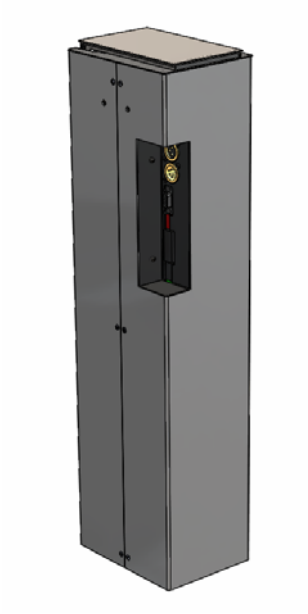
User manual



ARTHUR HOLM

AHDTLM UC

Motorized microphone system for underneath installation

Welcome

Thank you for purchasing an **ARTHUR HOLM** product.

Our product range has been designed to create the perfect meeting room, where the screens are a part of the interior design as well as essential communication tools

Please, read this installation and operating instructions carefully and keep them in a safe place for a future consultation

We remain at your entire disposal if you have any suggestions that would help us to improve our products

Henrik Holm
General Manager

ARTHUR HOLM

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EC NORMATIVE AND SECURITY NORMS



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 European community

Safety instructions

Plugs
Do not dismantle any part of the equipment power connector
Disconnect the power plug from the AC outlet when the equipment 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



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

The operating electrical outlet must be in an easily accessed 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
- Areas 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 30mm in order to have good ventilation
Never place any source of flames such as lighted candles, etc above the device
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 in the installation instructions

Features

- Universal microphone lift system
- Two different modes of operation: PA (public address) or conference (controlled by external conference system control)
- Up, down mechanical function controlled by externally push buttons, and external control by AHnet protocol (RJ45). The AHnet is an addressable RS422 protocol to externally control the equipment
- Dynamic LED ring for "ready to talk" and "talk" indications
- Up/Down movement for external push buttons. Down control movement for cover plate button
- Push button to MUTE function in PA mode, or used to GPO in conference mode
- In PA mode, the microphone is muted when it is down

Box contents

Before the installation of your DynamicTalk, please check the contents of the shipping carton, it must contain the following items:

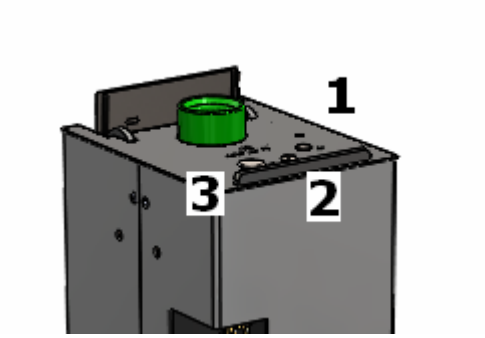
- DynamicTalk
- Power cord
- User's Manual
- Power supply 100-240Vac, 50-60Hz. Output 12V



CAUTION: Never use this equipment on horizontal position

Controls

On upper cover plate, there are tree push buttons to control the functions and to external control other devices (GPO).



1. DOWN: Control the down microphone lift movement
2. Customized: 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
3. TALK or GPO: The third push button has two different functions

   PA mode: Working in PA mode, this button is used as MUTE function. Press one time the button, the ring LED goes to red indicating that the mute is not active and you can talk to the audience. Press once the button, the ring LED change to green indicating that the MUTE is active and the microphone is not working

   Conference mode: In conference mode, the microphone is controlled by the external conference system. Then, this button 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

- Dynamic ring LED: The system has a ring LED to indicate the status of the microphone: RED the MUTE is not active, and GREEN the MUTE is active. When the equipment is configured to work as conference mode the RING LED is external controlled by GPI on the SubD9 external control connector

Connections



- Microphone out: XLR connector of the microphone installed in the DynamicTalk
- 12V DC IN: XLR4 connector to the power supply
  - 1,2: Ground
  - 3,4: 12VDC
- GPI/GPO: SubD 9 pins female connector to contact close external functions. Connect the external UP/DOWN push button to this connector

Pin	Function
1,6	Contact close of the customised push button on upper cover plate (central button). 100mA Max.
8,9 Only in conference mode	Contact close of the TALK push button on upper cover plate, only in conference mode. This function is not working when the device is configured in PA mode 100mA Max.
2 Only in conference mode	Activates the ring RED LED in conference mode, connecting to GPI ground
3 Only in conference mode	Activates the ring GREEN LED in conference mode, connecting to GPI ground
4	Connect this pin to GPI ground to rise up the microphone
5	Connect this pin to GPI ground to down the microphone
7	GPI ground

NOTE: In conference MODE, if the 2 and 3 pin are not connected to ground, the ring LED is off.

- Settings: 6 dip switch to configure the DynamicTalk.

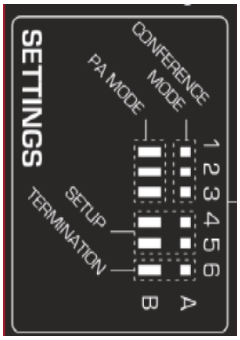
Dip switch	Function
1,2,3	ON: DynamicTalk configured as PA mode. The Talk push button controls the microphone mute function OFF: DynamicTalk configured as conference mode. The talk push button has no function but the contact close is present on GPO connector and the ring LED is externally controlled
4, 5	Only factory. Leave those dip switches off
6	Termination of the RS422 bus. Configure to ON only in the last device of the RS422 bus

- 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 units on the same RS422 bus
- AHnet ADDRESS: Using the AHnet protocol, this is the number of the device into the RS422 addressable bus

Microphone length setting procedure.

Dynamic Talk is designed to work with microphones of different lengths. Two signs to identify an incorrect setup of the microphone length are:

•The microphone do not goes down completely.
•The microphone goes down too low, and gets stucked inside. The microphone length can be adjusted using Monitor Configurator Tool, but there is a quick procedure not requiring the PC and the cabling

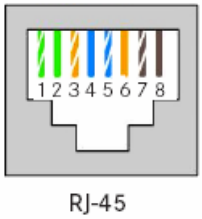


PROCESS
1. Disconnect Power connector
2. Set switch 5 to ON position
3. Set the length of the microphone in the rotatory switch, in cm. For instance, if the microphone is 40cm, set the rotatory switch as: tens=4, unit=0)
4. Connect Power , there will be a 5 beep sound
5. Disconnect Power
6. Set switch 5 to OFF position
7. Set the AHnet address in the rotatory switch, the default setting is address 01 (tens=0, units=1).
8. Connect Power connector

AHnet protocol

- Communication type : RS422
- Connection type : RJ45
- Wiring type : CAT-5
- Speed and configuration :
  - Baud Rate = 38400
  - Data Bits = 8
  - Parity = None
  - Stop Bits = 1

Wiring diagram



RJ-45

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

Pins 1&2: the units answer
Pins 3&6: the units receive orders

Protocol to control the device by addressable RS422 bus. You can connect up to 30 dvices on the same RS422 bus. You can use a AH Interface Ethernet, to control the RS422 bus. The units should have set address and the address must start by 1. Maximum cable length between ends, 500m

AHnet Protocol:

Using 5 bytes to communication:

BYTE 0	START BYTE
BYTE 1	ADDRESS BYTE
BYTE 2	COMMAND BYTE
BYTE 3	VALUE 1
BYTE 4	VALUE2

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 01 00	BUTTON LOCK	FB XX 04 01 00
FA XX 04 00 00	BUTTON UN LOCK	FB XX 04 00 00
FA XX 14 00 00	INQUIRY CONTROL BYTE	FB XX 14 CB1 CB2

XX: Number of the DynamicTalk address. Up to 30 units for each RS422 BUS.
CB1: Response in 8 bites of the device status
CB2: Not implemented

CB1:

BIT 0	TOP POSITION
BIT 1	DOWN POSITION
BIT 2	(1) MUTE ON
BIT 3	(1) BUTTON LOCK
BIT 4	
BIT 5	
BIT 6	
BIT 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 respond

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 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 to 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 other 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

PRODUCT GUARANTEE

Conditions of Guarantee

Albiral Display Solutions S.L., with this document, guarantees all Albiral and Arthur Holm Trademark products against defects in manufacturing in accordance with the following conditions:

1) This guarantee covers the original product purchaser for a period of 24 months from the date of purchase
2) This guarantee covers:
   a) Parts: During the warranty period, the replacement of any electronic and mechanical parts against any defects in manufacturing. The guarantee does not cover any faulty electronic and/or mechanical components arising from incorrect installation, non-authorised modification, and inadequate transport or as a result of atmospheric phenomenon
   b) Labour: Albiral Display Solutions S.L covers labour costs for replacement of any defective parts (in accordance to paragraph 2a) during the period of this warranty
   c) Transport costs:
      i) In the case that a manufacturing defect occurs within 30 days after the purchase date, both freight and insurance will be paid by Albiral Display Solutions, S.L.

      Although Albiral Display Solutions S.L pays for transport and insurance cost, Albiral Display Solutions, S.L. will not be responsible for the damages caused by transport if the customer does not inform in writing when receiving the goods
      ii) After 30 days of the purchase date, both freight and insurance costs will be paid by the customer
   d) Albiral Display Solutions S.L. will not be responsible for the damages caused by transport, when this is paid by customer
   e) The guarantee is not valid if persons other than authorised service Centre have handled the product and if the product has been manipulated
   f) The beneficiary of the Guarantee will have to send the devices with the original packaging or an appropriate one to guarantee there are no damages during the transport
   g) The guarantee is not valid if the customer does not include ***RMA form and copy of the purchasing invoice***

3) Albiral Display Solutions S.L. recognized all guaranteed user rights by all legal rules from its region, and in the absence of them, all established consumer rights by general law 26/84

CONTACT YOUR AUTHORISED DISTRIBUTOR

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