Reshaping Security

acre Security Integration Guide: Aperio® AH40

Wireless Hub

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The controllers use equipment that generates, uses, and radiates radio frequency energy. If not installed and deployed in accordance with the guidelines of this installation manual, they may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be required to correct the interference at their own expense.

The Mercury controllers and subcontrollers shall be installed in accordance with this installation manual and in accordance with the National Electric Code (N.E.C), ANSI and NFPA 70 Regulations and recommendations.

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AH40 Gateway

In This Chapter

- $\sqrt{}$ AH40 Gateway Characteristics and General Information
- \checkmark ~ Initial Configuration of the AH40 Gateway
- \checkmark Connecting and Configuring the Gateway and Lock sets in DNA Fusion

Aperio® AH40 IP Communication Hub

The Aperio® AH40 is a IP Communications (Comm) Hub designed to work with the Aperio® devices and lock sets. The lock sets and Devices include smart cylinder locks, integrated lock/door sensor combo's, cabinet and handle lock/reader combo's. Please contact your local RSM for more information or the list of lock sets and devices offered by acre Security

Aperio® Hub Integration

The Aperio® AH40 Ethernet Enabled Communication Hub functions as a bridge between ASSA-ABLOY/ Aperio® enabled locks and a variety of acre Security enabled access control systems such as DNA Fusion. This allows users of systems such as DNA Fusion operators to control the Aperio and ASSA-ABLOY (ASSA) locks remotely from the software.

The Mercury LP 1501, 1502, 2500 and 4502 controllers with the latest Firmware Version or 1.30.1.0663 or higher will support the Aperio® Hub integration. The controllers support Ethernet communication to up to 32 Subcontrollers and 64 ACMS. The Aperio® Hub communicates directly with Aperio®-enabled locks via an encrypted 2.46-Hz wireless link on 16 distinct channels using AES-128 Bit Encryption. Each Aperio® Hub includes mounting hardware and instruction manual.

When a cardholder presents a card to an ASSA/ Aperio® lock, the credential information is sent wirelessly to the Aperio® Hub. The hub then routes the information to the controller, which verifies the access rights. The resulting decision is communicated back to the Aperio® Hub, which either grants or denies access.

The integration process includes two (2) steps:



- Hardware Setup Wire the Aperio® Hub using CAT-5e Ethernet Connection and power from either POE+ enabled switch devices or from a standalone power source.
- DNA Fusion Integration After the hardware is connected, add the Aperio® Hub to DNA Fusion and build doors in sequence from the readers, inputs, and outputs associated with the Aperio® Hub.

Aperio® Hardware Setup

Connecting the AH40 Hub to the Local Area Network (LAN)

The AH40 communicates to the Mercury enabled Controller via a Networked Ethernet Connection. At a Minimum, the use of a CAT-5e connector complying with 10BASE-T / 100BASE-TX standard must be used. The connection can be achieved by connecting the Ethernet cable to the J700 connector located on the back of the device as pictured below.



The device can be powered through the use of the J800 port connector to an extremal power source or by using a POE+ Enabled Switch. The Connection must be an IEEE 802.3.af compliant Power Sourcing Device. Recommended power source is 1.2w and less than 3 amps. If the possibility of surges over 3 amps exists then a over current protection device must be used.

Continued on the following page

AH40 Jumpers

The AH40 has two jumpers on the back of the device. The jumpers can only be accessed by removing the device from its wall mount. The Jumpers and description are as follows:

Jumpers	Description
J400 ANTENNA	Select external antenna by connecting the two right pins.
	Select internal antenna by connecting the two left pins.
J200 PAIR	Select pairing mode by connecting the two right pins.



If the pairing jumper if removed within 10 seconds from from boot up and the Hub LED is lit, all paired devices will be unpaired.

i

AH40 External Antenna

The AH40 has the ability to transmit information and form a wireless external connection with all locks using a 2.5 gHz connection along the 2400 – 2483,5 MHz frequency range using 16 individual channels. This connection is protected using an AES 128 bit encryption for every connection. The Wireless Transmission power is along 10 dBm/MHz and the peak value has been measured in accordance with EN ETSI 300 328 Maximum spectral density.

The AH40 comes out of the box with the ability to connect using a forward propagating antenna located inside the unit. It also has the ability to connect to an external antenna using the following steps.

1. **Power Off** the AH40 Unit by **Disconnecting** the *Ethernet Cable* if powered using the POE method or *Power Connector* if using an external power source.

2. Locate the *External Antenna Plug* on the **Upper-Right** hand side of the unit. Gently **Pry** the cover from the unit using your finger nail or a flat head screw driver.



3. **Connect** the *external antenna* to the connector. The antenna is an Dipole antenna with a slight dead zone for signal propagation located on the top and bottom of the external antenna post. The antenna should be angled to be perpendicular to the wireless device locations it will be communicating with.

Once you have connected the external antenna. You will need to **Change** the *J400 Jumper* to **Connect** the *Right-Two* jumper pins when facing the unit from the back. You have now configured the unit to be used with an external Antenna. You may now reconnect the unit to power and remount the unit to its back plate as shown in the AH40 User manual From ASSA/Aperio®.



Continued on the following page



Configuring the AH40 with Aperio® USB (Dongle)

Configuring the AH40

In order to properly configure the AH40 and connect it to your access control system, you are required to use the Aperio® USB or otherwise referred to as the USB radio dongle as well as the Aperio® Programming Application. The program application can be found at the following link:

https://assaabloyresources.com.au/downloads/Aperio-software/setup-progapp-28.0.43-4cd7502.exe

For more information regarding the installation of the Aperio® *Program Application please* visit their website at assaabloyresources.com or contact their customer support.

Once the software is installed you will then be able to Plug-In the Aperio® USB adn follow these directions to initially connect to the system.

1. **Connect** and **Power Up** the AH40 hub. Once you have connected it and it has finished its power up sequence you may **Connect** the *Aperio B USB Dongle*.

2. **Open** the *Aperio*® *Program Application (App)* and **Select** *Quick Scan*. Your AH40 hub should be detected and listed in the program as shown below:

Scan for communication	hub(s)			\times
Select the communication Check the boxes for each information.	n hub(s) to retrieve inform Communication Hub and	nation from press "Show Details" to re	trieve	^
UHF Link is the signal qua	ality between the USB radi	o dongle and the		*
Communication Hub	Radio Channels	UHF Link		
C1EC	11, 18, 25		8	
F3DF	11, 16, 25		é /	<u>A</u>
F3C8	11, 16, 25	00		
Rescan		Show Details	Cancel	

Click on Show Details

3. **Right-Click** on the *Hub Row* and **Select** *Communication Hub>Configure*.

ile Installation	Help				1			
	@:		OFFLINE	A	USB CABLE			
Quick scan	Scan	Refresh	Connect	Disconnect	Detect			
Lock/Sensor	Commu	unication Hub	EAG	C Address	UHF Link			
07ADC8	B8C 1E0	C		Lock/Senso	r [07ADC8]		MAC Address	
				Communica	tion Hub [B8C1EC]	Apply Configu	ration	
				Upgrade Fin	mware	Configure		

You will now be able to **Modify** the AH40's *Network Settings* such as the *Network Mask* and *Gateway* to **Match** the existing (*W*)LAN Configuration. **Click** OK.

Natural Cattings	Network Set	tings		×	
Network Mask: 255 Default Gateway: 10	Configure Net	twork Settings			Change
ACU Settings	is a mandator ([0-255].[0-255]	k: Specify Network Ma y field that only accep 5].[0-255].[0-255]).	ask for IP Hub in ts numbers in th	le format	
ACU Address: 10.0. ACU Port: 3561 TLS Encryption: En	Default Gatew by IP Hub. It is format ([0-255	vay: Specify IPV4 add a mandatory field tha i)[0-255].[0-255].[0-25	ress of the Gater at accepts only n (5)).	way to be used umbers in the	Change
	address for th	e hub	le IF Address 10	comigure nº	
	Network Mask	255 . 255 . 224	. 0		
	Default Gateway	10 . 0 . 31	. 253		
	0		ОК	Cancel	

4. **Right-Click** on the AH40 *Row* and **Select** *Change IP Address*. **Add** the required *IP Address* provided by IT or the customer.

<complex-block></complex-block>		Aperio® Programming	Application -	[Open Options]]					-	D X					
S. Right-Click on the AH40 Row and Mass Selecting Switch to Manufacturer Mode to the Sum State		CNLINE Quick scen Scen	Refresh	Connect D	isconnect	SB CABLE					aperio					
Selecting Switch to Manufacturer Mode. Next We will configure the address of the controller.	5. Right-Cli sure that it i	December Communication No Del Agress Del Internet State Process Bacase Department Departe Firmware Departe				sBECtEC ock [Aperio protocol]) ode g Application	- [Open Opti	P Address Specify IP ad format (0-25 IP Address 1) P Address 1)	Idress of the IP HI (5)[0-255][0-255] 0 , 0 , 19	ub following IPV4 (0-255)). . 88 OK Cancel	K Cancel					
Next We will configure the address of the controller.	Selecting S	witch to	Man	ufact	urer	Mo	de.	ONLINE	т нер		OFFLINE		USB CABLE			
Lock/Sensor Communication Hub EAC Address UHF Link 07ADC8 B8C1EC [Unknown] ell Change Physical Location Name Switch to Manufacturer Mode ell Restart Lock/Sensor [07ADC8]	Next We will controller.	configur	e the	e ado	dres	s of	the	Quick scan	Scan	Refresh	Connect	Disconnect	S Detect			
Change Physical Location Name Switch to Manufacturer Mode Restart								Lock/Sensor	Commu	unication Hub	EAC A	Address	UHF Link		·	
Restart								0740-03	boc IE	-		on an Iomrij		Change Ph Switch to N	iysical Location Name Manufacturer Mode	
														Restart	Lock/Sensor [0740/	81

6. **Right-Click** on the *Hub Row* and **Select** *Communication Hub>Configure* if the window is not already open and **Click** on the *ACU Settings Change Button*.

The ACU Settings Window will open.

Type In the ACU or Controller IP Address as well as **Verify** that the ACU Port is 3561 and **Check** the Enable TLS box.

7. Click OK.

We will now continue the installation by adding the Aperio® AH40 Hub as a Subcontroller in DNA Fusion

Network Settings	ACU Settings		×
Network Mask: 255 Default Gateway: 10	Configure ACU Settings		Change
ACU Settings ACU Address: 10.0. ACU Port: 3561 TLS Encryption: En	ACUEAC Address: Specify ACU a mandatory field that only acces ([0-255][0-255][0-255][0-255]]). ACUEAC TCP Port: Specify TCP contact. This is a mandatory field TLS Setting: Enable TLS setting while communicating with ACU.	EAC address in IPV4 format. It is the numbers in the format port number of the EAC to 1 and only accepts numbers. for activating TLS encryption	Change
	CU Address 10 . 0 . 19 CU Port 3561	. 75	
_	0	OK Cance	H

Adding the AH40 Hub to DNA Fusion

Once the initial hardware configuration has been completed, you will now need to add it to your access control system. For the purpose of this guide, we will be using DNA Fusion. To start, you will need to **Log In** to *DNA Fusion* using your *Username* and *Password*. Once in you will need to **Open** your *Hardware tree* and **Locate** the *Controller* that was used for the ACU Address in Step 6 on this page.

1. **Right-Click** on the *Controller* who's address was used in the ACU Step. **Select** *Add*>*Add Subcontroller...* A new window will appear.

2. **Type In** the *Description* for the AH40 in its respective line (Name of the AH40 location or reference name). **Click** on the *Drop Down* under *Type/Preview* and **Select** the *Aperio*® *IP Hub*. **Type** in the *IP Address* used for the Hub in the *IP Addr:* line. **Click** *OK*.

Ste: Ste 1: Ste 1 SSP: 1.2: LX Primary Sub-controller (SIO): S1O: 2 • Match Physical Communication with Controller: Enable Description: Enable Description: Blooz Home Page: Physical Address: Attributes • • • • • • • • • • • • • • • • • • •	Sub-controller	
Sub-controller (SIO): SIO: 2 • Match Physical Communication with Controller: Enable Description: SIO: 2 Home Page: Attributes Physical Address: 0 Attributes Physical Address: 0 Attributes Physical Address: 0 Attributes Physical Address: 0 Attributes Physical Address: 0 Aperio IP Hub * kputs: 0 Outputs: 0 Readers: 31 IP Addr: 10.0.19.88 n/a Mode: Static Address *	Ste: Site 1: Site 1 SSP: 1.2: LX P	Primary
Communication with Controller: Enable Description: STORE Home Page: Attributes Physical Address: 0 Aperio 1P Hub Aperio 1P Hu	Sub-controller (SIO): S10: 2 · Match Physical	
Description: 51032 Home Page: Attributes Physical Address: 0 • Reply Channel: Port 1 • Send Channel: Port 1 • 4-Wire Configuration IP Addr: 10.0.19.88 n/a Mode: Stabic Address •	Communication with Controller: Enable	
Home Page: Attributes Physical Address: 0 Reply Channel: Port 1 Send Channel: Port 1 4-Wire Configuration IP Addr: 10.0.19.88 n/a Mode: Static Address •	Description: SIO: 2	
Attributes 0 Physical Address: 0 Peoly Channel: Port 1 Send Channel: Port 1 4-Wire Configuration IP Addr: IP Addr: 10.0.19.88 n/a	Home Page:	
Physical Address: 0 • • Aperio 1P Hub • Reply Channel: Port 1 • Send Channel: Port 1 • 4-Wire Configuration IP Addr: 10.0.19.88 n/a Mode: Static Address •	Attributes Type / Preview	
Prepy Channel: Port 1 Send Channel: Port 1 -4-Wire Configuration Port 1 IP Addr: 10.0.19.68 n/a Mode: Static Address	Physical Address: 0 Aperio IP Hub	
Outs of salida: Port 1 Outputs: 0 - 4-Wire Configuration Readers: 31 IP Addr: 10.0.19.65	Sand Channel: Dout 1	
IP Addr: 10.0.19.88 n/a Mode: Static Address •	4-Wire Configuration Beaders: 31	e e
n/a Static Address 🔹	IP Addr: 10.0.19.88	
Mode: Static Address	n/a	
	Mode: Static Address •	
V Ok Alarm Text:	Alarm Text:	
Cancel		
2 Heb		

3. **Verify** that the *AH40 Comes Online* and then **Double-Click** the *Controller* connected to the AH40 to open the *Controller Configuration window*.



4. Click on Stored Quantities and then Click on the Use TLS for Aperio IP Check Box.

Controller Properties	Stored Quantities			
Cards and Dual Comm	Panel Memory: 32 MB	Offline Tran	saction Capacity: \$0000	Calculate
ACnet Permissions	Store Issue Codes		Store Vacation Date	
sometrics	Store APB Location		Store Temporary Upgrade	Date
	Store Activation Date		Store Trigger Code	
	Store Deactivation Date		Store Use Limit	
	Return Lowest Escort	Back	Use TLS for Aperio IP	1
	Quantities			
	Access Levels Per Card:	32 *	Time Schedules:	255
	Access Levels:	255	Holidays:	255
	Triggers:	125	Cards:	3000
	Macros:	125	Unreported Transactions:	4000
	Large Card Size:	•		
	Precision Access Levels:	•		"None"
	Secured Areas:	-		
J Ok	Escot Timeout:			
	Multi-Card Timeout:			
X Cancel				
a	Elevator Control			
Help	Max Roor:			-
	Max per Cab:	-		
	Roor Groups:	-		
	Edit Floor Names			
	PIN and Duress Options			
	PIN digits to store:		-	
	Card ID Size:			10.0
	Duress Digit:	_		Tuge
	Duress PIN Mode:	"None" -		
	Otis			
	Floor Offset: 0	1	Front/Rear	Primary

5. **Return** to the *Aperio*® *Program App* and **Right-Click** on the *AH40* just added to DNA and **Select** *Communication Hub>Switch to Customer Mode*. A New Window will appear.

6. **Click** on *Change* and then **Click** on *Switch to Customer mode in device*. **Click** *OK*. This will enable the use of the TLS encryption for communication with the LP series Mercury Controller (Series 3/Red Controller).

Manufacturer Mode	Indude Re	vert Changes Change
	Security Mode X Switch to Customer mode in device OK Cancel	

The TLS settings will be restricted to TLS 1.1 and 1.2. Please talk to your network administrator to ensure that these settings will work with your current network security plan.

In some instances, you may need to **Right-Click** on the *Controller* and **Select** *Controller Commands*>*Reset* prior to the controller and the AH40 both being registered as online after finishing the initial configuration. Please contact customer support if there are any issues in bringing the Controller and AH40 online.



Next we will go over how to add locks or sensors to the AH40 and then pull the linked Locks and/or Sensors into DNA Fusion.

Adding Locks to the Aperio® USB Application

Prior to any locks and wireless devices being pulled into DNA Fusion, they will first need to be added and configured by using the App with the AH40 hub. **To do this, you will need to make sure the Aperio® Programing App and the USB (Dongle) are connected to the system**. Next we will walk through the adding of a Lock or Sensor.

Prior to attempting to add a Lock, you will need to make sure that the lock has new batteries, the Cover Plate has been properly secured and the lock is functioning properly per manufacturers recommendations.

1. **Open** the *Aperio*® *App*, once in the App window and you have scanned for the AH40 hub, you can then **Right-Click** and **Select** *Communication Hub>Pair with lock or sensor* from the options list as shown below.

Oulde scan	Scan Rehad	Connect Choose	vse cable		apr
d,Sensor	Communication Hu	6 EAC Address	UHF Unk		any device
		Commu Upgrade	inication Hub (BBC1E) e Firmware	C P Apply Configuration Configure	> CLEC] not paired with any device
				Pair with lock or sensor Retrieve System Information Retrieve Event Log Retrieve All Logs Change Radio Channels Change IP Address Change Physical Location Name Switch to Manufacturer Mode	48/6921/58/C1/EC httple Lock (Aperio protocol) , 25 KTS GHz) mer Mode 9.88
				Restart	9.75
				TLS Encryption Em Remote Unlock Em Remote Unlock Time to Univ 5 a	abled abled ninutes

2. Verify that the *Lock has been Discovered* by the Hub and **Note** the **Lock ID** as seen in the green circle below.

N.NE	•	8	- A	dk	an const and beau			10
di, foruar NGCI	Cares Rec 2	uosună C	80	Adfana 20kruur]	al	Communication that (BRCHC) PAC ASPess Primage Yourn Rodinator Version Rodin Charrels Active Charrels Active Charrels Active Version Praktees ACU Athress ACU Athre	00-12-40-002/586-C40C PF, Mithgles Lock [Apertis protocol] 5.5.8 5.5.8 5.5.8 5.5.9 5.6.75 Stol Continuer Mindle 50.8/55 Stol State Exakled Exakled Exakled 5.6000 5.6000 5.6000 5.6000 5.600	
						Lack/Nexes NAC ADVes Facil Short Address	BERTARHERADER CHEC HCB	

4. **Right-Click** on the *Hub*, **Select** *Lock/Sensor>Configure* to enter the lock or sensor configuration window. Once in the Window, the lock will need to be **Set** to *Customer Mode* in Similar fashion as the Hub as shown below.

Configure Lock/Sensor [07ADC8]	×
Security Mode Setting Set the security mode that will be used for secure radio communication.	radio communication. Should be switched to Customer mode to ensure
Security Mode	
Customer Mode	Indude Revert Changes Change
	≰ Back ▶ Next Cancel

5. **Verify** that the *Lock or Sensor is on the Same Channels* as the Hub has been configured to communicate on. In this example, the channels are 11, 18, and 25. This allows for the segmenting of the network communications within the Hub's wireless network.

Radio Channels Setting Change settings if needed.			
Radio Channels		0	5.0
11, 18, 25	Indude	Revert Changes	Change

If performed correctly, the Hub status light will be Solid Green. If there is an error communicating between the Hub and the Lock or Sensor, the Hub status light will begin to blink the Red LED Three Times. Next we will import added Locks and Sensors into DNA.

Configuring Locks in DNA Fusion

Once you have added the locks to the AH40 Hub, you can now import them into the Access Control system. For this example, we will be adding the Locks added to the Hub inside of DNA Fusion.

1. **Open** *DNA Fusion* if the program is not already started. Once in DNA Fusion, you will need to **Open** the *Hardware Tree* and perform a **Right-Click** on the *Site* and **Select Refresh Status** from the list.

2. **Click** on the *Plus Sign* to the Left of the AH40 Hub (Subcontroller) to display your attached devices. **Right-Click** on the intended lock and **Select** *Add Door>Create Aperio Door* A new window will appear.



2. **Type In** the *Lock ID (Hexidecimal Format)* in the Reader Properties that was written down in Step 2 Page 11 in the Aperio Device ID as shown Below.

amon Properties der Properties	Reader Properties					
Notes Reader Properties Reader/LED Corfig: Keypad Mode: Card Data Format Wegand Pulses Tm Zero Bits Format to nibble am Bidrectional Mag de Nothern Mag deco Casi I View 525	Reader Properties Reader/LED Config: Generic 1-wire, Tri-State Bi-Color Keypad Mode: 2 Hughes ID 4-bit keypad format			ACU Port	3541	
	code	OSDP Grabble OSDP Tracing OSDP Secure Channel Do Not Auto Discover Baud Rate: Auto Negotiate		Remote Unlock Remote Unlock Time to Live Number of Pared Locks and Serv Lock/Sensor [07ADC8] — MAC Address	Enabled 5 minutes 5 1 00:17:7A:01:82:87-AD:C8	
	Casi 1-Wre Supervise Casi 1-Wre Inputs cos Aperio Device ID: Advanced Properties_ Host Based Macro:	nd F2F me from reader 7ADC8 (Hex) "None"	Reset	Reader (HID only)	Panid Short Address	C1EC 11C8
Ok Cancel Help						

Once you have **Clicked** *OK*, you will now be able to test the connection and configuration by Swiping a Badge with Known Access at the reader. You will be notified of the Transaction Event in the Events Viewer as well as get the temporary unlock of the door per the Door reader configuration settings.

Configuring Privacy Mode

Setting Up Privacy Mode can be done **One of Two ways**, the first way consists of **Double-Clicking** on the *Reader* requiring privacy mode, **Select** *Door Objects*, and then **Select** *Privacy* from the **Drop-Down** Menu for *Ext. Mode*.

common Properties	Door Objects					
dvanced	Door Properti	15				
lacros	Type:	Single • LED Mode: No C	hange	- Edit		
uto Unlock	Pre-Alam:	0 sec Held Tim	e: 60 sec -			
Notes	Ext. Mode:	Privacy ·				
	Reader	Reader				
	Address:	1.2.2.R1: ACM 3 - Reader		Edit		
	Default Mode:	Card Only Type	 Normal 	-		
	Offline Mode:	None •				
	Contact					
	Address:	"None"		Edit		
	Request To E	t (REX)				
	Address:	"None"		Edit		
🗸 Ok	Strike	Rear and				
	Address.	"None"		Edit		
Cancel	Activation:	8 sec · Mode: No im	pact on strike			
Help	ADA Settings					
	Strike Time:	60 sec · Held Tim	e: 0 sec	•		

The second way consists of **Right-Clicking** the *Door* and **Select** *Control>Extended>Set Privacy Mode*.

		DVR Servers Camera Groups Recordings		ID W	Event Time 12/30/2021 12:07:15 12/30/2021 12:07:15	Address
	Properties			٣	12/30/2021 12:07:14	1.2.2.CAB TAM
Elevators MPGs MPGs Time Schedules He 1.2.1: LX Primas He 1.2.2: SIO: 2 He DMP: New Panel 1 Axis Controllers Gits I: Hassan Site ThysenKrupp	Control Add Door Auto Unlock Delete	•	Control Dialog. Mode Arm Disarm		/2021 12:07:14 //2021 12:07:12 //2021 12:07:12 //2021 12:07:10	 1.2.2.CAB TAM 1.2.2.CAB TAM 1.2.2.CAB TAM 1.2.2.CAB TAM 1.2.2.CAB TAM
	Download Reports		Extended Momentary Unlock Cancel Override Mode		Set Privacy Mode Cancel Extended Mode /2021 11:42:14	
	Journal Watch Item Add to Macro Configure Door Aler Defaults Templates Homepage Refresh Status Where Used	• ts			12/30/2021 11:34:21 12/30/2021 11:34:21 12/30/2021 11:33:21 12/30/2021 11:33:21 12/30/2021 11:33:21 12/30/2021 11:33:21 12/30/2021 11:33:22 12/30/2021 11:33:22 12/30/2021 11:33:06	1.2.03 1.2.03 1.2.03 1.2.03 1.2.03 1.2.03 1.2.03 Station 1 Station 1 1.2.03

Regardless of the way chosen to implement Privacy Mode you will need to **Open** the *Aperio Hardware App* (with Aperio USB plugged in) and **Click** on *Configure Lock or Sensor>Privacy Mode Configuration*. Once the window is open, you will need to **Click** *Change* and **Select** *Enabled*.

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Enabled	Indude Revert Changes Change

The Privacy Mode allows the end user to press a button on the inside part of compatible locks that overrides the lock sets' function similar to a Lockdown situation until the user presses the button a second time to allow the lock to go back to its normal state or function. For more information on this setting or to check for compatibility contact your lock manufacturer.

Continued on the following page

Technical Data

Physical Dimensions:

82 mm x 82 mm x 37 mm (H x W x T)

Power Supply:

8-24 VDC or Power over Ethernet (PoE)

Power Rating:

The power supply shall be able to deliver minimum, 1.2 W and be 3 A over current protected. Wire requirements 16-22 AWG.

PoE IEEE 802.3.af compliant class 1 Powered device (PD)

Ethernet:

10BASE-T / 100BASE-TX Local Area Network

Radio Standard:

IEEE 802.15.4 (2400 - 2483,5 MHz), 16 channels (11-26), AES 128 bit encryption

Receiver Sensitivity:

-100 dBm

Wireless Transmit Power:

10 dBm/MHz. Peak value from average detector according to EN ETSI 300 328 Maximum spectral density.

Wireless Operating Range:

Indoors up to 25 m depending upon installed environment.

Internal Antenna:

Two port cross polarized patch antenna.

External Antenna:

One reverse polarity SMA external antenna connector. AH40 is certified to be used with ASSA ABLOY external antenna AH ANTENNA 1. If other external antenna is used it must be of same type (dipole) and not have larger antenna gain than 3.6 dBi.

Operating Temperature:

5 °C to 35 °C

Humidity:

< 95 % non-condensing

IP Classification:

IP20

Safety, Radio and EMC:

IEC 62368-1:2014, EN 62368-1:2014 + A11:2017 UL/CSA 62368-1:2014, EN 301 489-1 V2.1.1 EN 301 489-17 V3.2.0, EN 300 328 V2.2.2 EN 50130-4:2011 + A1:2014, EN 62311 FCC 47CFR Part 15 subpart B and subpart C, ISED RSS-247 and ICES-003 AS/NZS 4268