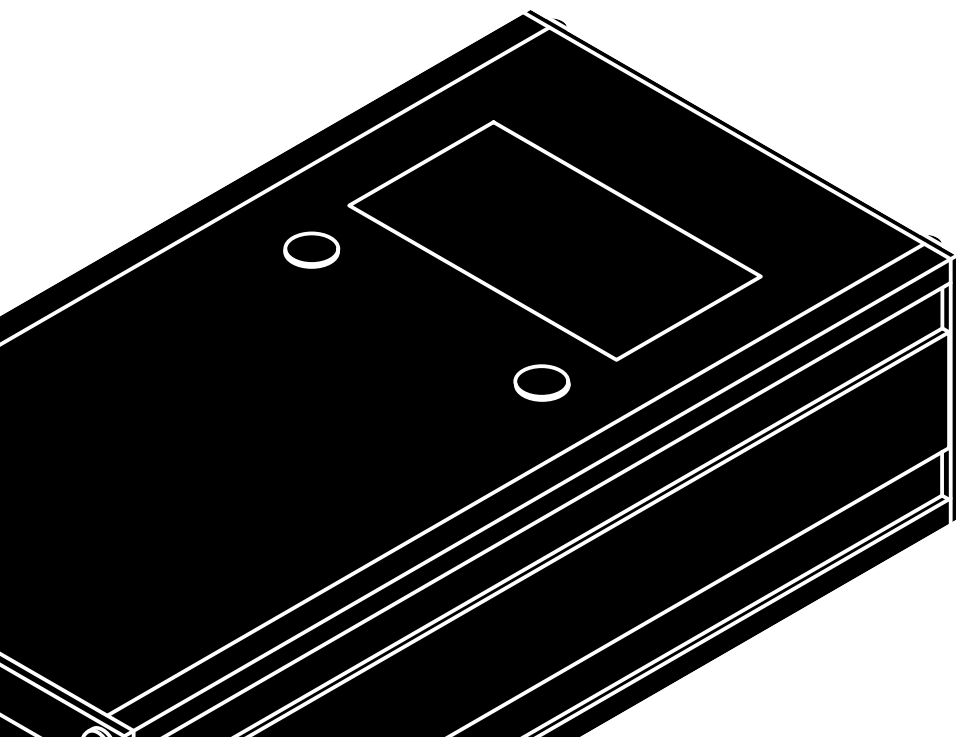
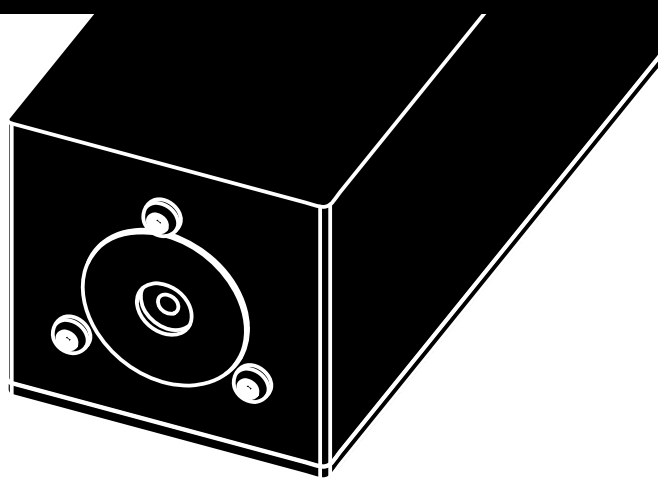


Z

ArraySight Manual 1.11 en



Notes on document version

All previous versions of this document are hereby no longer valid.

Version 1.11:

OCA Alliance EULA text added.

Refer to:

⇒ Chapter 8.3 "Licenses and Credits " on page 23.

General information

ArraySight Manual

Version: 1.11 en, 03/2023, D2735.EN .01

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T +49-7191-9669-0, F +49-7191-95 00 00

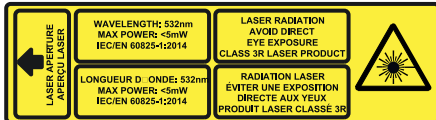
Safety precautions when using laser equipment



WARNING!
Potential risk of damage to the eyes.

Laser class 3R, 532 nm, <5 mW:
Do not suppress eye-closure reflex.

The d&b ArraySight sender unit is shipped with the following label affixed to the top surface. Do not remove this label under any circumstances.



The high brightness laser of the sender unit requires additional safety considerations.

Please give careful attention to the following safety warnings before using the d&b ArraySight inclinometer system.

Operational safety

The d&b ArraySight inclinometer system is an integrated part of the d&b rigging system and should be regarded with the same respect as any other rigging component.

The sender unit must be safely mounted to the corresponding flying frame when used above 2 m (6.6 ft) from ground level using the enclosed fixing screws.

DO NOT fix the sender unit with tape or velcro.

When making adjustments to the array with motor hoists, watch the hoist - not the meter unit! Check the measurement only when the hoist has finished moving.

When using the meter unit, be aware of other rigging operations taking place around you. Always follow the appropriate safety procedures (including wearing the appropriate personal protective equipment).

NEVER look directly into the laser, even when it is switched off, as someone may activate it without warning you.

WARN others in the venue that you are going to use a laser and move them away from the target area before activating a laser.

ENSURE that others do not enter the target area of the laser while it is in use.

ENSURE that the meter unit is to hand at all times so that the beam can be switched off immediately if necessary.

ALWAYS use the laser for the minimum amount of time possible. You can carry out most of the alignment procedure with the laser turned off.

Disconnect the cable from the meter unit once the measurements had been made.

ALWAYS ensure that the meter unit is disconnected when the public have access to the venue.

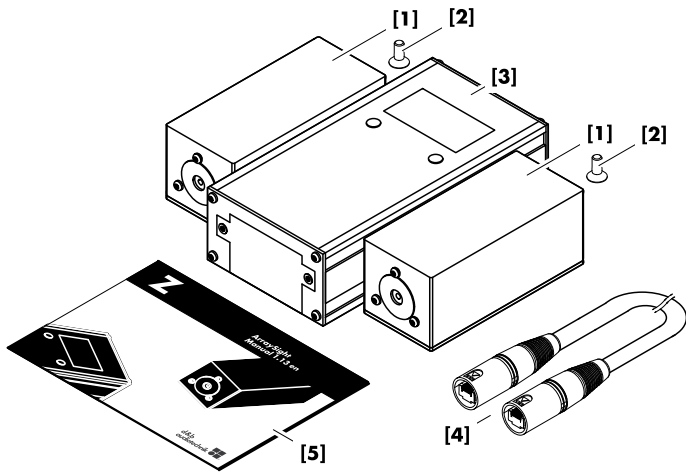
NEVER leave the laser turned on while unattended.

NEVER use the laser in any other application than it is intended for.

The sender unit is weather/water resistant (IP54), enabling it to withstand dust ingress and rain, although the limited ingress of water may be possible. It is therefore advisable to take account of prevailing weather and environmental conditions and take precautions to protect the sender unit.

As with any rigging components, regular safety inspections are obligatory.

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1.1 Scope of supply

Before setting up the system, please verify the shipment for completeness and proper condition of the items.

If there is any sign of obvious damage, do not operate the units and contact your local dealer from whom you received the system.

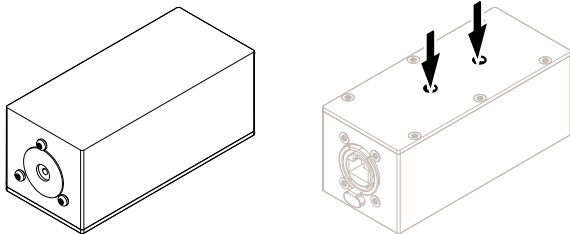
Pos.	Qty.	d&b Code	Description
	1	Z5710	d&b ArraySight set
Including:			
[1]	2	Z5711	ArraySight sender unit
[2]	2		2 x Fixing screws for each sender unit (Torx T20, M4 x 14 mm).
[3]	1	Z5712	ArraySight meter unit
[4]	2	K6006.200.00	Shielded CAT5e 1:1 cable, 30 m (100 ft)
[5]	1	D2735.EN .01	ArraySight Manual

1.2 Intended use

The d&b ArraySight laser inclinometer system is intended to vertically aim an entire array in its operating position. It provides precision angle measurement over a wide measuring range of ± 90 degrees. The sender unit uses a 3-axis MEMS accelerometer for data acquisition. This provides accurate tilt sensing over one axis, even when the unit is tilted on another axis. Accurate angle measurements can be achieved, resolved to ± 0.1 degrees on the display of the meter unit.

The compact sender unit is housed in a weather resistant enclosure. It utilizes an ultra bright green laser to provide a visible indication for aiming the array, with a flashing mode to help locate the beam in bright surroundings.

The sender unit can be attached to dedicated d&b Flying frames. For this purpose, the sender unit has two threaded inserts on its base and comes with dedicated fixing screws (Torx T20, M4 x 14 mm).



Easy calibration

Multiple sender units can be used with one meter unit. Calibration information is stored in the sender unit using non-volatile memory, so it remains accurate after the meter unit is disconnected. Sender units can be reset on the fly to any angle within range, allowing adjustment of system elevation to be made in absolute values if required. Calibration is carried out via the meter unit's onscreen menu, without the need to dismantle units or use precision hardware.

Relative angle measurement

The meter unit's zero function means relative angle measurements can be made via the on-screen menu and the last four readings are stored for easy recall.

Intelligent interpolative measurement

It is possible to make accurate measurements, even before the system has reached its final resting angle after hoist adjustment. The meter unit automatically displays the final resting angle within three periods of oscillation. This reduces installation time, with no need to wait until the system comes to rest after each angle adjustment.

Temperature and humidity measurement

In addition, the sender unit incorporates a thermo- and hygrometer (sensor) to derive the actual onsite temperature and humidity.

Note: The sensor is calibrated by factory default and requires no re-calibration by the user.

The thermometer covers a range from 0 to 40 °C (32 to 104 °F) with an accuracy of ± 2 °C (± 3.6 °F) while the hygrometer covers the range of 10 to 100% (relative humidity) with an accuracy of $\pm 5\%$.

The corresponding values are displayed on the «Home» screen of the meter unit or, when integrated into the d&b Remote network, the values can be read out within R1.

2 Technical specifications

Environmental conditions

IP rating sender unit	IP54
Pollution degree	2
Temperature range	0 °C to 40 °C (32 °F to 104 °F)
Humidity (rel.)	80% up to 31 °C/87.8 °F
.....	Linear decrease to 50% @40 °C/104 °F
Altitude max:	2000 m/6562 ft

Power supply

Meter unit	6 x AA Alkaline batteries - 9 VDC
Sender unit (single operation)	Derived from meter unit - 9 VDC
Sender unit (remote operation - OCA)	Power Over Ethernet (ETH/POE)
POE standard specification	IEEE802.3at or IEEE802.3af
.....	No passive injector devices or switches must be used!

Laser specification

Complies with 21 CFR 1040 with deviations pursuant to Laser Notice 50, and with IEC/EN 60825-1 (2001)	
Laser	Class 3R laser product
Wavelength	532 nm
Max power:	less than 5 mW

Dimensions and weights

Meter unit	W x H x D: 85 x 45 x 160 mm / 405 g (0.9 lb)
Sender unit	W x H x D: 47 x 45 x 115 mm / 295 g (0.65 lb)

Inclinometer system

Measuring range	±45° @ ±0.1° (full accuracy)
.....	±90° @ ±1° (reduced accuracy)

Thermometer/Hygrometer (Sensor)

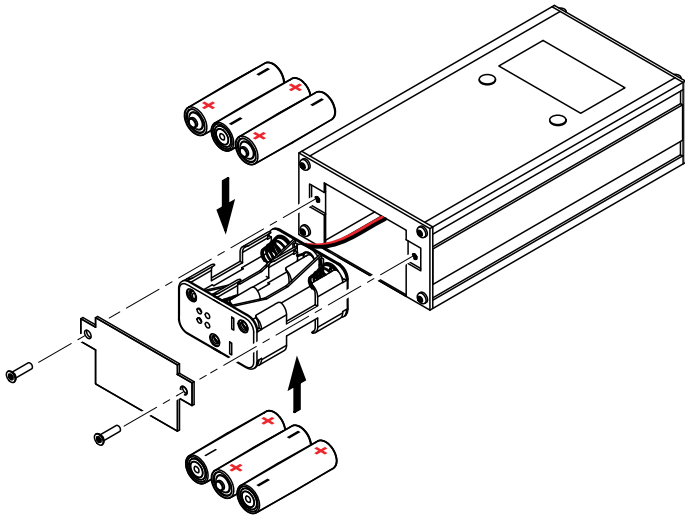
Range/Accuracy	0 to 40 °C (32 to 104 °F) / ±2 °C (3.6 °F)
.....	10 ... 100% (rel.) / ±5%

Connections

Meter unit	etherCON (RS232 - 19.2 kB/s)
Sender unit	POE enabled etherCON (RS232/Ethernet)
.....	RS232: 19.2 kB/s
.....	Ethernet (OCA): 100 Mbit/Half-duplex
Cable type	Shielded CAT5e 1:1 cable
Cable length	RS232: Up to 30 m (100 ft)
.....	Ethernet (OCA): Up to 100 m (328 ft)

Controls and indicators (Meter unit)

2 x Soft keys	Switch on/off, access MENU and LASER
Display	Graphical LC display with backlight



3.1 Inserting or replacing the batteries

NOTICE!

To power the ArraySight inclinometer system, professional high power **Alkaline** batteries (6 x AA - 1.5 VDC) must be used.

1. Undo the two M3 screws at the end of the meter unit and slide out the battery holder.
2. Remove the batteries from the battery holder.
3. Insert the new batteries.
 - ↳ Observe the correct polarity.
4. Reinsert the battery holder and redo the screws.

To preserve battery life, the meter unit is set to power down after one minute of inactivity by factory default. This can be adjusted in the ⇒ «Auto power» menu.

Note: Once the battery voltage drops below 7 V (approx. 33 %), the laser is switched off.

However, the meter unit remains operational and angle measurements are still possible.

3.2 Connecting the units

NOTICE!

Potential risk of malfunction and/or damaging to components!

The meter unit is not an Ethernet device!

DO NOT connect the meter unit to any Ethernet port or device such as Ethernet switches.

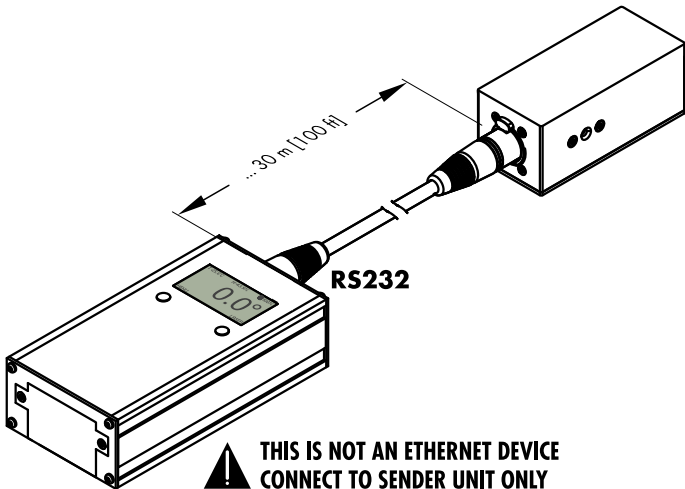
The meter unit is equipped with an RS232 interface and provides the power supply and communication for the direct connection of a single sender unit for read out.

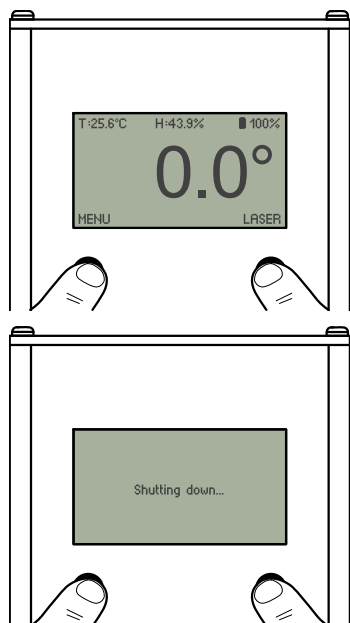
Connect the sender unit to the meter unit using the enclosed, shielded **CAT5e 1:1** cable with etherCON connectors.

For this purpose, the meter and sender units are equipped with corresponding etherCON connector sockets.

Cable lengths of up to 30 m (100 ft) are allowed.

DO NOT use any cables other than specified above.

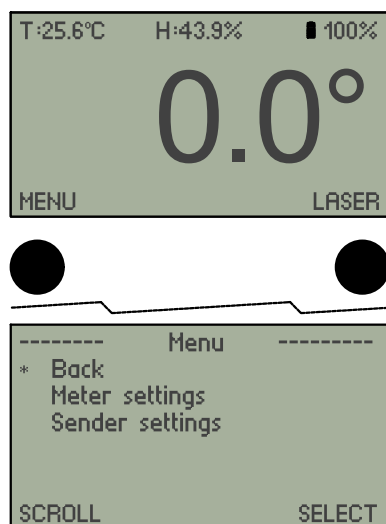




3.3 Switching on/switching off

Please observe the "Safety precautions when using laser equipment!"

1. To switch on the meter unit, hold down both buttons below the screen.
 - ↳ The menu screen will illuminate and initially display the d&b logo. The unit will then switch to the «Home» screen and display the current angle readout.
2. Release both buttons.
3. To switch off the meter unit (and the connected sender unit), proceed in the same manner until the «Shutting down» message is displayed.



3.4 User interface of the meter unit

The meter unit features a detailed graphical display with an intuitive on-screen menu system.

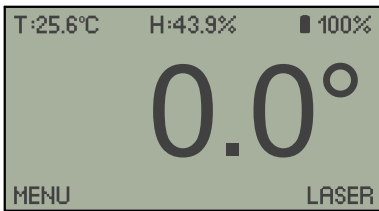
Navigation through the menus is by two buttons below the display.

Within the main menu and the submenus, the left-hand button is generally used to scroll down through the menu items ⇒ «SCROLL». The corresponding menu items are marked by an asterisk (*).

The right-hand button is used to select a function ⇒ «SELECT».

Apart from that, the buttons have different functions within the various submenus. The current function is always indicated above each button (e.g. «BACK», SET, «CANCEL», «INC»...)

The display is backlit for viewing in all light conditions.



3.5 The menu structure

3.5.1 Home screen

The Home screen is split into three sections:

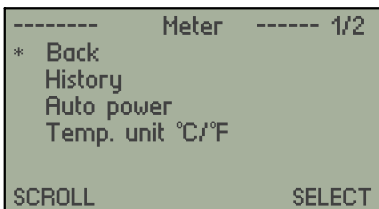
- Header** Indicates the actual onsite temperature («T») and humidity («H») as well as the battery status in graphic form and as a percentage value.
- Read out** The current angle readout in degrees, relative to the last calibration of the unit.
- Footer** From the Home screen, the following functions are accessible:
- MENU** Left-hand button to enter the ⇒ Main menu «Menu».
- LASER** **Please observe the "Safety precautions when using laser equipment"!**
The right-hand button provides access to the laser function with the following options:
On ⇒ Flash mode ⇒ Off
Please also refer to ⇒ Chapter 5.4 "Using the laser" on page 17.



3.5.2 Main menu «Menu»

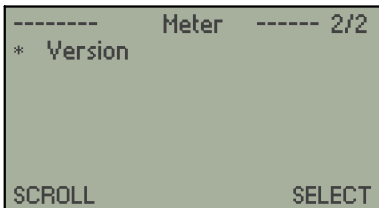
The main menu screen provides direct access to the:

- ⇒ Meter settings
- ⇒ Sender settings



3.5.3 Meter settings

- History** Displays the last four readings of the inclinometer. The readings are saved every time the unit is powered off, or when the sender unit is disconnected.
- Auto power** Defines the auto power-off timer between 1 min. (default), 2 min. and 5 min.
- Temp. unit °C/°F** Defines the temperature units.
- Version** Displays the currently installed firmware version of both the meter and the sender units. If the sender unit is not connected, «Offline» will be displayed instead.



```

----- Sender ----- 1/2
* Back
  IP settings
  Remote ID
  Reset angle
SCROLL                               SELECT

```

```

----- IP settings -----
* Back
  IP: 192.168.0.111
  SN: 255.255.255.0
  GW: 192.168.0.1
  Mode: Auto
SCROLL                               SELECT

```

```

----- Remote ID -----
* Back
  Subnet: 64
  Device ID: 12
SCROLL                               SELECT

```

```

----- Sender ----- 1/2
  Back
  IP settings
  Remote ID
* Reset angle
SCROLL                               SELECT

```

```

----- Sender ----- 2/2
* Calibrate
SCROLL                               SELECT

```

3.5.4 Sender settings

IP settings Defines the required IP settings such as the IP address ⇒ «IP», the Subnet ⇒ «SN», the Gateway ⇒ «GW» and the IP mode ⇒ «Mode».

By factory default, the IP mode is set to «Auto» and is recommended for a network with a DHCP server present ⇒ DHCP+LL (Link Local). The IP mode can be set to «Manual» if required.

Remote ID Defines the required «Remote ID» settings in connection with d&b R1.

The «Remote ID» menu comprises two items, the «Subnet» and the «Device ID».

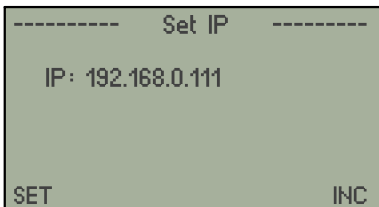
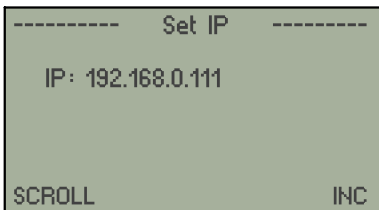
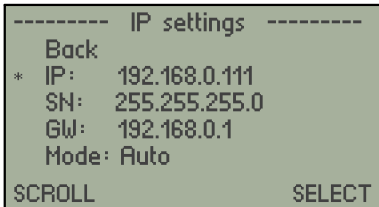
Within an d&b OCA network, up to 100 subnets can be defined (values 0 to 99).

Using the two digit Device ID for each subnet, you can define a total of 63 devices (values 1 to 63).

Reset angle (zeroing)

Saves an angle offset in the sender unit for relative measurements. When performed, the meter displays zero, when the sender unit is in its current position. The reset angle function is also used to ensure that the sender unit is correctly aligned to the flying frame (refer to ⇒ Chapter 4.1 "Resetting the angle (zeroing)" on page 13).

Calibrate By factory default, the sender unit is already calibrated. However, for maintenance reasons it might be necessary to re-calibrate the sender unit's accelerometer. For this purpose, selecting «Calibrate» starts the calibration procedure for the connected sender unit as described in ⇒ Chapter 7.3 "Calibrating the accelerometer" on page 20.



3.5.4.1 Editing IP and Remote ID settings

Editing the IP and the Remote ID settings is performed in the same manner.

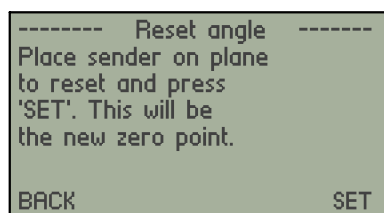
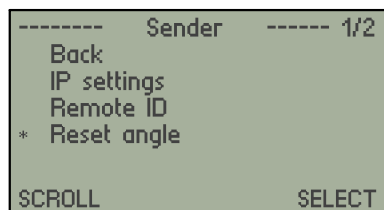
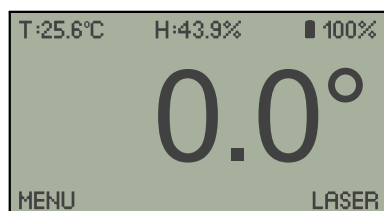
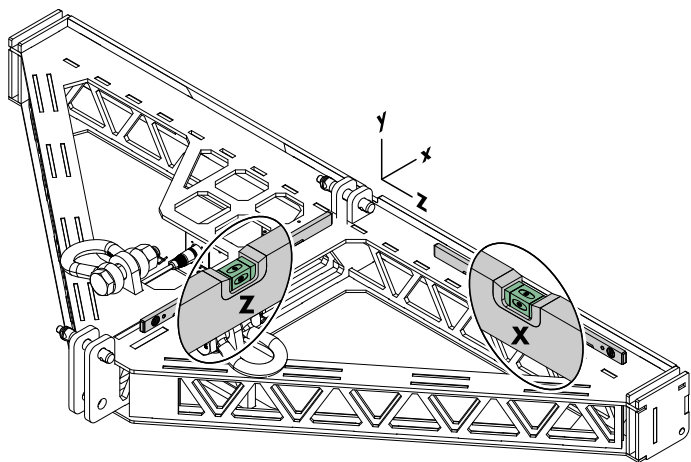
To edit the IP settings, proceed as follows:

1. Ensure the sender unit is connected.
 - ↳ If the connection of the sender unit has been accidentally interrupted, this will be detected by the meter unit within 5 seconds. The meter unit will then switch to the «Home» screen and a corresponding message will be issued. The «LASER» button and the sender settings menu will no longer be accessible.

After the interruption has been resolved, the meter unit will return to the Home screen. The «LASER» button and the sender settings menu will become accessible again.
2. Within the «Sender settings» menu, select the «IP settings» item to enter the «IP settings» menu.
3. Scroll to the desired item (e.g. IP) and press the «SELECT» button.
 - ↳ The «Set IP» menu opens and the first digit is flashing.
4. Use the «SCROLL» button to move through the digits. When a digit is marked, it starts flashing. Use the «INC» button to increment the selected digit by one.
5. Once the last digit is selected, the left-hand button changes from «SCROLL» to «SET».
6. Press the button to confirm your changes.
 - ↳ The meter unit switches back to the «IP settings» menu.

If no changes have been made, the meter unit switches directly back to the «IP settings» menu as soon as you scroll to the last digit.

4 Resetting the angle (zeroing) and laser alignment



4.1 Resetting the angle (zeroing)

Preparation

1. With the flying frame resting on a solid, stable and flat surface, check the sender unit is correctly aligned.
2. Place a good quality spirit level, or calibrated digital level on the top edge of the flying frame as shown in the graphic opposite. You need to check that the top of the flying frame is truly horizontally [**x**] and vertically [**z**] leveled.
3. Fix the flying frame at the front or rear as required to ensure that it is perfectly aligned.
 - ↳ Once this is achieved, you can reset the angle of the sender unit as follows:

Resetting the angle

1. Switch on the connected meter unit and confirm that the initial display is showing **0.0°**.
2. Select «MENU» ⇒ «Sender settings» ⇒ «Reset angle».
3. Press «SET» to confirm the reset.
 - ↳ The angle displayed, will be set to zero (0.0°) and the offset value is stored in the sender unit, even when it is disconnected from the meter unit.

Note: The angle needs to be reset for each sender unit in use. If you have sender units attached to a left and right array, when you plug the second sender unit in, you will need to reset this to zero, but if subsequently you reconnect the meter unit to the first sender unit at this location, the offset value stored in the sender unit is still valid.



4.2 Aligning the laser

Take precautions to prevent anyone from looking directly into the laser beam.

Wear appropriate eye protection.

In normal use, the initial factory setup can be relied on, but if the unit is dropped or exposed to extreme temperatures, the laser may be realigned.

Correct alignment of the laser means the beam is emitted precisely on a central axis in relation to the case of the sender unit in both, the horizontal and vertical orientations.

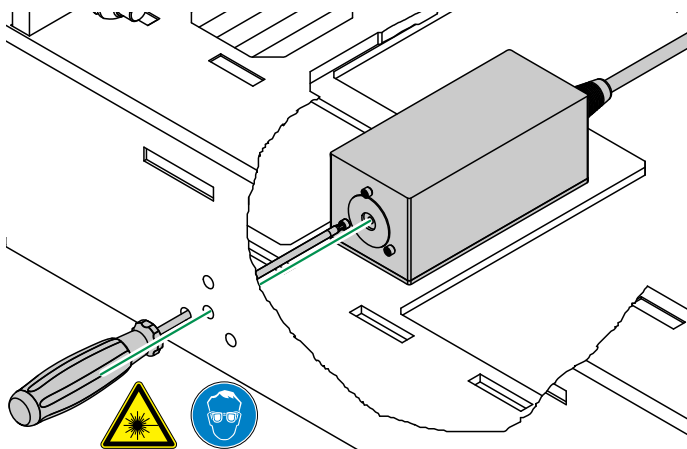
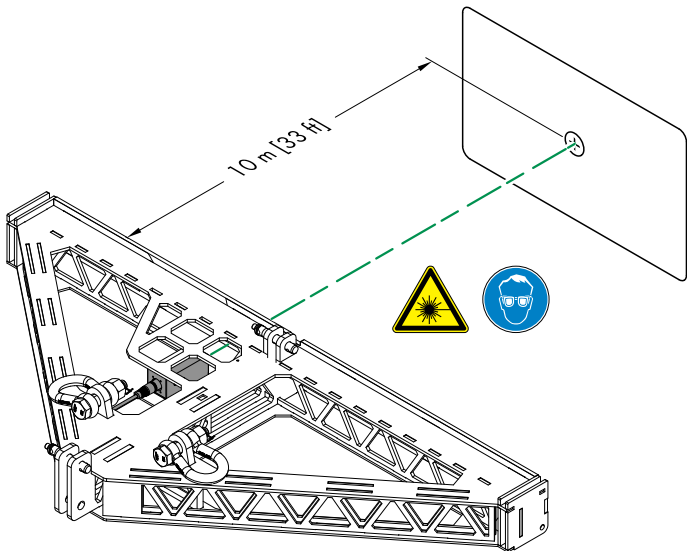
Note: It is recommended that you label the sender unit with the date and name of the person conducting the work so a record of the laser alignment is maintained.

Small errors in alignment will multiply the further the laser is projected. It is therefore important to check the laser alignment from time to time and adjust it where necessary.

This procedure should be carried out at base in a workshop, not on site.

It is essential for the sender unit to be accurately in position during the alignment procedure, both vertically and horizontally. To achieve this, place the Flying frame on a solid, stable and flat surface with a known level surface as described in the previous section (⇒ Chapter 4.1 "Resetting the angle (zeroing)" on page 13).

1. Connect the sender unit to the meter unit so the laser can be operated.
2. You also require a vertical surface to project the laser onto, positioned at a distance of 10 m (33 ft) from the sender unit.



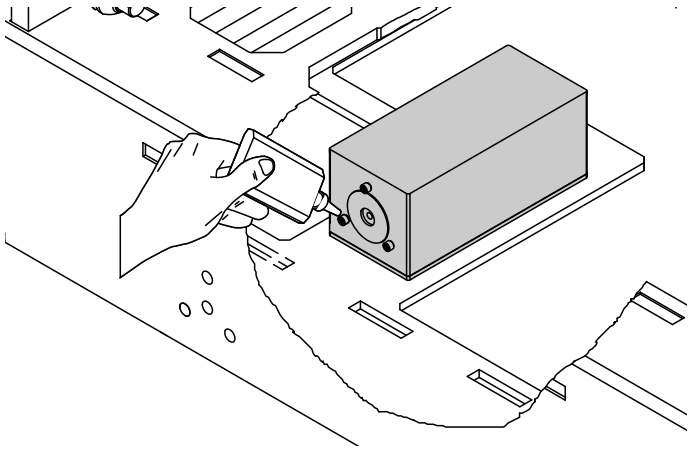
Alignment Procedure

Tools required: ⚙️ Torx wrench #T10/120 mm (Ø 4 mm)

1. Switch on the laser and check where the laser dot falls on the vertical target surface.
2. Adjust the alignment of the laser using the three M3 machine screws around the circumference of the laser bezel.
 - ↳ The adjustment is quite sensitive, so make small adjustments to each in turn and make sure that any of the screws are not tightened completely.

The required accuracy is ± 5 mm (± 0.2 " hor./vert.) which leads to a maximum deviation of 10 cm/100 m (3.94"/328 ft).

3. Adjust the screws until the laser dot aligns precisely.
4. Switch the laser off and disconnect the sender unit.



5. Once alignment is complete, place a drop of thread-locking fluid on each of the screw heads to prevent loosening.

5.1 Measuring the angle

Once the array has been hoisted to its working height, ArraySight uses intelligent interpolating algorithms to determine the resting point of the array, while it is still moving after motor adjustment.

This is important because it means you can make accurate measurements without waiting for the system to come to a complete rest after adjustment. It typically takes around three periods of oscillation, or pendulum swings of the array for the sender unit to achieve an accurate measurement of the angle.

As a guideline, the angle display has the following accuracy:

Cycles	Accuracy
1 period of swing	± 1.0
2 periods of swing	± 0.5
3 periods of swing	± 0.1

Clearly, the measurement cannot be relied upon when the motor hoists are actually in operation. Once the hoist(s) have stopped, the meter unit quickly resolves the measurement. A usable value for the resting angle is normally displayed within a few seconds.

5.2 Measurement limits

ArraySight has a usable range of $\pm 45^\circ$ with full accuracy. The sender unit sensor is capable of measuring angles up to $\pm 90^\circ$, but with reduced accuracy of $\pm 1^\circ$. The additional range is available to you to use, but it should be used with caution.

5.3 Adjusting angles using relative values

The angle of the flying frame can be re-adjusted to a new angle, relative to its original angle. This is achieved by resetting the sender unit to zero while in situ at the original angle as described in \Rightarrow Chapter 4.1 "Resetting the angle (zeroing)" on page 13. The array can then be tilted on the hoists, reading the value off the adjustment on the meter unit, relative to the original position.

Note: When the sender unit has been reset in this way, its true horizontal position will no longer display 0.00° . This is why we recommend checking the horizontal position at the start of each sender unit installation.



5.4 Using the laser

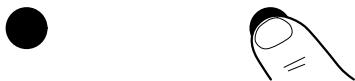
Take precautions to prevent anyone from looking directly into the laser beam.

Wear appropriate eye protection.

The sender unit features a powerful laser to assist angle adjustment. The laser is used to confirm that the upper margin of the PA system dispersion reaches the design target - for example the seating at the rear of an auditorium.

1. On the «Home» screen, «LASER» is displayed at the bottom right.
2. Press the right-hand button once to switch the laser on.
 - ↳ Pressing the button a second time will put the laser into flashing mode, which can be useful for locating the beam in a bright location. Pressing the button a third time turns the laser off.

The on/off and flashing mode statuses are indicated by a corresponding permanent or flashing laser icon to the left of the «LASER» item ⇒ .



5.5 Application example

To take an example: ArrayCalc indicates a frame angle of -3.6° from vertical.

1. Using ArraySight to measure this angle, you raise the first array to its operating height and then check the meter unit screen.
2. The figures displayed settle as the meter compensates for the swing of the array. If the settled display shows $+0.5^\circ$, you then use the hoists to lift the rear or lower the front of the array. Make small adjustments and allow the meter unit to calculate the new angle. Continue to make adjustments until you achieve the angle of -3.6° .
3. Once the first array is complete, disconnect the meter unit from the first sender unit and reconnect it to the sender unit of the second array.
4. Repeat the procedure, starting with resetting the angle to zero for the second sender unit. Raise the second array, check the angle and adjust the angle as necessary.
5. If subsequent re-adjustment of the first array is required the meter unit can be re-connected to the first sender unit and the correct offset will be recalled.

NOTICE!**Potential risk of malfunction and/or damage to the device!**

Only use POE injector devices and/or switches which comply with the POE standards **IEEE802.3at** or **IEEE802.3af**.

DO NOT use **passive** injector devices or switches.

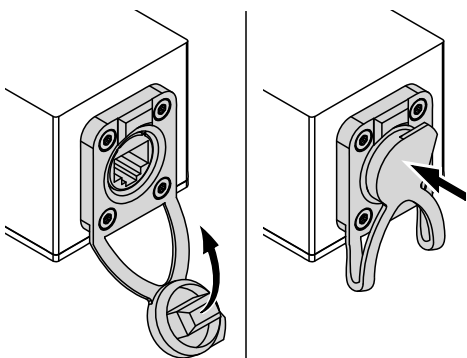
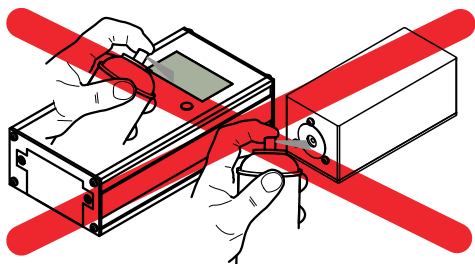
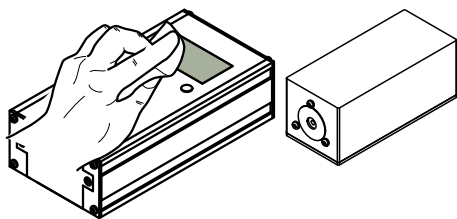
In standard operation, the sender unit is directly connected to the meter unit which provides power supply and communication via its RS232 interface.

However, the sender unit also supports the d&b OCA/AES70 protocol and therefore directly integrates into the d&b workflow in connection with the d&b ArrayCalc simulation and R1 Remote control software. This allows multiple sender units to be read out within R1.

By factory default, the sender unit comes with the following ethernet and remote settings:

IP mode:	Auto ⇒ DHCP+LL (Link Local)
IP address:	192.168.0.111
Subnet:	255.255.255.0
Gateway:	192.168.0.1
Remote ID:	0.01

7 Maintenance and care



7.1 Cleaning

During normal operation, the units provide maintenance-free service.

If the units require cleaning ...:

- Use a soft cloth only.
- Do not use any solvent cleaners.
- Do not spray directly on the LC display or laser.

7.2 etherCON connector socket protection

NOTICE!

Possible risk of damage to the device!

Always make sure the dust cap of the etherCON connector socket is properly attached (closed) during transport or when it is not in use, as shown in the graphic opposite.

This prevents the sender unit from damage due to:

- Ingression of moisture or liquids (e.g. water from rain) through the etherCON connector socket,
 - corrosion of the connector socket's spring contacts.
-



7.3 Calibrating the accelerometer

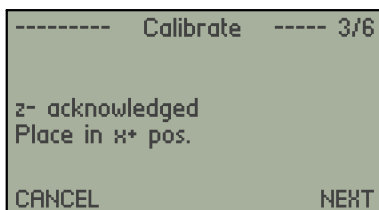
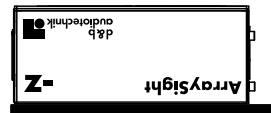
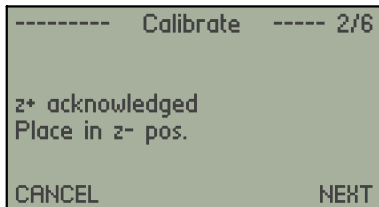
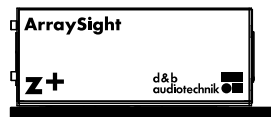
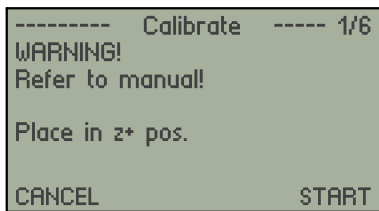
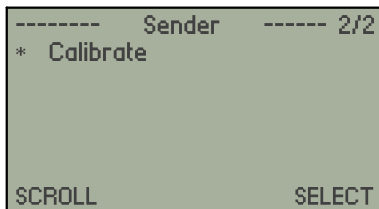
ENSURE the laser is switched off throughout this procedure.

The ArraySight sender units are calibrated in the factory using precision calibration jigs. If this process is attempted without a level surface and a true 90° angle, then calibration information could be incorrect. Only attempt this process if you have the appropriate facilities to ensure accuracy.

Calibration is performed using gravity as a reference.

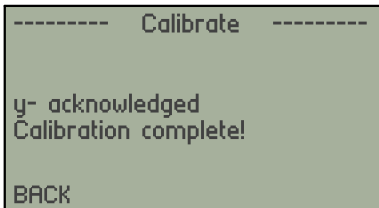
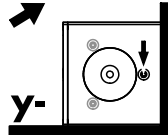
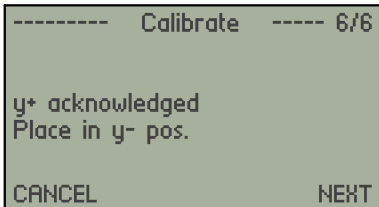
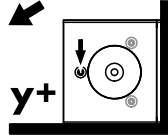
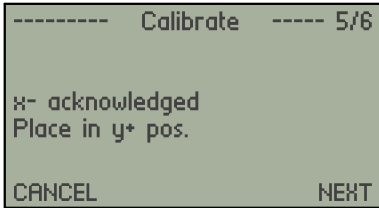
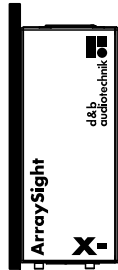
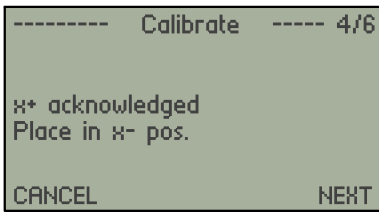
Note: If you are interrupted during any of the following steps, or the display shows anything other than indicated, you will need to start the procedure again. Errors can occur if the unit 'times out' or if a button is inadvertently pressed twice.

The calibration procedure can be canceled at any time by pressing the left-hand «CANCEL» button.



1. Place the sender on a known level surface with a block or side fence positioned at exactly 90°, so the unit can be registered accurately both vertically and horizontally.
 2. Connect the sender unit to the meter unit and power it up.
 3. Select «MENU» ⇒ «Sender settings» ⇒ «Calibrate».
- You'll then need to follow a six step procedure:

1. First, the meter screen will prompt you to place the sender in the **z+** position.
z+ is the sender unit's "normal" orientation, sat flat on the table top.
Select «START»...
2. When «z+ acknowledged » is displayed, place the unit in the **z-** position, i.e. upside down on the table top, so the base of the unit is facing upwards.
Select «NEXT»...
3. When «z- acknowledged» is displayed, you are next prompted to place the unit in the **x+** position.
In the **x+** position, the unit points upwards, with the laser aperture at the top. This requires holding the unit with the base against a vertical surface.
Select «NEXT»...



- When «x+ acknowledged» is displayed, place the unit in the **x-** position by turning the unit 180 degrees.

The laser aperture should now point downwards and the top of the unit should rest against the vertical surface.

Select «NEXT»...

- When «x- acknowledged» is displayed, you are next prompted to place the unit in the **y+** position.

Turn the unit on its side, in a clockwise direction so when the unit is viewed from the front, the brass screw nearest the top surface is now at 9 o'clock, and the base of the unit rests against the side fence. This is **y+**.

Select «NEXT»...

- When «y+ acknowledged» is displayed, you are prompted to place the unit in the **y-** position.

Turn the unit through 180 degrees.

The brass screw has moved from 9 o'clock to 3 o'clock.

Select «NEXT»...

When «y- acknowledged» is displayed on the screen, the sender unit will process the measurements and calibration will be complete. This data is stored in the non-volatile EEPROM in the sender unit.

Correctly calibrated, the sender unit will provide accurate angle measurements in all orientations.

7.4 Firmware

Unsupported hardware revision

In case of a mismatch of the hardware and firmware of an ArraySight meter unit the following message will be shown:

Unknown Hardware

Cannot identify hardware revision.

Please contact service.

If this message appears, please contact your local dealer or contact d&b service directly. To find a contact, visit our website www.dbaudio.com.

Default d&b MAC address

If data in the flash memory is missing or incorrect, the device will use a default MAC address. This could lead to various network problems between devices. Please refer to the R1 Remote control software for an error message.



8.1 Declaration of Conformity

This declaration applies to:

d&b Z5710 ArraySight set

Including:

- Z5711 ArraySight sender unit
- Z5712 ArraySight meter unit

by d&b audiotechnik GmbH & Co. KG.

All product variants are included, provided they correspond to the original technical version and have not been subject to any later design or electromechanical modifications.

We herewith declare that said products are in conformity with the provisions of the respective directives including all applicable amendments.

Detailed and applicable declarations are available on request and can be ordered from d&b or downloaded from the d&b website at www.dbaudio.com.



8.2 WEEE Declaration (Disposal)

Electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime.

Please dispose of this product according to the respective national regulations or contractual agreements. If there are any further questions concerning the disposal of this product, please contact d&b audiotechnik.

WEEE-Reg.-Nr. DE: 13421928

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9.1 Z5710.xxx d&b ArraySight sets

In connection with d&b flying frames other than the SL-Series flying frames, d&b also provides additional ArraySight sets including dedicated flying frame adapter to allow the d&b ArraySight sender unit to be mounted to the corresponding flying frame.

The following sets are covered by this manual (Mounting instructions):

- **Z5710.001:** d&b ArraySight set J-Series
- **Z5710.002:** d&b ArraySight set V-Series

Apart from any other items, each ArraySight set includes the mechanical components (flying frame adapter) for two flying frames.

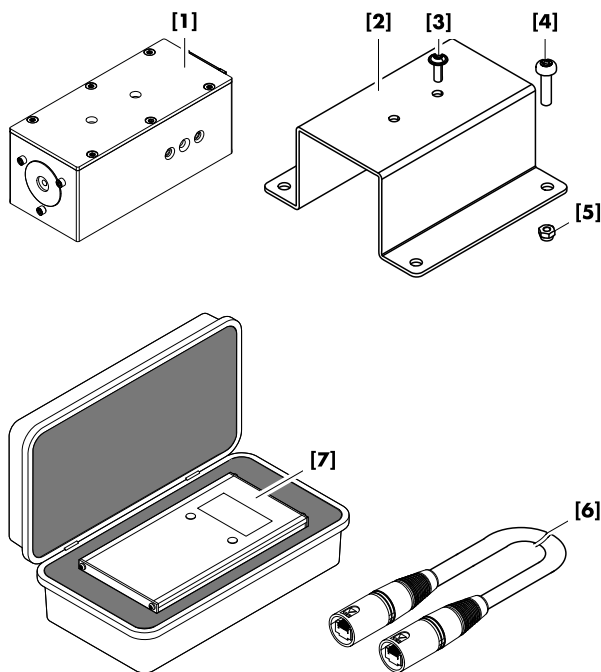
Please verify the shipment for completeness and proper condition of the items.

Tools required

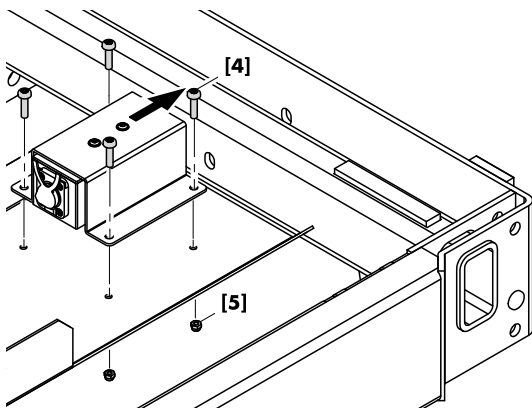
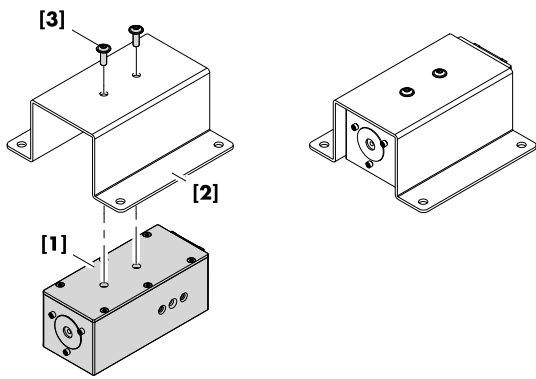
- Torx screw driver T20
- Torx screw driver T25
- Socket wrench SW8

9.1.1 Z5710.001 Mounting instructions

Scope of supply



Pos.	Qty.	d&b Code	Description
	1	Z5710.001	d&b ArraySight set J-Series
Including:			
[1]	2	Z5711	ArraySight sender unit
[2]	2		J Flying frame adapter
[3]	4		Panhead screw (Torx T20) M4 x 12
[4]	8		Panhead screw (Torx T25) M5 x 18
[5]	8		Self securing nut M5
[6]	2	K6006.200.00	Shielded CAT5e 1:1 cable, 30 m (100 ft)
[7]	1	Z5712	ArraySight meter unit within transport case
	1	D2735.EN .01	ArraySight Manual



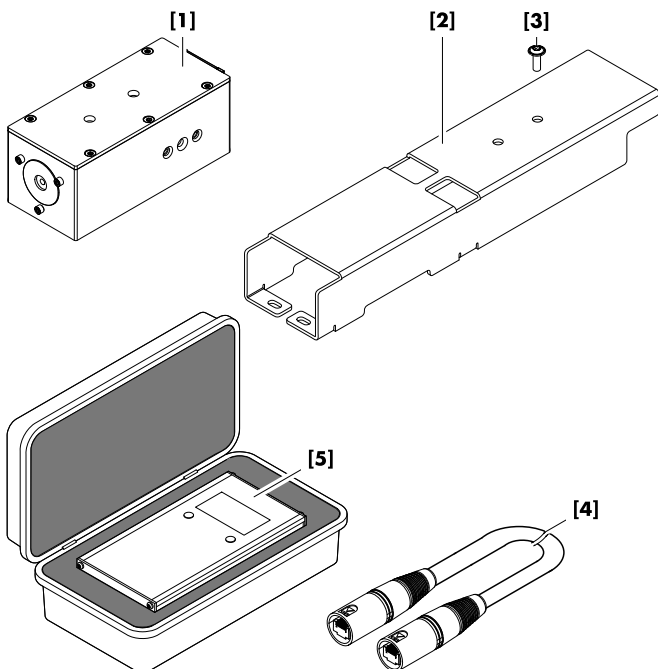
Assembly

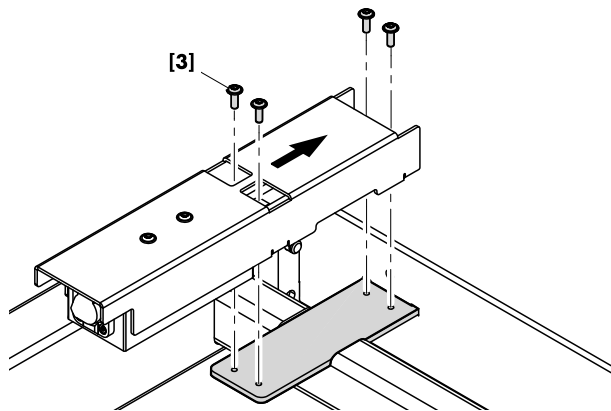
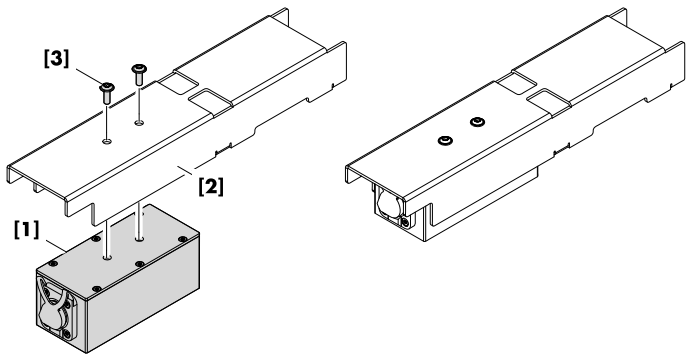
1. First attach the ArraySight sender unit [1] to the flying frame adapter [2].
2. Fix the sender unit using the two panhead screws (M4 x 12) [3].
3. As the sender unit assembly can only be mounted to the bottom of the J flying frame, turn the frame by 180°.
4. Position the frame onto an appropriate and flat surface.
5. Attach the sender unit assembly to the mounting plate of the frame with the laser unit facing towards the front of the frame.
6. Fix the sender unit assembly using the four panhead screws (M5 x 18) [4] and the self securing nuts (M5) [5].
7. Recheck your work and ensure all screws are properly tightened.

9.1.2 Z5710.002 Mounting instructions

Scope of supply

Pos.	Qty.	d&b Code	Description
	1	Z5710.002	d&b ArraySight set V-Series
Including:			
[1]	2	Z5711	ArraySight sender unit
[2]	2		V Flying frame adapter
[3]	12		Panhead screw (Torx T20) M4 x 12
[4]	2	K6006.200.00	Shielded CAT5e 1:1 cable, 30 m (100 ft)
[5]	1	Z5712	ArraySight meter unit within transport case
	1	D2735.EN .01	ArraySight Manual





Assembly

1. First attach the ArraySight sender unit **[1]** to the flying frame adapter **[2]**.
2. Fix the sender unit using two panhead screws (M4 x 12) **[3]**.
3. Position the V flying frame onto an appropriate and flat surface.
4. Attach the sender unit assembly to the mounting plate of the frame with the laser unit facing towards the front of the frame.
5. Fix the sender unit assembly using four panhead screws (M4 x 12) **[3]**.
6. Recheck your work and ensure all screws are properly tightened.



