



Start-Up M2Smart® HMI Access Point

Version: 1.00

1 M2Smart® HMI Access Point

The M2Smart® HMI Access Point is used to transmit non-safety-related data, such as visualization and operator data from the wireless M2Smart® HMI system. This is done optionally via 2.4 GHz or 5 GHz; Bluetooth can also be activated and used in combination. For special applications, only Bluetooth can be activated.

1.1 Configuration of the M2Smart® HMI Access Point

ACD Elektronik supplies the M2Smart® HMI Access Point in DHCP mode as standard, so the M2Smart® HMI Access Point obtains its own IP address from the DHCP server. To find and configure the M2Smart® HMI Access Point in the network, a corresponding tool from HMS must be used.

The “HMS IPconfig” tool can be downloaded from the homepage of the manufacturer HMS.

<https://www.hms-networks.com/p/awb2030-b-anybus-wireless-bolt-ethernet-rj45-poe-black-version?tab=tab-support>

The device on which the software is installed and the M2Smart® HMI Access Point must be connected to the same network.

Type	IP	DHCP	Version	MAC	Comment
Wireless Bolt	172.16.11.186	Enabled	2.07.00	00-30-11-7E-0B-AB	

If an M2Smart® HMI Access Point has been detected, important information is displayed accordingly. Furthermore, a web browser can be opened directly via the globe icon, which allows the M2Smart® HMI Access Point to be configured.



1.2 Example for 2.4 GHz WiFi

The following figure shows the WiFi settings in the 2.4 GHz band.

The screenshot shows the 'WLAN Settings' page for the Anybus Wireless Bolt device. The interface includes a left-hand navigation menu with options like 'System Overview', 'Easy Config', 'Network Settings', 'WLAN Settings' (highlighted), 'Bluetooth Settings', 'Bluetooth LE Settings', 'Firmware Update', 'AT Commands', 'System Settings', and 'Help'. Below the menu are buttons for 'Save and Reboot' and 'Cancel All Changes'. The main settings area is as follows:

Enable	<input checked="" type="checkbox"/>
Operating Mode	Access Point
Network (SSID)	hmi-ap_9E63F6
Authentication Mode	WPA2
<i>Regular password: min 8 and max 63 characters</i> <i>Hexadecimal: start with 0x</i>	
WPA2 Passkey	••••••••
	Show
Channel Bands	2.4 GHz
Channel	1

1.3 Example for 5 GHz WiFi

The following figure shows the WiFi settings in the 5 GHz band.

The screenshot shows the 'WLAN Settings' page for the Anybus Wireless Bolt device, similar to the 2.4 GHz example. The main settings area is as follows:

Enable	<input checked="" type="checkbox"/>
Operating Mode	Access Point
Network (SSID)	hmi-ap_9E63F6
Authentication Mode	WPA2
<i>Regular password: min 8 and max 63 characters</i> <i>Hexadecimal: start with 0x</i>	
WPA2 Passkey	••••••••
	Show
Channel Bands	5 GHz
Channel	36



1.4 Example for Bluetooth

The following figure shows the Bluetooth settings.

The screenshot shows the 'Anybus® BY HMS NETWORKS Wireless Bolt™' configuration page. The left sidebar contains a navigation menu with the following items: System Overview, Easy Config, Network Settings, WLAN Settings, Bluetooth Settings (highlighted), Bluetooth LE Settings, Firmware Update, AT Commands, System Settings, and Help. At the bottom of the sidebar are two buttons: 'Save and Reboot' and 'Cancel All Changes'. The main content area is titled 'Bluetooth Settings' and includes the following options:

- Enable:
- Operating Mode: NAP (Access Point) (dropdown)
- Local Name: hmi-ap_9E63F6 (text input)
- Connectable: Yes (dropdown)
- Discoverable: Yes (dropdown)
- Bridge Mode: Layer 3 IP forward (dropdown)
- Security Mode: Just works (dropdown)
- List Nearby Devices: (button)
- Click the button (dropdown)

Below these settings is a section labeled 'Paired Devices' which is currently empty.



2 M2Smart[®] Gateway and M2Smart[®] HMI Access Point as a set

A set consisting of M2Smart[®] Gateway i or M2Smart[®] Gateway o and M2Smart[®] HMI Access Point enables simultaneous pairing of the M2Smart[®] Gateway i or M2Smart[®] Gateway o and the M2Smart[®] HMI Access Point via the NFC tag with an M2Smart[®] HMI10 radio or M2Smart[®] HMI5 radio.

2.1 Prerequisites and requirements

To enable simultaneous pairing, a number of requirements must be met.

2.1.1 M2Smart[®] Gateway

In principle, simultaneous pairing can be realized with any M2Smart[®] Gateway, but the data of the M2Smart[®] Gateway must be known and used to configure the M2Smart[®] HMI Access Point.

The following data is required:

- The MAC address of the M2Smart[®] Gateway (e.g. **CC-F9-57-9E-63-F6**)
- Bluetooth pin for the connection between the M2Smart[®] Gateway and the M2Not-Halt (e.g. **2925**)

All information can also be found on the NFC tag of the M2Smart[®] Gateway.

2.1.2 M2Smart[®] HMI Access Point

The configurations of the M2Smart[®] HMI Access Point are based on the data of the M2Smart[®] Gateway and must be implemented as follows.

2.1.2.1 WiFi network (SSID)

The network name (SSID) must be structured as shown here in the example.

- hmi-ap_9E63F6

The numbers or letters are to be taken from the last six digits of the M2Smart[®] Gateway MAC address.

2.1.2.2 WiFi password (key)

The password for the SSID must be structured as shown here in the example.

- 29259E63F6

The first four numbers are the Bluetooth pin of the M2Smart[®] Gateway. The last six numbers or letters are to be taken from the M2Smart[®] Gateway MAC address (see chapter 2.1.2.1).

2.1.2.3 Bluetooth name

The local name of the Bluetooth must be structured as shown here in the example.

- hmi-ap_9E63F6

The numbers or letters are to be taken from the last six digits of the M2Smart[®] Gateway MAC address.

2.1.3 M2Smart[®] HMI10

The simultaneous pairing of an M2Smart[®] Gateway and an M2Smart[®] HMI Access Point on the M2Smart[®] HMI10 is generally deactivated. To activate simultaneous pairing, the HMIService.json file must be adapted.

This is located under the following path.

- \sdcard\ACD\HMIService\HMIService.json

It contains several parameters that can be adjusted. The parameter "ConnectUnsafe: 0" must be adjusted for simultaneous connection.

- 0 = Default, normal pairing with M2Smart[®] Gateway
- 1 = Additional connection with WiFi
- 2 = Additional connection with Bluetooth



3 Support

If you need further assistance, please contact our support hotline:

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The support hotline is available Monday to Thursday from 8.00 am to 5.00 pm and Friday from 8.00 am to 3.00 pm.