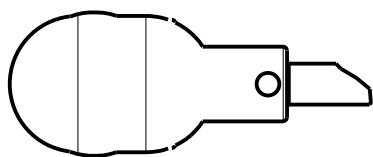


FB-EM-30347-000

SHT 1.1

**RED CONTROLLED**



TOP VIEW  
W/WINDSHIELD SHOWN  
SCALE 1:1

$\varnothing 19,0 \pm 0,3$   
[.748  $\pm$  .012]

$\varnothing 5,41^{+0}_{-0,20}$   
[.213  $\pm$  .008]

ADHESIVE BUILD UP  
TO BE 2mm MAX.

190  $\pm$  4  
[7.48  $\pm$  .16]

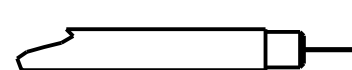
60  $\pm$  5  
[2.36  $\pm$  .20]

OUTPUT WHITE

+ve RED

-ve BLACK

PLASTIC HOUSING, BLACK



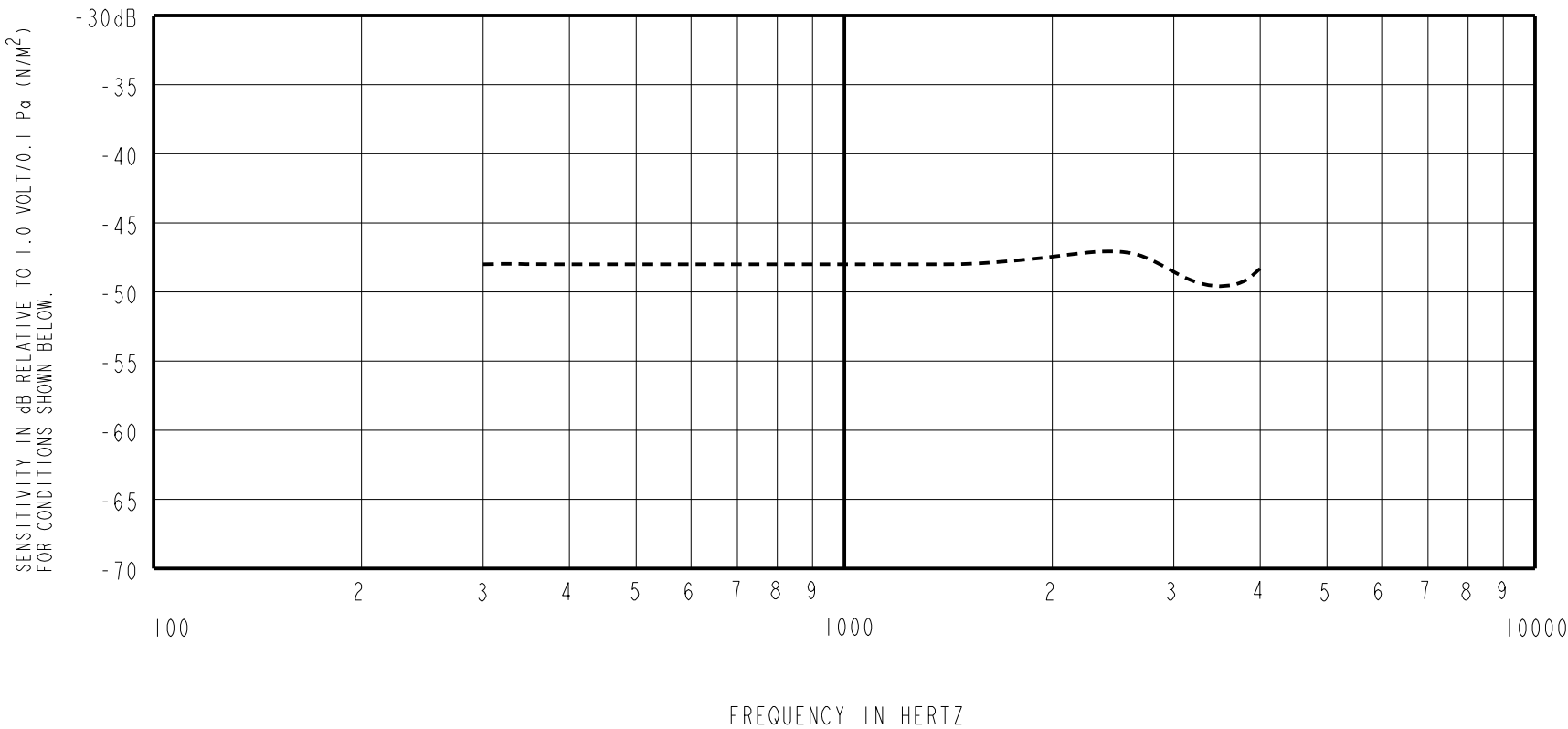
WIRES  
2mm STRIPPED & TINNED ENDS

| WIRE COLOR |        |       | WEIGHT<br>GRAMS |
|------------|--------|-------|-----------------|
| +ve        | OUTPUT | -ve   |                 |
| RED        | WHITE  | BLACK | ---             |

DIMENSIONS IN MILLIMETERS [INCHES]

**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

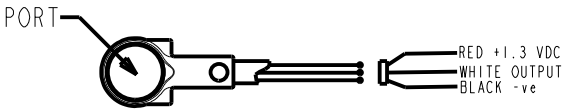
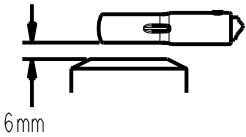
| Revision               | C.O. #    | Implementation Date | RELEASE LEVEL | REVISION     |
|------------------------|-----------|---------------------|---------------|--------------|
|                        |           |                     | Active        | D            |
| D                      | C40101206 | 3-7-13              |               |              |
|                        |           |                     |               |              |
| SCALE: 1:1             |           |                     | DR. BY TT     | DATE 6-26-08 |
| DO NOT SCALE DRAWING   |           |                     | CK. BY GJP    | DATE 7-15-08 |
| TITLE: BOOM MICROPHONE |           |                     | APP. BY GJP   | DATE 7-15-08 |
| OUTLINE DRAWING        |           |                     | SHT 1.1       |              |



| FREQUENCY | SENSITIVITY |       |       | DEVICE CONFORMITY<br>RANGE OF DEVIATION FROM 1KHz |      |
|-----------|-------------|-------|-------|---------------------------------------------------|------|
|           | MIN.        | NOM.  | MAX.  |                                                   |      |
| 300       | ---         | -48.0 | ---   | -3.0                                              | +3.0 |
| 1000      | -51.0       | -48.0 | -45.0 | 0.0                                               | 0.0  |
| 4000      | ---         | -47.0 | ---   | -3.0                                              | +5.0 |

NOTES:

- MICROPHONE TO BE FUNCTIONAL WITH 10 VDC SUPPLY.
- SENSITIVITY VALUES INDICATED ON THIS SPECIFICATION ARE VALID AT 50% HUMIDITY.
- TEST CONDITIONS:  
HEAD OF BOOM EXPOSED TO 74 dBSPL SWEPT SOUND FIELD AT 6mm FROM VOICE APERTURE.  
ARTIFICIAL VOICE:  
B & k 4227 MOUTH SIMULATOR.
- FOR MICROPHONE CAPSULE SPEC. SEE DRAWING EK-23132-C36 SHEET 2.1.
- SURVIVES 3m SUBMERSION BASED ON QUALIFICATION TESTING. 100% TEST 30 MINUTES 1m SUBMERSION; SENSITIVITY WITHIN 3dB OF INITIAL SENSITIVITY AFTER DRIED FOR 30 MINUTES AT ROOM TEMPERATURE.



LEAD IDENTIFICATION  
& TEST CIRCUIT

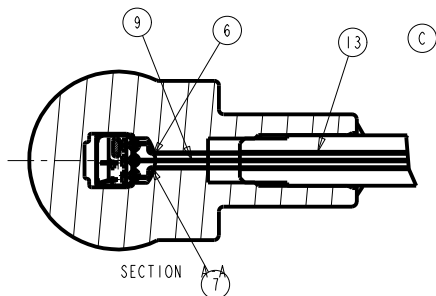
RED CONTROLLED

KNOWLES ELECTRONICS  
ITASCA, ILLINOIS U.S.A.

|                                                                                                                                                                                                              |           |                     |               |         |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|---------------|---------|----------|
| Revision                                                                                                                                                                                                     | C.O. #    | Implementation Date | RELEASE LEVEL |         | REVISION |
|                                                                                                                                                                                                              |           |                     | Active        |         | D        |
|                                                                                                                                                                                                              |           |                     |               |         |          |
| D                                                                                                                                                                                                            | C40101206 | 3-7-13              |               |         |          |
| WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION |           |                     |               | DR. BY  | DATE     |
|                                                                                                                                                                                                              |           |                     |               | TT      | 6-26-08  |
| TITLE: BOOM MICROPHONE<br>PERFORMANCE SPECIFICATION                                                                                                                                                          |           |                     |               | CK. BY  | DATE     |
|                                                                                                                                                                                                              |           |                     |               | GJP     | 7-15-08  |
| FB-EM-30347-000<br>SHT 2.1                                                                                                                                                                                   |           |                     |               | APP. BY | DATE     |
|                                                                                                                                                                                                              |           |                     |               | GJP     | 7-15-08  |

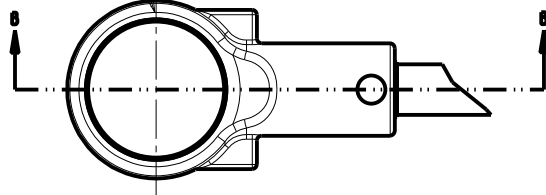
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FB-EM-30347-000



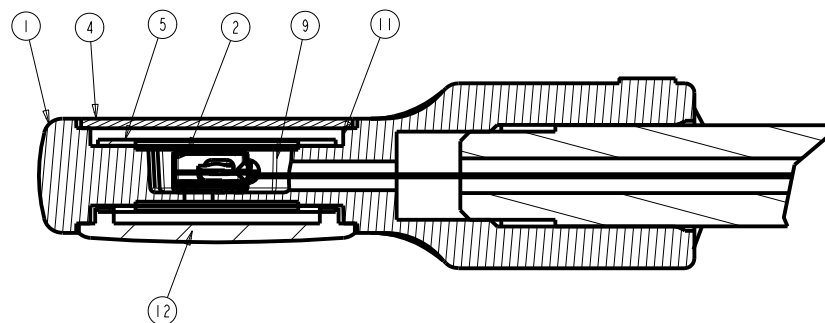
SECTION A-A

BOTH SIDES  
(4X)

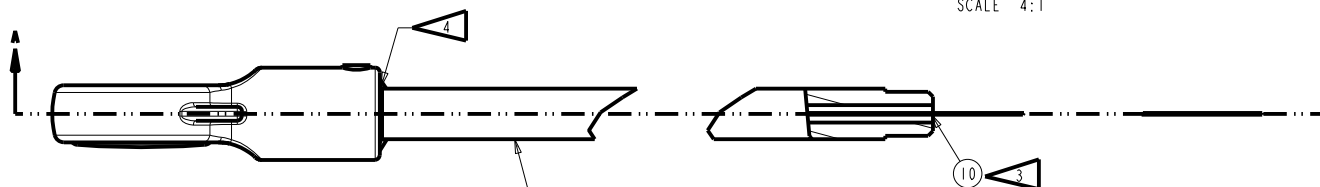


TOP VIEW  
W/WINDSHIELD SHOWN  
SCALE 1:1

RED CONTROLLED



SECTION B-B  
SCALE 4:1



DIMENSIONS IN MILLIMETERS [INCHES]

| MATERIAL            |                       |           |  | FINISH                                                                                            |                          | SCALE: 2:1 |  | DO NOT SCALE DRAWING |                 |
|---------------------|-----------------------|-----------|--|---------------------------------------------------------------------------------------------------|--------------------------|------------|--|----------------------|-----------------|
| REF. 10-1747        | SEE BILL OF MATERIALS |           |  | <div>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES</div> <div>THIRD ANGLE PROJECTION</div> | KNOWLES ELECTRONICS      |            |  |                      | DR. BY DATE     |
|                     |                       |           |  |                                                                                                   | ITASCA, ILLINOIS U.S.A.  |            |  |                      | TT 6-26-08      |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      | GJP 7-15-08     |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      | APP. BY DATE    |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      | GJP 7-15-08     |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
|                     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| A                   | c.o.                  | C10107379 |  | TITLE                                                                                             | BOOM MICROPHONE ASSEMBLY |            |  |                      | FB-EM-30347-000 |
| B                   | c.o.                  | C10107748 |  |                                                                                                   |                          |            |  |                      |                 |
| RENAME IN PROJE     |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| FROM FB-30347-000   |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| TO FB-EM-30347-000  |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| T 8-12-08           |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| C                   | c.o.                  | C40100518 |  |                                                                                                   |                          |            |  |                      |                 |
| SEE SHEET 4.1       |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| 00 11-25-10         |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| D                   | c.o.                  | C40101206 |  |                                                                                                   |                          |            |  |                      |                 |
| UPDATE THE REVISION |                       |           |  |                                                                                                   |                          |            |  |                      |                 |
| 00 3-4-13           |                       |           |  |                                                                                                   |                          |            |  |                      |                 |

|                    |  |  |                                   |  |  |                             |  |  |
|--------------------|--|--|-----------------------------------|--|--|-----------------------------|--|--|
| FB-EM-30347-000    |  |  | KNOWLES ELECTRONICS               |  |  | FB-EM-30347-000             |  |  |
| Sheet 4.1          |  |  | ITASCA, ILLINOIS U.S.A.           |  |  | Sheet 4.1                   |  |  |
| By TT Date 6-26-08 |  |  | Subject: BOOM MICROPHONE ASSEMBLY |  |  | Revision                    |  |  |
| Ch. GJP 7-15-08    |  |  |                                   |  |  | C                           |  |  |
| App. GJP 7-15-08   |  |  |                                   |  |  | Release Level               |  |  |
|                    |  |  |                                   |  |  | Active                      |  |  |
| COL. 1             |  |  | 2                                 |  |  | 4                           |  |  |
| Part or Dwg. no.   |  |  | Tot. Req.                         |  |  | Applicable Specs or Remarks |  |  |
| FB-218-500         |  |  | I                                 |  |  | HOUSING                     |  |  |
| EK-23132-C36       |  |  | I                                 |  |  | MICROPHONE ASSEMBLY         |  |  |
| FB-189-167         |  |  | I                                 |  |  | FLEXIBLE BOOM 5.4 mm        |  |  |
| FB-223             |  |  | I                                 |  |  | SCREEN DISC                 |  |  |
| FB-234             |  |  | I                                 |  |  | MEMBRANE                    |  |  |
| FB-074-000         |  |  | I                                 |  |  | WIRE BLACK                  |  |  |
| FB-074-001         |  |  | I                                 |  |  | WIRE RED                    |  |  |
| FB-042             |  |  | I                                 |  |  | WINDSHIELD                  |  |  |
| 13-092-120101      |  |  | A/R                               |  |  | CEMENT                      |  |  |
| 13-591             |  |  | A/R                               |  |  | SILICONE SEALANT            |  |  |
| 13-092-130102      |  |  | A/R                               |  |  | CEMENT                      |  |  |
| FB-219             |  |  | I                                 |  |  | COVER, BOTTOM               |  |  |
| FB-074-003         |  |  | I                                 |  |  | WIRE WHITE                  |  |  |

RED CONTROLLED

|                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                               |      |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------|-----------|
| REVISION                                                                                                                                                                                                                                                                                                                                                                                            | A                                                                                             | c.o. | C10107379 |
|                                                                                                                                                                                                                                                                                                                                                                                                     | B                                                                                             | c.o. | C10107748 |
|                                                                                                                                                                                                                                                                                                                                                                                                     | RENAME IN PRO/E FROM FB-30347-000 TO FB-EM-30347-000 T.8-12-08                                |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                     | C                                                                                             | c.o. | C40100518 |
|                                                                                                                                                                                                                                                                                                                                                                                                     | FB-074-000 WAS<br>FB-070-050<br>FB-074-001 WAS<br>FB-070-049<br>ADD FB-074-003<br>00 11-24-10 |      |           |
|                                                                                                                                                                                                                                                                                                                                                                                                     | D                                                                                             | c.o. | C40101206 |
|                                                                                                                                                                                                                                                                                                                                                                                                     | FB-234 WAS FB-038<br>00 3-4-13                                                                |      |           |
| FB-EM-30347-000<br>Sheet 4.1                                                                                                                                                                                                                                                                                                                                                                        |                                                                                               |      |           |
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ITEM: BOOM-PART-000-PMW REV: 0

# Mouser Electronics

Authorized Distributor

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[FB-EM-30347-000](#)