MK-84 MOD 1 SUS

Air to Submarine Communications Device

The SUS MK-84 Mod 1 underwater sound signal device is an expendable electro-acoustic device which provides one-way acoustic communications with submarines. It can also be used to simulate the drop of an ASW weapon during a tactical exercise. It may be dropped or deployed from fixed-wing aircraft or helicopters as well-as by over-the-side ship-launched methods.

The SUS MK-84 Mod 1 is able to transmit any one of five pre-selected coded acoustic signals, each of which may convey a predetermined message to the submarine. Four of these signals consist of a continuous tone that alternates in frequency in accordance with a timing sequence defined in the coded table (see specification). The fifth code is a continuous tone at a single frequency. Third harmonics of the fundamental frequencies are also generated at levels slightly less than those of the fundamentals. A five position switch on the side of the unit accomplishes the settings.

The MK-84 is designed to provide a source level of 160 dB/uPa within 2 seconds of water entry throughout the life of the unit.

- Electronic SUS
  - No Explosives

- Activation Following Water Entry
  - 2 Seconds (max)

- Life
  - 70 Seconds

- Multiple Tone Selections (Codes)
  - Five

- Under Water Decent Rate
  - 15 ft per Second
SPECIFICATIONS

NSN 1360-01-037-0588

PHYSICAL CHARACTERISTICS

Weight ............................................................................................................... 2.7 kg (5.9 lbs)
Size .............................................................................................................. 38 cm (15 in) long x 7.6 cm (3 in) diameter

PERFORMANCE DATA

Sonar Source Level .................................................................................... 160 dB
Sonar Operating Frequencies .................................................................... 3.3, 3.5 KHz (plus third harmonics)
Underwater Descent Rate ......................................................................... 4.5 m / sec. (15 ft / sec)
Operating Life ............................................................................................ 70 Seconds
Launch Altitude ......................................................................................... 0 to 3000 meters (0 to 10000 ft)
Launch Speed ............................................................................................ 0 to 300 KIAS
Shelf Life .................................................................................................. 10 years in sealed container
Code selections ......................................................................................... (Long 1.5 sec, Short 0.5 sec)

<table>
<thead>
<tr>
<th>Code</th>
<th>F1 (3.3 kHz)</th>
<th>F2 (3.5 kHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Long</td>
<td>Long</td>
</tr>
<tr>
<td>2</td>
<td>Short</td>
<td>Long</td>
</tr>
<tr>
<td>3</td>
<td>Short</td>
<td>Short</td>
</tr>
<tr>
<td>4</td>
<td>Long</td>
<td>Short</td>
</tr>
<tr>
<td>5</td>
<td>Off</td>
<td>Continuous</td>
</tr>
</tbody>
</table>