



ZoneScan II

Field Installation Instructions

Y63158-TUM

Revision A

www.Aclara.com

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Warnings, Cautions and Notes

Always consult and adhere to all local and national safety codes, regulations, and standards. WARNING, CAUTION and Note statements are used throughout this manual to emphasize important and critical information to help you ensure safety and prevent product damage. These statements are defined below.

WARNING



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious physical injury.

CAUTION



Indicates a situation, which, if not avoided, could result in damage to equipment, damage to software, loss of data or invalid results.

NOTE

Indicates important supplemental information.

FCC/IC Compliance

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 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.

Any changes or modification made to this device without the expressed, written approval of Aclara Technologies LLC may void the user's authority to operate this device.

Antennas

Only the antenna provided with this meter is authorized to be used without approval from Aclara, the FCC, and ISED.

FCC/IC RF Exposure Guide

Aclara Technologies LLC low power RF devices and their antennas must be fixed-mounted on indoor or outdoor permanent structure(s) providing a separation distance of at least 20 cm from all persons during normal operation. This device is not designed to operate in conjunction with any other antennas or transmitters. No other operating instructions for satisfying RF exposure compliance are needed.

Field Calibration Procedure

Aclara Technologies LLC low power RF devices have passed through extensive testing and calibration procedures while in the factory. Therefore, no additional calibration or adjustment is required in the field.

Avertissements, mises en garde et remarques

Toujours consulter et respecter les codes, règlements et normes de sécurité locaux et nationaux. Des AVERTISSEMENTS, MISES EN GARDE et remarques sont utilisés tout au long de ce guide pour souligner l'information importante et critique qui vous aidera à assurer la sécurité et à prévenir les dommages au produit. Ces énoncés sont définis ci-dessous.

AVERTISSEMENT



Indique une situation potentiellement dangereuse qui, si elle n'était pas évitée, pourrait entraîner la mort ou des blessures graves.

MISE EN GARDE



Indique une situation qui, si elle n'était pas évitée, pourrait entraîner des dommages à l'équipement, des dommages au logiciel, des pertes de données ou des résultats invalides.

REMARQUE Indique des informations supplémentaires importantes.

Conformité FCC/IC

Cet équipement a été testé et il est conforme aux limites pour un appareil numérique de Classe B, en vertu de l'article 15 des règlements de la FCC. Ces limites sont conçues pour offrir une protection raisonnable contre l'interférence nuisible dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie de fréquences radio et, s'il n'est pas installé ou utilise conformément aux instructions, il peut causer une interférence nuisible aux communications radio. Il n'existe toutefois aucune garantie que de tels interférences ne se produiront pas dans une installation particulière. Si cet appareil cause des interférences nuisibles à la réception des signaux de radio ou de télévision, ce qui peut être détecté en mettant l'appareil sous et hors tension, l'utilisateur peut tenter de neutraliser l'interférence de l'une ou l'autre des façons suivantes :

- Réorienter ou repositionner l'antenne de réception.
- Augmenter la distance séparant l'équipement du récepteur.
- Brancher l'appareil dans une prise sur un circuit électrique différent de celui sur lequel le récepteur est branché.
- Consulter le fournisseur ou un technicien radio ou télévision expérimenté.

Tout changement ou toute modification à cet appareil sans l'approbation écrite expresse d'Aclara Technologies LLC peut annuler l'autorisation de l'utilisateur d'utiliser cet appareil.

Antennes

L'antenne fournie avec ce compteur est la seule qui puisse être utilisée sans l'approbation d'Aclara, the FCC et l'ISED.

Guide d'exposition aux RF FCC/IC

Les appareils RF à faible puissance Aclara Technologies LLC ainsi que leurs antennes doivent être montés de manière fixe sur des structures intérieures ou extérieures permanentes qui se trouvent à au moins 20 cm des personnes pendant le fonctionnement normal. Cet appareil n'est pas conçu (et il n'a aucun branchement externe) pour être utilisé en association avec toute autre antenne ou tout transmetteur. Aucune autre instruction d'utilisation n'est requise pour assurer la conformité aux règles d'exposition aux RF.

Procédure de calibration sur place

Les appareils RF à faible puissance Aclara Technologies LLC ont été soumis à des tests étendus et multi-tâches et à des procédures de calibration complexes en usine. Par conséquent, ils ne requièrent pas de calibration ni d'ajustement supplémentaire sur place. Les appareils RF à faible puissance Aclara Technologies LLC sont expédiés au client dans des boîtiers scellés. Aucun ajustement ne peut donc être effectué sur place sans briser le boîtier scellé en usine.

Introduction

Use these instructions to install a ZoneScan II Assembly. For more information on ZoneScan leak detection, please refer to the following documents:

MTU Installation Requirements (Y20355-TEB) This technical brief provides information about RF signal transmission as well as approved practices for TU installations.

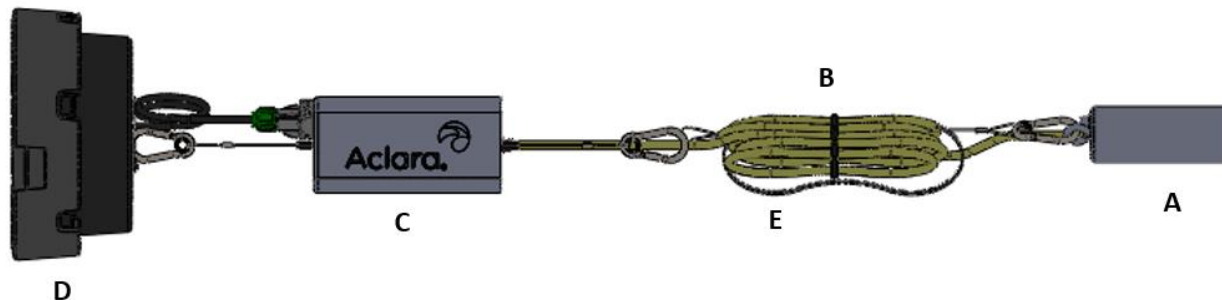
ZoneScan Technical Manual (Y20284-TUM) The technical manual provides information about acoustic leak detection and monitoring ZoneScan data.

Commissioning Document (obtain document from Ralph W.)

If, at any time, you would like to speak with a Aclara representative about any product or service, please contact Support at support@aclara.com or by calling 1-800-892-9008.

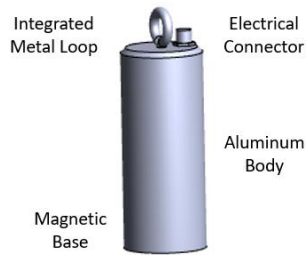
ZoneScan II Assembly Kit

Item	Description	Quantity
A	ZoneScan 820 Sensor	1
B	Communication Cable	1
C	Transmission Unit	1
D	7 1/4" Non-Metallic Valve Lid / Antenna Assembly	1
E	6-foot Lanyard	1

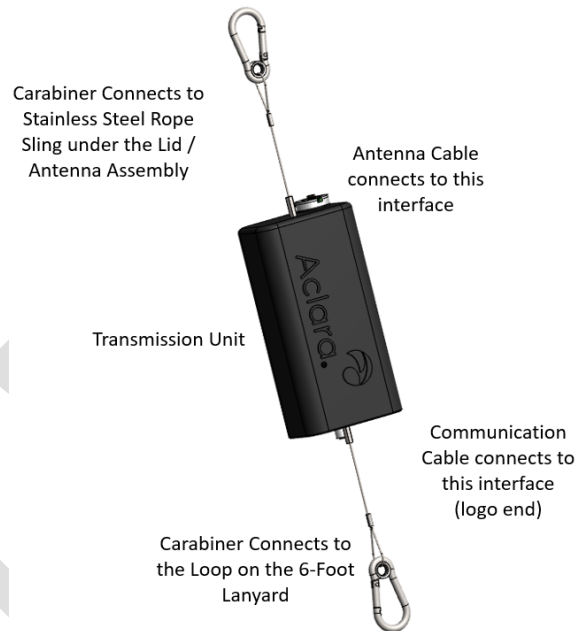


Identification

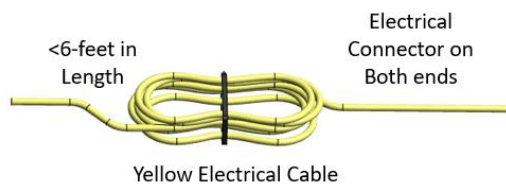
ZoneScan 820 Sensor



Transmission Unit



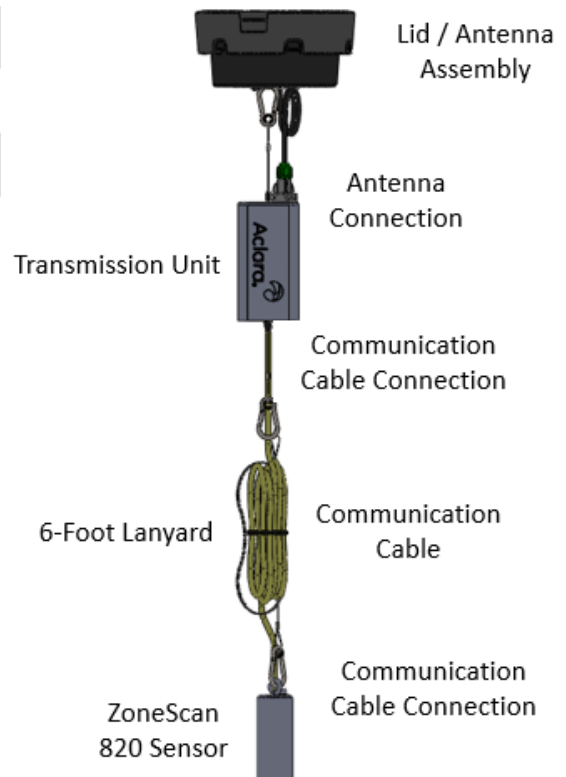
Communication Cable



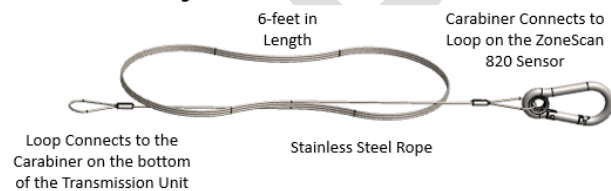
7 1/4" Non-Metallic Valve Lid / Antenna Assembly



Completed Assembly



6-foot Lanyard



Tools/Equipment Required

Magnet

Torque Wrench (break over at 5-inch pounds)

Measuring Tape (10-feet minimum)

Flashlight

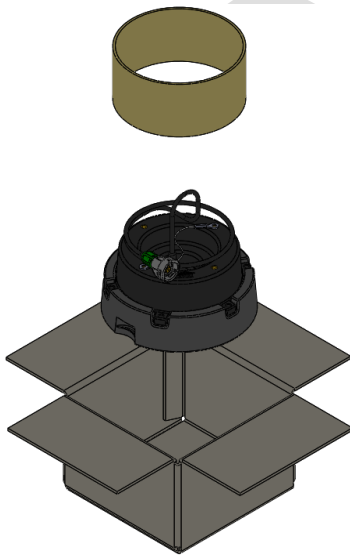
Appropriate personal protective equipment (PPE)



WARNING Deployment of the ZoneScan II System is typically performed in the road. Great care must be taken to protect the worksite and the workers.

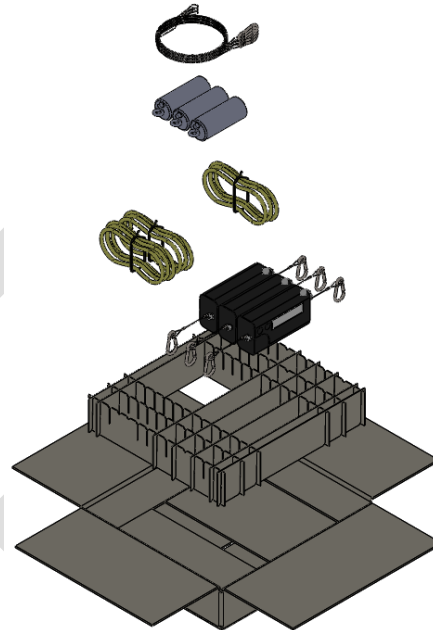
Installation Instructions

- A. The unit should be assembled as close as possible to the deployment location (best to not assemble in the meter shop).
- B. Unpack the Valve Lid/Antenna



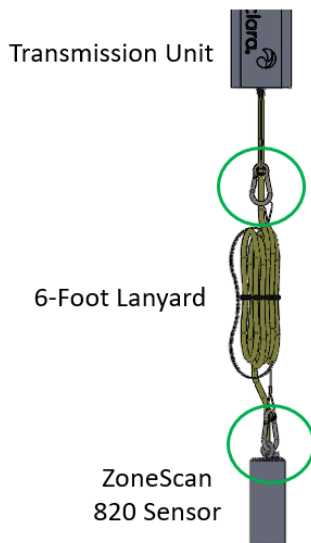
Assembly

- C. Unpack ZoneScan II Transmission Unit and ZoneScan Sensor, Communication Cable and 6' Lanyard



- D. Connect the top lanyard (away from the logo) on MTU to stainless steel sling under the lid
- E. Place the provided dielectric grease into female connector
- F. Place the rubber washer in antenna connector boot
- G. Connect antenna cable to MTU (torque to 5 inch-pounds). Wipe or clean excess grease.
- H. Tighten boot hand-tight on antenna connector. Tighten sealing nut to boot ensuring rubber piece is seated.
- I. Measure the distance from the road or ground surface to the top of valve nut and determine if extension needed. An extension will be needed if the distance is greater than 7-feet.

- J. Connect 6-foot Lanyard to bottom carabiner of Transmission Unit (with extension if necessary) to the loop on the ZoneScan 820 Sensor.



- K. Connect Communication Cable to ZoneScan 820 Sensor and the Transmission Unit (add another Communication Cable if required from Step I)
- L. Orient the Lid / Antenna Assembly facing toward the sky (Aclara logo facing up)
- M. Swipe the magnet once, wait for LEDs to light and swipe magnet a second time within 15 seconds to begin commissioning. The green light will

come on and stay on for 15 seconds to confirm commissioning was successful.

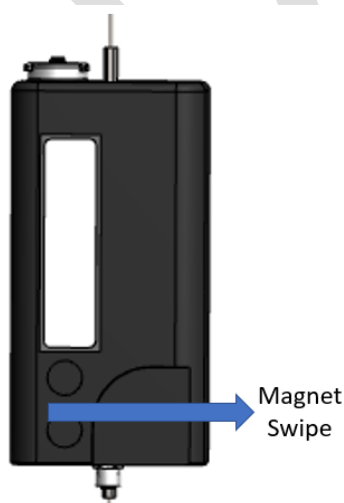
- N. Carry the fully assembled ZoneScan II Unit to the valve stack
- O. Place the ZoneScan 820 Sensor into the valve stack first making sure it connects to valve nut and continue to lower the Unit into the valve stack until the Unit is in place with the Lid / Antenna Assembly in the place of the original metal lid.

IMPORTANT! The 7 1/4" Non-Metallic Valve Lid / Antenna Assembly is designed to accommodate RF transmissions. DO NOT paint or otherwise alter the Non-Metallic Valve Lid.

Decommissioning

The ZoneScan II System should be decommissioned prior to removal from the site or redeployment. To decommission the Unit:

1. Remove the ZoneScan II unit from the from the valve stack and move to a safe location.
2. Replace the cast iron valve lid
3. Hold the magnet over the area shown below for a couple of seconds to



return to ship mode (a slow flashing red light on LEDs).

To redeploy the ZoneScan II Unit, proceed to Step M above.

Repackaging

To repackage the unit:

- I. Disconnect yellow Gutermann cable from logger and MTU.
- II. Disconnect carabiner from 6-foot lanyard.
- III. Disconnect 6-foot lanyard from top of logger.
- IV. Disconnect carabiner from stainless steel sling under the lid assembly.
- V. Disconnect boot from MTU by loosening the sealing nut and boot. Remove rubber washer.
- VI. Disconnect SMA antenna connector from MTU.
- VII. Clean dielectric grease from antenna cable and connector on MTU.