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FCC ID: KR55WK4174

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#### TEST EQUIPMENT LIST

1. Spectrum Analyzer: Hewlett Packard 8566B, with preselector HP 85685A, & Quasi-Peak Adapter HP 85650A, & HP 8449B OPT H02 Cal. 9/30/97
2. Eaton Biconnical Antenna Model 94455-1 20-200 MHz Serial No. 0997 Cal. 9/17/97
3. Electro-Metric Dipole Kit, 20-1000 MHz, Model TDA 25 cal. 5/15/97
4. Electro-Metric Horn 1-18 GHz, Model RGA-180, Cal. 9/24/97
5. Electro-Metric Antennas Model TDS-25-1, TDS-25-2, 9/3/97
6. Electro-Metric Line Impedance Stabilization Network Model No. EM-7821, Serial No. 101; 100KHz-30MHz 50uH. 9/30/97
7. Electro-Metric Line Impedance Stabilization Network Model No. EM-7820, Serial No. 2682; 10KHz-30MHz 50uH. 9/30/97
8. Electro-Metric Antenna Model RVR-25M
9. EMCO Model No. 6512 Passive Loop Antenna Calibrated 9/15/97.

#### TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. In the frequency range 10KHz to 30MHz the RBW was 10KHz and from 30-1000MHz the RBW of the spectrum analyzer was 100 kHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz. The ambient temperature of the UUT was 85.5oF with a humidity of 45%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz)	METER READING + ACF = FS
33	20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

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CIRCUIT DESCRIPTION:

The sensor pad detects weights of 12kg(representative of a three year old child with a 120mm dia sit-in area). This device will not detect bags, or brief cases. When the person of this weight is in the set the system transmits on 125KHz on board CPU so that the airbag is told what to do. This frequency is generated by the microprocessor oscillator.

ANTENNA AND GROUND CIRCUITRY

This unit makes use of a short, helical antenna. The antenna is inductively coupled to the wiring on the automobile. The antenna is self contained, no provision is made for an external antenna. This unit is powered from a 12.0V battery.

No ground connection is provided. The unit relies on the ground track of the printed circuit board.

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NAME OF TEST: RADIATION INTERFERENCE  
RULES PART NO.15.109(a) and 15.209

REQUIREMENTS: CARRIER FREQUENCY WILL NOT EXCEED 2400/F(KHz) AT 300 Meters.  
OUT-OF-BAND EMISSIONS SHALL NOT EXCEED THE LEVEL OF THE FUNDAMENTAL.

9 to 490 KHz: 2400/F(KHz) uV/m @ 300 METERS  
490 to 1705 KHz: 24000/F(KHz) uV/m @ 30 METERS  
1705 to 30 MHz: 29.54 dBuV/M @ 30 METERS  
30 to 88 MHz: 40.00 dBuV/M @ 3 METERS  
88 to 216 MHz: 43.50 dBuV/M  
216 to 960 MHz: 46.02 dBuV/M  
ABOVE 960 MHz: 54.00 dBuV/M

TEST

CONFIGURATION: The INTENTIONAL RADIATOR was connected to an ignition switch and a harness simulator cable box. The device was tested in both transmitting modes.

TEST DATA:

EMISSION FREQUENCY KHz	METER READING AT 3m dBuV	CORRECT. FACTOR dB	FIELD STRENGTH dBuV/m @ 3m
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Measured at 1.0 meter

125.0	20.0	12.5	32.5
250.0	<1.4	9.0	7.6

At neither 30meters or at 300meters were any emission measurable. the Ambient Noise level was less than 6.0dBuV.

SAMPLE CALCULATION: FSdBuV/m = MR(dBuV) + ACFdB.

TEST PROCEDURE: ANSI C63.4-1992 Section 8.2.1. The EUT was placed on a non-conducting table 80CM above the ground plane with the EUT located in the center of the table. With the antenna vertical a preliminary scan was done at 3 meters distance, the EUT was moved to a appropriate distance and the antenna height varied and also placed in a horizontal position. The frequency was scanned from 9.0KHz to 1.0GHz. When an emission was found, the table was rotated to produce the maximum signal strength. The EUT was measured in three(3) orthogonal planes. The unit was measured at TIMCO ENGINEERING, INC. located at 6051 N.W. 19th Lane Gainesville, Florida 32605.

TEST RESULTS: THE UNIT DOES MEET THE FCC REQUIREMENTS.

PERFORMED BY: S. S. SANDERS

DATE: JUNE 16, 1998

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