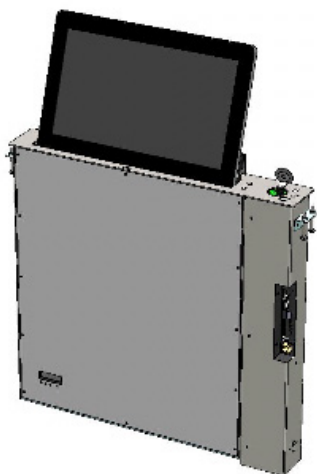# AH

User Guide

DynamicX2Talk

HDCP compliant aluminium retractable motorised monitors
with integrated independent microphone lift system

Technology Serving Design

Danish craftmanship
Mediterranean soul

AH
ARTHUR HOLM

TABLE OF CONTENTS

WELCOME

Thank you very much for purchasing an Arthur Holm product.

Please, read these installation and operating instructions carefully and keep them in a safe place for future consultations.

We remain at your entire disposal if you have any suggestions.

Henrik Holm
General Manager
hholm@albiral.com

ABOUT US

The Company

Arthur Holm has its origins in the Danish furniture designer Jorgen Alex Jensen, who was active during the sixties and the seventies. His design inspiration and his concept of ergonomics have been continued by his family, who is the design force behind Arthur Holm product range. The result of combining Scandinavian design tradition with Mediterranean creativity, flexibility and emotion is a wide product range built on more than 25 years of craftsmanship.

Arthur Holm offers a professional product range where tomorrow's technology is shaped into valued materials with design flexibility and customisation, specially created to enhance communication in reception, collaboration, conference and meeting areas.

The art of customisation

Arthur Holm offers a range of ingenious products whose designs are based on quality materials and the latest technology. Products which endow meeting and conference rooms with silent, ergonomic, innovative and aesthetic solutions that integrate into the furniture, hang from the walls as works of art or are used as interactive points of information.

The world of Arthur Holm

Arthur Holm offers a selection of unique, elegant, versatile, flexible and ergonomic products that are being used in meeting and conference rooms, reception areas, huddle rooms, control rooms, auditoriums and public zones of leading companies throughout the world.

The numbers speak for themselves! We currently own 33 product patents, have presence in over 45 countries with products and solutions inmore than 25,000 installations.

It will be our pleasure to work with you, designing your unique and personalised environment. Our broadcast electronic engineers will provide the latest technology while our design team will offer you the most exclusive appearance.

Our team puts its heart, passion and pride in all our designs.

REGULATIONS AND SECURITY

ATTENTION: Do not disassemble or modify the device in any way. This symbol warns of the presence of dangerous un-insulated voltages inside some of the components, of sufficient magnitude to expose people to risk of electronic shock.

This symbol draws attention to important use and maintenance instructions in the manual that accompanies the unit.

This symbol indicates that the equipment conforms to the norms established by the European Community.

This symbol indicates D.C. current.

SAFETY INSTRUCTIONS

Plugs

- Do not dismantle any part of the monitor power connector.
- Disconnect the power plug from the AC outlet when the monitor is not going to be used for an indefinite period of time.

Power and extensions cords

- Use the appropriate power cord with the correct plug type.
- Do not overload wall outlets or power cords.
- Make sure the total ampere passed through an extension cord does not exceed the maximum allowed by the cable used.
- Do not place anything on the power cord.
- Do not locate this product where a person may walk or trip over the cord.

SAFETY INSTRUCTIONS

Wiring connected to hazardous voltage requires installation by qualified personnel or the use of ready-made flexible cables.

For your security, your equipment must be connected to an electrical outlet with grounding connection protection.

Since the plug is used to disconnect the device, the operating electrical outlet must be in an easily accessible place.

Environment

- Install the equipment on an elevated, flat surface.
- Install the equipment in a ventilated area.
- Avoid exposing the equipment to:
  · Rain or water
  · Excessive heat, cold or humidity
  · Area exposed to direct sunlight
  · Dirty areas
  · Equipment generating strong magnetic fields
- Avoid placing open containers of liquid, near the equipment.
- Keep a minimum distance of 30 mm in order to have good ventilation.
- Never place above the device any sources of flames such as lighted candles, etc.
- If you are using the device in extreme weather conditions and/or tropical climates, the equipment should be installed in a room which ensures a reasonable level of temperature and humidity.
- To prevent damage the equipment must be firmly anchored to the surface, as shown on the installation instructions.

SYSTEM DESCRIPTION

General

Arthur Holm DynamicX2Talk is a motorised retractable monitor that includes an independent lift for gooseneck microphones. The system provides silent, reliable and harmonic movements using a patented solution with just one engine. The variable speed system raises, lowers and tilts the monitor 20° to ensure the best ergonomics, viewing angle and visibility. The integrated independent lift system for microphones provides a rounded coverlid that makes the microphone disappear within the desk surface and also provides a pleasant light to indicate its status.

A protective and patented lighting ring safely stores the microphones, protecting them, making meeting and conference spaces more flexible and versatile.

This system has 2 different working modes: PA and Conference. In PA mode a push button activates and de-activates the microphone while the LED ring will show the status changing from red to green. The system will silence the microphone when retracting. In Conference mode, the microphone will be always active.

Highlights

- Aluminium retractable monitor with an independent microphone lift
- Automatic 20° monitor tilt angle: patented single engine for up/down and tilt
- Microphone lift compatible with 3 pin XLR 500 mm "gooseneck" microphones
- Patented 360° LED lighting ring to indicate microphone status
- AH-AMMC Auto mechanical movement calibration
- Wireless connectivity for setup and control
- PA and Conference working modes
- Stainless steel cover plate

SYSTEM DESCRIPTION

Available Models

MODEL	DESCRIPTION
AH17DX2HDGATalk	HDCP compliant vertically retractable aluminium 17,3" Full HD monitor with 20 degrees of automatic inclination with an independent lift for "gooseneck" microphones. Single engine patented mechanism. Solid aluminium monitor in natural anodisation finish featuring 3 mm. double sided anti reflective black edged glass. Up-table cover plate made of brushed stainless steel integrating a rounded microphone coverlid. The system provides a patented 360˚ LED lighting to indicate microphone status.
AH22DX216GATalk	HDCP compliant vertically retractable aluminium 21,5" Full HD monitor with 20 degrees of automatic inclination with an independent lift for "gooseneck" microphones. Single engine patented mechanism. Solid aluminium monitor in natural anodisation finish featuring 3 mm. double sided anti reflective black edged glass. Up-table cover plate made of brushed stainless steel integrating a rounded microphone coverlid. The system provides a patented 360˚ LED lighting to indicate microphone status.

SYSTEM DESCRIPTION

Options

AH17DX2HDGATalk	AH22DX216GATalk
CL (Min.5 units) Laser engraved logo	**CL (Min.5 units)** Laser engraved logo
UCS (Min.10 units) UnderCover Stainless steel	**UCS (Min.10 units)** UnderCover Stainless steel
UCV (Min.10 units) UnderCover for veneer	**UCV (Min.10 units)** UnderCover for veneer
TSV (Min.10 units) Touch sensor for UnderCover	**TSV (Min.10 units)** Touch sensor for UnderCover
AHTECB2 (Min.10 units) GPI remote control interface	**AHTECB2 (Min.10 units)** GPI remote control interface
MC Matte cover plate	**MC** Matte cover plate
TS170HD Projected capacitive multitouch screen	**TS2216G** Projected capacitive multitouch screen
USBC (Min.10 units) USB camera/tilt	**USBC (Min.10 units)** USB camera/tilt
HDSDIC (Min.10 units) HD-SDI camera/tilt	**HDSDIC (Min.10 units)** HD-SDI camera/tilt
CCUSBC USB passthrough	**CCUSBC** USB passthrough
CC2USBC 2 USB passthroughs	**CC2USBC** 2 USB passthroughs
CCUSBPower USB power	**CCUSBPower** USB power
FB Free button (GPO) passthrough	**FB** Free button (GPO) passthrough

SYSTEM DESCRIPTION

Options

AH17DX2HDGATalk	AH22DX216GATalk
PO AC Power outlet	**PO** AC Power outlet
AJ Audio mini-jack	**AJ** Audio mini-jack
VGACP VGA passthrough	**VGACP** VGA passthrough
HDMICP HDMI passthrough	**HDMICP** HDMI passthrough
AHISBD2PT HDMI retractable	**AHISBD2PT** HDMI retractable
AHDL DynamicLoop	**AHDL** DynamicLoop
AHDSS DynamicShare	**AHDSS** DynamicShare
AHISBD2 HDMI retractable (Share)	**AHISBD2** HDMI retractable (Share)
AHHC HDMI fixed (Share)	**AHHC** HDMI fixed (Share)
AHDSPB Priority	**AHDSPB** Priority
CABD2 (Min.10 units) Black anodised	**CABD2 (Min.10 units)** Black anodised
GFD2 (Min.10 units) Gold finish	**GFD2 (Min.10 units)** Gold finish
BFD2 (Min.10 units) Bronze finish	**BFD2 (Min.10 units)** Bronze finish
CPD2 (Min.10 units) Painted	**CPD2 (Min.10 units)** Painted

SYSTEM DESCRIPTION

Box Contents

Before the installation of your retractable monitor, please check the contents of the shipping box, it must contain the following items:
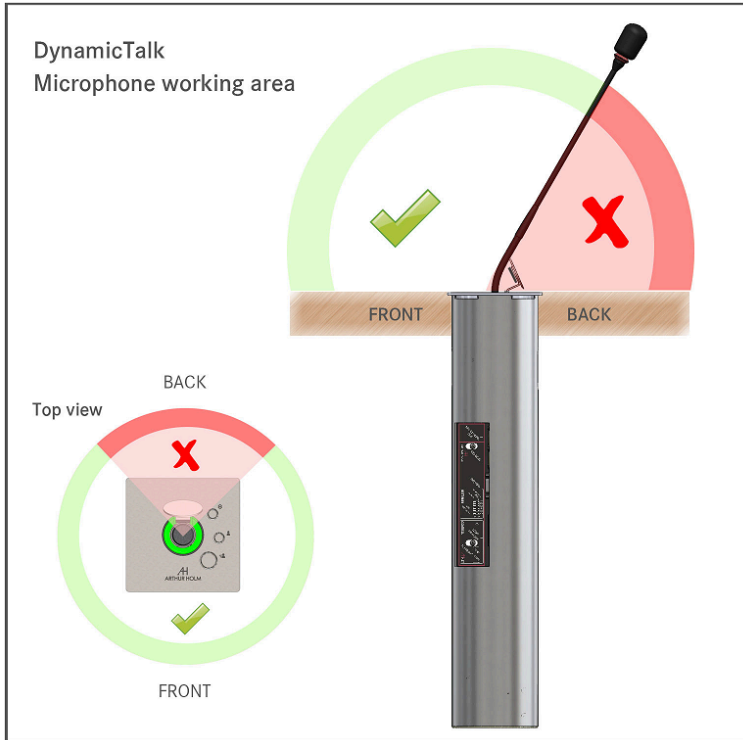• Monitor
• Two power cords (one for the monitor and one for DynamicTalk)
• Remote control (1 per 5 monitors)
• Two power supplies 100-240Vac, 50-60Hz. Output 12V (one for the monitor and one for DynamicTalk)
• User guide

Important note: This device can only work with the power supply included in the shipping box. This power supply can not be replaced by any other rather than the original one.

DYNAMICTALK HANDLING

Please follow the figure below for a correct product usage of the DynamicTalk microphones.

To avoid any product malfunctions, do not attempt to bend the microphone to the incorrect angle or outside the microphone's working area, as indicated on the picture below.

Please note that ware to the microphone and pop screen surface can occur.

CONTROLS

IR sensor

The IR sensor is located on the lower right side of the screen.

Monitor movement controls

On the upper cover plate, there are two buttons to control the UP and DOWN monitor movements and three buttons to control the DynamicTalk functions and to external control other devices (GPO).
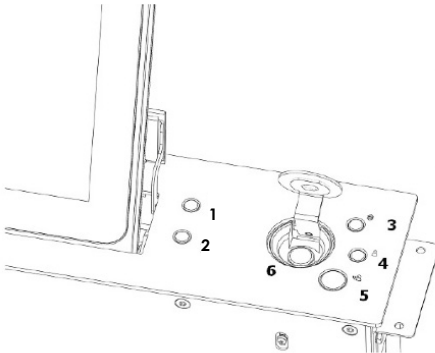
1. Raising the monitor:

To rise up the monitor display, press the button (1) on the right hand side of the cover plate.
Please, make sure that no objects are located on top of the monitor.

2. Retracting the monitor:

To retract the monitor display, press the button (2) on the right hand side of the cover plate.
Please, make sure that no objects are located on top of the monitor.

CONTROLS

3. Microphone UP/DOWN: Controls the UP and DOWM microphone lift movements. Press this button for 5 seconds to activate AHlink signal (5 beeps sounds when AHlink signal is activated)

4. Customized button: The central push button is used to control external devices. The contact close button (GPO) is present on SubD9 connector to external control other devices.

5. TALK or GPO button: The third push button has two different functions:

- PA mode: In PA mode, this button is used as "Mute" function. When pressing the button once, the LED ring will appear in red indicating that the "Mute" function is deactivated and it's ready for the user to talk to the audience. Press the button again to activate de "Mute" function and silent the microphone, which will be indicated by the green LED ring.

- Conference mode: In conference mode the microphone is controlled by the external conference system. In this case, this button then, has no function and the contact close of the push button is present on the SubD9 control connector (GPO). In this case, there are two GPO buttons available.

6. Dynamic LED Ring: The system has a LED ring to indicate the status of the microphone: RED indicates that the "Mute" function is deactivated and GREEN indicates that the "Mute" is activated. When the equipment is configured to work in conference mode, the LED ring is externally controlled by GPI on the SubD9 external control connector.

NOTE: Use the AHLink app on the Dynamic Talk to set the microphone length

CONTROLS

Remote control

POWER   Switch ON/OFF the monitor

MENU   Activates the OSD menu on screen

UP   Control up on the OSD menu

DOWN   Control down on the OSD menu

LEFT   Control left on the OSD menu

RIGHT   Control right on the OSD menu

OK   Selects the function on the OSD menu. When the OSD menu is not active on screen, selects the input source
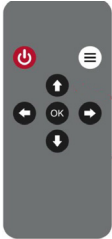
OSD MENU

Accessing the menu system

- With the OSD off, push the MENU button to activate the main OSD menu.
- Press the UP and DOWN buttons to move from one function to another. Please refer to the following sections below to view a complete list of all the functions available for the monitor.
- Press the OK button to confirm.
- When a function is selected, press the LEFT and RIGHT buttons in order to change the parameter of the function.

Press the MENU button to access to the main menu.

Picture

Picture Mode: Adjusts the mode of the image
- Dynamic
- Standard
- Mild
- User: Contrast - Brightness - Colour - Sharpness - Tint

Colour Temperature: Adjusts the colour of the image
- Cool
- Medium
- Warm
- Use: Red - Green - Blue

Aspect Ratio: Adjusts the image aspect on screen
- 4:3
- 16:9
- Just scan

OSD MENU

Noise Reduction: Adjusts the image noise filter
- Off
- Low
- Medium
- High
- Default

Screen: (Only for analogue signals)
- Auto Adjust
- Horizontal Position
- Vertical Position
- Size
- Phase

Backlight: Adjusts the backlight screen's level

Colour Range: Adjusts the colour range
- 0 - 255
- 16 - 235

OSD MENU

Option

Language: OSD language selection

Restore Factory Default: Adjusts the parameters to the initial factory parameters

Blending: OSD window transparency
- Low
- Medium
- High
- Off

OSD Duration: Adjusts the time that the OSD menu window remains on the screen

Software Update (USB): Port to use for firmware's upgrade.

Mirror:
0. Image with no flip
1. Vertical flip
2. Horizontal flip
3. Rotate

ISD MENU

The Interactive Setup Display is an LCD screen located at the monitor casing inside the desk that allows the setup and provides useful diagnose and historical data of the device.

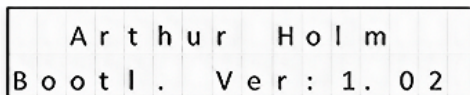NEO ISD (Interactive Setup Display)
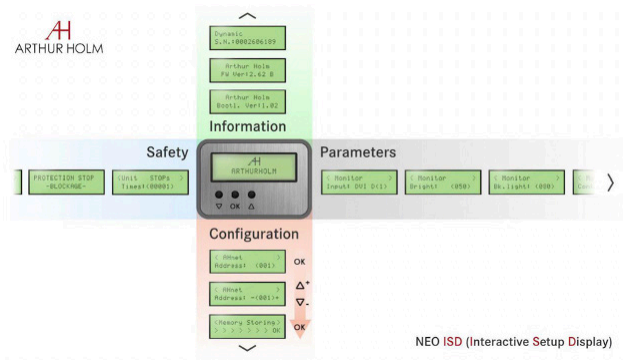
- To start using it -

· **WELCOME DISPLAY & DATA :**

1) Bootloader Version

The display will show a Bootloader Version message (example: Bootl. Ver: 1.01). Bootloader is a program which allows the system to be able to update itself. The ISD has a Bootloader and therefore is capable of updating to new versions in order to constantly improve the user experience.

ISD MENU

2) FirmWare

Data that refers to the firmware version (FW) of the equipment (example: FW Ver = 1.32). If you wish to update the FW version, please contact us.

```
  A t h u r   H o l m
F W   V e r :   1 .   2 6
```

3) Serial Number

Serial number of the device (example: serial number of the device = 02658748). The serial number is stored inside each device.

```
D y n a m i c _ 2
  S . N . :   0 1 2 3 4 5 6 7 8 9
```

The serial number can also be obtained via AHnet and AHlink.

- OSD MENU -

· AHNET (GENERAL PROTOCOL)

CONTROLS

· The ISD will show the AHnet address which will be accompanied by an acoustic signal "BEEP" (example: Address: (001)). Once the signal has been heard, the "UP & DOWN" buttons will allow the user to scroll through all the variety of menus that the device contains. To enter into any specific menu, simply press the "OK" button.

```
<   A H n e t             >
A d d r e s s :     ( 0 0 1 )
```

· How to modify the values within each menu? The values can be selected through the "UP & DOWN" buttons. To save the selected value, press the "OK" button or wait 3 seconds for it to be automatically saved.

```
<   A H n e t             >
A d d r e s s :   - ( 0 0 1 ) +
```

The connection through RS422 allows the control of up to 30 devices per line. The last device (an only the last one) needs to have the termination activated.

ISD MENU

· MENUS GENERAL INFORMATION

1) AHnet - Adress

The address must be set from 1 to 60.

```
< A H n e t           >
A d d r e s s :   ( 0 0 1)
```

2) VIDEO INPUT SELECTION

The device provides the following inputs:

DVI1 = DVI-I (DVI-A and DVI1-D)
DVI2= DVI-D (DVI-2D)

This menu allows the selection of 1 of these 3 inputs.

```
< M o n i t o r         >
I n p u t :   D V I _ D ( 1 )
```

3) MONITOR BRIGHTNESS

Brightness level (0 – 100).

```
< M o n i t o r         >
B r i g h t :     ( 0 5 0 )
```

4) MONITOR CONTRAST

Contrast level (0 – 100).

```
< M o n i t o r         >
C o n t r a s t :   ( 0 5 0 )
```

ISD MENU

5) MONITOR BACKLIGHT

Backlight level (0 – 100).

```
< Monitor                >
Bk.light:    (050)
```

6) POSITION

It is a diagnostic option that informs about the position of the device.

```
< Monitor                >
  Position: (023)
```

7) SENSORS INFORMATION

It is a diagnostic option that informs about the internal state of the sensors.

```
S 1I  2I  3I  4I  5I  6I  7I  8
I 0I  1I  1I  1I  1I  1I  1I  1
```

8) AHnet - INFORMATION

This menu is useful for programing and diagnose.

It provides information about the AHnet command that has been received by the device.

Example: AHnet = 0 (FA) 1 (01) 2 (01) 3 (01) 4 (00)

```
AHnet: 0(FA) 1(01)
2(01) 3(01) 4(00)
```

9) UNIT OPENS

It is a diagnostic option that provides historical data.

It is very useful to analyze how the device has been used during its lifecycle and it provides information about how many movements the device has done.

```
< U n i t    O p e n i n g s    >
  T i m e s : ( 0 0 0 0 0 )
```

10) UNIT STOPS

It is a diagnostic option that provides historical data. It is very useful to analyze how the device has been used during its lifecycle.

It provides information about the number of times that the device has been protected and made emergency stops.

```
< U n i t        S T O P s    >
  T i m e s : ( 0 0 0 0 0 )
```

11) SERIAL NUMBER

Provides the device's serial number.

```
< S e r i a l    N u m b e r    >
  S . N . :  0 1 2 3 4 5 6 7 8 9
```

The serial number can also be obtained via AHnet and AHlink.
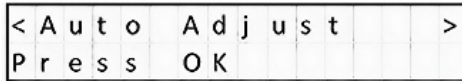
12) MONITOR DOWN

Only use this function as per manufacturer advice.

```
< M o n i t o r    D O W N    >
O n l y    f o r    S E R V I C E
```
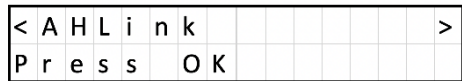
ISD MENU

13) AUTO ADJUST

Auto Mechanical Movement Calibration (AH-AMMC).

```
< A u t o   A d j u s t         >
P r e s s     O K
```

Protocol activation: the device will make a consecutive movements series that must not be interrupted. The system will calibrate the speed and protection thresholds.

14) AHLink

Activates AHlink.

```
< A H L i n k                   >
P r e s s     O K
```

FIRMWARE UPDATE

To update the FW version.

To start the update, connect a PC with the APP AH_FW (Device Setting Tool) to the device through the USB port.
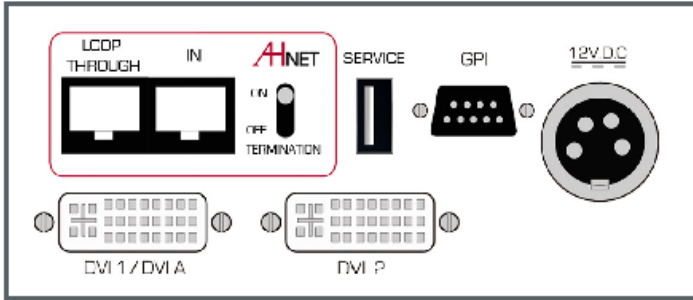
Proceed with the following steps:

-Unplug the PSU
-Wait for 1 minute
-Press and hold the "OK" button
-Plug in the PSU
- A message will appear on the LCD screen when the connection is ready
-Start updating the AH_FW

How are you doing? Easy, right?

Now you just have to start enjoying your device ☺

INPUT CONNECTORS

12V D.C. $\overline{}$ **:** Power supply input connector. XLR-4 connector.
   - 1,2: Ground
   - 3,4: 12Vdc

GPI: Monitor external contact close control. SubD9 female.
   1. GPI1 +
   2. GPI1 –
   3. GPI2 +
   4. GPI2 –
   5. GPI3 –
   6. GPI3 +
   7. N.C.
   8. +12Vdc (600mA max.)
   9. Ground:
   - Use GPI1 (1:12Vdc, 2: Ground) to open the monitor
   - Use GPI3 (6:12Vdc, 5: Ground) to close he monitor

Termination: Activate (ON) the termination. Only on the last unit of the RS422 bus.

AHnet: RJ45 CAT6 connector for addressable RS422 control. There is a loop through connector to use as signal RS422 output. Up to 30 monitors can be connected on the same RS422 bus.

DVI 1/ DVI A: DVI-I input signal. Connect a DVI (digital) input signal and select DVI 1 on the OSD monitor menu. Use a DVI to VGA adaptor to connect an ARGB (analogue) input signal and select DVI-A on the OSD monitor menu.

DVI 2: DVI-D input signal. Connect a DVI (digital) input signal and select DVI 2 on the OSD monitor menu.

Use high quality DVI cables with 2m maximum length.

INPUT CONNECTORS

MICROPHONE INPUT CONNECTORS
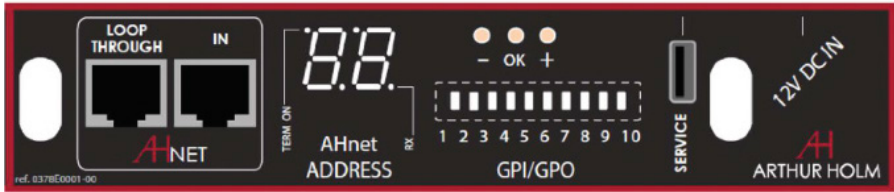
AHnet: RJ45 CAT5 connector for addressable RS422 control. There is a loop through connector to use as signal RS422 output. You can connect up to 30 devices on the same RS422 bus.

AHnet ADDRESS: Using the AHnet protocol, this is the number of the device into the RS422 addressable bus.

TERM OUT: Brighting when the RS422 bus termination is active. Active only the RS422 bus termination on the last unit of the bus.

RX: Brights when the unit receives a RS422 AHNet command.

OSD – OK +

- Changing AHnet Address. Press OK button. Change the AHnet number address using + and – keys, and press OK to save the new address

- RS422 bus termination. Press + key to activate the RS422 termination. Press – key to deactivate the RS422 termination

INPUT CONNECTORS

GPI/GPO external contact close connector:

1. GND.

2. Command microphone UP connecting to GND. Connecting to GND more than 2 seconds, activates the AHlink signal (5 beeps sounds when the AHlink signal is activated)

3. Command microphone DOWN connecting to GND.
- Use a pulse signal to RISE and LOWER the microphone

4. Red LED ring brights connecting to GND (only in conference mode)
5. Green LED ring brights connecting to GND (only in conference mode)

6. GND.

7, 8 GPO1. Contact close of the central button located on cover plate

9, 10 GPO2. Contact close of the Talk button located on cover plate

SERVICE: USB only for service

12V D.C.$===$: Power supply input connector. XLR-4 connector:
1,2: Ground
3,4: 12Vdc

DEVICE AHnet PROTOCOL

Communications protocol

COMMUNICATION	RS422
CONNECTION	RJ45
WIRING	CAT-6

Speed and configuration

BAUD RATE	38400
DATA BITS	8
PARITY	NONE
STOP BITS	1

Wiring Diagram

1. Data TX +
2. Data TX –
3. Data RX +
4. NC
5. NC
6 .Data RX –
7. NC
8. NC

RJ-45

Connection

PINS 1 & 2	The units respond
PINS 3 & 6	The units receive instructions

Protocol to control the monitor by addressable RS422 bus.
You can connect up to 30 monitors on the same RS422 bus.
You can use an AH ERT interface, to control the RS422 bus.
The units should have a set address and the address must start by 1.
Maximum cable length between ends: 500 m/1640 ft.

DEVICE AHnet PROTOCOL

AHnet protocol

Uses 5 bytes communication:

BYTE 0	START BYTE
BYTE 1	ADDRESS BYTE
BYTE 2	COMMAND BYTE
BYTE 3	VALUE 1
BYTE 4	VALUE 2

Commands

COMMAND	DESCRIPTION	RESPONSE
FA XX 01 01 00	GO UP	FB XX 01 01 00
FA XX 01 00 00	GO DOWN	FB XX 01 00 00
FA XX 02 01 00	SCREEN ON	FB XX 02 01 00
FA XX 02 00 00	SCREEN OFF	FB XX 02 00 00
FA XX 03 01 00	DVI-A SELECTION	FB XX 03 01 00
FA XX 03 00 00	DVI-1 SELECTION	FB XX 03 00 00
FA XX 03 03 00	DVI-2 SELECTION	FB XX 03 03 00
FA XX 04 01 00	BUTTON LOCK	FB XX 04 01 00
FA XX 04 00 00	BUTTON UNLOCK	FB XX 04 00 00
FA XX 14 00 00	INQUIRY CONTROL BYTE	FB XX 14 CB1 CB2

XX Number of the monitor address. Up to 30 monitors for each RS422 BUS

CB1 Response in 8 bites of the monitor status

CB2 Response in 8 bites of the monitor status

DEVICE AHnet PROTOCOL

CB1

BITE	7	6	5	4	3	2	1	0
CLOSED			1	1	0	1		
OPENED			0	1	0	1		
SCREEN ON							1	
SCREEN OFF							0	
DVI-A	0	0						
DVI 1-D	1	1						
DVI 2-D	1	0						
PROTECTION STOP								1
MONITOR OK								0

CB2

BITE	7	6	5	4	3	2	1	0
BUTTON LOCK								1
BUTTON UNLOCK								0

DEVICE AHnet PROTOCOL

Picture Commands

COMMAND	DESCRIPTION	RESPONSE
FA XX 15 00 00	ASK FOR BACKLIGHT LEVEL	FB XX 15 00 ZZ
FA XX 16 00 00	ASK FOR CONTRAST LEVEL	FB XX 16 00 ZZ
FA XX 17 00 00	ASK FOR BRIGHTNESS LEVEL	FB XX 17 00 ZZ

XX   Number of the monitor address.
            Up to 30 monitors for each RS422 BUS

ZZ   Level of the function selected (00 – 99 Dec)

COMMAND	DESCRIPTION	RESPONSE
FA XX 15 01 ZZ	SET BACKLIGHT LEVEL	FB XX 15 01 ZZ
FA XX 16 01 ZZ	SET CONTRAST LEVEL	FB XX 16 01 ZZ
FA XX 17 01 ZZ	SET BRIGHTNESS LEVEL	FB XX 17 01 ZZ

XX   Number of the monitor address.
            Up to 30 monitors for each RS422 BUS

ZZ   Level of the function selected (00 – 99 Dec)

To send an order to all the monitors, you must use the address:
249 Dec. (Byte1)
F9 Hex. (Byte1)

In this case, the units do not send a reply.

DYNAMICTALK AHnet PROTOCOL

Communications protocol

COMMUNICATION	RS422
CONNECTION	RJ45
WIRING	CAT-5

Speed and configuration

BAUD RATE	38400
DATA BITS	8
PARITY	NONE
STOP BITS	1

Wiring Diagram

1. Data TX +
2. Data TX –
3. Data RX +
4. NC
5. NC
6 .Data RX
7. NC
8. NC

RJ-45

Connection

PINS 1 & 2	The units respond
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Protocol to control the unit by addressable RS422 bus.
You can connect up to 30 devices on the same RS422 bus.
You can use an AH Interface Ethernet, to control the RS422 bus.
The units should have a set address and the address must start by 1.
Maximum cable length between ends, 500 m/1640 ft.

AHnet protocol

Using 5 bytes communication:

BYTE 0	START BYTE
BYTE 1	ADDRESS BYTE
BYTE 2	COMMAND BYTE
BYTE 3	VALUE 1
BYTE 4	VALUE 2

DYNAMICTALK AHnet PROTOCOL

Commands

COMMAND	DESCRIPTION	RESPONSE
FA XX 01 01 00	GO UP	FB XX 01 01 00
FA XX 01 00 00	GO DOWN	FB XX 01 00 00
FA XX 02 01 00	MUTE ON (Only in PA mode)	FB XX 02 01 00
FA XX 02 00 00	MUTE OFF (Only in PA mode)	FB XX 02 00 00
FA XX 04 00 00	BUTTON LOCK	FB XX 04 00 00
FA XX 04 01 00	BUTTON UNLOCK	FB XX 04 01 00
FA XX 14 00 00	INQUIRY CONTROL BYTE	FB XX 14 CB1 CB2

XX   Number of the DynamicTalk address. Up to 30 units can be connected for each RS422 BUS

CB1   Response in 8 bits of the device status

CB2   Not implemented

CB1

BITE 0	TOP POSITION
BITE 1	DOWN POSITION
BITE 2	(1) MUTE ON
BITE 3	(1) BUTTON LOCK
BITE 4	
BITE 5	
BITE 6	
BITE 7	(1) FAILURE IN THE SYSTEM

To send an order to all the devices, you must use the address:
F7 Hex. (Byte1)

In this case, the units do not send a reply

# VIDEO SIGNALS

AH17DX2HDGATALK/ AH22DX216GATALK

RESOLUTION	Horizontal freq (KHz)	Vertical freq (Hz)	Scanning type
800x600@60Hz	37.879	60.317	Progressive
800x600@72Hz	48.077	72.188	Progressive
800x600@75Hz	46.875	75.000	Progressive
1024x768@60Hz	48.363	60.005	Progressive
1024x768@70Hz	56.476	70.070	Progressive
1024x768@75Hz	60.023	75.030	Progressive
1280x720@60Hz	44.697	59.915	Progressive
1360x768@60Hz	47.396	59.995	Progressive
1280x1024@60Hz	63.981	60.020	Progressive
1600x1200@60Hz	74.479	59.967	Progressive
1680x1050@60Hz	65.160	59.944	Progressive
1920x1080@60Hz	67.500	60.000	Progressive

AHlink

AHlink is used to control and set-up the unit.

By default, the AHLink wireless signal is deactivated. To activate it for the DynamicX2, please press and hold the Open and Close buttons simultaneously on the cover plate for 5 seconds.
To activate the AHlink signal for the DynamicTalk, press during 2 seconds the Up and Down microphone button located on cover plate, or contact close GPI2 pin to GND during 2 seconds. When the AHlink signal is activated, it sounds 5 beeps inside the unit to indicate that the AHlink signal is active.
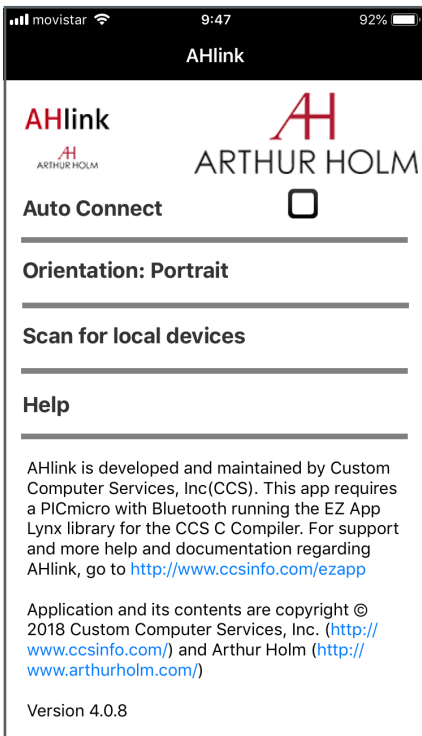
You can also activate the AHlink signal with the LCD (Interactive Setup Display) located under the monitor. Press the Down key near the LCD (Interactive Setup Display), until the "<AHlink>" option appears. Press the OK button to activate the AHlink signal on the unit. When the AHlink signal is activated, the sound of 5 beeps will indicate that the AHlink signal is active on the unit.

The wireless AHLink signal automatically deactivates when there is no device connected during more than 2 minutes. When the AHLink deactivates, you will hear a long Beep sound.

To control and set up your AH product with AHLink, please download it from the App Store (IOS system) or from Google Play (Android system) and execute it in your handled device.

It is recommended on to select *Auto Connect* and select *Portrait* on *Orientation*. To connect it, select *Scan for local devices*.
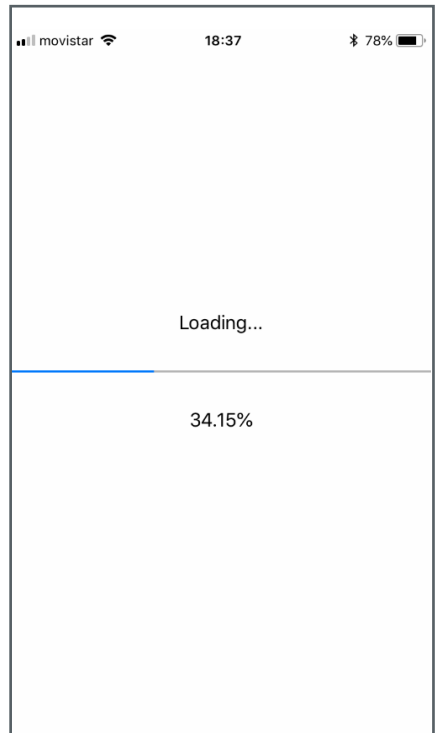
AHLink

If your AH device does not appear on the screen, the AHLink signal might no longer be active.

The AHLink name always begins with the characters "AH" followed by the four last MAC AHLink address. You must select the AH device.
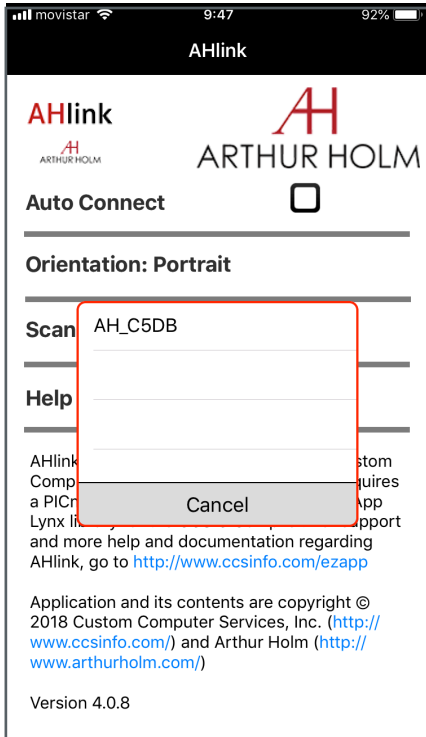
After selecting the AH device, the first page will upload on your screen. This page is used for the basic installation setup.

AHLink

AHlink **Arthur Holm**	
Dynamic2 (577FW202)	
Serial: 0123056789	
Ver: 1.18	
Control	
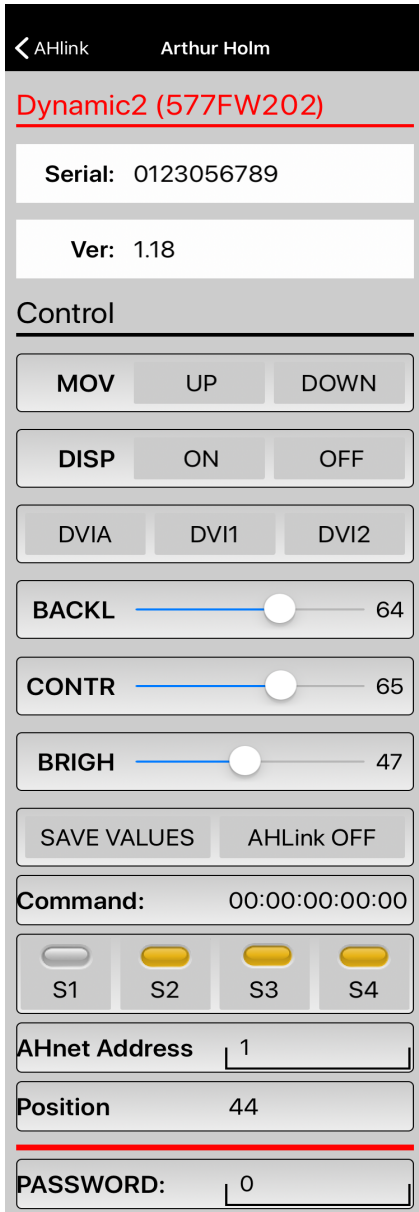
DynamicX2

SERIAL
Serial number of the unit

VER
Firmware version

MOV
Controls the Up and Down monitor movements

DISP: Turns the display ON or OFF

DVIA, DVI1, DVI2: Input source selection

BACKL: Backlight adjustments

CONTR: Contrast adjustments

BRIGHT: Brightness adjustments

SAVE VALUES: Memorises the backlight, contrast and brightness values

AHLINK OFF: Turns off the AHlink signal

COMMAND: Information of the last AHnet command received from RS422 port

SENSORS: Indicates sensor status.
 S1 indicates the screen is completely open

AHNET ADDRESS: Configuration of the AHnet
address of the unit password

POSITION: Screen position. Value 0 indicates that the screen is on the top position

PASSWORD: Access to the factory's settings

AHLink

DynamicTalk

FIRST LINE, SHOWS THE MODEL NAME OF THE DEVICE

SERIAL
Serial number of the unit

VER
Firmware version

MOV
Controls the Up and Down screen movements

MIC
Controls the microphone on PA mode

BEEP: Sounds Beep while pressing this button. Use this function to identify the unit connected

BT OFF: Switch off the AHlink signal on the device. It will close the AHlink App connection

AUTO ADJUST: This function auto adjust the speed and mechanical protection of the unit. The unit will starts to go automatically Up and Down in order to auto adjust the speed and the mechanical protection parameters

RED/ GREEN/ OFF: Controls the LED ring in conference mode

COMMAND: Information of the last AHnet command received from RS422 port

AHLink

DynamicTalk CONFIGURATION

AHNET ADDRESS:
AH address settings

MIC LENGHT:
Microphone length configuration in steps. One step is aprox. one cm

TERM:
Configuration of the RS422 termination. Activate the RS422 termination only in the last unit of the RS422 Bus

MODE:
Dynamic Talk working mode. PA mode is used for standard XLR3 microphones: the microphone is controlled by the Dynamic Talk and the LED ring indicates the state of the microphone (green – MUTE/ red – TALK). In conference mode, the external conference system controls the microphone and the LED ring is controlled using the GPI connector

PASSWORD:
Access to the factory's settings

INFORMATION ON DISPOSAL FOR USERS OF WASTE ELECTRICAL & ELECTRONIC EQUIPMENT

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to the designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries, you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on disposal in countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

WARRANTY TERMS AND CONDITIONS

Albiral Display Solutions warrants this product against manufacturing defects and workmanship for a period of five (5) years from the date of purchase, subject to the conditions below.

1. Mechanical parts: The engine and the product's mechanical parts are warranted against manufacturing defects and workmanship for a period of five (5) years from the date of purchase.

2. LCD panel, inverter, controller, electrical, electronic boards, accessories and power supply are warranted against manufacturing defects and workmanship for a period of two (2) years from the date of purchase.

3. LCD panels that present more than 3 defective pixels (15-19") and more than 4 defective pixels (20-24") will be replaced under warranty.

4. Labour costs: Albiral Display Solutions covers the labour costs to replace any defective parts during the validity of this warranty.

5. Transport costs:

   5.1. In the case that a manufacturing defect occurs within 90 days after the purchase date, both freight and insurance costs will be paid by Albiral Display Solutions.

   Although Albiral Display Solutions S.L. pays for freight and insurance costs, Albiral Displays Solutions will not be responsible for any damages caused by the transportation of the goods if the customer does not inform in writing when receiving the goods.

   5.2. After 90 days of the purchase date, the beneficiary of the warranty will pay both freight and insurance costs.

   Albiral Display Solutions S.L. will not be responsible for any damages caused by transportation, when this one is paid by the customer.

6. This warranty does not cover the labour costs of handling, diagnose, removal, replacement, reinstall and/or program any product.

WARRANTY TERMS AND CONDITIONS

7. This warranty does not apply if the fault has been caused by misuse, improper handling, electrical or mechanical abuse, abnormal operation conditions, non-authorised modifications, and inadequate transportation or as a result of atmospheric phenomenons.

8. The warranty is not valid if people other than authorised Service Centre have handled the product and if the product has been manipulated or warranty seals are removed or manipulated.

9. The beneficiary of the warranty will have to return the product with the original packaging to warranty there are no damages during transportation.

10. The warranty is not valid if the beneficiary of the warranty does not include an RMA form and a copy of the purchasing invoice.

Please note that laws vary from country to country, and the same provisions of this warranty may not apply to you.

If you have any doubts concerning the terms of this warranty, please contact:
business@albiral.com
+34 938 502 376

ARTHUR HOLM

Albiral Display Solutions

Fàtima 25, Sant Hipòlit de Voltregà
08512 Barcelona – Spain
tel: +34 93 850 23 76 / 23 83
fax: +34 93 850 25 50 / 23 72
web: www.arthurholm.com
e-mail: marketing@arthurholm.com