

All-weather Case Type 3535-A

All-weather Case Type 3535-A houses a noise measurement system based on Hand-held Analyzer Types 2250/2250-L/2270.

The case is light and robust, with its contents protected by high-density machined foam inlays. Designed for unattended noise monitoring, the enclosure protects the measurement system from the weather and unauthorised access while providing power and remote data retrieval.

Battery power for extended measurement durations is provided by two Li-Ion batteries. These lightweight batteries make Type 3535-A compact and completely portable. A charger is included in the case for each battery. The chargers can also be used to power the system if mains power is available. Alternatively, external DC power can be used.

A wide variety of optional accessories and measurement modules are available to tailor the system capability to the monitoring task. One option is adding weather stations for simultaneously acquiring noise and weather data.



Uses and Features

Uses

- Measurements made:
 - Outdoors
 - Unattended
 - In workplaces and on construction sites
 - In remote locations
- Measurements for:
 - Area planning
 - Noise control
 - Complaint investigation
 - Venue licensing

Features

- Weather protection to IP 43
- Easy to carry and transport
- Tamper protection
- Hot swap of batteries
- Flexible power options
- Simultaneous noise and weather data measurement

Additional features with Type 2250/2250-L/2270 logging software:

- Type approved to Class 1
- Level trigger
- Sound recording of events
- Auto Charge Injection Calibration (CIC) check
- Remote 3G broadband operation
- Automatic status SMS text messages
- Automatic status email messages
- External trigger^{*}
- Supply voltage check^{*}
- Timer controlled measurement
- Periodic reports[†]
- Up to 32 GB data storage on SDHC memory card

^{*} Type 2250/2270 software only

[†] Type 2250/2270 Enhanced Logging software only

Fig. 1
Contents of
Type 3535-A



Protection of the Contents

During transportation the analyzer and batteries are held safely in place by the lid inlay, and the chargers and router/modem are secured using velcro straps.

During measurements, any cables exiting the case, such as the microphone extension cable and a mains power cable (if used), are strain relieved inside the case and protected by a rain shield mounted on the case lid.

Power

Type 3535-A comes with two powerful batteries and two chargers. Power for the system may be provided by any or all of the following:

- One of the included batteries (QB-0079)
- Both of the included batteries (QB-0079)
- One of the included chargers (ZG-0857), provided mains power is available
- Both of the included chargers (ZG-0857), provided mains power is available
- External DC power 12 – 24 V

In addition, the hand-held analyzer has an internal Li-Ion battery, that provides a further 8 hours of power for the analyzer.

Fig. 2
Compact and lightweight, Type 3535-A is easy to carry and transport



The case's batteries use lithium-ion (Li-Ion) technology, well known from mobile phones, portable PCs and hand tools. Li-Ion batteries are renowned for their excellent charge retention, lack of "memory", and very high energy efficiency (5 times better power to weight ratio than traditional lead-acid batteries). For reliable long-life operation, the batteries have internal circuitry to protect against shorts and over-discharge.

The chargers are used to charge the batteries prior to measurements but may also be used to power the system during measurement if mains power is available.

All power sources are connected to the case's power panel, which always directs power from the source with the highest voltage to supply the measurement system and optional modems.

You may connect or disconnect power sources at any time during measurement as long as just one power source remains in operation, including during hot-swapping of batteries.

The power panel output voltage can be measured and logged by Types 2250 and 2270. If you are connected to the measuring system via an internet, LAN, GSM or 3G network, you can check the voltage remotely or automatically receive an SMS text or email warning message if it drops below a preset limit.

Timers

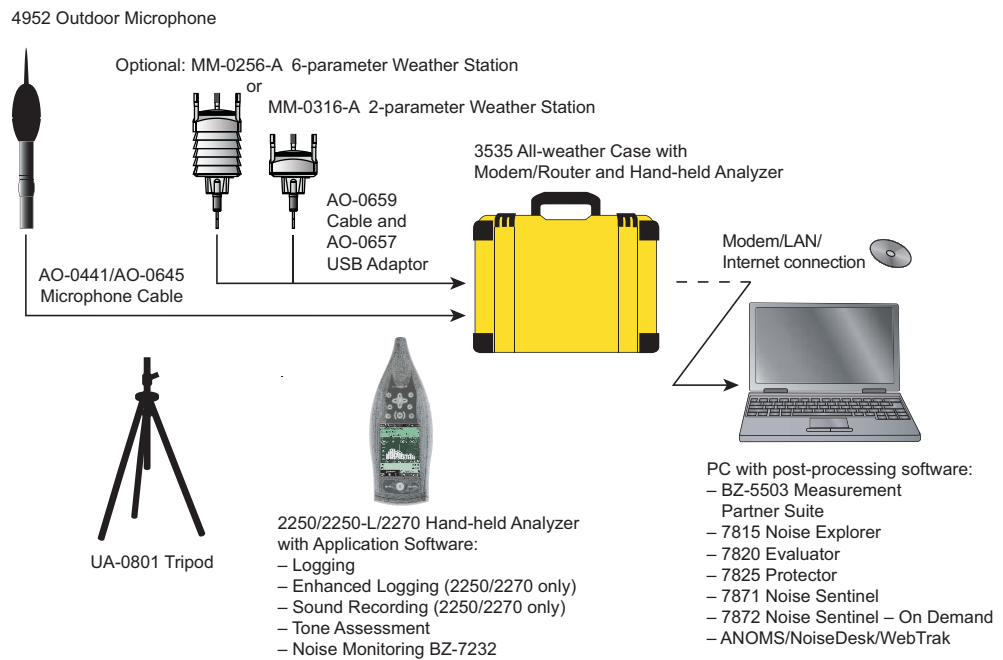
The Type 2250/2250-L/2270 timer function provides intelligent power consumption management. This powerful facility controls precisely when the system is actively measuring and when it is in the more energy efficient stand-by mode, awaiting the next programmed measurement period.

Type 3535-A System Solution

All-weather Case Type 3535-A is the centre of a flexible system for noise measurement, recording and analysis. Any Type 2250/2250-L/2270 application software module may be used with the hand-held analyzer, although for most scenarios the Logging, Enhanced Logging and Frequency Analysis software are well suited. For details, see the Brüel & Kjær [webpage](#) for Type 2250/2250-L/2270.

Fig. 3
All-weather Case
Type 3535-showing
included and optional
accessories

system diagram

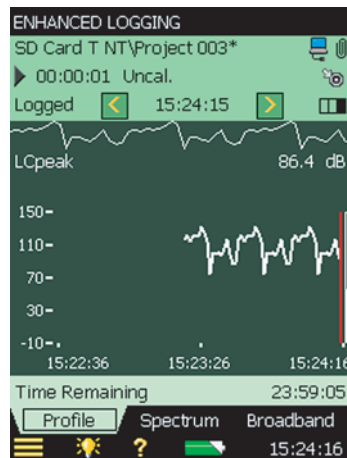


090072/3

Application Software

Logging software will log data down to 1-second resolution and log L_{AF} and L_{Aeq} at 0.1 s resolution. Broadband data, statistics and frequency spectra may be logged, and markers may be set manually or by level triggers. Graphical displays include an overview profile of the entire measurement, and a detailed profile for a selected period.

Fig. 4
Enhanced Logging
with Type 2250/2270



Enhanced Logging adds L_{dn} , L_{den} , $L_{evening}$ and L_{night} calculations as well as two concurrent L_{eq} periods. With long-duration measurements, it provides periodic reports, continuous measurement, automatic reboot and resumption of operations in case of power failure.

Brüel & Kjær's patented Charge Injection Calibration (CIC) is available in the Logging and Enhanced Logging applications. For 10 seconds CIC injects an electrical signal into the microphone diaphragm, checks the entire measurement chain and delivers a pass result to show that all is in order. CIC may be activated manually or automatically at preset time intervals.

With Sound Recording software, you can initiate a sound recording manually, automatically using level triggers (both broadband and frequency based level triggers) or at set time intervals. Pre-recording lets you record sound occurring before sound recording is triggered, and memory space is saved by setting a suitable recording quality and maximum duration.

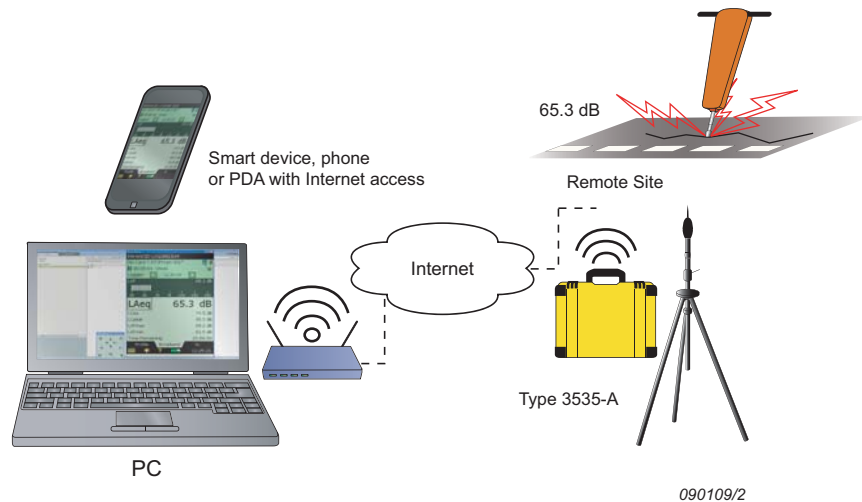
Remote Communication via Modem or Router

The interior foam profile and power supply compartments of the All-weather case are designed to accommodate a broadband modem or router. High-speed wireless connectivity, using 3G, GPRS, WLAN or GSM protocols, can then be used to monitor prevailing noise levels in real time, manage the measurement setup and retrieve measurement data. (See Type 2250 Remote Control [Video Demonstration](#)).

Shared public access to the live display of the analyzer inside the All-weather Case can be configured simply by activating the Web browser facility of the 2250/2250-L and 2270

Fig. 5

Type 3535 systems
viewed remotely with
a Web browser device



Using any mobile phone, PDA, or PC with Internet access, you can monitor the live screen of the analyzer by linking up through the analyzer's unique IP address on Dyn-DNS label, keeping you in touch with your measurements at all times.

Data acquired by means of unattended noise monitoring can be rendered unreliable by a number of outside factors*, which may not become apparent until visual inspection of the system or accessing the measurement system remotely.

The 3535-A system keeps the remote operator informed of measurement status by sending an automatic SMS text or e-mail status update when pre-defined conditions or events occur. Examples are:

- System battery level falls below 10% capacity
- System memory falls below 10% of full capacity
- Automatic calibration check has failed
- Measurement has started
- Noise level has exceeded a pre-defined trigger level

Sending the text string "info" to a Type 3535-A system will initiate an instant status message reply to the originators mobile phone or email address.

Outdoor Microphone Type 4952

Fig. 6

Outdoor Microphone
Type 4952



The compact and lightweight Outdoor Microphone Type 4952 is suitable for long periods of unattended outdoor operation and the ideal choice for use with the Type 3535-A system.

The microphone is protected against the effects of wind, rain and perching birds and, with the hand-held analyzer, fulfils IEC 61672 Class 1 requirements. The reference direction angle of incidence can be set to 0° or 90°, dependent on the noise monitoring application. Inside the microphone is a highly stable pre-polarized free-field 1/2" microphone cartridge with a stainless steel diaphragm.

You can mount the microphone on a tripod using Tripod Adaptor UA-1707 or on a 1" thread pole. Outdoor Microphone Type 4952-A comes with the Tripod Adaptor included.

Type 4952 is recommended for extended use in all kinds of weather, while for less demanding environments, the analyzer's standard microphone is adequate. A lightweight and a heavy duty tripod is available for all the microphones, and up to 100 m of microphone extension cable can be used while maintaining measurement accuracy.

* For example, damage to the microphone or interruption of the power supply.

Reliable Unattended Measurements

Measurement integrity is of primary importance in noise measurement situations, whether for inside or outside or for attended or unattended measurements. Class 1, as described in the current sound level meter standard IEC 61672-1:2002, is the grade of accuracy often required for hand held measurements.

Fig. 7
Type approval:
independently
approved to Class 1
accuracy by PTB in
Germany

Physikalisch-Technische Bundesanstalt Braunschweig und Berlin		PTB
Innerstaatliche Bauartzulassung vom 02.11.2005		21.21
Type-approval certificate under German law, dated 02.11.2005		05.02
2. Neufassung der Anlage Revision 2 of the Annex		
Zulassungsinhaber: Issued to:		Seite 1 von 11 Seiten Page 1 of 11 pages
Brüel & Kjær GmbH Linzer Str. 3 28359 Bremen		
Bauart: In respect of:	Integrierender Schallpegelmesser	Brüel & Kjær 2250
Zertifikatsgeschichte		
Zertifikats-Ausgabe	Datum	Änderungen
21.21 / 05.02, 2. Neufassung	25.02.2009	Prüfung mit Außenmikrofon 4952
21.21 / 05.02, 1. Neufassung	07.05.2007	Prüfung nach DIN EN 61672
21.21 / 05.02	02.11.2005	Erstbescheinigung
Die 2. Neufassung ersetzt die 1. Neufassung der Anlage vom 07.05.2007. Geschäftszeichen PTB-1.72-4027414 zum oben genannten Zulassungsschein sowie die für diese Fassung erteilten Nachträge:		
<ul style="list-style-type: none"> - Nr. 1 vom 26.06.2007 Geschäftszeichen PTB-1.72-4030327 - Nr. 2 vom 01.10.2007 Geschäftszeichen PTB-1.72-4032119 - Nr. 3 vom 29.09.2008 Geschäftszeichen PTB-1.72-4036491 		
Für die Messgeräte der zugelassenen Bauart gelten:		
Rechtsvorschriften:		
<ul style="list-style-type: none"> - Allgemeine Vorschriften der Eichordnung (EO-AV) vom 12. August 1988 (BGBl. I S. 1657), zuletzt geändert am 02.02.2007 (BGBl. I S. 59) - Anlage 21 zur Eichordnung vom 12. August 1988, zuletzt geändert durch die 3. Verordnung zur Änderung der Eichordnung vom 18. August 2000 (BGBl. I S. 1307) 		
Hinweise Neufassungen ohne Unterschrift und Siegel haben keine Gültigkeit. Diese Neufassung ist Bestandteil der Bauartzulassung und darf nur unverändert weitervertrieben werden. Auszüge bedürfen der Genehmigung der Physikalisch-Technischen Bundesanstalt. Note Revisions without signature and seal are not valid. This Revision is part of the type approval certificate and may not be reproduced other than in full. Extracts may be taken only with the permission of the Physikalisch-Technische Bundesanstalt.		
Rechtsbehelfsbelehrung Gegen diesen Bescheid kann innerhalb eines Monats nach Bekanntgabe schriftlich oder zur Niederschrift Widerspruch bei der Physikalisch-Technischen Bundesanstalt unter einer der nachstehenden Adressen eingelegt werden. Information on legal remedies available Objection may be made to this notification within one month of its receipt either in writing or orally recorded, to the Physikalisch-Technische Bundesanstalt at one of the following addresses:		
Physikalisch-Technische Bundesanstalt Bundesallee 100 38115 Braunschweig DEUTSCHLAND		Abbestraße 2-12 10587 Berlin DEUTSCHLAND
090112		

In addition nothing less than Class 1 accuracy is required for outdoor measurement systems incorporating rain shields, wind shields or any other form of environmental protection used in microphone systems. Placing a small device, such as a rain guard, in close proximity to the microphone diaphragm may produce significant acoustic disturbance and thus measurement errors at mid and high frequencies.

Hand-held Analyzer Type 2250 and Outdoor Microphone Type 4952 are a type approved system combination, independently approved to Class 1 accuracy by PTB in Germany (see type approval certificate: Fig. 7). This ensures that the measurement system complies with the minimum requirements of accuracy for unattended noise measurement, a consideration often overlooked in portable noise measurement systems. Type approval of the system to IEC 61672-1:2002 also permits the weather-protected measurement system to be laboratory calibrated in accordance with part III of this sound level meter standard.

Measuring Weather Data

With a suitable weather station, weather data can be measured simultaneously with noise data. The two-parameter station measures wind speed and direction, and the six-parameter station adds precipitation, temperature, humidity and pressure.

Fig. 8
Two-parameter
Weather Station Kit
MM-0316-A



Weather conditions affect the propagation of sound and therefore any measured noise levels. Particularly, wind speed and direction must be taken into account when measuring noise outdoors. Most environmental noise measurement standards define limits for wind speed and direction. Environmental noise measurements must document weather conditions during the measurement period and very often must identify the valid portions of their logging profile.

Brüel & Kjær Weather Station Kits MM-0256-A and MM-0316-A (6 and 2 parameters, respectively), based on Vaisala sensors, are designed to fully meet users' needs. Both weather stations are lightweight and connect to the instrument's USB port, eliminating the need for separate batteries. The kits include all accessories needed to connect a weather station and mount it on a tripod or pole. Based on ultrasound, the weather stations operate silently, which allows close placement to the microphone position.

Post-processing

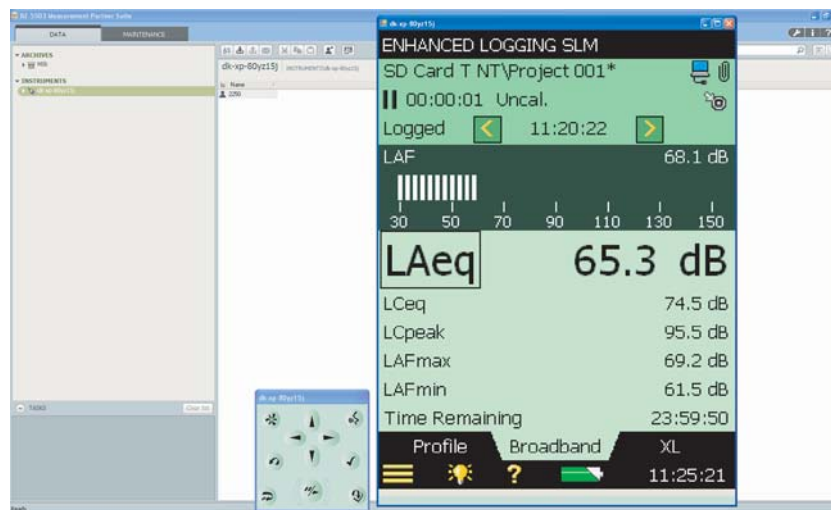
For data management and post-processing, the following PC-software packages can be used for measuring and reporting:

- Measurement Partner Suite BZ-5503
- Evaluator Type 7820 Environmental Noise software

Measurement Partner Suite BZ-5503 is an all-purpose program that forms the information link to (and from) your Type 2250/2250-L/2270, see Fig. 9. Its primary functions are to manage and archive user data, manage the data transfer from a remote noise monitoring location and handle application software updates, upgrades and licensing. It enables you to perform the following:

- Use the extensive preview functions to listen to recordings and annotations, and view results and photographs including spectra and profiles
- Export data from archives into Type 7815, 7820 or 7825 for post-processing and reporting software applications
- Export data to Microsoft® Excel® or export in XML or delimited text format
- Control the instrument remotely from a PC via the Internet

Fig. 9
Measurement Partner
Suite BZ-5503
online display



Measurement Partner Suite BZ-5503 is supplied with all Type 2250, 2250-L and 2270 models.

Evaluator Type 7820 has built-in calculation algorithms that allow calculation of compound sound level figures from several contributions. Some may have impulse or tone penalties, depending on which assessment standard chosen, for example ISO 1996, DIN 45645, NFS S 31– 010 or BS 4142 (see [Product Data BP 1752](#)).

Noise Monitoring Systems Bundles – Systems for Noise Measurement and Monitoring

For easier ordering of a complete outdoor noise measurement system, three standard configurations that include Type 3535-A are available. Each system also includes Outdoor Microphone Type 4952, a microphone extension cable and a tripod for mounting the microphone at the correct position and height.

Portable Noise Monitoring Unit Type 3655-A

This stand-alone unit, based on Hand-held Analyzer Type 2250-L, monitors broadband sound levels for short- and medium-term durations. The unit includes space and power for a modem or router for remote viewing of real-time results and to remotely control the unit from a PC. Data can be manually synchronised with a PC using Utility Software for Hand-held Analyzers BZ-5503, which is included, and then be transferred to post-processing software such as Evaluator Type 7820 or exported to Microsoft® Excel®.

Licenses for Sound Level Meter Software BZ-7130 and Logging Software BZ-7133 are also included. Frequency Analysis Module BZ-7132 can be added as an option if required. The full functionality is described in Type 2250-L [Product Data BP 2151](#).

Enhanced Portable Noise Monitoring Unit Type 3655-B

This stand-alone unit, based on Hand-held Analyzer Type 2250 with Enhanced Logging Software BZ-7225, provides enhanced noise logging functionality including automatic event detection, sound recording and

calibration checks for extended periods. The unit includes space for a modem or router for remote viewing of real-time results and to remotely control the unit from a PC. Data can be manually synchronised with a PC using Utility Software for Hand-held Analyzers BZ-5503, which is included, and then be transferred to post-processing software such as Evaluator Type 7820 or exported to Microsoft® Excel®.

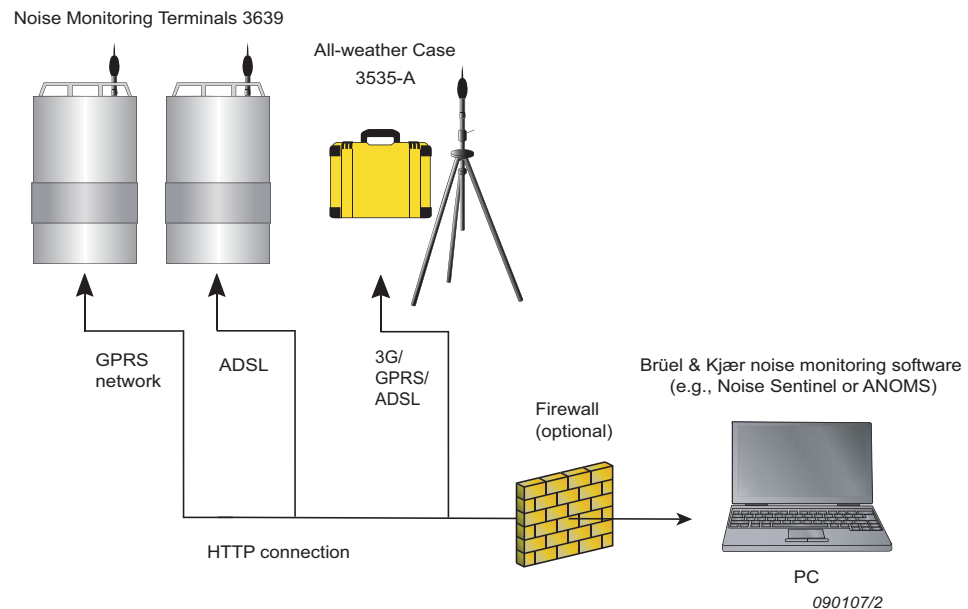
Licenses for Frequency Analysis Software BZ-7223, Enhanced Logging Software BZ-7225 and Sound Recording Option BZ-7226 are also included. FFT Analysis Software BZ-7230 and Tone Assessment Option BZ-7231 can be added as options for increased functionality if required. Functionality is described in Type 2250 [Product Data BP 2025](#).

Portable Noise Monitoring Terminal Type 3655-C

This is a professional portable noise monitoring terminal for integration in environmental noise monitoring and management systems. Based on Hand-held Analyzer Type 2250 with Noise Monitoring Software BZ-7232, it functions exactly as Noise Monitoring Terminal Type 3639-B in a portable case rather than a mounted cabinet.





The noise monitoring functionality includes CIC checks, optional event detection and sound recording for extended periods of monitoring. The unit includes space for a modem or router for remote viewing of real-time results and to remotely control the unit from a PC running ANOMS, Noise Sentinel Type 7871 or Noise Sentinel – On Demand Type 7872. Data can be automatically downloaded real-time or on connection with the noise monitoring system's server.

Fig. 10
*Network configuration
with Noise Sentinel,
ANOMS or other
Brüel & Kjær noise
monitoring software*



Licenses for Sound Level Meter Software BZ-7222 and Noise Monitoring Software BZ-7232 are included. Functionality is described in Noise Monitoring Terminals Types 3639 and 3655 [Product Data BP 2379](#).

Compliance with Standards

   	<p>The CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EU directives</p> <p>RCM mark indicates compliance with applicable ACMA technical standards – that is, for telecommunications, radio communications, EMC and EME</p> <p>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</p> <p>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	<p>EN/IEC 61000–6–3: Generic emission standard for residential, commercial and light industrial environments</p> <p>EN/IEC 61326: Electrical equipment for measurement, control and laboratory use – EMC requirements</p> <p>CISPR 22: Radio disturbance characteristics of information technology equipment. Class B Limits</p> <p>IEC 61672–1, IEC 61260, IEC 60651 and IEC 60804: Instrumentation standards</p> <p>Note: The above is only guaranteed using accessories listed in this Product Data</p>
EMC Immunity	<p>EN/IEC 61000–6–2: Generic standard – Immunity for industrial environments</p> <p>EN/IEC 61326: Electrical equipment for measurement, control and laboratory use – EMC requirements</p> <p>IEC 61672–1, IEC 61260, IEC 60651 and IEC 60804: Instrumentation standards</p> <p>Note: The above is only guaranteed using accessories listed in this Product Data</p>
Temperature	<p>IEC 60068–2–1 & IEC 60068–2–2: Environmental Testing.</p> <p>Cold and Dry Heat.</p> <p>Operating Temperature: –10 to +50 °C (14 to 122 °F)</p> <p>Storage Temperature: –25 to +70 °C (–13 to 158 °F)</p>
Humidity	IEC 60068–2–78: Damp Heat: 93% RH (non-condensing at +40 °C (104 °F)). Recovery time 2 ~ 4 hours
Mechanical	<p>Non-operating:</p> <p>IEC 60068–2–6: Vibration: 0.3 mm, 20 m/s², 10 – 500 Hz</p> <p>IEC 60068–2–27: Bump: 1000 bumps at 400 m/s²</p> <p>IEC 60068–2–27: Shock: 1000 m/s², 6 directions</p>
Enclosure	IEC 60529: Protection provided by enclosures: IP43

Additional Standards for Charger ZG-0857-001*

Safety	<p>EN 60335–1</p> <p>EN 60335–2–29</p> <p>EN 60601–1</p> <p>UL 2601–1</p>
EMC Emission	<p>EN 50081–1:1992</p> <p>EN 50082–1:1997</p> <p>EN 60601–1–2:1993</p>

Additional Standards for Battery QB-0079†

Safety	<p>EN 60950:2006</p> <p>UL 2054:2054:1999</p>
EMC Emission	<p>EN 55022:2006 – ITE: Class B</p> <p>EN 61000–3–2:2006</p> <p>EN 61000–3–3:2008</p> <p>EN 55024:1998 +A1:2001 ITE/A2:2003</p> <p>FCC Title 47 CFR, Part 15 Class B</p> <p>ICES-003, Issue 4</p>

Additional Standards for Noise Sentinel – On Demand Weather Station Kits MM-0256-A and MM-0316-A

EMC Emission	<p>EN61326–1</p> <p>IEC 60945/61000–4–2, –4–3, –4–4, –4–5, –4–6</p>
--------------	---

* From the Mascot declaration of conformance

† From the Inspired Energy® declaration of conformance

Specifications – All-weather Case Type 3535-A

POWER PANEL ZH-0685

Please refer to the Power Panel schematic diagram in Chapter 3 of the Type 3535-A user manual

Mains Input: 100 – 240 VAC, 0.6 A, 50 – 60 Hz

Mains Outputs: AC Out 1, AC Out 2, max. 0.3 A.

For Chargers ZG-0857-001

Mains Only Operation: Without batteries the charger(s) will supply the DC Outputs

Mains Only DC Outputs: 16.8 V, max. 0.9 A

DC In: External supply, 12 – 24 VDC, 1 A.

Cable AQ-0175 supplied

Charger 1, Charger 2: For Chargers ZG-0857-001

Bat. 1, Bat. 2: For Batteries QB-0073

DC Outputs:

- DC Out 1: For Type 2250/2250-L/2270 Ext. Power
- DC Out 2: For Type 2250/2270 Trigger Input
- DC Out 3, DC Out 4, DC Out 5: Power for auxiliary devices. Cables AQ-1782 and AQ-1783 supplied

DC Output Voltage: Whichever is higher of the DC In, Bat.1/Charger 1 and Bat.2/Charger 2

DC Output Switch: Switches all DC Outputs on or off

Connections:

Part Number	Part	Cable and Connection Description
ZG-0857-001	Chargers	Connection: Ø5.5 mm/2.5 mm (0.22"/Ø.10") (M); Cable length: 0.25 m (0.8')
QB-0079	Batteries	Connection: UA-3036 Adaptor for QB-0079 Battery, wire with DC plug: Ø5.5 mm/2.5 mm (0.22"/Ø.10") (F)
AQ-1785	DC In Power Cable	Connection: 4 mm (0.16") banana plugs to Ø6 mm/1.3 mm (0.24"/.5") (M); Cable length: 2 m (6.6')
AQ-1782	DC Power Cable for Digi Connect WAN router	Connection: Ø5.5 mm/2.1 mm (0.22"/Ø.08") (F) to Ø5.5 mm/2.1 mm (0.22"/Ø.08") (F); Cable length: 0.6 m (2')
AQ-0696	DC Power Cable for router (Airlink GX400)	Wire Assembly: 4-pin Micro-F (F) to 1.4 mm (0.06") DC plug (F), 0.5 m (1.7'); max 85 °C (185 °F)
Dependent on country	Mains Power Cable	Length: 2 m (6.6')

TEMPERATURE

Operating Temperature:

- Battery powered: –10 to +50 °C (+14 to 122 °F)
- Charger powered: –10 to +40 °C (+14 to 104 °F)

Charge Temperature: 0 to +40 °C (+32 to 104 °F) with case lid open

Storage Temperature: –10 to +60 °C (+14 to 140 °F)

BATTERY QB-0079

Weight: 560 g (1.23 lb)

Nominal Voltage: 14.8 V

Rated Capacity: 6.3 Ah minimum, 6.6 Ah typical

Rated Energy: 89 Wh

Expected Life Cycles: >300 cycles at >70% of initial capacity

Charge Retention in Storage:

- 1 year at –20 to +20 °C (–4 to +68 °F): >80%
- 1 month at –20 to +60 °C (–4 to +140 °F): >80%

CHARGERS ZG-0857, ZG-0857-001

Input Voltage: 90 – 264 V AC

Output Current Max.: 0.9 A

Output Voltage Max.: 16.8 V

Charge Start: <16.4 V

- Step 1: Constant current 0.9 A, Lamp: orange
 - Step 2: Constant voltage 16.8 V, Lamp: orange
 - Step 3: Charge Termination <100 mA, Lamp: green
- Charging Time for QB-0073:** 9 hours (typical)

TYPE 2250 OPERATING TIME (BACKLIGHT OFF, 2 BATTERIES)

- Offline: Approximately 72 hours (typical)
- With router: Approximately 32 hours (typical)
- Offline with weather station: 60 hours (typical)

MECHANICAL

Environmental Protection: IP 43

WEIGHT AND DIMENSIONS

Weight: 6.8 kg (14.99 lb.) including hand-held analyzer

Dimensions: 390 × 530 × 190 mm (15.35 × 20.87 × 7.48")

Max. Dimensions of Modem/Router: 133 × 85 × 25 mm (5.24 × 3.35 × .98")

Ordering Information

Type 3535-A All-weather Case

Including:

- ZH-0685: Power Panel
- Mains Cable for Power Panel
- QB-0079: 2 × Battery
- ZG-0857-001: 2 × Charger
- AQ-1785: Cable for DC In
- AQ-1782: Power Cable for Digi Connect WAN Router
- AQ-1783: Power Cable for Wavecom Fastrack Modem

Packages and Software Modules

Please refer to the Product Data for Type 2250/2250-L/2270

Noise Monitoring Systems

Type 3655-A Portable Noise Monitoring Unit

Including:

- Type 2250-L-D40: Hand-held Analyzer with Logging Software
- Type 3535-A: All-weather Case
- Type 4952-A: Outdoor Microphone
- AO-0645-D-030: Microphone Extension Cable (3 m/9.8 ft)
- UA-0801: Tripod
- Country-specific Mains Cables

Type 3655-B Enhanced Portable Noise Monitoring Unit

Including:

- Type 2250-E-D00: Hand-held Analyzer with Sound Level Meter, Frequency Analysis, Enhanced Logging and Sound Recording Software
- Type 3535-A: All-weather Case
- Type 4952-A: Outdoor Microphone
- AO-0645-D-030: Microphone Extension Cable (3 m/9.8 ft)
- UA-0801: Tripod
- Country-specific Mains Cables

Type 3655-C General-purpose Portable Noise Monitoring Terminal

Including the following accessories:

- Type 4952-A: Outdoor Microphone
- Type 2250-N-D00: Hand-held Analyzer Type 2250-L (G4) with Noise Monitoring Software BZ-7232 and selected accessories (no microphone or preamplifier)
- Type 3535-A: All-weather Case
- AO-0645-D-030: Microphone Extension Cable, 3 m (9.8 ft)
- UA-0801: Tripod
- ZG-0426: Mains Power Supply for Hand-held Analyzer
- UL-1017: Secure Digital Memory Card

Accessories and Components Available Separately

TYPE 3535-A

- | | |
|---------|--|
| QB-0079 | Battery |
| UA-3036 | Adaptor for QB-0079 Battery, wire with DC plug: Ø5.5 mm/2.5 mm (0.22"/0.10") (F) |
| ZG-0857 | Charger including mains cable |

ANALYZER

- | | |
|---------|----------------------------------|
| ZG-0444 | Charger for QB-0061 Battery Pack |
|---------|----------------------------------|

FIELD CALIBRATION

- | | |
|-----------|------------------|
| Type 4231 | Sound Calibrator |
|-----------|------------------|

MEASURING

- | | |
|-------------|---|
| Type 4952 | Outdoor Microphone for 1" thread pole mounting |
| Type 4952-A | Outdoor Microphone including Tripod Adaptor UA-1707 |

AO-0645-D-100Microphone Extension Cable for Type 4952:

- | |
|--|
| 7-pin LEMO to 10-pin LEMO, 10 m (33 ft) |
| AO-0441-D-030Microphone Extension Cable, 10-pin LEMO, 3 m (10 ft) |
| AO-0441-D-100Microphone Extension Cable, 10-pin LEMO, 10 m (33 ft) |

- | | |
|---------|--|
| UA-0587 | Tripod |
| UA-0588 | Microphone Holder |
| UA-0801 | Small Tripod |
| UA-1317 | Microphone Holder |
| UA-1707 | Tripod Adaptor for Type 4952 |
| UL-1009 | SD Memory Card for Hand-held Analyzers |
| UL-1013 | CF Memory Card for Hand-held Analyzers |
| ZH-0680 | Handswitch |

MM-0256-A Six-Parameter Weather Station Kit

MM-0316-A Two-Parameter Weather Station Kit

Included with MM-0256-A or MM-0316-A:

- **MM-0256-002: Six-Parameter Weather Station (and mounting kit)**
- **MM-0316-002: Two-Parameter Weather Station (and mounting kit)**
- AO-0657: USB Cable
- AO-0659: Cable M12 8-pin (F) to Lemo 1-B 8-pin (M), 10 m (33.3 ft)
- BR 1779: Weather Station Field Guide
- DB-4364: Weather Station Pole Adapter
- KE-4334: Weather Station Carrying Case
- QX-0016: Screwdriver
- QX-1171: 2.5 mm Hex Wrench
- UA-1707-A: Weather Station Tripod Adaptor
- ZH-0689: Weather Station USB Adaptor

POST-PROCESSING

- | | |
|-----------|---|
| Type 7815 | Noise Explorer – data viewing software |
| Type 7820 | Evaluator – data viewing and calculation software |
| Type 7825 | Protector – software for calculation of personal noise exposure |
| Type 7871 | Noise Sentinel – Web-based subscription service providing long-term unattended outdoor noise management and monitoring |
| Type 7872 | Noise Sentinel – On Demand – Web-based subscription service providing Short-term unattended outdoor noise management and monitoring |

[ANOMS](#) – Airport Noise and Operations Management System

Accredited Calibration

- | | |
|---------------|---|
| 2250/2270-CAI | Accredited Initial Calibration of Types 2250/2270 |
| 2250/2270-CAF | Accredited Calibration of Types 2250/2270 |
| 2250/2270-CTF | Traceable Calibration of Types 2250/2270 |
| 3639-TCF | Type 2250 and Type 4952 Conformance Test |
| 3639-CTF | Type 2250 and 4952 Traceable Calibration |
| 3639-CTO | Type 2250 and 4952 Onsite Traceable Calibration |

Brüel & Kjær and all other trademarks, service marks, trade names, logos and product names are the property of Brüel & Kjær or a third-party company.

Brüel & Kjær Sound & Vibration Measurement A/S
DK-2850 Nærum · Denmark · Telephone: +45 77 41 20 00 · Fax: +45 45 80 14 05
www.bksv.com · info@bksv.com
Local representatives and service organizations worldwide

Although reasonable care has been taken to ensure the information in this document is accurate, nothing herein can be construed to imply representation or warranty as to its accuracy, currency or completeness, nor is it intended to form the basis of any contract. Content is subject to change without notice – contact Brüel & Kjær for the latest version of this document.

Brüel & Kjær 

