

Certificate of Product Approval

Certificate Number: 166c

Issue: 15

KAC ALARM COMPANY LIMITED

KAC House,
Thornhill Road,
North Moons Moat,
Redditch,
Worcestershire,
B98 9ND
United Kingdom

is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirement(s) of the standards as detailed below:

Products

Alarm Warning Devices

DBS1224B4W
DBS1224B4W-D
CWSO-RR-YY
CWSO-WW-YY
CWSS-RA-YY
CWSS-WA-YY
CWSS-RB-YY
CWSS-WB-YY
(Refer to Appendix for details)

Standards

EN 54-3:2001 + A1:2002 + A2:2006

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Signed for LPCB

P Halligan
Verifier

09 March 2017
Date of Issue

18 August 2014
Date of First Issue



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Appendix to Certificate No: 166c KAC ALARM COMPANY LIMITED

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| Certified Product | Description | LPCB Ref.No. |
|-------------------|--|--------------|
| DBS1224B4W | Conventional Type A Wall Mounted Sounder (White) Note: 1. Meets the requirements of EN54-3 at all output levels and at voltage ranges 10-14VDC and 21-27VDC for the following tones: – Continuous 800Hz – Alternating 800/1000Hz 500ms – Sweep 500/1200Hz 4s – Intermittent 800/0Hz Temporal | 166c/30 |
| DBS1224B4W-D | 4 Tone Type A Conventional Ceiling Mounting Sounder (White) Note: 1. Meets the requirements of EN 54-3 at all output levels, and voltage ranges of 10-14 VDC and 19.5-28VDC for the following tones: – Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence – 800Hz continuous – 500Hz-1200Hz slow whoop – Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence | 166c/40 |
| CWSO-RR-YY | Conventional Sounder Notes: 1. Type A with CSR shallow back box, Type B with CWR deep back box 2. RR indicates red body 3. YY indicates mounting option. Where S1 = shallow base (standard fix) Where S2 = shallow base (first fix) Where W1 = deep back box (standard fix) Where W2 = deep back box (first fix) 4. Meets the requirements of EN54-3: 2001 for the following tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; | 166c/51 |

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| | 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |
| CWSO-WW-YY | Conventional Sounder Notes: 1. Type A with CSW shallow back box, Type B with CWW deep back box 2. WW indicates white body 3. YY indicates mounting option. Where S1 = shallow base (standard fix) | 166c/52 |

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| | <p>Where S2 = shallow base (first fix) Where W1 = deep back box (standard fix) Where W2 = deep back box (first fix)</p> <p>4. Meets the requirements of EN54-3: 2001 for the following tones:</p> <ol style="list-style-type: none"> 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; | |

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|-------------------|---|--------------|
| | 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |
| CWSS-RA-YY | Conventional Sounder Beacon Notes: 1. Type A with CSR shallow back box, Type B with CWR deep back box 2. The beacon function is not included in the scope of the approval 3. RA indicates red body / amber lens + red LED 4. YY indicates mounting option. Where S7 = shallow base (standard fix) Where S8 = shallow base (first fix) Where W7 = deep back box (standard fix) Where W8 = deep back box (first fix) 5. Meets the requirements of EN54-3: 2001 for the following tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; | 166c/53 |

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| | 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |
| CWSS-WA-YY | Conventional Sounder Beacon Notes: 1. Type A with CSW shallow back box, Type B with CWW deep back box 2. The beacon function is not included in the scope of the approval 3. WA indicates white body / amber lens + red LED 4. YY indicates mounting option. Where S7 = shallow base (standard fix) Where S8 = shallow base (first fix) Where W7 = deep back box (standard fix) Where W8 = deep back box (first fix) 5. Meets the requirements of EN54-3: 2001 for the following tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; | 166c/54 |

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| | 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |
| CWSS-RB-YY | Conventional Sounder Beacon Notes: 1. Type A with CSR shallow back box, Type B with CWR deep back box 2. The beacon function is not included in the scope of the approval 3. RB indicates red body / red lens + red LED 4. YY indicates mounting option. Where S7 = shallow base (standard fix) | 166c/55 |

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| | <p>Where S8 = shallow base (first fix) Where W7 = deep back box (standard fix) Where W8 = deep back box (first fix)</p> <p>5. Meets the requirements of EN54-3: 2001 for the following tones:</p> <ol style="list-style-type: none"> 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; | |

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| | 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |
| CWSS-WB-YY | Conventional Sounder Beacon Notes: 1. Type A with CSW shallow back box, Type B with CWW deep back box 2. The beacon function is not included in the scope of the approval 3. WB indicates white body / red lens + red LED 4. YY indicates mounting option. Where S7 = shallow base (standard fix) Where S8 = shallow base (first fix) Where W7 = deep back box (standard fix) Where W8 = deep back box (first fix) 4. Meets the requirements of EN54-3: 2001 for the following tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; | 166c/56 |

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| | 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 – 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 – 2850, 7Hz; 24) 500 – 1200Hz, (0.5s off, 3.5s on); 25) 800 – 970, 50Hz; 26) 800 – 970, 7Hz; 27) 800 – 970, 1Hz; 28) 2400 – 2850, 50Hz; 29) 500 – 1000, 7Hz; 30) 500 – 1200 – 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 – 1000, 2Hz; 32) 2400 – 2850, 1Hz; | |

Bases / Ancillaries

| | |
|-----|-------------------------------------|
| CSW | 19mm shallow back box – white IP21C |
| CSR | 19mm shallow back box – red IP21C |
| CWW | 45mm deep back box – white IP33C |
| CWR | 45mm deep back box – red IP33C |

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Alternative Model No./Label

| LPCB Ref No. | Model No. | Alternative Model No./Label | Cross-listed company | Cross-Listed Co Cert./ Ref No. |
|--------------|--------------|-----------------------------|---|--------------------------------|
| 166c/40 | DBS1224B4W-D | NBS3D | Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd) | 166c |

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