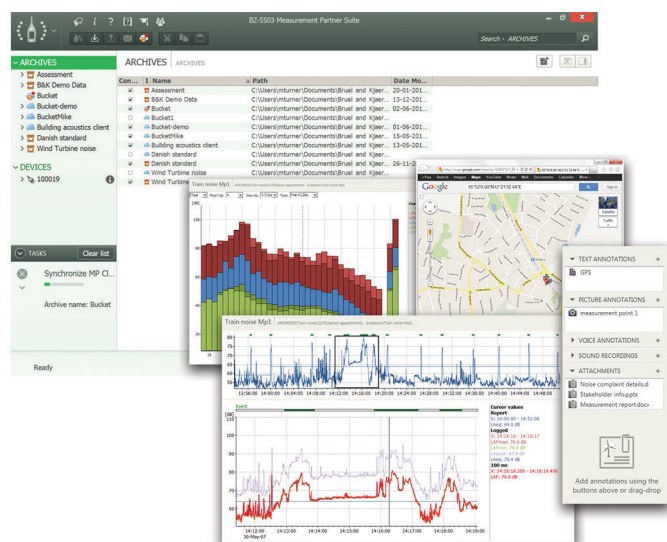PRODUCT DATA

Measurement Partner Suite BZ-5503
from software version 4.8

You have just been out in the field performing your measurements and now you are back in the office ready to write your report. Often there is a lot more work to do before you can prepare a report. From calculating your results to preparing your report, the post-processing phase can be time-consuming, labour-intensive and sometimes risky in regards to potential errors. In many instances, the post-processing and reporting phases of a project are actually longer than the measurement itself.

Modular and optimized for the post-processing of measurement data, Measurement Partner Suite (MPS) provides essential post-processing tools for the noise and vibration professional.

The powerful combination of a Hand-held Analyzer Type 2250, 2250-L or 2270 with its range of sound and vibration applications, together with the Measurement Partner Suite software, equips you for any measurement task.

In its basic configuration, Measurement Partner Suite provides a data viewing and maintenance platform for your hand-held analyzer. Advanced post-processing functionality is available with a licence.

140045/2

Uses and Features

Uses
- PC software for Hand-held Analyzer Type 2250, 2250-L or 2270
- Maintenance of analyzer software
- Archiving and sharing of data
- Post-processing of measurement data
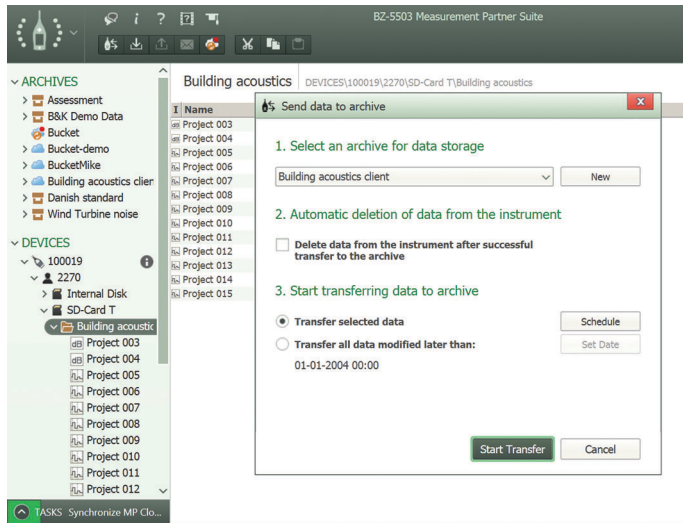
Features
Basic (free) features:
- Download of data from the analyzer using USB cable or LAN network
- Management, viewing and archiving of data from the analyzer
- Viewing of data in archives
- Export of data to other platforms such as Microsoft® Excel®
- Management of software updates and licences for your analyzer and Measurement Partner
- Remote control and viewing of the analyzer
- Playback of WAV files

Licenced features:
- Marker wizard for marking of logging profiles
- Individual octave band logging profiles
- Tone assessment (1/3-octave, FFT)
- Spectrum calculator including post-weighting of spectra and FFT to 1/3-octave conversion
- Edit and export WAV files
- FFT-based tone analysis of WAV files
- Dedicated support of selected local legislation (for example, BS-4142:2014 UK)
- Scheduled data transfer
- Export to Enviro Noise Partner BZ-7301
- Export to Work Noise Partner BZ-7302
- Export to Building Acoustics Partner BZ-7350
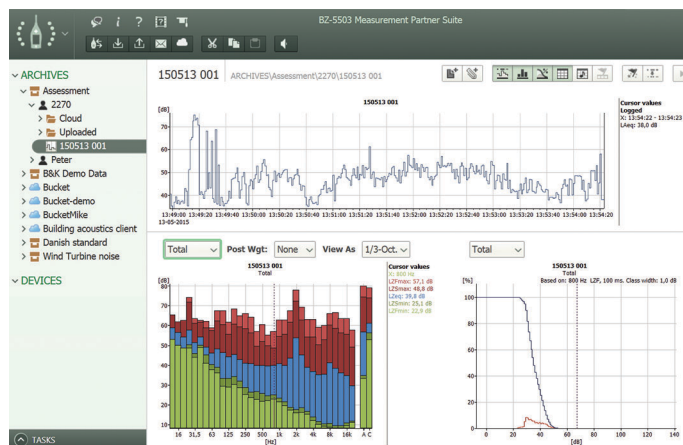
Download Data to Archives
Fig. 1   Transfer and archive data quickly and easily

You can download data from your analyzer to any archive by connecting the analyzer to a PC running Measurement Partner Suite, either using the supplied USB cable or via wired/wireless LAN or remote connection. Or, if you have saved your data on an SD card, you can insert the SD card in a card reader. Once you transfer your measurement data to Measurement Partner Suite, it is waiting for you when you come back to the office for post-processing.
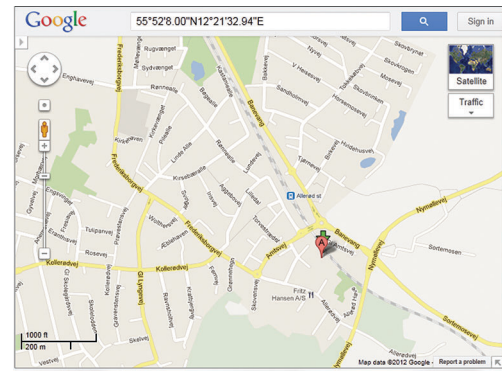
View Measurement Data
Fig. 2   Scroll through measurements in a project and view the individual data in graph format

In Measurement Partner Suite, your data is displayed in every detail to help you understand which post-processing tasks are required to extract what you need.
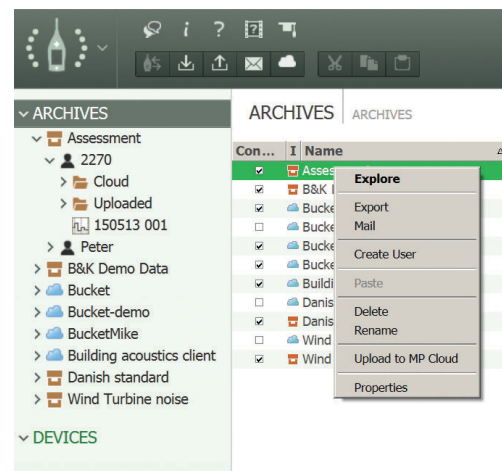
Fig. 3   View GPS coordinates in Google Maps directly in Measurement Partner Suite

Within Measurement Partner Suite, GPS coordinates can be seen in Google Maps™ with a single right-click.
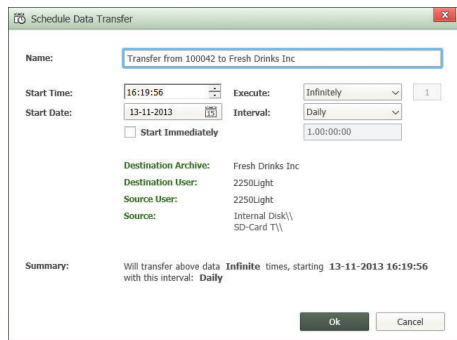
Share Data
Fig. 4   Share your data with colleagues and clients who also have MPS

Sharing data is easy using the Pack-and-Go feature, where you simply send an email with a B7Z file that creates its own archive in the recipient's Measurement Partner Suite.
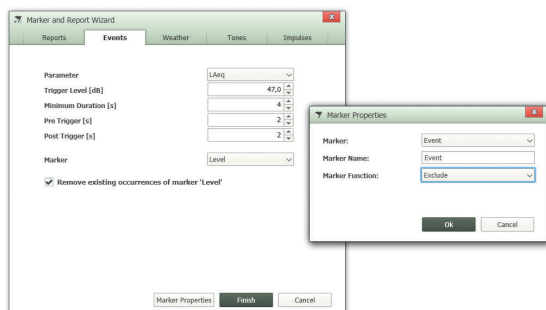
Scheduling Data Transfers

Fig. 5   Scheduling data transfer

If you are connecting remotely with your analyzer over longer periods, you can schedule automatic data downloads at predetermined times using the Schedule Data Transfer feature.
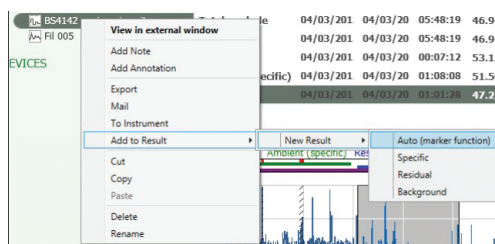
Adding Markers to a Logging Profile

Fig. 6   Marking a logging profile using the Marker and Report wizard

The Marker and Report wizard makes it easy to add or modify exceedance, exclude, event, level, sound or user-defined markers. The markers can be defined based on a number of criteria such as noise level or wind speed and direction data collected with weather stations MM-0316 or MM-0256.

The Marker and Report wizard also allows you to redefine the measurement data's report period as many times as needed. Report periods can be any length that does not exceed the duration of the measurement. You can also create your own marker names using marker properties.

Support of Local Legislation

Measurement Partner Suite supports UK, French and German users with a turnkey solution for calculating the rating level according to the local legislation in each of these countries.

In the UK, BS-4142:2014 determines how the rating level calculation is performed. Dedicated markers (specific, residual and background) send selected portions of measurement projects to a results section where users can work interactively with their data to calculate rating level. Tone and impulse assessment according to BS-4142:2014 are fully supported.
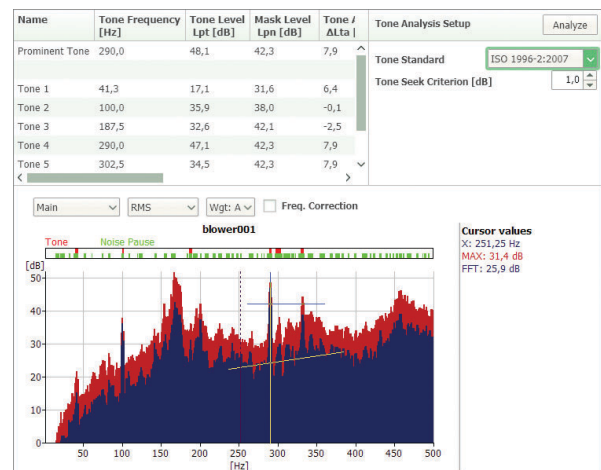
When an environmental assessment is performed in France, the primary legislation used to guide consultants and authorities in their measurements is Emergence. Emergence is divided into two types: ICPE (#IPPC) and neighbourhood noise. Tones are assessed according to Tonalité Marquée. These standards are all supported in Measurement Partner Suite. Should some French users still be working to the Août 85 standard (old Emergence), this is also supported.

Environmental assessments are performed in Germany according to the TA Lärm (technical instruction on noise control). TA Lärm defines the rating level formulas and the exceedance criteria referencing DIN 45641 (averaging of sound levels) and DIN 45680 (measurement and evaluation of low-frequency environmental noise). The actual calculation according to TA Lärm is done in Microsoft® Excel® using the official Excel macro provided by the DIN committee.

Tone and Impulse Assessment

To determine whether limits have been exceeded, you must identify which portions of the logging profile are relevant for further analysis. Tone and impulse content can often be critical when determining whether limits have been exceeded. Measurement Partner Suite can perform tone assessment and impulse assessment based on criteria that you define.

Fig. 7   Perform tone assessment

You can perform tone assessment on FFT or 1/3-octave spectra using either ISO 1996-2:2007 or DM 16-03-1998 and view complete tone assessment details in the Tone table. Prominent tones are automatically identified.

Measurement Uncertainty Tool

Measurement Uncertainty (Table 1 in ISO 1996-2:2007(E))					
Standard Uncertainty [dB]				Combined Standard Uncertainty σt [dB]	Expanded Measurement Uncertainty ±2σt [dB]
Due to instrumentation I	Due to operating conditions X	Due to weather and ground conditions Y	Due to residual sound Z		
1.0	0.0	1.5	0	1.8	3.6

Any measurement is meaningless without an uncertainty or tolerance associated with it and noise measurements are no exception. The Measurement Partner Suite solution is based on the idea that measurement uncertainty should be stated in the report, and is designed to support your measurement uncertainty calculations using the methodology presented in ISO 1996-2:2007.
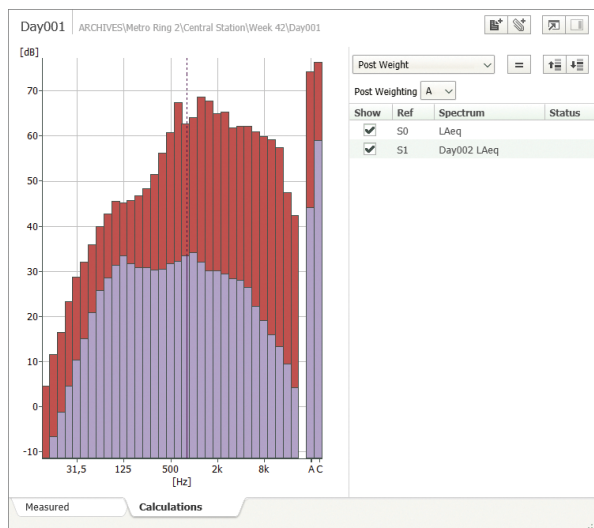
Calculating Statistical Parameters

Measurement Partner Suite offers the option of calculating broadband and spectral statistics in post-processing, even when this has not been done on the analyzer. LN logged octaves can even be shown in the profile view when this option is selected in the calculation settings.

Post-processing Spectra

Sometimes during post-processing you will need to adjust the way your frequency data is presented. This is done in the Calculations tab where you can perform basic calculations, adjust the frequency weighting of the data and even convert FFT to 1/3-octave.
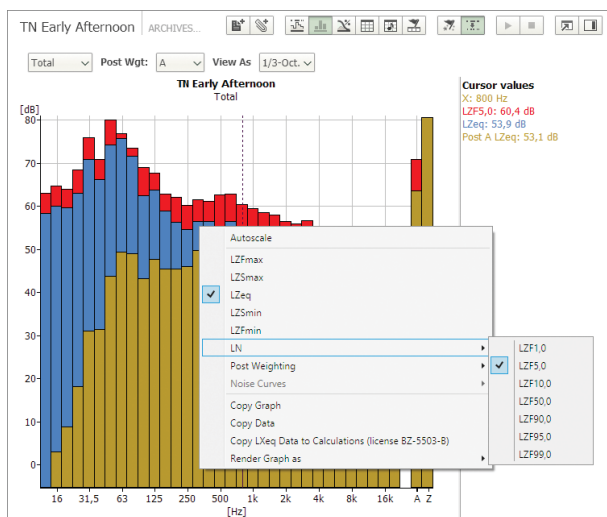
Basic Calculations

Fig. 8   Select the Calculations tab to perform basic spectrum calculations

In the Calculations tab you can, for example, subtract background noise from a noise level measurement or add numerous individual spectra together to ascertain the combined noise spectrum result.

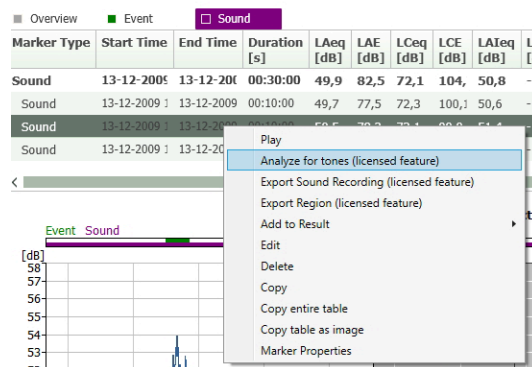### Change Frequency Weighting of Spectra

Fig. 9   Frequency weighting added to spectra

If your data was measured with Z-weighting and you need to apply either C- or A-weighting, then this can be done in the Spectrum view during post-processing.
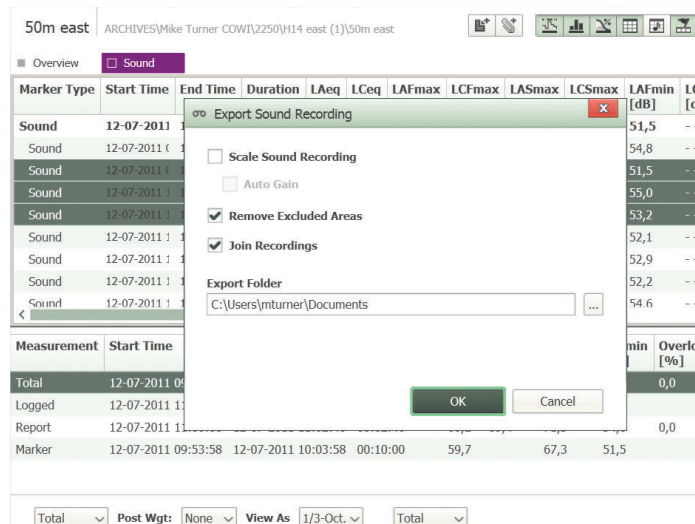
Working with WAV Files

Fig. 10 Perform tone assessment on the WAV file itself

Your analyzer with Signal Recording Option BZ-7226 stores signal recordings as WAV files, which can be post-processed and edited in Measurement Partner Suite. Users with BZ-7226 on their analyzer can perform a tone assessment on the WAV file itself. You can even select the portion or portions of the WAV file on which your analysis is based.
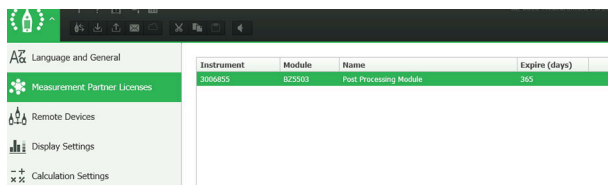
The edited WAV files can be exported for further post-processing in other Brüel & Kjær® programs such as BK Connect®.

Fig. 11 Exporting a WAV file

Licencing

Fig. 12 *Licence tab where licences are viewed and managed*

Measurement Partner Suite is the PC software for your hand-held analyzer. The basic functionality comes free of charge and provides data archive, review and export capabilities, as well as software maintenance and remote connection.

The advanced post-processing functionality can be added to Measurement Partner Suite with the post-processing module licence. There are two licencing methods available:
- **Method 1:** Licences can be locked to instrument serial numbers allowing licence files to be shared freely and copied to any PC where Measurement Partner Suite is installed. Each licence relates to one instrument only, so if you have two instruments and you need to analyse data from both, then you will need two licences. This method of licencing suits users with one, or just a few instruments, and is available as a permanent licence or as 1-year subscription
- **Method 2:** Licences can be locked to a PC dongle. This allows you to post-process data from an unlimited number of instruments, as long as the dongle is attached to the PC. In this case, licence files cannot be freely shared amongst users, only when a dongle is attached to the PC is the functionality available. This method of licencing suits users with many instruments

In the user interface, functionality is enabled as long as a valid licence is installed. If a subscription licence is near its expiry date, a warning is shown during start-up. Contact your HBK representative to renew your subscription.

New to Measurement Partner? Licenced Demo Data

Measurement Partner is designed to be intuitive and easy to use. However, new or occasional users may need help operating the software.

If you are new to Measurement Partner Suite, one way to learn is to experiment with the fully licenced demo data. When working with the demo data you will have unlimited access to all the licenced functionality allowing you to play with all the features of Measurement Partner Suite before deciding whether to purchase a licence.

	FREE	LICENCED FUNCTIONALITY (POST-PROCESSING MODULE BZ-5503)
Manage archives	X	X
Upgrade analyzer	X	X
Licence install on analyzer	X	X
Export (78XX, XML, ASCII)	X	X
Template maintenance	X	X
User Maintenance	X	X
List view (small graphs of projects, total values LAEq, etc.)	X	X
Online display	X	X
Add/view annotations on projects/job folders/templates	X	X
Export annotations (project and profile annotations)	X	X
Pack-and-Go files (export/import)	X	X
Send mail	X	X
View projects (CPB, Logging, etc.)	X	X
Search	X	X
Noise rating curves	X	X
Display wind speed and/or direction on profile	X	X
Change LN percentiles	X	X
Synchronize analyzer time	X	X
Rating level calculation according to: UK legislation BS-4142:2014; French Legislation (Emergence, Août 85); and German Legislation (TA Lärm)	X	X
Export to Enviro Noise Partner BZ-7301	X	X
Export to Work Noise Partner BZ-7302 (requires BZ-7302-X licence)	X	X
Export to Building Acoustics Partner BZ-7350 (requires BZ-7350-X licence)	X	X
View logged octaves in profile		X
Scheduler for downloads (pause/resume; version 4 analyzer software required)		X
Export region from profile		X
New/edit/delete markers		X
Marker calculations		X
Marker wizard (weather, tone and impulses)		X
Report wizard		X
Annotations and attachments on markers		X
Configure marker		X
Export marker calculation data		X
Generate spectral statistics		X
Weather markers (average wind speed and direction and report periods)		X
Marker: level exceedance		X
Post-weight spectra		X
1/3- to 1/1-octave conversion		X
Calculation (add/subtract/compare octave spectra, background correction) on CPB or FFT spectra		X
Tone assessment for CPB or FFT spectra		X
Tone assessment for WAV files		X
Advanced export of signal recordings (scale, remove excluded areas and join recordings)		X

For more information, please visit www.bksv.com.

BZ-5503 is included with Types 2250, 2250-L and 2270 for easy synchronization of setups and data between the PC and hand-held analyzer. BZ-5503 is supplied on ENV DVD BZ-5298

System

SYSTEM REQUIREMENTS
Operating System: Windows® 7, 8.1, 10 or 11 (all in 32-bit or 64-bit versions)

DISPLAY
1024 × 768 (1280 × 800 recommended)

RECOMMENDED PC
- Intel® Core™ i3
- Microsoft®.NET 4.5
- 2 GB of memory
- Sound card
- DVD drive
- At least one available USB port
- Solid State Drive

Interface to the Hand-held Analyzer

CONNECTION
USB, LAN or Internet connection

HAND-HELD ANALYZER SOFTWARE UPGRADES AND LICENCES
The software controls analyzer software upgrades and licencing of the analyzer applications

LICENCE MOVER
To move a licence from one analyzer to another use BZ-5503 together with Licence Mover VP-0647

REAL-TIME DISPLAY OF TYPE 2250/2250-L/2270 DATA
Measurements on the analyzer can be controlled from the PC and displayed online with the PC, using the same user interface on the PC as on the analyzer

Data Management

Explorer: Facilities for easy management of analyzers, users, jobs, projects and project templates (copy, cut, paste, delete, rename, create)
Data Viewer: View measurement data (content of projects)
Synchronization: Project templates and projects for a specific user can be synchronized between PC and analyzer

USERS
Users of Type 2250/2270 can be created or deleted

EXPORT FACILITIES
Excel®: Projects (or user-specified parts) can be exported to Microsoft® Excel® (Excel 2003 – 2016 supported)
Brüel & Kjær Software: Projects can be exported[*] to Enviro Noise Partner BZ-7301, Work Noise Partner BZ-7302, Building Acoustics Partner BZ-7350 and BK Connect

User Interface

LANGUAGE
User interface in Chinese (People's Republic of China), Chinese (Taiwan), Croatian, Czech, Danish, English, Flemish, French, German, Hungarian, Japanese, Italian, Korean, Polish, Portuguese, Romanian, Russian, Serbian, Slovenian, Spanish, Swedish, Turkish and Ukrainian

HELP
Concise context-sensitive help in English

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[*] Not all data are available in all exports. The data exported are dependent on the type and target of the export.

Ordering Information

BZ-5503-012	Post-processing Module, 1 year subscription for one instrument
BZ-5503-ND	Post-processing Module, permanent license for any instrument (dongle)
BZ-5503-NI	Post-processing Module, permanent license for one instrument
BZ-7302-X-ND	Work Noise Partner export from Measurement Partner Suite, licence for any instrument (dongle)
BZ-7302-X-NI	Work Noise Partner export from Measurement Partner Suite, licence for one instrument
BZ-7350-X-ND	Building Acoustics Partner export from Measurement Partner Suite, licence for any instrument (dongle)
BZ-7350-X-NI	Building Acoustics Partner export from Measurement Partner Suite, licence for one instrument

OPTIONAL ACCESSORIES
VP-0647	Licence Mover

2022-08

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