AH

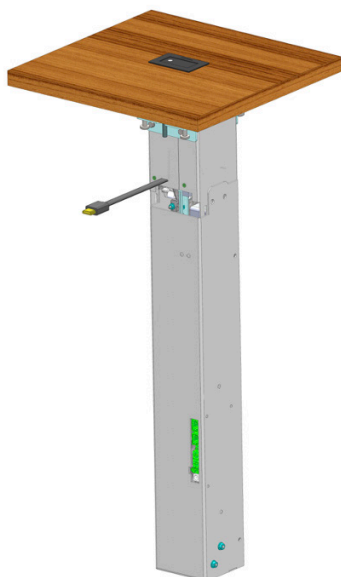## User Guide

DynamicCableRetract

HDMI and USB-C motorised cable retraction system

Technology Serving Design

Danish craftmanship
Mediterranean soul

AH
ARTHUR HOLM

TABLE OF CONTENTS

WELCOME

Thank you for purchasing an ARTHUR HOLM product.

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

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, 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 and collaboration in reception, 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, 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 device power connector.
- Disconnect the power plug from the AC outlet when the device 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

The Arthur Holm DynamicCableRetract is a compact robust motorised retractable cable solution that eject and retract HDMI and USB-C cables by a touch of a button. The system has been designed to blend discreetly with the furniture and to give the user a professional AV solution with a long-life span. The Dynamic retractable cable can be locally or remotely controlled through RS-422 or through the AHlink app that provides wireless access to the setup menu, basic control, serial number and factory settings, making the installation and service of the DynamicCableRetract easy and straight forward.

Highlights

- Motorised cable retraction solution
- HDMI and USB-C cables
- Minimalistic design
- Designed to be discreet
- Capacitive sensor to deploy and retract the cable

Box Contents

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

- DynamicCableRetract
- Mounting tools
- Power supply 100-240Vac, 50-60Hz. Output 12V
- User Manual

CAUTION: Never use this equipment on horizontal position

SYSTEM DESCRIPTION

Available Models

MODEL	DESCRIPTION
AHDCRHDMI	Motorised cable dispenser including a 600 mm HDMI cable. The cable ejects or retracts by a push of a button; the controlled movement and tension provide a long cable lifespan. A vertical dispenser head raises up from the table surface and delivers the cable. The dispenser head has a stainless steel sand blasted top plate with a capacitive touch sensor.
AHDCRUSB	Motorised cable dispenser including a 600 mm USB-C cable. The cable ejects or retracts by a push of a button; the controlled movement and tension provide a long cable lifespan. A vertical dispenser head raises up from the table surface and delivers the cable. The dispenser head has a stainless steel sand blasted top plate with a capacitive touch sensor.

INSTALLATION INSTRUCTIONS

Pattern Hole

Pattern hole dimensions for milling are specified in the general dimensions for each reference.

The milling of the furniture has to be done from below.

Attention

Manipulation of the product should be avoided, no stress should be applied to the product except from the instructions given in this document. Cutting, drilling, soldering, adding of electrical and mechanical components can cause danger and should be avoided by all mean. Not complying with these direction will result in a lost of the Arthur Holm warranty. Albiral Display Solution S.L. shall not be held liable for any loss or injury incurred as a result of modifications made to goods by anyone other than the supplier or the supplier's authorised representative without the supplier's written permission. Such modifications shall be deemed to terminate any further guarantee obligations.
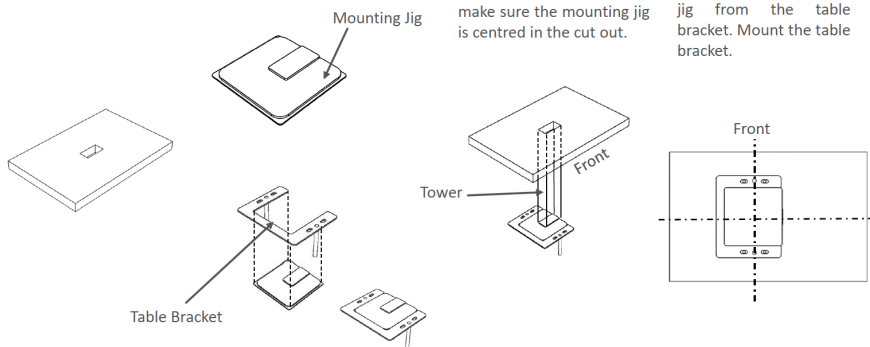
INSTALLATION INSTRUCTIONS

Mounting table bracket using mounting jig

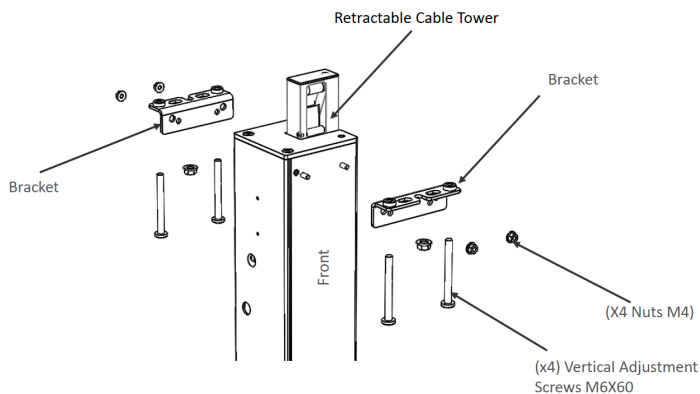1- Make the cutout according to the provided pattern hole in the table surface.

2- Place mounting jig in the table bracket as indicated below.

3- From below the table, place the mounting jig with the raised square into the already made cut out, make sure the mounting jig is centred in the cut out.

4- Align the your table axis and mark the screws position. Remove the mounting jig from the table bracket. Mount the table bracket.

Mounting Jig

Table Bracket

Tower

Front

Front

Mounting the brackets

Retractable Cable Tower

Bracket

Bracket

Front

(X4 Nuts M4)

(x4) Vertical Adjustment Screws M6X60

Place the brackets as shown in the drawing and tight them down using the nuts (M4). Place the vertical adjustment screws (2+2) in to the bracket so that the tip of the screw is flushed with the upper side of the bracket.
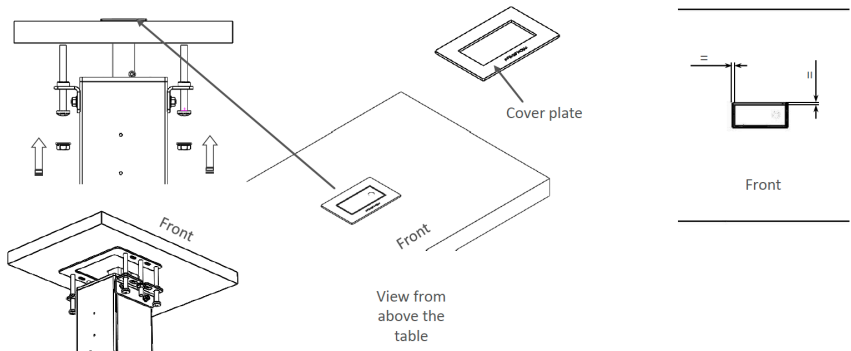
INSTALLATION INSTRUCTIONS

Hanging and Centring the AH Retractable Cable

Place the retractable cable housing with the brackets into the installed table brackets as showen on the drawing below. Insert the 2 nuts.
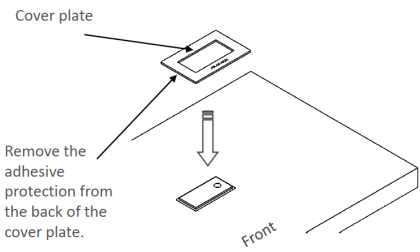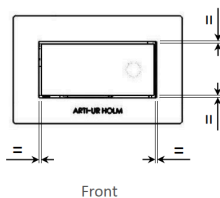
Tighten each nut gradually until the Retractable Cable Tower surface is levelled with of the table surface or cover plate, do not stick the cover plate at this moment.

Place the Retractable Cable Tower centered in the hole ensuring that the perimeter has the same separation on all 4 sides.
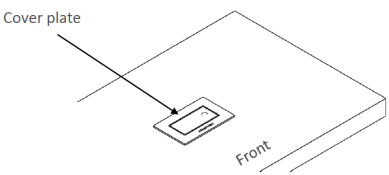
Cover plate

Front

Front

Front

View from above the table

Centring Cover plate

View from above the table

ARTHUR HOLM

Front

Cover plate

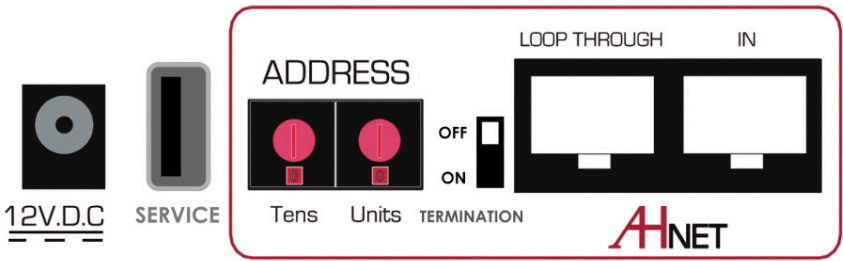Remove the adhesive protection from the back of the cover plate.

Front

Remove the adhesive protection from the back of the cover plate.

Place the coverplate centered with respect to the retractable cable tower ensuring that the perimeter has the same separation on all 4 sides.

Cover plate

Front

POWER AND CONTROL

12V D.C.: Power supply input connector.

Service: Used for firmware upgrade.

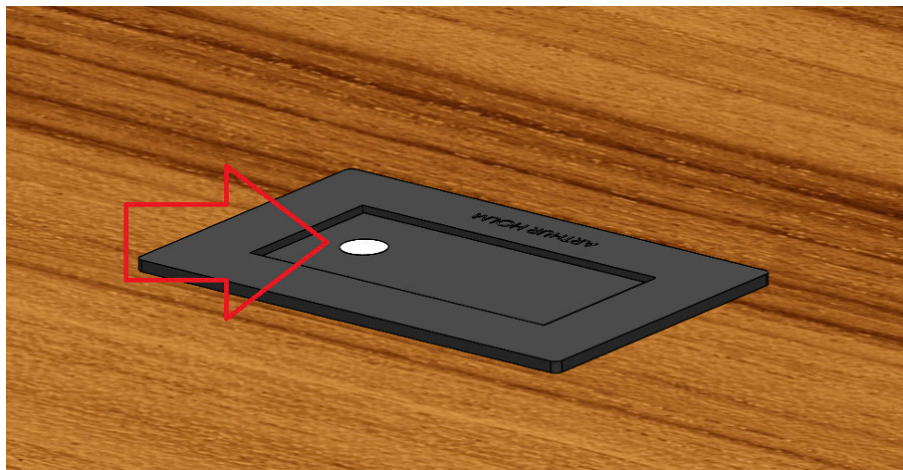**Termination:** Activate (ON) the termination. Only on the last unit of the RS422 bus.

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

Address: Configure the AHnet unit address on RS422 bus, to individual control the unit using RS422 AHnet protocol.

Below the unit, do you have two green GPO connectors from cover plate GPO free button.

CONTROLS

Press the capacitive button located on the top frame to eject or to retract the HDMI/USB-C cable. Once the cable is moving, you can press this button again if you wish to stop the movement to achieve a concrete length.

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 device by addressable RS422 bus.
You can connect up to 30 units 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

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 08 01 00	GO UP	FB XX 08 01 00
FA XX 08 00 00	GO DOWN	FB XX 08 00 00
FA XX 08 05 00	BUTTON LOCK	FB XX 08 05 00
FA XX 08 04 00	BUTTON UNLOCK	FB XX 08 04 00
FA XX 14 00 00	INQUIRY CONTROL BYTE	FB XX 14 CB1 CB2

XX   Number of the device address. Up to 30 units for each RS422 BUS

CB1   Response in 8 bites of the device status

CB2   Not implemented

AHnet PROTOCOL

CB1

BIT 0	TOP POSITION
BIT 1	DOWN POSITION
BIT 2	
BIT 3	BUTTON LOCKED (1)
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 send a reply.
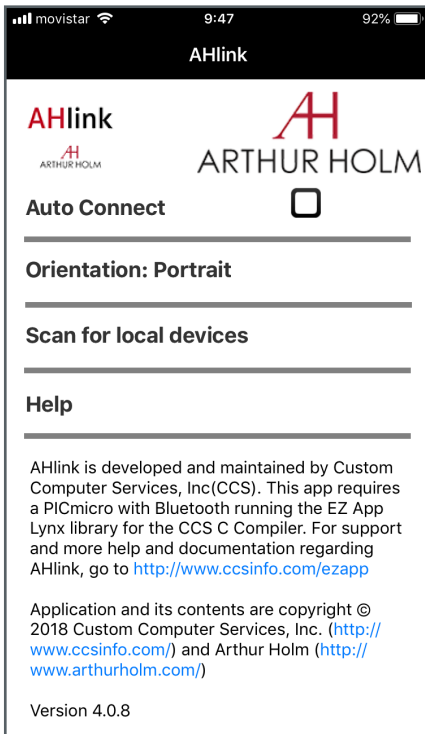Use shielded (FTP) RJ45 cables for RS422 BUS.

AHlink

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

By default, the AHlink signal on the unit is deactivated. To activate the AHlink signal, press during 5 seconds the Up and Down HDMI cable button.
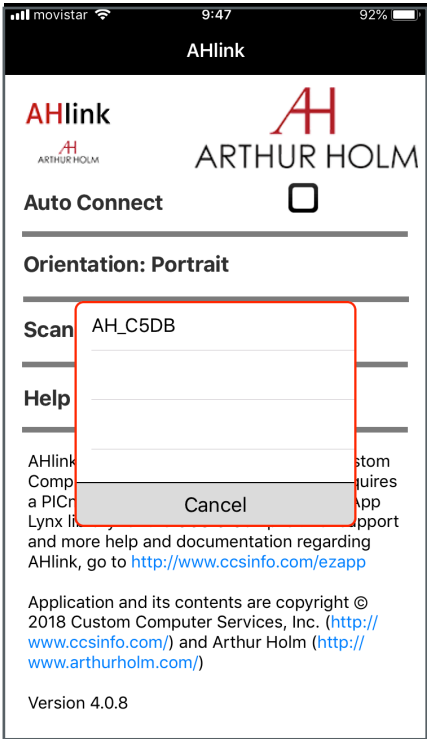
The unit automatically deactivate the AHlink signal if there is no device (mobile or tablet) connected more than 2 minutes.

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*.
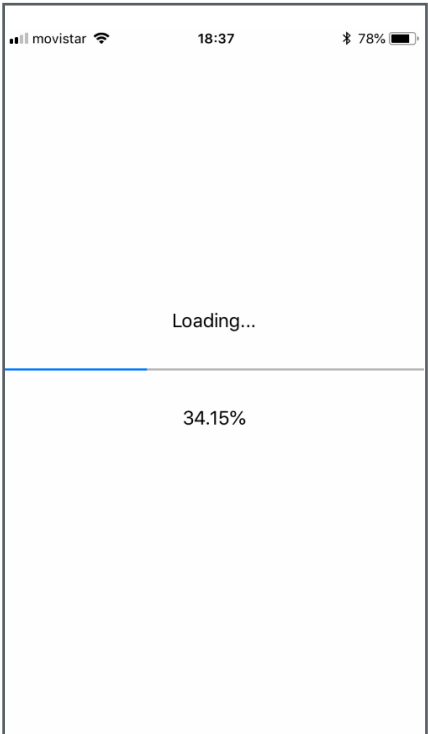
AHlink

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

SERIAL
Serial number of the unit

VER
Firmware version

CONTROL: Move the HDMI cable Up and Down

COMMAND: Shows the last AHnet RS422 command received

SENSOR STATUS: Sensor status information
- S1: Active when the HDMI cable is inside
- S2: Active when the cable cover trap is open
- S3: Deactivated when the cable is at the maximum outside position

AHNET ADDRESS: AH address settings

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 two (2) years from the date of purchase, subject to the conditions below.

1. 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

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

3. 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.

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

5. 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 transportion or as a result of atmospheric phenomenons.

WARRANTY TERMS AND CONDITIONS

6. 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.

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

8. The warranty is not valid if the beneficiary of the warranty does not include a 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