



AW58EMVAP AW584EMVSU

USER'S MANUAL

Wireless Forecourt Access Point and Wireless In-Dispenser Unit with Network Switch

Industrial-grade, long-range wireless Ethernet systems



READ THIS MANUAL BEFORE YOU BEGIN

Dispensers have both electricity and a hazardous, flammable and potentially explosive liquid. Failure to follow the below precautions and the Warning and Caution instructions in this manual may result in serious injury. Follow all rules, codes and laws that apply to your area and installation.

SAFETY PRECAUTIONS - INSTALLATION AND MAINTENANCE

Always make sure ALL power to the dispenser is turned OFF before you open the dispenser cabinet for maintenance. Physically lock, restrict access to, or tag the circuit breakers you turn off when servicing the dispenser. Be sure to trip (close) the emergency valve(s) under the dispenser BEFORE beginning maintenance.

Make sure that you know how to turn OFF power to the dispenser and submersible pumps in an emergency. Have all leaks or defects repaired immediately.

HOW TO CONTACT AVALAN WIRELESS

Problems with the installation of this kit should be referred to AvaLAN Technical Support: (650)384-0000.

INDICATORS AND NOTATIONS



Danger indicates a hazard or unsafe practice which, if not avoided, will result in severe injury or possibly death.



Warning indicates a hazard or unsafe practice which, if not avoided, may result in severe injury or possibly death.



Caution indicates a hazard or unsafe practice which, if not avoided, may result in minor injury.

NOTE: Important information to consider, otherwise, improper installation and/or damage to components may occur.

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Revision 05.10.2018

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Product Information

Product	AvaLAN AW58EMVAP
Application	5 GHz Wireless Forecourt Access Point
Current Build	Version 01
Hardware Platform	AvaLAN Proprietary Hardware

Product	AvaLAN AW584EMVSU
Application	5 GHz Wireless In-Dispenser Communications System
Current Build	Version 01
Hardware Platform	AvaLAN Proprietary Hardware

How To Use This Document

By following the installation instructions and performing the steps in the sequence presented, you will be assured of a successful install.

NOTE: This kit may require installation of several wiring and hardware assemblies. Any installation or modification must comply with the requirements of the National Electrical Code (NFPA 70), the Automotive and Marine Service Station Code (NFPA 30A) and any other applicable codes.

NOTE: You must wear a static wrist strap, securely attached to an earth ground when handling any circuit board, electronic component or assembly, or when reaching into the site controller or dispenser computer enclosure. Do not use power tools.

Unpacking and Inspection

Complete the following steps:

1. Before opening any cartons, count the number of cartons and verify the carton count against the supplied packing list.
2. Inspect the cartons for damage made during transit.
3. File claim information with the carrier on the bill of lading.
4. Retain cartons suspected of damage for future claim purposes.

NOTE: You must wear an anti-static wrist strap, PN 916962 or equivalent, when removing electronic components from static packages. Attach the wrist strap securely to an earth grounding point to prevent possible damage from static electricity.

5. Remove all equipment from the shipping cartons and carefully inspect for visible damage.

NOTE: Any damage should be brought to the attention of the carrier and claims made immediately. Return all equipment to the respective cartons for protection until actual installation is made. Save all cartons until it is certain that return shipments are not required.

Returning Damaged Components

Parts or components returned to the factory under warranty or for repair are subject to damage if not packaged properly. Complete the following steps to return parts or components to the production facility.

1. Place electronic components in an anti-static bag and in the original shipping cartons for return shipment to the production facility.

NOTE: If original shipping cartons are not available use a sturdy cardboard container and suitable packing materials such as anti-static polyethylene foam or bubble pack, to ensure the component is firmly packed.

2. Include a Return Parts Tag with the defective component describing the particular problem with the part.
3. Make sure adequate insurance is provided when returning parts to the factory.



WARNING

If the parts or components arrive at our factory in a damaged condition and it is determined that the damage is a direct result of inadequate or improper packaging, the damage will not be covered under the original warranty and the customer or distributor will be held responsible for the cost of repairs necessary to correct or replace the damaged parts.

Safety Information

Read NFPA 30A and NFPA 70 (U.S. Installations)

Before installing the equipment, the installer must read, understand and follow this manual, NFPA 30A, NFPA 70, and applicable federal, state and local codes and regulations. Failure to do so may adversely affect the safe use and operation of the equipment.

CSA C22.1 (Canadian Installations)

For installation in Canada the installer must read and understand this manual, CSA C22.1 (Canadian Electrical Code) and applicable federal, provincial and local codes and regulations.

Emergency Power Cutoff

NFPA30A requires that an emergency power cutoff be installed. An emergency power cutoff is a single control that removes AC power from all site fueling equipment and submersible pumps. Make sure the control is accessible, labeled clearly, and installed away from dispensers. Make sure all station employees know where the Emergency Power Cutoff is located and how to operate it.

Electrical Circuits

Some of the procedures in this manual involve removal and connection of components during installation or service. Remove power from the distribution box before executing these procedures.

Installation Location for Access Point

Equipment should be installed in an area on your store front that the AP can be securely mounted and has visibility to all your dispensers.

Environmental Requirements

Care should be taken to ensure that the temperature does not exceed the operational ranges of -40°C to 70°C (-40°F to 158°F).

Power Requirements

The DC power source to the AW58EMVAP device must have an input voltage of 24VDC.

Installation Location for Subscriber Units

Equipment may be installed in a variety of locations; all the cabinets and required wire-ways must be located in an intrinsically safe enclosed space.

Ensure that all cabinets are located in an area that offers easy access for service, and free air space for cooling 3” away from other equipment.

Environmental Requirements

Care should be taken to ensure that the temperature of the cabinets does not exceed the operational ranges of -40°C to 70°C (-40°F to 158°F).

Power Requirements

The DC power source to the AW584EMVSU device must have an input voltage of 24VDC.

Conformity with Standards

Ensure that all National, State, and local standards and codes are observed in site preparations, wiring, and installation.

Power Wiring



Warning: USE THE SUPPLIED POWER CABLE ONLY.
Using other cables will void your warranty.

Emergency Stop Circuit

It is recommended that the electrical wiring for the AvaLAN AW584EMVSU be run through the Emergency Stop circuit at the site so that all electrical power is cut whenever the Emergency Stop button is pressed. The Emergency Stop Circuit wiring should be configured according to local electrical regulations.

Codes

Confirm that all equipment is installed in accordance with the US National Electrical Code (NFPA 70), the automotive and Marine Service Station Code (NFPA 30A), and any other applicable state and local codes. For installations outside the US follow all applicable local and international codes.

Requirements

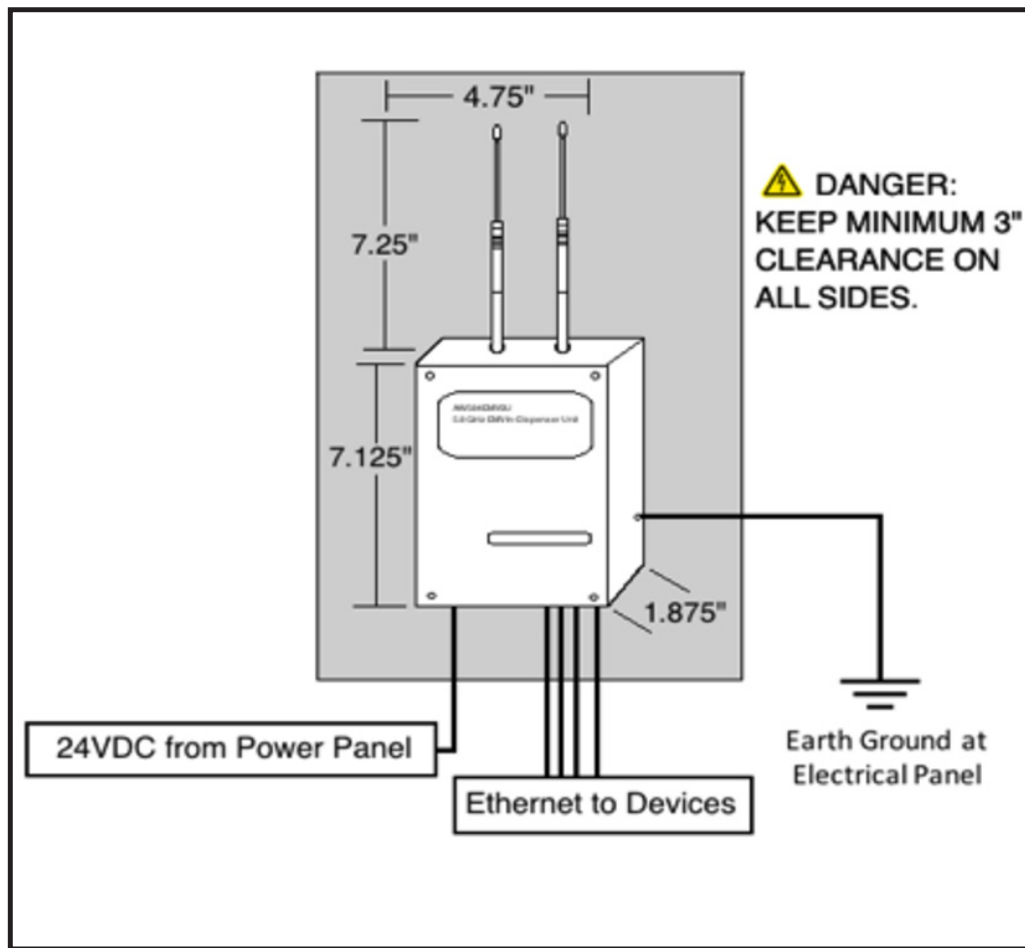
REQUIRED TOOLS

The only tool we require is an Anti-Static Wrist Strap. No other tools are required.


REQUIRED PARTS

Quantity	Part Number	Description
1	AW58EMVAP	5 GHz Wireless Forecourt Access Point
1	AW584EMVSU	5 GHz Wireless In-Dispenser Communications System
2	AW58EMVMK	Mounting Kit

Installation Best Practices

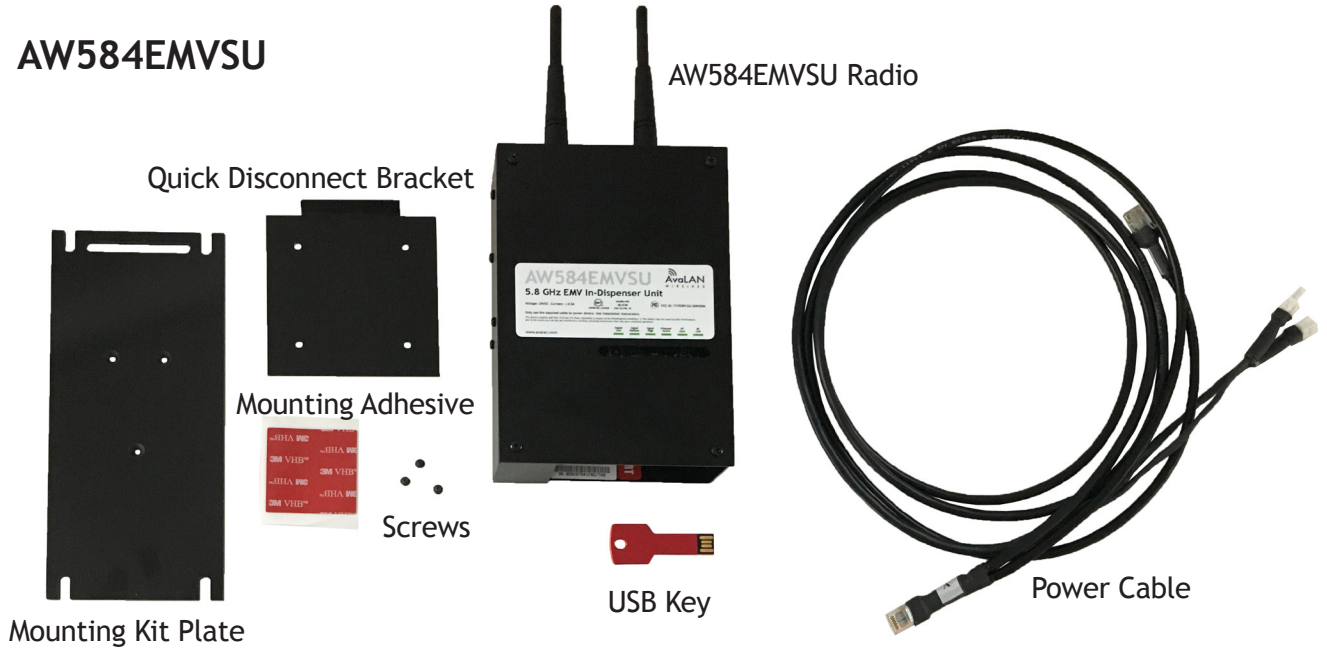


INSTALLATION NOTES:

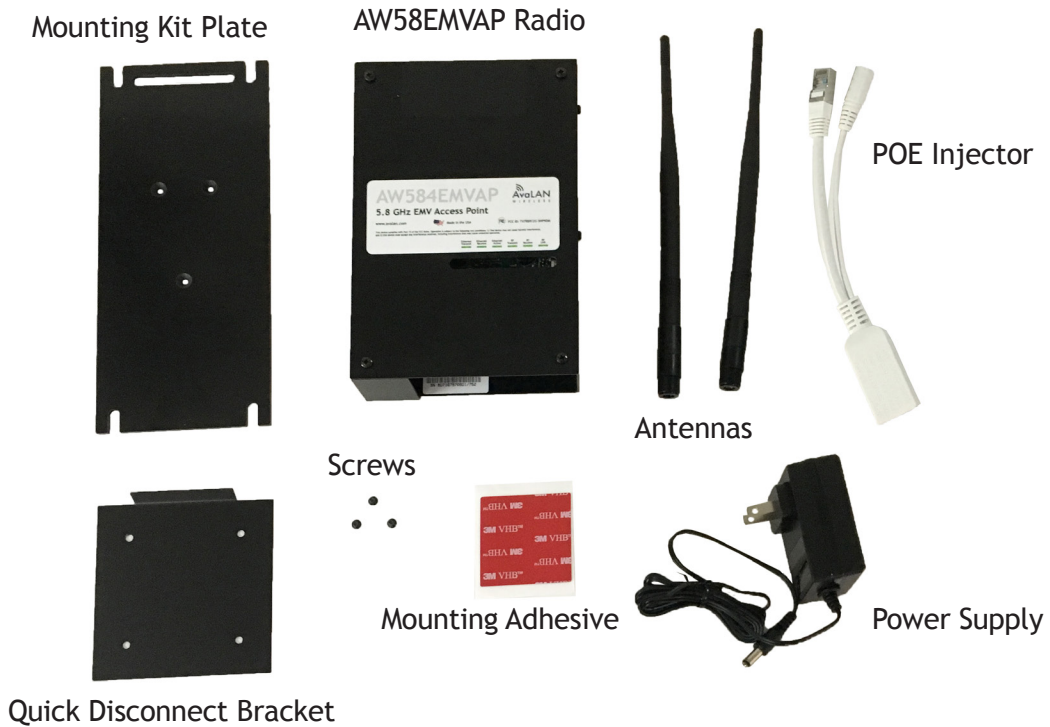
- 1) Installation and use shall be in accordance with the Flammable and Combustible Liquids Code, NFPA 30
- 2) This device will connect to the Fuel Dispenser's 24VDC power panel 
- 3) The cables provided with the product shall be reliably routed separate (>50mm) from other wiring/cabling within the dispenser, unless all wiring insulation is rated for the highest circuit voltage.
- 4) The Earthing conductor shall be minimum 18AWG and copper only.
- 5) Only use the supplied cable to power device.
- 6) The power supply should be Class 2 or equivalent.

What's in the Box

AW584EMVSU



AW58EMVAP



In-Dispenser Installation Procedure

When possible, mount the AW584EMVSU with access to the wiring trough where the dispenser communication wires are located.



DANGER: Keep a minimum of 3” clearance between the radio (including from the antenna) and any other equipment.



DANGER: DO NOT USE POWER TOOLS FOR INSTALLATION.

Mounting the AW584EMVSU (in-dispenser units)

- ___ 1. Power down the dispenser.
- ___ 2. Open the dispenser bezel and find a mounting location inside the pump with a min. of 3” clearance from other equipment.
- ___ 3. Attach the mounting kit plate to the back of the AW584EMVSU.
- ___ 4. Thoroughly clean the prospective mounting surface, removing any oils, dirt, or residue.
- ___ 5. After selecting a mounting location, attach the AW58EMVMK metal mounting bracket to the wall by removing the backing from the adhesive and placing it with the tab oriented upwards.
- ___ 6. Hook the opening on the plastic mounting plate over the tab of the metal mounting bracket.
- ___ 7. Remove the USB key off the Subscriber Unit and write the associated pump on the USB key.

Connecting the Device

- ___ 1. Connect the device to the four Ethernet ports as shown in the Installation Overview (Figure11.1)
- ___ 2. Connect the grounding wire to ground and onto the grounding screw.
- ___ 3. Connect the supplied 24VDC power cable to the dispenser’s power distribution board.
- ___ 4. Power on the pumps. All Subscriber Units will power up with successful boot tones (a series of beeps) within approximately 15 seconds.

In-Store Installation Procedure

Mounting the AW58EMVAP (indoor unit)

- ___ 1. Apply the mounting bracket to the back of the Access Point using the supplied screws. The side with the recessed screw holes will be facing you.
- ___ 2. Mounting Options:
 - A. Remove the white backing of the supplied adhesive and attach to the back of the quick disconnect bracket (the lip will be facing away from you).
 - B. To wall mount use screws (not provided) for the 4 holes on the bracket
- ___ 3. Locate an area on your store front that the AP can be securely mounted and has visibility to all your dispensers.

Note: Make sure to leave room for your antennas with a 2 inch clearance.
- ___ 4. Thoroughly clean the prospective mounting surface before removing the red adhesive backing and applying to the back of the quick disconnect bracket with the flange at the top of the bracket jutting away from the mount surface.
- ___ 5. Apply the quick disconnect bracket to the clean mounting area and hold in place for 10-15 seconds to confirm proper adhesion.
- ___ 6. Connect networking cable from the port in the AP to the female connector on the POE Injector

Note: CAT 6 recommended and up to 100 meters supported
- ___ 7. Insert the lip from the Quick Disconnect Bracket into the horizontal opening at the top of AP
- ___ 8. Connect the male connector on the POE Injector to your existing switch
- ___ 9. Connect 24 VDC power supply at 120 VAC outlet and POE Injector. The POE Injector will have a green light present when power is applied.
- ___ 10. The Access Point will beep once when the power is applied and a second time when the application is running.

Pairing Radios

- ___ 1. Power on the Access Point.
- ___ 2. Hold the Access Point in place while inserting a Subscriber Unit USB Key into the USB port in side of the Access Point.
- ___ 3. The AP will acknowledge the USB with a double beep (this can take up to 30 seconds)
- ___ 4. Remove the USB Key 3 seconds after the double beep then wait for the successful pairing tone
- ___ 5. Insert the next Subscriber Unit USB key and repeat steps 2-4.

If pairing is unsuccessful there will be a failure tone. Power cycle the Access Point and wait for the boot tone to proceed. Then re-insert the same USB key and repeat steps 2-4 until you get the successful pairing tone.

AW58EMVAP AND AW584EMVSU QUICK START GUIDE



IN-DISPENSER UNIT INSTALLATION

Mounting the Device:

1. Power down the dispenser.
2. Using the screws provided, attach the plastic mounting plate to the back of the AW584EMVSU.
3. Attach the metal mounting bracket to the wall by removing the backing from the adhesive and placing it with the tab oriented upwards.
4. Hook the opening on the plastic mounting plate over the tab of the metal mounting bracket.
5. Remove the USB key off the Subscriber Unit and write the associated dispenser number on the USB key.



Connecting the Device

1. Connect the dispenser devices using the four Ethernet ports.
2. Connect the grounding wire to the grounding screw.
3. Connect the supplied 24 VDC power cable to the dispenser's power distribution board.
4. Power on the pumps. All Subscriber Units will power up with successful boot tones (a series of beeps) within approximately 15 seconds.

WIRELESS KEYING

1. Power on all Radios including the Access Point.
2. Insert a Subscriber Unit USB Key into the USB port inside the Access Point.
3. The Access Point will acknowledge the USB with a double beep (this can take up to 30 seconds)
4. Wait for the successful pairing tone before removing the USB key.
5. Insert the next Subscriber Unit USB key and repeat steps 2-4.

Note: If pairing is unsuccessful there will be a failure tone. Power cycle the Access Point and wait for the boot tone to proceed. Then re-insert the same USB key and repeat steps 4-6 until you get the successful pairing tone.

Cost of Replacement Key - \$50
Call 650-284-0000 for Replacement

