

MATRON 3 Type 3650 and MATRON 3 Light Type 3652

Neighbour Noise Monitoring Systems

Brüel & Kjær's Manually Activated Timed Recording of Noise (MATRON) 3 Types 3650 and 3652 are the third generation of MATRON neighbour noise nuisance recording systems.

MATRON 3 is built on years of experience and takes care of your more difficult and time-consuming noise investigations. Type 3650 includes, at its heart, a Hand-held Analyzer Type 2250 with Class 1 measurement and sound recording capabilities. Type 2250 can also be used as a powerful sound level meter independently of the MATRON 3 system.

Type 3652 includes a Hand-held Analyzer Type 2250-L Class 1, also with sound recording, that is designed specifically with MATRON 3 Light measurements in mind.

An uncompressed sound recording of the noise is activated by a simple hand switch. The Class 1 hand-held analyzer continuously measures and stores noise results for comparison before, during and after the complainant initiates sound recordings. Back in the office, it is easy to identify the source and level of the noise, consequently this makes it easier to decide what action to take.



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Optional MATRON Live enables data to be viewed by Measurement Partner Suite BZ-5503 or by any Internet browser on a computer or Internet-enabled tablet or smartphone. The current state of the measurement in progress may be assessed and any settings changed if there are any issues or problems.

Uses and Features

Uses

- Investigation of time-consuming, intermittent, neighbour noise problems
- Standard briefcase is used to transport and install the monitoring system
- Same standard briefcase (now empty) is then taken from the house to avoid arousing suspicion from interested observers
- Complainant starts and stops high-quality sound recording with simple hand switch

Features

- Locked instrumentation enclosure to prevent interference
- Capacity for unattended operation
- Profile of noise levels and recordings for review of the full monitoring period on the hand-held analyzer
- Easy-to-use PC software for detailed analysis and reporting on measurements and recordings
- Battery back-up – standard with MATRON 3 system (optional with MATRON 3 Light system)
- MATRON Live enables
 - Remote monitoring using wireless 3G connectivity
 - Email reports sent daily and include alerts for low battery power and low memory card space

Description

Fig. 1
MATRON 3 Briefcase



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The standard briefcase contains a second lockable case, which is the real noise monitoring system. This means that you arrive and leave with the same case, without the neighbours suspecting a thing.

The inner case contains the noise monitoring system, a logging Class 1 hand-held analyzer complete with sound recording (Fig. 1).

The system comes with a microphone extension cable to enable remote positioning of the microphone on a tripod, and a hand switch allows the complainant to start and stop the sound recording. A clear indicator on the hand switch lights to confirm that recording is in progress.

The microphone system is usually in the complainant's house (Fig. 2). However, it can be used externally with a longer extension cable and a weatherproof outdoor microphone.

Fig. 2
MATRON 3 Neighbour Noise Monitoring System is discretely installed by the consultant/noise officer, without arousing the suspicions of observers



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The system operator can set the duration of the sound recordings with optional pre- and post-triggers. The logging software can also be set to automatically store A-weighted noise analysis parameters and (optionally) frequency analyses at regular time intervals. The case can then be locked to prevent any interference with the calibrated instrumentation. An optional calibration and service contract is available to ensure that your system meets necessary regular accredited laboratory calibration.

MATRON Live

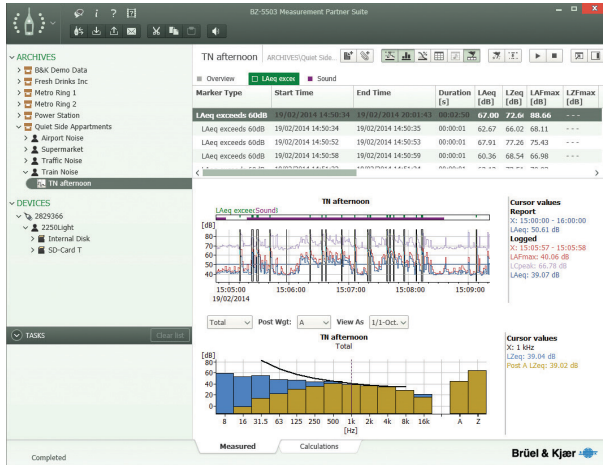
MATRON Live lets you monitor neighbourhood noise remotely using wireless 3G connectivity. Once installed, MATRON Live may be viewed using Measurement Partner Suite BZ-5503 or by any Internet browser on a computer, laptop or Internet-enabled tablet or smartphone.

The current measurement progress may be assessed and any settings adjusted if there are issues. Email reports are sent daily together with alert emails indicating power interruptions, low battery level or if space is running out on the SD or SDHC memory card.

Comparing and Post-processing with Measurement Partner Suite BZ-5503

Fig. 3
Measurement display and sound recording replay with Measurement Partner Suite BZ-5503

For more information, see Measurement Partner Suite Product Data (BP 2430)



During measurement, the system records synchronized time and date information along with noise results and sound recordings that can be compared before, during and after the complainant activates the recordings. (Fig. 3).

Measurement Partner Suite offers a wide range of free configuration, post-processing and reporting tools. You can also, optionally, export to Evaluator™ Type 7820, Noise Explorer™ Type 7815 or Excel®.

Optional licensed Measurement Partner Suite modules enable you to work with your data without having to export to another program.

Measurement Partner Suite Logging Module BZ-5503-A

The logging module enables effective and quick identification and analysis of the important parts of a logging profile by using the export region feature and advanced report period and marker functionality. With Measurement Partner, searching through large amounts of data in Excel® is history. This module also enables you to export sound recordings to create digital media (for example, a CD), and add attachments, annotations and markers using the marker and report wizard. These recordings are conveniently renamed to include the date and time they were made.

Measurement Partner Suite Spectrum Module BZ-5503-B (with BZ-7223, BZ-7131 or BZ-7132)

With the spectrum module, post-weighting requires only one mouse click in the measured spectrum window or the calculator. Spectra can be easily converted from 1/3-octave to 1/1-octave manually in the measured spectrum window or automatically in the calculator. In addition, spectrum calculations, such as broadband correction for known reflections and correction for background noise (user-defined or standardized), can be performed with the calculator. Tone assessment can also be performed.

Measurement Partner Suite WAV File Analysis Module BZ-5503-C

This module includes a set of tools for post-processing WAV files collected with Signal Recording Option BZ-7226. Combining this module with Spectrum Module BZ-5503-B enables tone assessment of WAV files. You can also join WAV files for archiving or further post-processing with other software such as PULSE Multi-analyzer.

Compliance with Standards

	<p>CE-mark indicates compliance with: EMC Directive and Low Voltage Directive RCM mark indicates compliance with applicable ACMA technical standards – that is, for telecommunications, radio communications, EMC and EME China RoHS mark indicates compliance with administrative measures on the control of pollution caused by electronic information products according to the Ministry of Information Industries of the People’s Republic of China WEEE mark indicates compliance with the EU WEEE Directive</p>
Safety	EN/IEC 61010–1, ANSI/UL 61010–1 and CSA C22.2 No.1010.1: Safety requirements for electrical equipment for measurement, control and laboratory use
EMC Emission	EN/IEC 61000–6–3: Generic emission standard for residential, commercial and light industrial environments EN/IEC 61326: Electrical equipment for measurement, control and laboratory use – EMC requirements CISPR 22: Radio disturbance characteristics of information technology equipment. Class B Limits IEC 61672–1, IEC 61260 and IEC 60804: Instrumentation standards
EMC Immunity	EN/IEC 61000–6–2: Generic standard – Immunity for industrial environments EN/IEC 61326: Electrical equipment for measurement, control and laboratory use – EMC requirements IEC 61672–1, IEC 61260 and IEC 60804: Instrumentation standards Note: The above is only guaranteed using accessories listed in this Product Data

Specifications – MATRON 3 Neighbour Noise Monitoring Systems Types 3650 and 3652

MATRON 3 systems are based on the Hand-held Analyzer Type 2250 platform. See [Product Data BP 2025](#) for analyzer specifications.

Ordering Information

Type 3650

MATRON 3 System including:

Briefcase containing second internal lockable case (for Type 2250) with cable connectors and spaces for tripod, adaptor, calibrator, hand switch and power supply

Components included with MATRON 3 Type 3650:

- Type 2250-C-D00: Hand-held Analyzer Type 2250 with Sound Level Meter and Logging Software. Also includes SD memory card and accessories for using Type 2250 independently of MATRON 3 system
- Type 4231: Sound Calibrator
- AO-0441-D-030: Microphone Extension Cable (3 m)
- BZ-5503: Measurement Partner Suite
- BZ-7226: Sound Recording Option for Type 2250
- KE-1015: MATRON 3 Outer Case
- KE-1023: MATRON 3 Inner Case
- QB-0061: Re-chargeable Li-Ion Battery Pack for Hand-held Analyzer Type 2250
- UA-0588: ½" Microphone Holder for Tripod
- UA-1236: Protective Microphone Cover
- UA-1251: Tripod (folds flat inside case)
- ZH-0680: Hand Switch

Type 3652

MATRON 3 Light System including:

Briefcase containing second internal lockable case (for Type 2250) with cable connectors and spaces for tripod, adaptor, calibrator, hand switch and power supply

Components included with MATRON 3 Light Type 3652:

- Type 2250-M: Hand-held Analyzer Type 2250-L with Sound Level Meter, Logging and Sound Recording Software. Also includes SD memory card and accessories for using Type 2250-L independently of MATRON 3 Light system
 - AO-0441-D-030: Microphone Extension Cable (3 m)
 - BZ-5503: Measurement Partner Suite
 - KE-1015: MATRON 3 Outer Case
 - KE-1023: MATRON 3 Inner Case
 - UA-0588: ½" Microphone Holder for Tripod
 - UA-1236: Protective Microphone Cover
 - UA-1251: Tripod (folds flat inside case)
 - ZH-0680: Hand Switch
- (Please note Sound Calibrator Type 4231 and 2250 Battery Pack QB-0061 are not supplied as standard with MATRON 3 Light Systems)

OPTIONAL ACCESSORIES FOR MATRON 3 LIGHT

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|-----------|--|
| Type 4231 | Sound Calibrator |
| QB-0061 | Re-chargeable Li-Ion Battery Pack for Hand-held Analyzer Type 2250 |
| UA-1733 | MATRON System upgrade to MATRON Live Including: Inner case upgrade and 3G router with external rubber antenna for G1–3 hand-held analyzers |
| UA-1734 | MATRON System upgrade to MATRON Live Including: 3G router with external rubber antenna for G4 hand-held analyzers |

TRADEMARKS

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SOFTWARE MODULES AVAILABLE SEPARATELY

For Use with MATRON 3 Type 3650

- | | |
|-------------|---|
| BZ-7223 | Frequency Analysis Software for Type 2250 |
| BZ-7225 | Enhanced Logging Software for Type 2250 |
| BZ-7225-UPG | Upgrade from Type 2250 Logging Software |
| BZ-7227 | Reverberation Time Software for Type 2250 |
| BZ-7228 | Building Acoustics Software for Type 2250 |
| BZ-7230 | FFT Analysis Software for Type 2250 |
| BZ-7231 | Tone Assessment Option for Type 2250 |

For Use with MATRON 3 Light Type 3652

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|---------|--|
| BZ-7131 | 1/1-octave Frequency Analysis Software for Type 2250-L |
| BZ-7132 | 1/3-octave Frequency Analysis Software for Type 2250-L |
| BZ-7231 | Tone Assessment Option for Type 2250-L |

CALIBRATION

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|-----------|---|
| Type 4231 | Sound Calibrator |
| Type 4226 | Multifunction Acoustic Calibrator |
| Type 4228 | Pistonphone |
| 2250-CAI | Accredited Initial Calibration of Type 2250 |
| 2250-CAF | Accredited Calibration of Type 2250 |
| 2250-CTF | Traceable Calibration of Type 2250 |
| 2250 TCF | Conformance Test of Type 2250, with Certificate |

PC SOFTWARE

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|-----------|---|
| BZ-5503 | Measurement Partner Suite |
| BZ-5503-A | Logging Module |
| BZ-5503-B | Spectrum Module |
| BZ-5503-C | WAV File Analysis Module |
| Type 7815 | Noise Explorer (data viewing software) |
| Type 7820 | Evaluator (data viewing and calculation software) |

SERVICE PRODUCTS

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|----------|--|
| 2250-EW1 | Extended Warranty, one year extension |
| 2250-MW1 | 5 Year Warranty including yearly accredited calibration - annual payment |
| 2250-MW5 | 5 Year Warranty including yearly accredited calibration |

MEASUREMENT ACCESSORIES

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|---------------|--|
| AO-0441-D-015 | Microphone Extension Cable, 10-pin LEMO, 1.5 m (5 ft), |
| AO-0441-D-030 | Microphone Extension Cable, 10-pin LEMO, 3 m (10 ft), |
| AO-0441-D-100 | Microphone Extension Cable, 10-pin LEMO, 10 m (33 ft) |
| UL-1009 | 2 GB SD Memory Card |
| UL-1017 | 8 GB SDHC memory card |
| ZG-0444 | Charger for QB-0061 Battery Pack |

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