



AMS Wireless Vibration Monitor

QUICK USER GUIDE

This document is intended to provide basic information about installation and configuration as well as information regarding safety and approvals. For more information, please reference the User Guide (P/N MHM-97927-PBF) on the Emerson website.

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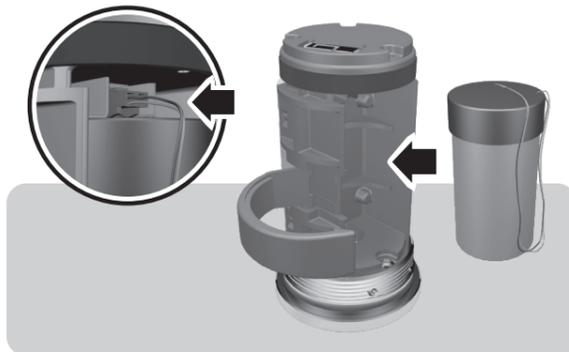
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MHM-97928-PBF, Rev 2
February 2022

Device Preparation

For safety reasons, the device is shipped with the battery disconnected. When you are ready to configure the device, follow the steps below to reconnect the battery.

1. Use your hands to unscrew and remove the blue cover.
2. Remove the battery with the pull tab.
3. Locate the battery connector and plug it into the socket on the device as shown.



4. Replace the battery. Tuck the wires against the battery and lock them into place.

Quick Configuration

1. Locate the terminals for the communication port on the opposite side of the device.
2. Connect a configuration device to the terminals such as a computer running AMS Device Manager with a HART™ modem or an AMS Trex Field Communicator (shown below).



3. Follow the onscreen instructions to configure the device. It is advisable to use the option for Guided Setup. Individual parameters can be easily customized later using AMS Device Manager after the device has joined the wireless network.
4. After configuring the device, make sure to disconnect the battery before replacing the cover. This not only conserves battery power, but the battery will need to be removed again when using the recommended field installation method.

Field Installation

1. To stud mount the device (recommended), prepare the machine surface using a spot face tool. Then drill and tap a 1/4-28" hole 0.25" (6.35mm) deep. Alternately, a mounting pad with 1/4-28" thread can be glued in place using epoxy. (Consult the User Guide for additional mounting options and instructions.)
2. With the cover still on the device, use your hand to loosely screw the device into the threaded hole. Do not tighten.
3. Remove the cover and battery.
4. Insert a small screwdriver through the guide hole in the base of the unit (shown below) and use this to hold the device in the desired orientation.
5. While maintaining the device orientation, use a 3/16" ball driver to tighten the captive screw in the center of the base (shown above) to 2-5 ft-lb.
6. Then connect and replace the battery.
7. Use your hand to replace and tighten the cover.



Shipping Considerations

Contact Emerson Product Support to obtain a Return Materials Authorization (RMA) number and receive additional instructions.

Primary lithium batteries are regulated in transportation by the U.S. Department of Transportation, and are also covered by IATA (International Air Transport Association), ICAO (International Civil Aviation Organization), and ADR (European Ground Transportation of Dangerous Goods).

It is the responsibility of the shipper to ensure compliance with these or any other local requirements. Please consult current regulations and requirements before shipping.

Product Certifications

The AMS Wireless Vibration Monitor has a number of certifications and approvals including CE, FCC, ISED, RED, CSA, and ATEX. For a complete list of product certifications, see <http://www.emerson.com/AMSVibrationMonitor>.

Safety Information

For personal and system safety, and for optimum product performance, care should be given to read and understand the user documentation before installing, using, or maintaining this device. For more information, see the AMS Wireless Vibration Monitor User Guide.

For questions, contact customer support:

Inside US (Toll free): 1-800-999-9307
or 1-800-654-7768,
International: 1-(952) 906-8888,
E-mail: hm.custserv@emerson.com

Battery Information

The AMS Wireless Vibration Monitor uses a standard battery. For safety reasons, however, the unit was shipped to you with the battery disconnected. You will need to connect the battery before configuring and installing the device.

Replacing the battery

The battery may be replaced in hazardous locations. Replace the battery only with Tadiran Part Number TL-4920/VE or Emerson Part Number A0702PPU. Follow the instructions in the User Guide for replacing the battery.

Installation Considerations

When choosing an installation location and position, consider the need for access to the device. For best overall performance, the device should be installed vertically. If it is necessary to install the device horizontally pay special attention to the network arrangement.

Installation in Hazardous Areas

The device is covered by a hazardous area rating. It is the responsibility of the user to verify that the device has the necessary approvals required for the intended area of use.

Warning: Installation in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Please review this document for any restrictions associated with safe installation.

Temperature Limits

As a safety precaution, the following limits must be observed for ambient temperature:

1. Storage Temperature : -40 to 185°F / -40 to 85°C
2. Operating Temperature: -40 to 185°F / -40 to 85°C

General Notice

If the device has been exposed to a hazardous substance, a Safety Data Sheet (SDS) must be included with the returned materials. An SDS is required by law to be available to people exposed to specific hazardous substances.

Wireless Certifications

Telecommunications compliance

All wireless devices require certification to ensure that they adhere to regulations regarding the use of the RF spectrum. Nearly every country requires this type of product certification. Emerson works with governmental agencies around the world to supply fully compliant products and remove the risk of violating country directives or laws governing wireless device usage.

Radio Equipment Directive (2014/53/EU)

Emerson complies with the Radio and Equipment Directive.

FCC approvals

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to a radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- This device must be installed to ensure a minimum antenna separation distance of 20cm from all persons.

CAUTION

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED approvals

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs / récepteurs exemptés de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada. Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne doit pas provoquer d'interférences.
2. Cet appareil doit accepter toute interférence, y compris les interférences pouvant entraîner un fonctionnement indésirable de l'appareil.

Radio Approvals

Country	Approval	Status
Brazil		16244-20-13480
Canada		IC: 3434A-A9530M1
Equatorial Guinea	ORTEL	608-2910712020
Hong Kong		Certified for use in Hong Kong 經認證可在香港使用 Certificate Numbers: 證書編號 A9530V1: HK0022000126 A9530V3: HK0022000125
Jamaica		This product contains a Type Approved Module by Jamaica: SMA - A9530XX
Mexico		RCPAMA921-0109
Philippines		Type Accepted No: ESD-RCE-2023390 Type Accepted No: ESD-RCE-2023391
Serbia		P1620103200
Singapore		Complies with IMDA Standards DA100927
South Africa		TA-2020/7576
Thailand		This telecommunication equipment conforms to NTC technical requirements.
US		NLS-A9530M1 Model: A9530V1, A9530V3

This product is approved for sale in many countries. Please contact Emerson for a complete listing.

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AMS Model A9530 Wireless Vibration Monitor:

Power Options:

Battery must be replaced only with Tadiran Part Number: TL-4920/VE or Emerson Part Number: A0702PPU

NOTE: Approved battery may be replaced in approved hazardous locations per this drawing.

CSA-C/US CSA20CA80026524

Class I Division 1 Groups A,B,C & D T4
Class II Division 1 Groups E, F & G
Class I Zone 0 AEx / Ex ia IIC T4 Ga
Zone 20 AEx / Ex ia IIC T135°C Da
-40°C ≤ Ta ≤ 85°C;
Type 4X Enclosure, IP66

ATEX CSANe 20ATEX2042X

Ex ia IIC T4 Ga
Ex ia IIC T135°C Da
-40°C ≤ Ta ≤ 85°C

IECEX CSA 20.0002X

Ex ia IIC T4 Ga
Ex ia IIC T135°C Da
Ta: -40°C to +85°C

Warnings:

1. Care should be taken to protect this device from impact or abrasion if located in a zone 0 environment.
2. Substitution of components may impair intrinsic safety.
3. The battery may present a potential electrostatic ignition hazard. Use Caution when replacing the battery.

Avvertissements:

1. Des précautions doivent être prises pour le protéger des chocs ou de l'abrasion s'il est situé dans un environnement de zone 0.
2. La substitution de composants peut compromettre la sécurité intrinsèque.
3. La batterie peut présenter un risque potentiel d'allumage électrostatique. Soyez prudent lors du remplacement de la batterie.

Agency approved drawing. No changes without prior agency approval.

REV	ECO NO.	DATE
01	Initial Release	08-May-2020
02	ECO-00035279	12-Oct-2021

Conditions of Safe Use:

1. Shall be powered only by C-sized lithium primary cell type TL-4920/VE manufactured by Tadiran or Emerson Part Number A0702PPU.
2. HART Terminal Entity parameters:
Uo = 5.84 V, Io = 116mA, Po = 169mW, Co = 0.1µF, Lo = 5mH;
Ui = 5.27 V, li = 5mA, Pi = 6.6mW, Ci = 13µF, Li = 0.022mH
3. The device may be configured using the HART terminals only by 375, 475, or TRES field communicators.
4. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic discharge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
5. The device shall be installed on an earthed metal frame.

Conditions d'utilisation sûre:

1. Ne doit être alimenté que par une cellule primaire au lithium de taille C de type TL-4920 / VE fabriquée par Tadiran ou Emerson Part Number A0702PPU.
2. Paramètres de l'entité du terminal HART:
Uo = 5,84 V, Io = 116 mA, Po = 169 mW, Co = 0,1 µF, Lo = 5 mH;
Ui = 5,27 V, li = 5 mA, Pi = 6,6 mW, Ci = 13 µF, Li = 0,022 mH
3. L'appareil ne peut être configuré à l'aide des terminaux HART que par des communicateurs de terrain 375, 475 ou TRES.
4. Dans certaines circonstances extrêmes, les pièces non métalliques incorporées dans le boîtier de cet équipement peuvent générer un niveau de décharge électrostatique capable d'allumage. Par conséquent, l'équipement ne doit pas être installé dans un endroit où les conditions externes conduisent à l'accumulation de charges électrostatiques sur de telles surfaces. De plus, l'équipement ne doit être nettoyé qu'avec un chiffon humide.
5. L'appareil doit être installé sur un cadre métallique mis à la terre.

MATERIAL	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	For Reference Only		EMERSON Knoxville, TN.
		DESIGNED BY	DATE	
FINISH	TOLERANCES	J. Clemmons	08-Oct-2019	A9530 CSA, IECEX, ATEX Installation Instructions
	DECIMALS: X ± .030 XX ± .020 XXX ± .010	J. Clemmons	08-Oct-2019	
NETWORK FILENAME/REVISION LEVEL	FRACTIONS: ± 1/32	J. Clemmons	12-Oct-2021	D25902
	ANGULAR: ± 0'-30'	D. Beeler	12-Oct-2021	
	FINISH: 32	J. Bladwin		D25902
	DO NOT SCALE THIS DRAWING	T. Rogers		D25902

EU Declaration of Conformity

In accordance with IEC 17050-1

We:

Manufacturer's Name: Emerson
Manufacturer's Address: 835 Innovation Drive
Knoxville, TN 37932 USA

declare under sole responsibility that the product:

Product Name: AMS Wireless Vibration Monitor
Model: A9530XX
Revision Level: 0 and up

to which this declaration relates, is in conformity with the provisions of the European Community Directives, including the latest amendments, as shown in the attached schedule.

Presumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Community notified body certification, as shown in the attached schedule.



John Taylor

Joshua Taylor
Quality Manager
Knoxville, Tennessee U.S.A.
on 13 January 2022

European Contact:

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CSI P/N D25929 Rev. 03

EU Declaration of Conformity

In accordance with IEC 17050-1

EMC Directive 2014/50/EU

All Versions
Applicable Standards: IEC 61326-1:2012 (2012 Edition)
EN 61326-1:2013 (2013 Edition)

Low Voltage Directive 2014/35/EU

All Versions
Applicable Standards: CAN/CSA C22.2 No. 61010-1-12, UPD1: 2015
IEC 61010-1:2010, AMD1:2016
UPD2: 2016, AMD1: 2018
ANSI/UL 61010-1, 3rd Edition (2012), AMD1: 2018
EN 55032:2015
EN 55032:2015
IEC 62311 Issue 2

Radio Equipment Directive 2014/53/EU

All Versions
Applicable Standards: CISPR32:2015
ETSI EN 300 328: V 2.1.1 (2017-11)
ETSI EN 301 489-1: V 2.1.1 (2017-02)
ETSI EN 301 489-17: V3.1.1 (2016-11)
EN 55032:2015
IEC 62311 Issue 2

RoHS2 Directive 2011/65/EU

All Versions

ATEX Directive 2014/34/EU

Type Examination Certificate Number: CSANe 20ATEX2042X & IEC Ex CSA 20.0002X
Applicable Standards: EN IEC 60079-0: 2018
EN 60079-11: 2012
IEC 60529: 2013 (Ed. 2.2)

Models: A9530

Marking appears as follows:



Ex ia IIC T4 Ga
Ex ia IIC T135°C Da
Tamb: -40°C to +85°C

The equipment has the following entity parameters:

HART Terminals

Uo = 5.84 VDC
Io = 116 mA
Pi = 6.6 mW
Co = 0.1 µF
Li = 0.022 mH

CSI P/N D25929 Rev. 03

EU Declaration of Conformity

In accordance with IEC 17050-1

Conditions of Safe Use:

1. Shall be powered only by C-sized lithium primary cell type TL-4920/VE manufactured by Tadiran or Emerson Part Number A0702PPU.
2. The device may be configured using the HART terminals only by 375, 475, or TRES field communicators.
3. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic discharge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
4. The device shall be installed on an earthed metal frame.

ATEX Notified Body for EX Type Examination Certificate

Number CSANe 20ATEX2042X
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Notified Body for Quality System

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CSI P/N D25929 Rev. 03