

# Tantalus Utility Network™

## TUNet® DA-1710 Bridge Modem Quick Reference



The DA-1710 is a two-way 900 MHz LAN Bridge Modem that enables the remote control of distribution automation devices such as capacitor bank controllers over TUNet. The DA-1710 interfaces to distribution automation devices with its serial port and DNP3 protocol.



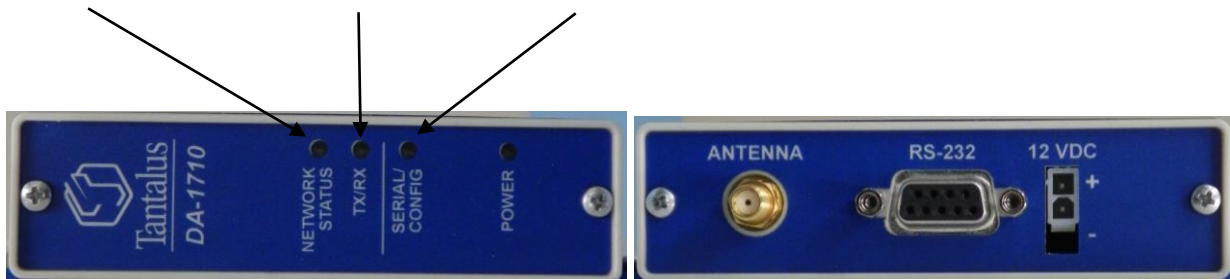
Electric distribution lines present the risk of electrical shock. All work on this equipment should be performed by qualified personnel.

Personnel working with this equipment should follow all utility company established operation and safety procedures.

### Installation Instructions

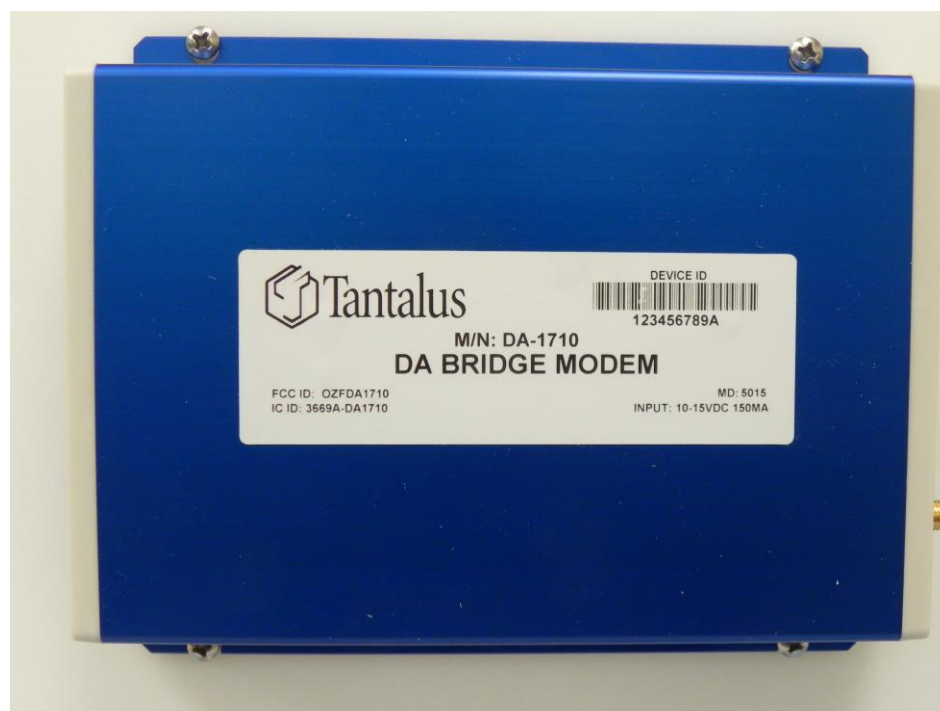
1. Mount the DA-1710 using the four mounting screws provided.
2. Provide 12V DC with the power cable provided.
3. Connect the approved antenna using the antenna cable provided.
4. Configure the DA-1710 serial port using the Tantalus DT-400 for the DA device settings.
5. Connect the DA-1710 serial port to the DA device serial port using the serial cable provided.
6. Observe the status indicator LEDs for network connectivity.

Network Status LED (Red) Transceiver LED (Amber) Serial Activity/Configuration LED (Blue)



TUNet® LAN Module Network Status LED (Red)	
Start-up/Power-up	Solid ON (Fast flashing indicates module is not programmed)
Unassociated/Re-associating	Solid ON
Valid association candidate found	Flashing
Full network association confirmed	OFF
TUNet® LAN Module Serial Activity/Configuration LED (Blue)	
Start-up/Power-up	OFF during boot-up. Begins flashing for 30 seconds while in serial port configuration mode
Normal operation	Flashes with serial activity
TUNet® LAN Module Transceiver (XVR) LED (Amber)	
Start-up/Power-up	OFF
RF packet transmitted	Long flash
RF packet received (LAN activity)	Short flash

Specifications	
Frequency Range: 902-928 MHz frequency hopping, license exempt	Operating Temperature: -22 to 158°F (-30 to +70°C)
Modulation: FSK	Operating Humidity: 5 to 95% non-condensing
Power supply: 10 – 15VDC	Standards:
Power consumption: Quiescent 0.75 watts typical	FCC CFR Title 47 Part 15b (unintentional radiators) Industry Canada RSS-210



## REGULATORY NOTICES

### FCC Part 15 Notice, USA

The devices described herein comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. The device may not cause harmful interference.
2. The device must accept any interference received, including interference that may cause undesired operation.

The device is specifically designed to be used under Section 15.247 of the FCC Rules and Regulations. Any unauthorized modification or changes to this device without the express approval of Tantalus Systems Corp. may void the user's authority to operate this device.

Furthermore, this device is intended to be used only when installed in accordance with the instructions outlined in the installation manual. Failure to comply with these instructions may also void the user's authority to operate this device.

### IC License Exempt RSS-GEN Notice, Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. Pour cet appareil, l'utilisateur doit être AU MOINS 20 cm de l'antenne pour s'assurer que l'exposition à l'énergie radioélectrique ne dépasse jamais les limites maximales d'exposition fixées par le Gouvernement du Canada.

### RF Exposure

**Professional installation of this device is required.** The radio equipment described in this guide emits radio frequency energy. Although the power level is low, the concentrated energy from a directional antenna may pose a health hazard. The antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons during normal operation.

More information on RF exposure is available at <http://www.fcc.gov/oet/info/documents/bulletins>.

### Antenna Requirements

The DA-1710 has been approved by the FCC and Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list are strictly prohibited for use with this device.

Le présent émetteur radio a été approuvé par le FCC et Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste sont strictement interdits pour l'exploitation de l'émetteur.

- Laird TRA9023P 3dB MEG Phantom Series Antenna – 50 ohm Impedance
- Laird FG9023 5dBd Antenna – 50 ohm Impedance

**Contact Tantalus**

Address all comments to:

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