Category of vehicle: Not applicable
5. Name and address of manufacturer:
Brigade Electronics Group PLC
Brigade House
The Mills Trading Estate
Station Road
South Darenth
Kent DA4 9BD
United Kingdom

6. In the case of components and separate technical units, location and method of affixing of the approval mark: On the adhesive label applied to the ECU housing in item 3.1

7. Address(es) of assembly plant(s):
35 Hyeongje-Ro
Namsa-Myeon
Cheoin-Gu
Yongin-Si
Gyeonggi-Do
South Korea

8. Additional information (where applicable): See appendix below

9. Technical Service responsible for carrying out the tests: SGS United Kingdom Limited

10. Date of test report: 20 January 2017

11. No. of test report: AUT234444/1/R/17

12. Remarks (if any): Approval to Supplement 1
See Appendix below

13. Place: BRISTOL

14. Date: 12 JULY 2018

15. Signature:



D LAWLOR
Chief Technical and Statutory Operations Officer

16. The index to the information package lodged with the Approval Authority, which may be obtained on request, is attached.

17. Reasons for extension: To cover PCB/BOM change.

(1) Strike out what does not apply.

Appendix

to type-approval communication form No. 10R-059700 Extension 01

concerning the type-approval of an electrical/electronic sub-assembly under Regulation No. 10.05

1. Additional information:
 - 1.1. Electrical system rated voltage: 12/24V. ~~pos~~/neg ground ⁽¹⁾
 - 1.2. This ESA can be used on any vehicle type with the following restrictions: Product must always use a negative ground.
 - 1.2.1. Installation conditions, if any: See Manufacturer's Documentation
 - 1.3. This ESA can be used only on the following vehicle types: Not applicable
 - 1.3.1. Installation conditions, if any: Not applicable
 - 1.4. The specific test method(s) used and the frequency ranges covered to determine immunity were: (Please specify precise method used from Annex 9): Not applicable
 - 1.5. Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests: SGS United Kingdom Limited
 2. Remarks: None
- (1) Strike out what does not apply.

ECE Reg 10.05 information regarding
approval for E-marking of Component / STU.

General Details: PCB "BOM change".

<u>Section 1</u>	<u>Make. (trade name of manufacturer)</u> Brigade Electronics Group PLC
<u>Section 2</u>	<u>Type: General Commercial Description.</u> BackEye 360° Camera System.
<u>Section 3</u>	<u>Means of identification of type, if marked on the Component / STU.</u> BN360-200 / BN360-200 (XXX) which consists of: 1 x BN360-200-ECU / BN360-200-ECU(XXX) 1 x BN360-200-INT / BN360-200-INT(XXX) 1 x BN360-200-PWR / BN360-200-PWR(XXX) 4 x BN360-100C / BN360-100C(XXX) 1 x BN360-VBV-L4015 / BN360-VBV-L4015(XXX) 1 x BN360-200-IR / BN360-200-IR(XXX) 1 x BN360-200-RC / BN360-200-RC(XXX) 1 x BN360-CP-01 / BN360-CP-01(XXX)
	Where XXX can represent any associated variant.
<u>Section 3.1</u>	<u>State where the identification / model number is situated on the product, and how it is marked.</u> Adhesive Label applied to the ECU housing
<u>Section 4</u>	<u>Name and address of Manufacturer</u> Brigade Electronics Group PLC, Brigade House, The Mills Trading Estate, Station Road, South Darenth, Kent, DA4 9BD, United Kingdom
<u>Section 4.1</u>	<u>Name and address of Manufacturer's representative inside the European Union.</u> N/A.
<u>Section 5</u>	<u>State how and where the type approval E mark will be affixed</u> On the adhesive label applied to the ECU housing as stated in section 3.1
<u>Section 6</u>	<u>Address(es) of assembly plant(s)</u> 35, Hyeongje-Ro, Namsa-Myeon, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, Korea.
<u>Section 7</u>	<u>This product shall be approved as a component / STU (delete as applicable)</u> Component
<u>Section 8</u>	<u>Restrictions of use and conditions for fitting.</u> 12 / 24 Volt DC Vehicles,
<u>Section 9</u>	<u>Electrical system rated voltage Positive / negative Ground.</u> Product must always use a negative ground.

Only applicable for charging systems: (REESS)

Section 10 Charger: on board / external².
N/A.

Section 11 Charging current: direct current/alternating current (number of phases/frequency²).
N/A.

Section 12 Maximal nominal current (in each mode if necessary).
N/A.

Section 13 Nominal charging voltage.
N/A.

Section 14 Basic ESA interface functions: ex. L1/L2/L3/N/PE/control pilot.
N/A.

Section 15 Minimum R_{sce} value (see paragraph 7.11. of this Regulation.
N/A.

22nd May 2018

To whom it may concern,

Please find below the description of a change to the BN360-200-ECU BOM in reference to the BN360-200 Technical Information Pack submitted January 2017.

This change is a single component change only, the components are pin for pin compatible and there are no other changes to support the new component.

Details of BN360-200-ECU BOM change:

- Item 133 (circuit reference U15) device changed from "M29W128GH70NGE" to "MT28EW128ABA1HJS-OSIT"

Kind regards,

B. John
B JOHN

B. John
Product Development Manager





The Vehicle Certification Agency (VCA)
1. The Eastgate Office Centre
Eastgate Road
Bristol
BS. 5. 6. XX.

19th June 2018.

Reference number AUT254375/1.

Dear Sir Madam,

With regards to EAU 427236 job number covering the E-mark extension to: E11 10R-O59700 * 00.

SGS agree with the client that the PCB/BOM change will not change the compliance; to the requirements of ECE Reg 10.05 approval; SGS conducted a radiated emissions test on the 15th June.

Yours truly,

Geoff Hann.