

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT  
CERTIFICATION TO FCC PART 15 REQUIREMENTS**

*for*

**UNINTENTIONAL RADIATOR**

**49 MHz RC BOAT AND RECEIVER**

**MODEL: 92961**

**FCC ID NO: APB92961-00A4R**

**REPORT NO: 00U0425-1**

**DATE: SEPTEMBER 18, 2000**

*Prepared for*

**MATTEL MT. LAUREL  
6000 MIDATLANTIC DRIVE  
MOUNT LAUREL, NJ 08054  
USA**

*Prepared by*

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**1. VERIFICATION OF COMPLIANCE**

COMPANY NAME : MATTEL MT. LAUREL  
6000 MIDATLANTIC DRIVE  
MOUNT LAUREL, NJ 08054  
USA

CONTACT PERSON : NATHAN BLOCH, SENIOR PROJECT ENGINEER

TELEPHONE NO. : (856) 840-1262

EUT DESCRIPTION : 49MHz RC BOAT AND RECEIVER

MODEL NAME/NUMBER : 92961

BRAND NAME : SEA ARROW

SERIAL NUMBER : N/A

FCC ID : APB92961-00A4R

DATE TESTED : SEPTEMBER 18, 2000

REPORT NUMBER : 00U0425-1

TYPE OF EQUIPMENT	SECURITY EQUIPMENT (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	49 MHz SUPERREGENERATE RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15. This said equipment in the configuration described in this report shows that maximum emission levels emanating from equipment are within the compliance requirements. **Warning** : This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification will constitute fraud and shall nullify the document.

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T. N. COKENIAS / ENGINEERING DIRECTOR  
COMPLIANCE CERTIFICATION SERVICES, INC.

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## 2. PRODUCT DESCRIPTION

MATTEL MT. LAUREL., Model SEA ARROW is the receiving portion of a multi-purpose security device. The associated Transmitter is manufactured by MATTEL MT. LAUREL, Model No 92961:, FCC ID APB92961-00A4T:.

## 3. TEST FACILITY

The 3 meter open area test site and conducted measurement facility used to collect the radiated data is located at 561F Monterey Road, Morgan Hill, California, U.S.A. A detailed description of the test facilities was submitted to the Commission on May 27, 1994.

The measuring instrument which was utilized in performing the tests documented herein has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment which is traceable to recognized national standards.

## 4. MEASUREMENT EQUIPMENT USED

Manufacturer	Model Number	Description	Cal Due Date
H.P.	8640B	Signal Generator (0.5 - 1024 MHz)	08/00
H.P.	8568B	Spectrum Analyzer (100Hz - 1.5GHz)	11/18/00
SCHAFFNER- CHASE	CBL6112B	Antenna (30-2000 MHz)	11/23/00
BATTERY	N/A	6 VOLT RECHARGABLE NICAD OR 4 AA ALKALINE BATTERY	N/A

## 5. TEST CONFIGURATION

Set signal generator to transmit at 49 MHz. The receiver receives the signal. All the wires are placed on the turn table to their maximum length to simulate the worse emission condition.

## 6. TESTS CONDUCTED

CFR 47, 15.109 RADIATED EMISSION TESTS	CONDUCTED AT 3 METERS
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## 7. RADIATED EMISSION TEST PROCEDURE

The EUT and all other support equipment are placed on a wooden table 80 cm above the ground screen. Antenna to EUT distance is 3 meters. During the test, the table is rotated 360 degrees to maximize emissions and the antenna is positioned from 1 to 4 meters above the ground screen to further maximize emissions. The antenna is polarized in both vertical and horizontal positions.

Monitor the frequency range of interest at a fixed antenna height and EUT azimuth. Frequency span should be small enough to easily differentiate between broadcast stations and intermittent ambients. Rotate EUT 360 degrees to maximize emissions received from EUT. If emission increases by more than 1 dB, or if another emission appears that is greater by 1 dB, return to azimuth where maximum occurred and perform additional cable manipulation to further maximize received emission.

Move antenna up and down to further maximize suspected highest amplitude signal. If emission increased by 1 dB or more, or if another emission appears that is greater by 1dB or more, return to antenna height where maximum signal was observed and manipulate cables to produce highest emissions, noting frequency and amplitude.

## 8. COHERENT TESTS

During Radiated Emission Tests, H.P. signal generator model no: 8640B (0.5 - 1024 MHz) was used to radiate unmodulated CW signal to EUT at 49 MHz. Please refer to radiated emission data no: 000911B1 for six highest readings.

## 9. EQUIPMENT MODIFICATIONS

To achieve compliance to FCC section 15.109, the following change(s) were made during compliance testing:

NOT APPLICABLE

**10. TEST CONFIGURATION PHOTOS (Radiated Emission Test)**