

**EMISSION MEASUREMENTS IN ACCORDANCE
WITH FCC PART 15 AND ANSI C63.4-1992 ON
AN ELECTRONIC DEACTIVATION SYSTEM,
BRAND TRAMPLE, TYPE SD26095.**

FCC report layout endorsed by the FCC by
Public Notice of March 11, 1992.

| | |
|------------------------|---|
| Accredited by | :STERLAB accreditation number L029 D.A.R., TTI-P-G.127/96-00 |
| Competent body | :Article 10-2 EMC Directive |
| Notified body nr. 0122 | :Article 10-5 EMC Directive Low Voltage Directive TTE Directive |
| Certification body | :Electrical Products Safety regulation, Hong Kong |
| Designated laboratory | :TTE Directive |
| Notified test service | :Automotive Directive |
| FCC listed | :31040/SIT |
| VCCI registered | :R-592 C-607 |

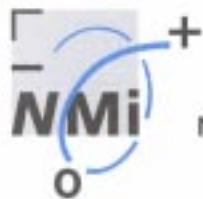
Nederlands Meetinstituut
P.O. Box 15
9822 ZG Niekerk (NL)
Smidshornerweg 18
9822 TL Niekerk (NL)

Telephone: +31 594 505005
Telefax: +31 594 504804
E-mail: NMI@NMI.nl

NMI B.V. (Chamber of Commerce Haaglanden No. 27228701)

Offices:
Delft, Bergum, Dordrecht, Niekerk, Utrecht, Tinton Falls NJ (USA),
Kawasaki (Japan), Hortolândia SP (Brazil)

Subsidiary companies:
NMI Certin B.V. (27233418)
NMI Van Swinden Laboratorium B.V. (27228703)
NMI International B.V. (27239176)



Nederlands Meetinstituut

Description of EUT: Electronic deactivation system
Manufacturer: Trample B.V.
Brand mark: Trample
Type: SD26095
FCC ID: OI6SD26095

MEASUREMENT/TECHNICAL REPORT

Trample B.V.

FCC ID: OI6SD26095

Date: January 12, 2000

This report concerns: Verification / Notification / Certification

Equipment type: Intentional radiator

Deferred grant requested per 47 CFR 0.457(d)(1)(ii) No

If yes defer until: not applicable

Transition Rules Request per 15.37: No

If no, assumed Part 15, Subpart B for unintentional radiators - the new 47 CFR (10-01-93 Edition) provision.

| | |
|---------------------|---|
| Report prepared by: | Name : J.S. Sikkema |
| | Company name : NMI Certin B.V. |
| | Address : Smidhornerweg 18 |
| | Telephone number : + 31 594 505005 |
| | Telefax number : + 31 594 504804 |
| | Mailing address : P.O. Box 15 |
| | City/Place/Postal cd. : 9822 ZG NIEKERK |
| | Country : The Netherlands |
| | Email : et-desk@nmi.nl |

The data taken for this test and report herein was done in accordance with FCC Part 15 and ANSI C63.4-1992 measurements. NMI Certin B.V., location Niekerk, The Netherlands, certifies that the data is accurate and contains a true representation of the emission-profile of the Equipment Under Test (EUT) on the date of the test noted in the test report. I have reviewed the test report and find it to be an accurate description of the test(s) performed and the EUT so tested.

Date: January 12, 2000

Signature: 

P.A.J.M. Robben, B.Sc.E.E.
Department EMC and Telecommunication

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1 General Information.

1.1 Product description.

The product tested is a stickerdeactivator, brand Trample, type SD26095. This stickerdeactivator is an instrument to deactivate the paper label tags so that they will not be detected by the anti-shoplifting system located at the shops' exit. The average area for the external antenna loop is 0.011 m².

1.2 Related Submittal(s)/grant(s).

The stickerdeactivator, brand Trample, type SD26095 can be installed and operate as slave in an anti-shoplifting system or can operate stand-alone. The anti-shoplifting, brand Trample, type ?? has been granted under OI6??.

1.3 Test Methodology.

The Test methodology of ANSI C63.4-1992 has been applied to provide adequate measuring data.

Complete data of the tested model has been recorded.

According to FCC Part 15, § 101 the EUT shall be classified as an intentional radiator and is therefore subject to certification.

1.4 Test facility.

The FCC has per Public Notice declared that the measurement facilities located at the NMI Certin B.V. testsite Niekerk, Smidshornerweg 18, The Netherlands, have been reviewed and found to be in compliance with the requirements of section 2.948 (previously section 15.38) of the FCC rules per August 4, 1994.

The description of the measuring facilities have been filed with reference 31040/SIT, 1300B3 at the FCC's Offices.

1.5 List of measurement equipment.

| NMi number | Description | Marketing name | Type |
|------------|-----------------------------------|-----------------|---------------|
| 12471 | Biconical antenna 20MHz - 200MHz | Eaton | 94455-1 |
| 12473 | Log-per antenna 200MHz - 1000MHz | Eaton | 96005 |
| 12507 | Artificial mains network 3-phase | Rohde & Schwarz | ESH2-Z5 |
| 12636 | Plastic measurement room | Polyforce | - |
| 13313 | Impuls limiter | Rohde & Schwarz | ESH3Z2.357... |
| 13886 | Open Area Test Site | Comtest | - |
| 14277 | Antennamast 4m | Heinrich Deisel | HD100 |
| 14278 | Controller OATS | Heinrich Deisel | MA240 |
| 14340 | Biconilog antenna 20MHz - 1100MHz | EMCO | 3143 |
| 15667 | Measuring receiver 9kHz - 2750MHz | Rohde & Schwarz | ESCS30 |
| 99108 | Turntable OATS | Heinrich Deisel | HD050 |
| 99115 | Voltage probe | Schwarzbeck | TK9416 |

1.6 Bandwidth and antenna factors.

The utilized measuring equipment is stated in § 1.5. The bandwidth of the receiver switches automatically to the right bandwidth in accordance with CISPR 16. This is implemented in the receiver. Also the antennafactors are included in the testreceiver. The receiver automatically calculates the appropriate correction factor for the utilized antenna and also the appropriate correction factor for the cable loss. The total correction is automatically added to the measured value.

2 Product labelling.

The following text shall be attached to the EUT, by means of a label, or -in case the enclosure is too small- on a prominent location in the users manual.

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions: (1)
This device may not cause harmful interference, and (2)
this device must accept any interference received,
including interference that may cause undesired
operation.

The dimensions of the label, the location of the label and the type of font can be found in the FCC regulation book CFR 47, parts 0 to 19, revised as per October 1, 1993.

3 System test configuration.

3.1 Justification.

During all measurements the stickerdeactivator was transmitting continuously. The RF signal, generated by the deactivator is a 1M20F3N-signal.

In accordance with § 11.2.4. of ANSI C63.4-1992 the placing and manipulation of interface cables has been carried out.

3.2 Equipment modifications.

Not applicable.

3.3 Description of tested EUT.

| | | |
|----------------------------|---|--|
| Unit title | : | sticker-deactivator |
| Model number | : | SD26095 |
| Part number | : | Not applicable |
| FCC ID number | : | OI6SD26095 |
| Frequency range | : | 8.2 MHz ± 1.2 MHz |
| Description/details | : | see section 3.1 of this report and exhibits to the application |
| Power supply | : | AC/DC adapter |
| Clock Oscillator(s) | : | 16 MHz Xtal |
| Cabinet & Screening | : | Metal |
| Interface Cable(s) | : | +12.0 VAC power supply cord, coax cable to antenna |
| Method of screening | : | Not applicable |
| Method of grounding | : | Not applicable |
| Operating configuration | : | deactivator is continuously transmitting deactivator bursts |
| Applicant's representative | : | M. Heerspink |
| Company | : | Trample B.V. |
| Address | : | Meulenakker 9 |
| Postal code and city | : | 7841 EP Sleen |
| Country | : | The Netherlands |
| Telephone number | : | +31 (0) 591 361 928 |
| Telefax number | : | +31 (0) 591 362 223 |

4 Conducted and radiated measurement photos.

On pages 9, 10 and 11 the conducted and radiated emission measurements photos are given:

Page 9 and 10: Deactivator (radiated emission, front/back)

Page 11: Deactivator (conducted emission, front/back)







5 Conducted emission data.

Final Measurement: QP = AV
 Measurement: QP

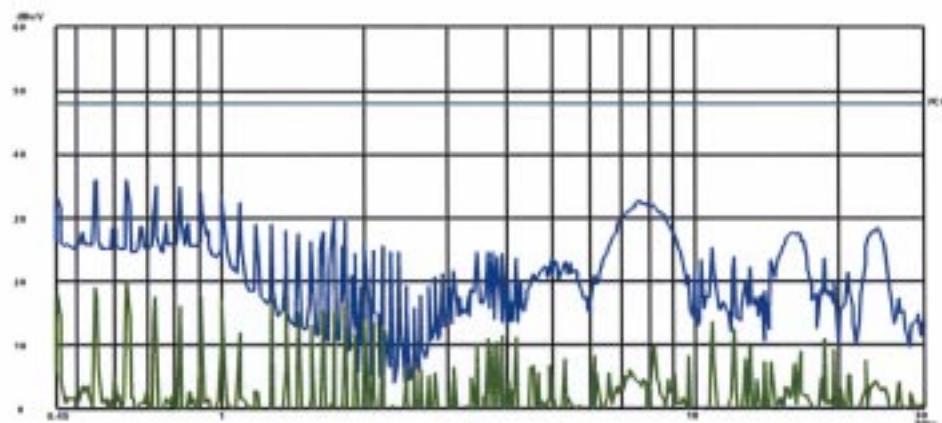


Figure 1

QP = Quasi-peak, AV = Average

| Frequency (MHz) | Measurement results dB(µV) | | Limits dB(µV) section 207 | Result |
|--------------------|-------------------------------|--------------|---------------------------------|--------|
| | Line 1 QP | Line 2 QP | | |
| 0.45 - 0.64 | < 33.0 | < 33.0 | 48.0 | PASS |
| 0.639 | 36.2 | 36.1 | 48.0 | PASS |
| 0.732 | 35.0 | 34.8 | 48.0 | PASS |
| 0.822 | 34.8 | 34.6 | 48.0 | PASS |
| 0.912 | 34.1 | 34.0 | 48.0 | PASS |
| 1.004 | 33.4 | 33.2 | 48.0 | PASS |
| 1.004 - 30.0 | < 33.0 | < 33.0 | 48.0 | PASS |

QP = Quasi-peak

Measured levels on frequencies not stated in this report have been measured more than 15 dB below the applicable limit.

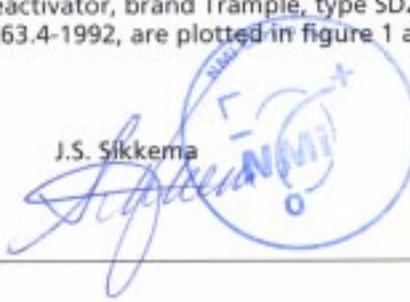
Table 1

The results of the disturbance voltage level measurements at the AC mains connection terminal **LINE and NEUTRAL** of the sticker deactivator, brand Trample, type SD26095, carried out in accordance with FCC Part 15, section 207 and ANSI C63.4-1992, are plotted in figure 1 and are depicted in table 1. Measurement results are quasi-peak results.

Test engineer

: J.S. Sikkema

Tester signature



: Date : January 4, 2000

6 Radiated emission data.

6.1 Radiated field strength measurement (30 MHz - 1000 MHz, E-field)

| Frequency (MHz) | Measurement results dB(μ V)/m @ 3 metres QP | | Limits dB(μ V)/m @ 3 metres QP section 209 |
|--------------------|--|------------|--|
| | Vertical | Horizontal | |
| 30.0 - 32.0 | < 25.0 | < 25.0 | 40.0 |
| 32.0 | 36.9 | 35.0 | 40.0 |
| 48.0 | 30.4 | 29.7 | 40.0 |
| 48.0 - 88.0 | < 25.0 | < 25.0 | 40.0 |
| 88.0 - 216.0 | < 25.0 | < 25.0 | 43.5 |
| 216.0 - 425.0 | < 25.0 | < 25.0 | 46.0 |
| 425.0 - 630.0 | < 25.0 | < 25.0 | 46.0 |
| 630.0 - 960.0 | < 30.0 | < 30.0 | 46.0 |
| 960.0 - 1000.0 | < 31.0 | < 31.0 | 54.0 |

QP = Quasi-peak

Measured levels on frequencies not stated in this report have been measured more than 15 dB below the applicable limit.

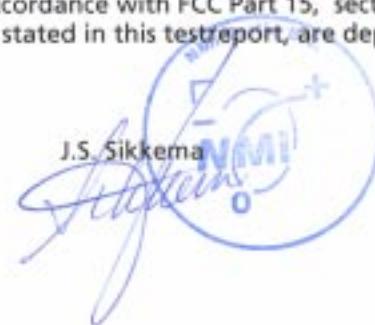
Table 2

Results of the radiated field strength (E-field) measurements on the sticker deactivator, brand Trample, type SD26095, carried out in accordance with FCC Part 15, section 209 and ANSI C63.4-1992 in the configuration and operation mode(s) as stated in this testreport, are depicted in table 2. Measurement results are quasi-peak results.

Test engineer :

J.S. Sikkema

Tester signature :



Date : December 6, 1999

6.2 Radiated field strength measurement (9 kHz - 30 MHz, H-field)

| Frequency (MHz) | Measurement results (QP) 3m dB μ V | Measurement results (QP) 10m dB μ V | Antenna factor dB | Cable loss dB | Measurement results (QP) (dB μ V/m) | Limits FCC Part 15 section 209 (dB μ V/m) |
|--------------------|---|--|-------------------------|---------------------|---|--|
| 0.009 - 0.490 | <10.0 | <5.0 | 17 | 1 | <10.0 | 48.5 - 13.8 (300 m.) |
| 0.490 - 1.705 | <10.0 | <5.0 | 17 | 1 | <10.0 | 33.8 - 22.9 (30 m.) |
| 1.705 - 8.200 | <10.0 | <5.0 | 17 | 1 | <10.0 | 29.5 (30 m.) |
| 8.200 | 17.0 | <5.0 | 19 | 1 | <10.0 | 29.5 (30 m.) |
| 8.200 - 30.000 | <10.0 | <5.0 | 19 | 1 | <10.0 | 29.5 (30 m.) |

QP = Quasi-peak

Measured levels on frequencies not stated in this report have been measured more than 20 dB below the applicable limit.

Table 3

Results of the radiated field strength (H-field) measurements, carried out in accordance with FCC Part 15, section 209 (Edition 10-1-93) and ANSI C63.4-1992, on a the sticker deactivator, brand Trample, type SD26095, are depicted in table 3.

Notes: -Frequency range: 9-90 kHz Average detector used during measurements
 110-490 kHz Average detector used during measurements

-The radiated field strengths were measured at a distance of 3 and 10 metres.

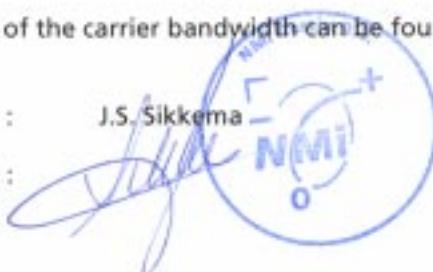
-A plot of the carrier bandwidth can be found in appendix A.

Test engineer

: J.S. Sikkema

Tester signature

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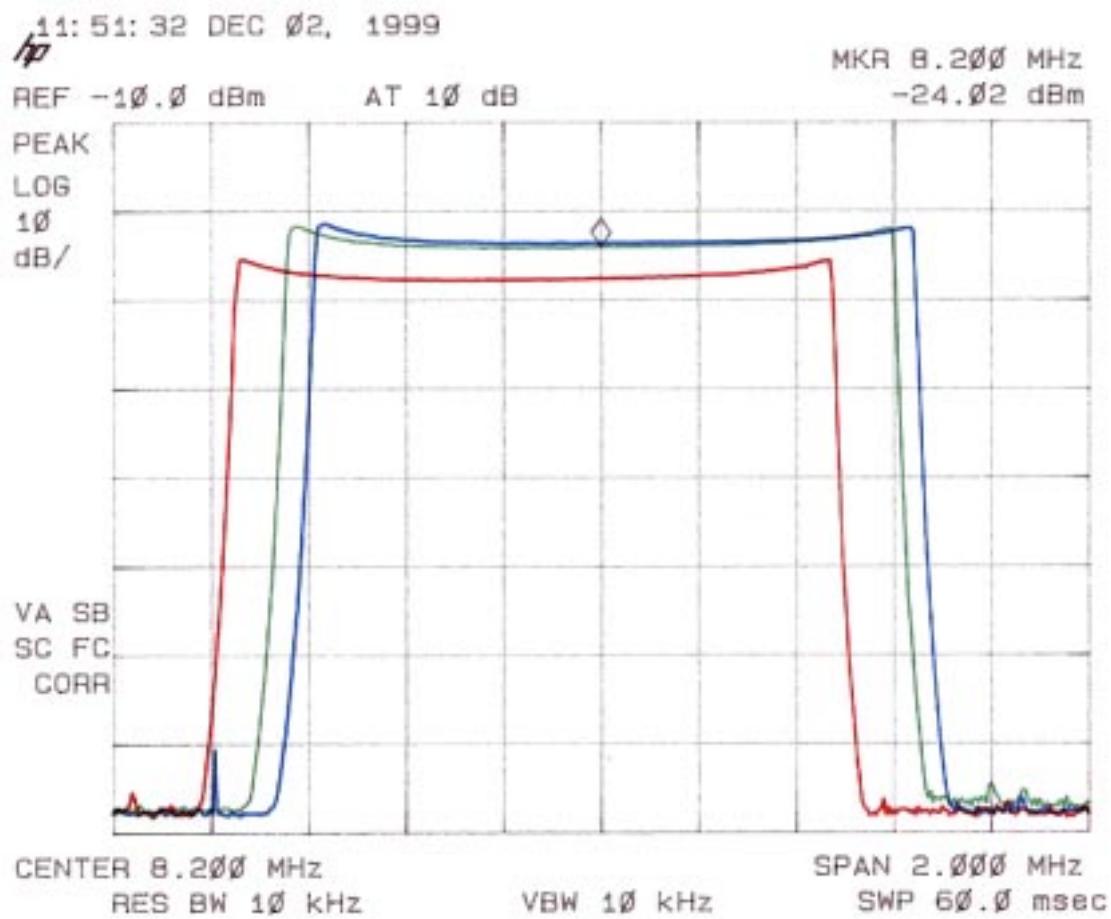
Date : December 6, 1999

7 Photos of tested EUT.

Not applicable, see § 4 of this report.

APPENDIX A

Plots of carrier bandwidth



Plot 1 - Carrier bandwidth sticker deactivator, type SD26095

Green – Standard conditions
 Blue – Low Temperature conditions
 Red – High Temperature conditions