Velocity | Aperio Wireless Locks
Tech Configuration Guide

July 17, 2025
Rev. 1

Introduction

Velocity 3.8 or newer versions includes support for Assa Abloy's Aperio wireless lock systems. Velocity's advanced feature sets enable wireless doors to have a similar level of security as their wired counterparts. This document summarizes how to wire Mx-1 controllers with the AH302R12 hubs and configure Velocity software to add wireless locks.

Description of Solution

Assa Abloy' Aperio locks communicate through an AH30R12 wireless hub..

Connections from Mx-1 controllers to the hub must be over the RS485/OSDP port and be configured in a daisy chain for multiple hubs. The hub will follow the addressed polling architecture, where the Mx-1 controller is the primary and the connected hubs are downstream with unique RS485 addresses associated with each hub.

Tech Tip: *Mx-1's can support up to 8 wireless locks. Contact your Hirsch RSM to coordinate a site visit with the Assa Abloy sales engineer to identify wireless lock compatibility and part numbers.*

Aperio Wireless Lock Setup

AH30 RS485 Hub wiring with Mx-1 Controller

This section applies to the ASSA ABLOY Aperio AH30 RS485 Hub.
IMPORTANT: The following wiring instructions apply ONLY to the Hirsch Mx-1 controllers.

Data Connection

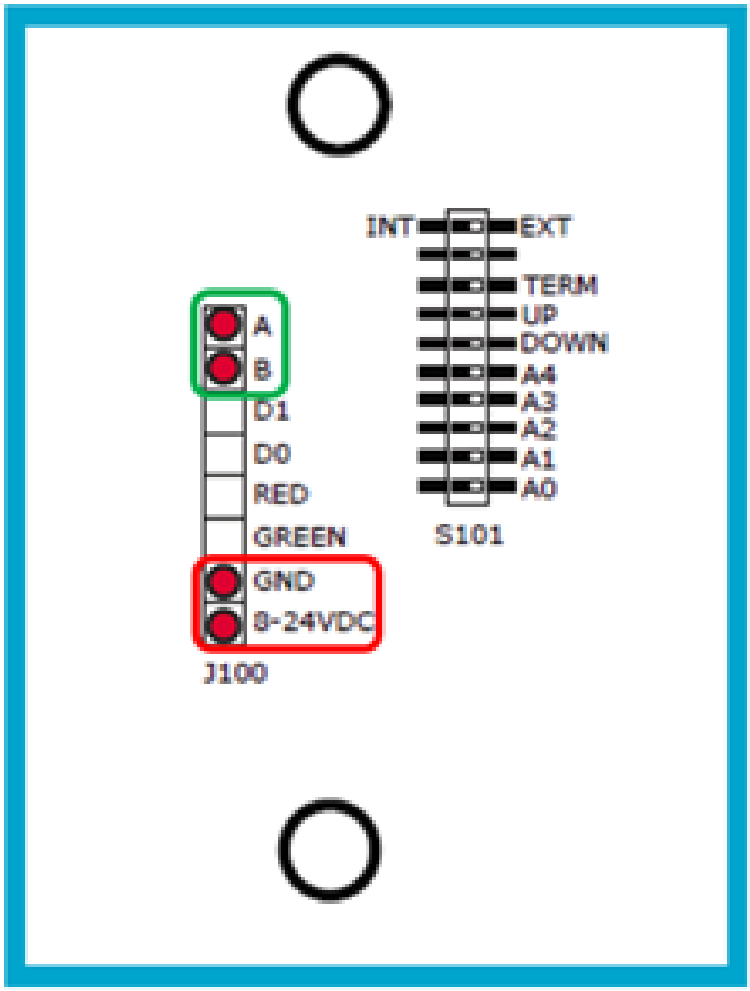
Connect the ***Data A+*** pin from the Mx-1's OSDP/RS-485 port to the ***A*** pin on the AH30 hub (See GREEN box in diagram).

Connect the ***Data B-*** pin from the Mx-1's OSDP/RS-485 port to the ***B*** pin on the AH30 hub (See GREEN box in diagram).

Power Connection

Connect the ***Ground*** pin from the Mx-1's OSDP/RS485 port to the ***GND*** pin on the AH30 hub (See RED box in diagrams below).

Connect the ***Power*** pin from the Mx-1's OSDP/RS485 port to the ***8-24VDC*** pin on the AH30 hub (See RED box in diagram below).



Additional Power Information for Aperio Hub

When hubs are powered *ONLY by OSDP/RS-485 Port*
When using multiple hub architecture that is linked from a single Mx-1 OSDP/RS-485 port, the maximum number of AH30s that can be powered by the Mx-1 OSDP/RS-485 port is **3**.

When hubs are powered by an *external power supply*
When using multiple hub architecture that is linked from a single Mx-1 OSDP/RS485 port, the maximum number of AH30s supported by the Mx-1 OSDP/RS485 port is **8**.

Hub Addressing

Addressing AH30 Hubs requires DIP Switches A0-A4 to be ON or OFF, depending on the specific address assigned. Please refer to ASSA ABLOY AH20/AH30 Installation Instructions for more information on Hub Addressing.

Linking Locks to an Aperio Hub

After successfully powering the hub with the Mx-1 or external power supply, the wireless locks being installed must be linked to the appropriate hub before they can setup to work with Velocity.

Velocity does NOT support the ability to link locks to an Aperio Hub. Locks must be configured, calibrated and linked to their specific hub Before being setup to work with Velocity.

For more information on Aperio Hardware, please use the reference links below:

For Aperio Series Locks:

Please refer to the support links below for more information from ASSA ABLOY:

- Aperio Hub AH30 Installation Instructions
- SARGENT Aperio IN100 Lock Instructions

Linking locks requires the Aperio Wireless Lock and Hub Programming Kit with Aperio Programming Application installed on a PC:

- Aperio Programming Application Manual

IMPORTANT NOTE: To configure hubs, link locks or to configure settings on Aperio hardware through the Aperio Programming Application, the user MUST have an Administrator account with access to the installation Key File. Please contact the site administrator or the Certified Integrator for more information.

Required Firmware Versions for Aperio Wireless Lock Hardware	
AH30 hub	6.6.32718 or later
IN100	3.6.1231 or later

Configuring an Mx-1 to work with Wireless Locks in Velocity

After wiring and linking the wireless locks to their hub, Velocity software needs to be configured to recognize and communicate with the wireless locks.

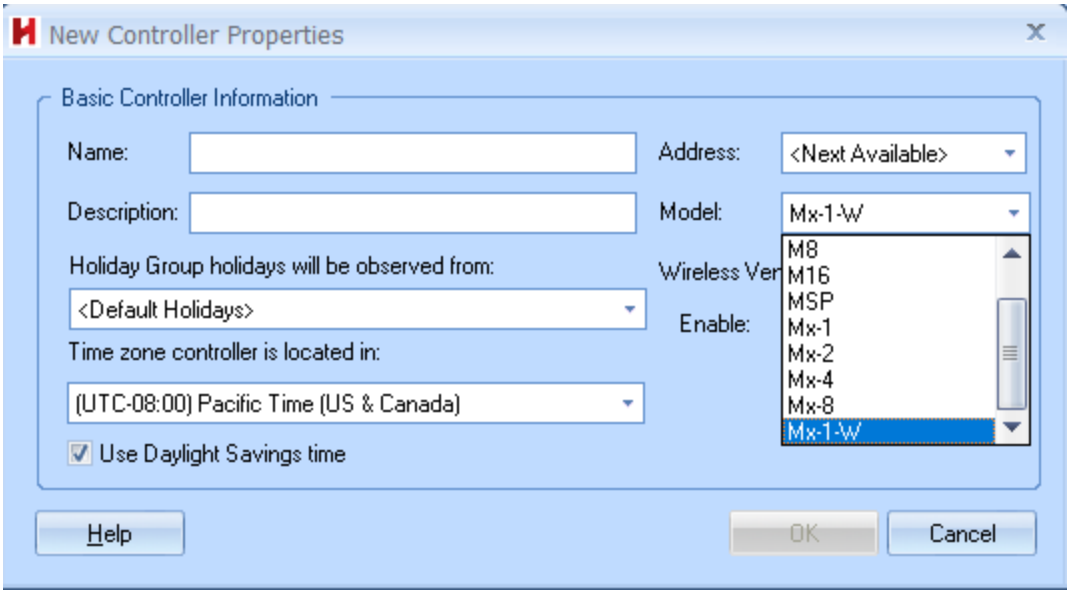
Adding an Mx-1-W License

To add an Mx-1-W controller to Velocity, first an Mx-1 controller must be added to the hardware tree.

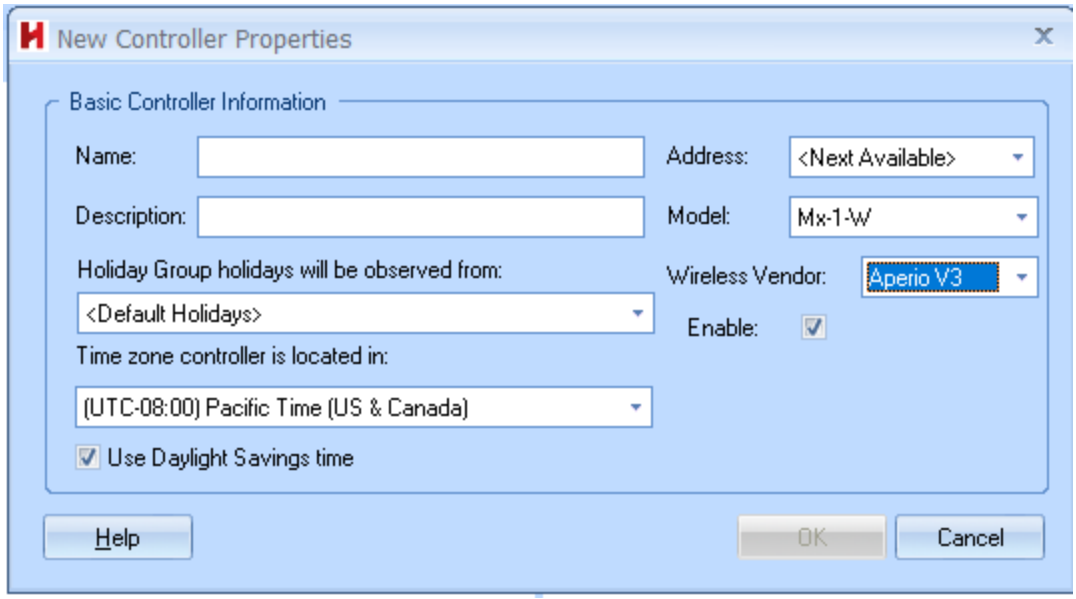
1. Open Velocity and select the *Administration* Tab.
2. Expand the *DIGI*TRAC Configuration* folder and then open the *XNET* folder.
    a. Select **Add New XNET Port**
        i. Select a Name for the XNET Port
        ii. Select the *Network Type* that matches the desired configuration
        iii. Next, select **XNET 3** under the *Protocol* section
            1. If the Mx-1 being configured is on the same subnet as the Velocity Server:
                - Insert the *IP Address*, *IP Port*, *Subnet Mask* and *Default hub* values specified for this controller. If this information is not available, please consult your Network Administrator for this information.
                - Make sure to check the *Reset Encryption* and *enable this Port* options.
            2. If the Mx-1 being configured is NOT on the same subnet as the Velocity Server:
                - Refer to the SNIB3 Quick Installation Guide for more information on how to configure the SNIB3 using the SNIB Configuration Tool. SNIB3 Reference page.
        iv. Once all options and fields are complete, click OK.
3. Select the newly created XNET Port
    a. Double click *Add New XBox*
        i. Name the XBox
        ii. Select the desired Address, Messages per poll and Logoff time options.
        iii. Check the *Enable this XBox*

4. Select the newly created XBox
    a. Double click *Add New Controller*
        i. Name the controller
        ii. Add a description (optional)
        iii. Select the address of the controller or allow Velocity to apply the next available address.
        iv. Under the *Model* drop down menu, select **Mx-1-W**

Important Note: Velocity requires an Mx-1-W License for each Mx-1-W controller that will be used for wireless locks.



v. Under the *Wireless Vendor* drop down menu, select ***Aperio V3***



vi. After applying the configuration for the Mx-1-W, click OK.

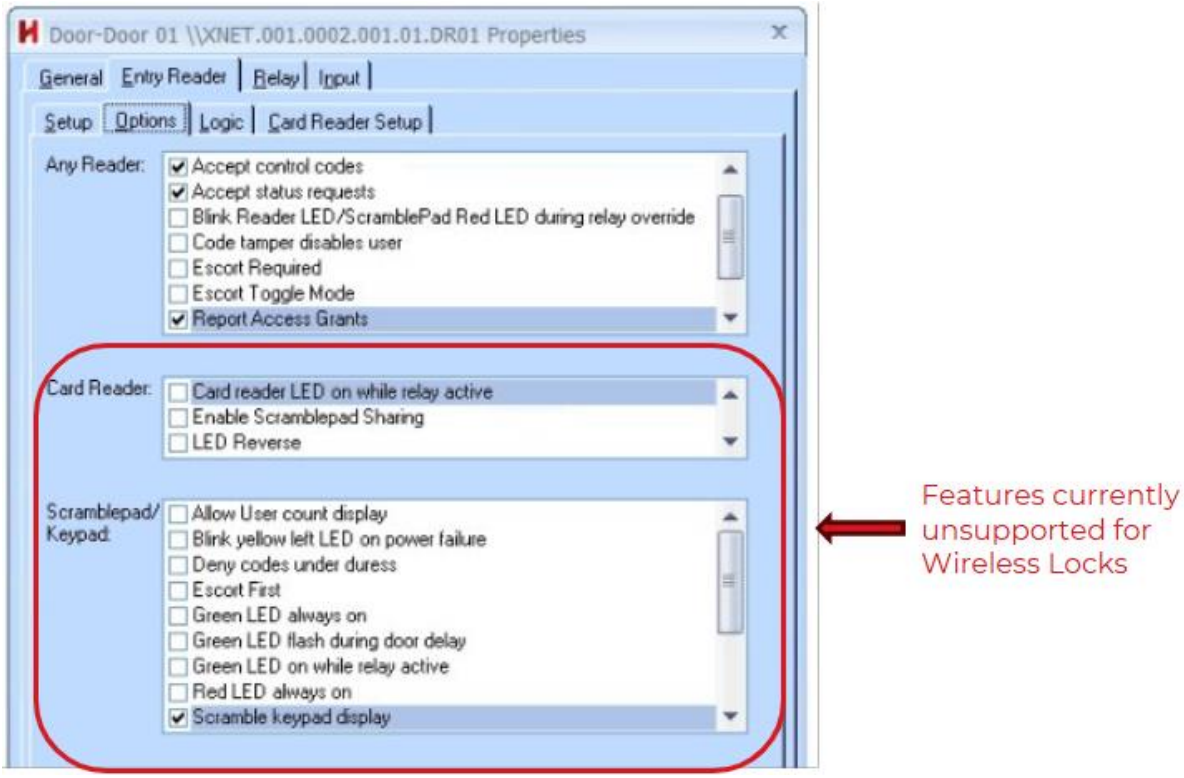
b. Select and expand the newly created controller and double click the *Doors* folder

i. Select *Door 1*, right-click and select *Properties*

ii. Click the *Entry Reader* tab and select the *Setup* tab

- Name the reader (optional)
- Under *Reader Interface*, select the **Wireless Interface** option
- Under the *Wireless* section make sure the **Reader Type** matches the wireless lock manufacture being used. for the **Wireless hub address** enter the address of the hub/hub. For the **EAC Address** enter the lock address for the door.

Not all features are supported under the Options tab, see screenshot below:



- Once confirmed, click *OK*.
- Repeat Steps 1-7 for each wireless lock linked to the hub(s) that are connected to the OSDP/RS485 Port on the Mx-1-W.