



Installation Instructions

TerraWave 1200 and 1500 Series Hazardous Location Enclosure Solutions V1.4

TerraWave Part Number: XEP1242

TerraWave Part Number: XEP1522





Introduction

The TerraWave Cisco wireless networking enclosure solutions are intended to be used both indoor and outdoor Hazardous Locations and to provide NEMA 4X protection.

Before installing this product, read these instructions carefully. Failure to follow these instructions could lead to damage to the product or cause hazardous conditions.

Review the certification label to ensure that these products are suitable for your application. It is the responsibility of the end user / customer to ensure that these products meet the required needs. Only the customer is capable of determining what certifications are required a given application.

NOTE: Tessco / TerraWave are not capable of determining the appropriate certification needed. THIS IS THE RESPONSIBILITY OF THE END USER CUSTOMER.

Certification Label



11126 McCormick Road, Hunt Valley, MD 21031

	CSA	IEC	ATEX
Manufacturer's Name	TESSCO Technologies		
Model Numbers	1242 and 1500 (361100, 302222, 382316 and 382604)		
Serial Numbers	XXXXX1, XXXXX2, XXXXX3, XXXXX4 - Manufactured in 2007		
Ambient Temperature Range	-20° C ≤ TA ≤ +55° C		
Hazardous Location Designations	Class I, Div 1, Groups B, C, D	Ex d mb [ia] IIB T6	Ex d mb [ia] IIB T6
	Enclosure Type 4X	IECEx CSA xxxxX	KEMA 07ATEX 0164X
	(X amps, X herts, and X volts)		II 2 G
WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT			

Precautions

Read and understand all instructions before you begin installing the unit.

When installing and using this product, basic safety precautions should always be followed to reduce the risk of electric shock, fire and injury to persons.

All wiring that is connected to the equipment must meet applicable local and national building codes and network wiring standards for communications cable.



WARNING: To prevent the risk of electric shock and equipment damage, disconnect any and all supply mains connected to the enclosure before installing, maintaining or trouble shooting this product or any products inside the enclosure.

Keep these instructions for future reference.

Follow all warnings and instructions.

Never install cable, connectors or jacks in a wet location unless they are specifically designed for wet locations.

Never install this product during a lightning storm. There is a risk of electric shock from lightning.

Never touch uninsulated communication wires or terminals.

Disconnect power before cleaning or servicing the unit.

Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Mount the unit according to these instructions only using the recommended or supplied hardware.

Wear proper eye protection when using power and hand tools. Follow all safety instructions provided with the tools.

WARNING: Disconnect power should any of the following conditions occur:

- The enclosure does not operate normally when following the operating instructions;
- The enclosure has been damaged;
- The enclosure exhibits a distinct change in performance.

WARNING: Any modifications or alterations to the enclosure solutions will / or can void the certifications. Contact TerraWave Solutions before attempting any modifications to the solution.



Installation Instructions

Installation Environment

The enclosure solutions are intended for both indoor and outdoor use.

WARNING: To prevent the risk of electric shock and equipment damage, disconnect any and all power supplies to the enclosure before installing, maintaining or trouble shooting this product or any products inside the enclosure.

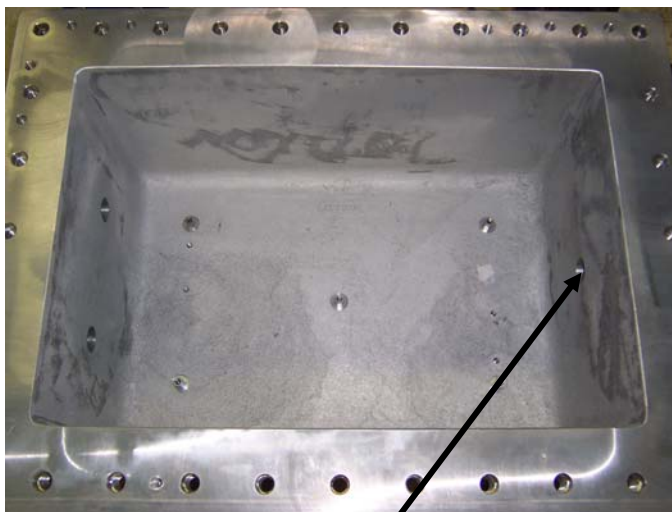
Included Components

The enclosure solutions consist of the following components:

- Enclosure
- Mounting plate
- Antenna fittings
- Antenna jumper assemblies
- Cisco access point
- Enclosure mounting Feet

Ethernet Cable and Power Supply

The electrical wiring and Ethernet cabling should be routed through the pre-drilled hole at the bottom of the enclosure. All electrical connections should be made by a licensed electrician. All local and National codes should be followed as applicable. See figure 1



Pre drilled hole for power and Ethernet cabling.

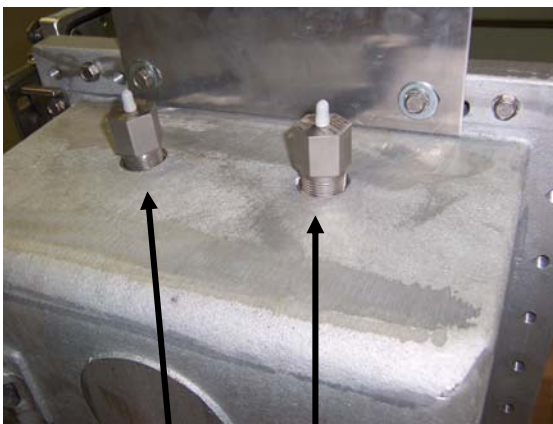


Figure 1

Antenna Fittings

Antenna Fittings come pre installed on the enclosure solutions and provide RPSMA connectors, see figure 2. The antenna fittings allow for the use of any FCC approved antenna. Antennas can be directly attached to the fitting or you may use coaxial cable to run between the antenna fitting and the antenna to be used (Antennas, Antenna Mounting plates and Coaxial cable sold separately through Tessco / TerraWave Solutions).

www.terrawave.com



Antenna Fittings with RPSMA Jack (female connector with male center pin)

Figure 2

Enclosure Mounting Feet

Mounting feet have been provided in the enclosure – see figure 3. The feet provide easy and convenient mounting of the unit. Customer must provide proper fasteners for the enclosure mounting feet.

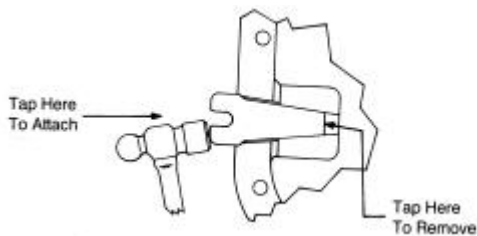


Figure 3 Mounting Feet

Attachment

1.) Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control devices.

Refer to figure 4 and 5 for the mounting dimensions for the four detachable mounting feet.

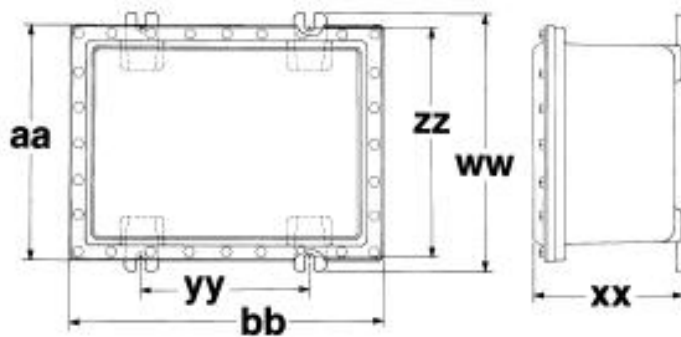


Figure 4

Dimensions in inches

aa	bb	Mtg. Hole	ww	xx	yy	zz	Net Wt. w/cover (lb.)
17-5/16	23-5/16	9/16	16-3/8	10-9/16	11-1/2	15-1/8	110

Figure 5

2.) Install detachable mounting feet.

- Insert four wedge shaped mounting feet into dove-tail slots in enclosure body.
- Tap each foot to securely tighten into slot.

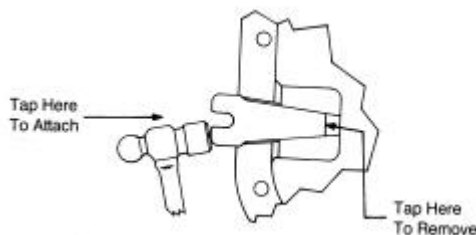


Figure 3 Mounting Feet

3.) Securely fasten enclosure to the mounting location, then attach into conduit Version 1.5 - Page 6



system. Install approved conduit seal fittings when required by Section 501-5 and/or 502-5 of the National Electrical Code plus any other applicable standards.

CAUTION: Hazardous location information specifying class and group listing of each device is marked on the nameplate of each enclosure solution. Class and group listing for any device penetrating the enclosure must be suitable for the classification of the location in which the enclosure is installed.

All unused conduit openings must be plugged. Listed plug must engage a minimum of five full threads and be a minimum of 1/8 inch thick.

In Class I, Division 1, Group B locations, conduit sealing fittings **MUST** be installed in each attached conduit run (within eighteen inches of the enclosure) to comply with the latest edition of the National Electrical Code Section 501-5 and/or 502-5 plus any other applicable code.

Conduit sealing fittings are required on all conduit entrances (within eighteen inches of the enclosure) for EJB361208, EJB361808, EJB361810 and EJB362408 enclosures when used in Class I, Div. 1, Group C hazardous areas. For other sealing requirements, consult the National Electrical Code®.

4.) Loosen all cover bolts until each bolt is fully retracted into the cover by the stainless steel spring under the bolt head. Remove the nuts from two stud bolts, then swing open cover.

NOTE: prevent damage to the ground-joint and flange gasket.

The enclosures are furnished with captive triple lead bolts that utilize a spring to aid and indicate full retraction of the bolts into the cover when opening and closing. Make sure all cover bolts are fully retracted into the cover before attempting to open or close the cover.

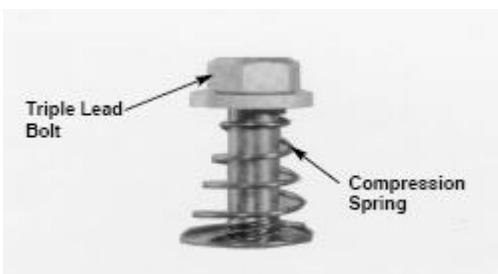


Figure 6

When bolts are disengaged from the body flange threads, the bolts will withdraw and be held in this position by the spring and washer under the bolt heads. (See Figure 6)

After all bolts are fully disengaged, firmly grasp the bottom and right side of the cover and carefully swing cover aside to prevent damage to the ground joint surface.



Avoid striking cover, or devices in cover, on neighboring enclosures or structures.

CAUTION: Hammers or prying tools must not be allowed to damage the flat ground-joint surfaces or cover gasket. Do not handle covers roughly, or place them on surfaces that might damage or scratch the flat ground-joint surfaces.

5.) Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. Enclosures with suffix "ATEX" are provided with an external ground lug located at lower left of the body.

6.) Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

CAUTION: Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosion proof seal.

7.) To install cover, make sure cover and body ground joint surfaces are clean and not scratched. Orient cover to align with two stud bolts on body. Lift cover to approximate position, and line up bolt holes of cover with body. Avoid sliding cover ground-joint surface over ground-joint surface of body. Cover/body bolt holes must match up. Hand start the corner bolts. Fully tighten all cover bolts (torque to 40-45 ft. lbs.) and then reinstall the two 5/16 - 18 hinge bolts (torque to 8ft. lbs.) in the cover.

8.) Pour sealing compound into sealing fittings (when required) in accordance with the instructions supplied with each of the approved fittings and sealing compound.

Electrical Wiring

NOTE: All electrical connections should be made by a licensed electrician. All local and National codes should be followed as applicable.

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DISCONNECT SUPPLY MAINS BEFORE SERVICING.

WARNING: To prevent the risk of electric shock and equipment damage, disconnect any and all power supply to the enclosure before installing, maintaining or trouble shooting this product or any products inside the enclosure.



Maintenance

WARNING: Always disconnect primary power source before opening enclosure for inspection or service.

1. Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use. It is recommended that it should be at least once a year.
2. Perform visual, electrical and mechanical checks on all components on a regular basis.
 - Visually check for undue heating evidenced by discoloration of wires or other components, damaged or worn parts, or leakage evidenced by water or corrosion in the interior.
 - Electrically check to make sure that all connections are clean and tight and that contacts in the components make or break as required.
 - Mechanically check that all parts are properly assembled, and operating mechanisms move freely.
3. Do not attempt field replacement or repair of cover gasket.

CAUTION: Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosion proof seal.