EA000405
Border Router

INSTRUCTION MANUAL

VERSION 1.0

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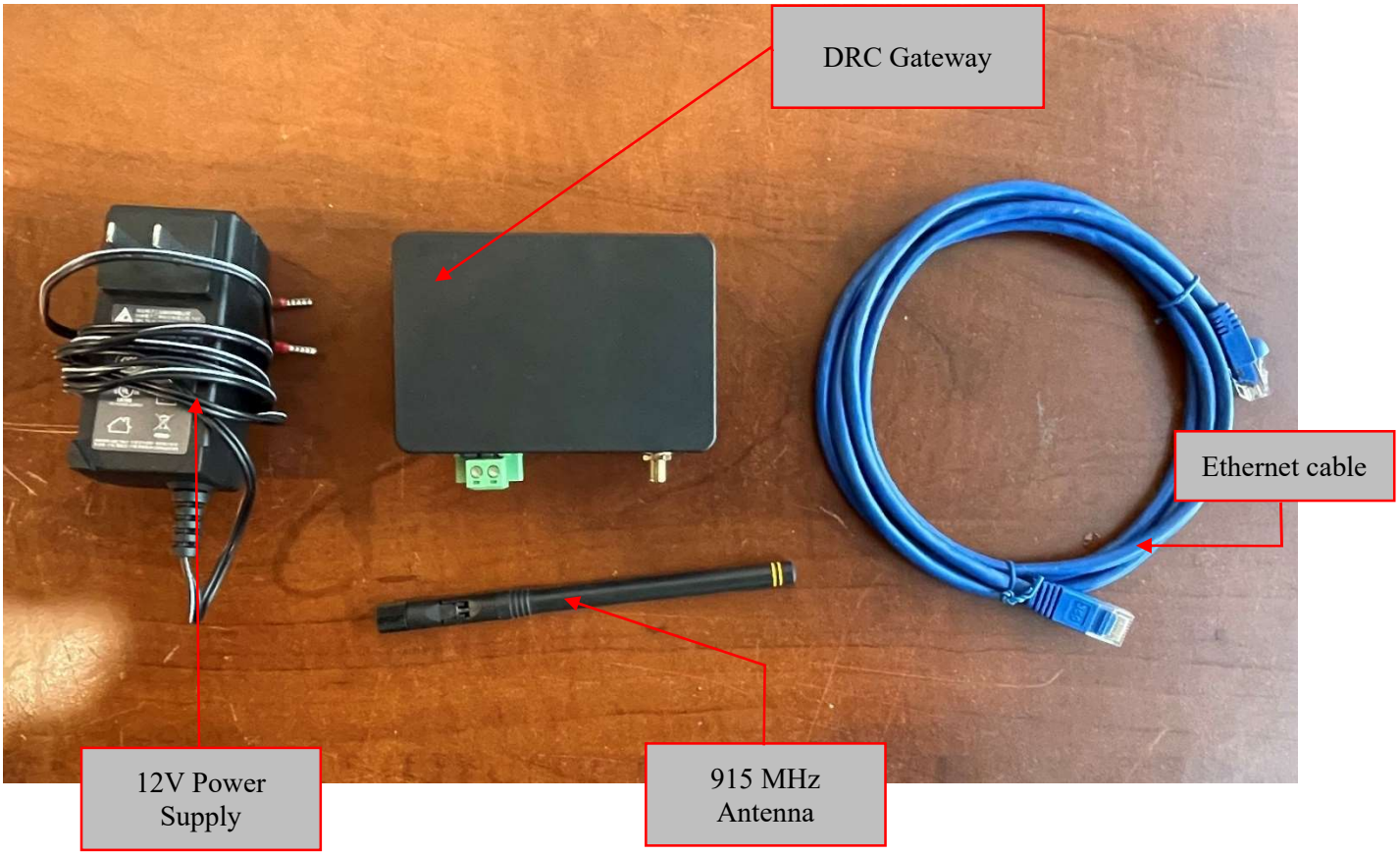
Introduction

This manual provides basic information on how to commission or join a border router to any device:

- Commission a Border Router onto an existing network
- Joining a Border Router onto a network

Required Tools:

- Computer (Run on Windows)
- EA000405 Border Router
- 10 to 24V Power Supply
- 915 MHz Antenna
- Ethernet Cable
    - Physical connection to Personal Internet router.



1. Commission/Joining Border Router to a network

1 Installation

The EA000405 Border Router must be installed by a professional or certified technician conversant with the certification requirements of the installation site.

The EA000405 Border Router requires a voltage between 10 VDC and 24 VDC capable of supplying up to 2A.

Unless otherwise specified the EA000405 Border Router ships with a 3 dBi antenna (EA002058). The EA000405 Border Router is compatible with the following antennas.

BossPac PN	Gain
EH002058 (Standard)	3 dBi
EH002059	1.2 dBi
EH002060	8 dBi
EH000625	11 dBi

2 Commissioning

2.1 Set-up & Power On

- Connect one end of the Ethernet cable to your ethernet router.
- Connect the other end of the Ethernet cable to the border router (Figure 1)

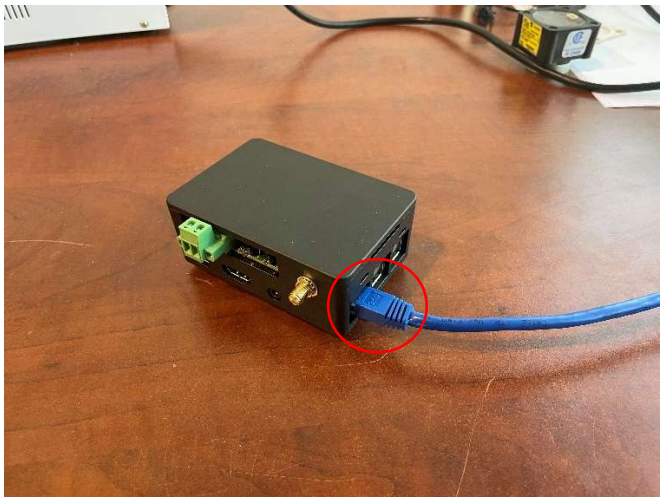


Figure 1

- Connect the Power Supply corresponding wires to Border Router power port (Figure 2)

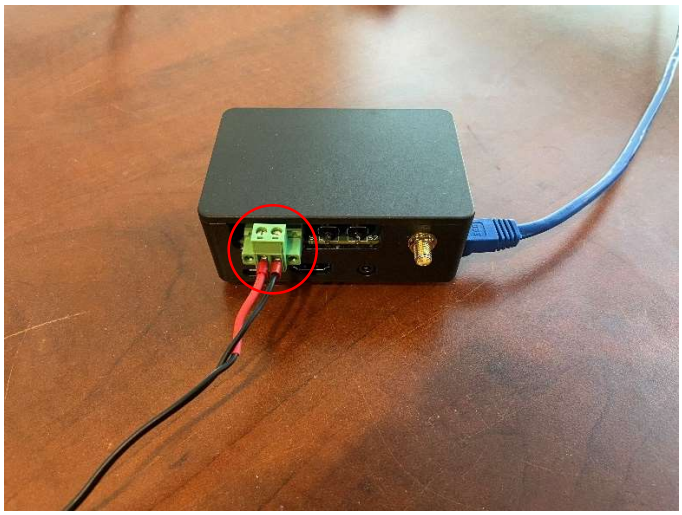


Figure 2

- Connect to the 915 MHz Antenna to Border Router (Figure 3)

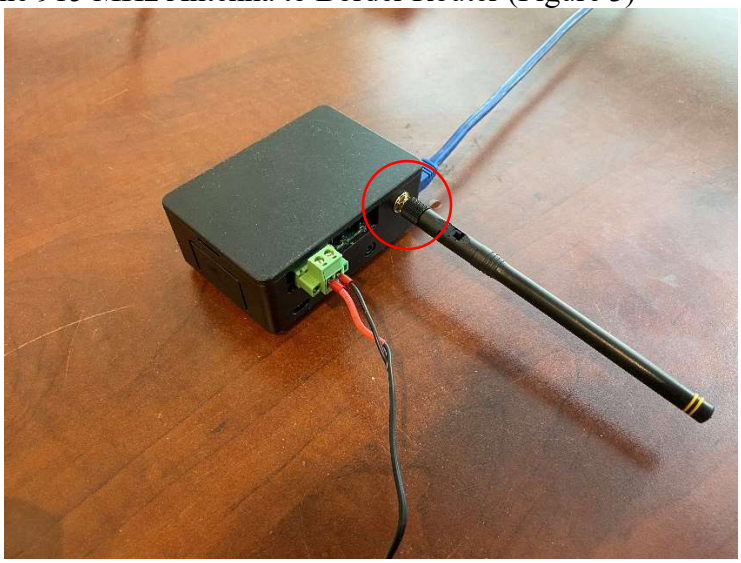


Figure 3

- Power on/ Plug in the power Supply

2.2 SSH to Border Router

- On your laptop open Command prompt
- On command prompt type "ssh pi@###.###.##.##" "#" = Border Router IP address
- If connecting to the border router for the first time, command prompt will print "Are you sure you want to continue connecting (yes/no)?"
- Type on command prompt "yes"
- If the border has a password, command prompt will ask you for a password in which then you type password and then press enter.
- Command prompt will print "pi@###.###.##.##:~ $"

2.3 Joining, Commissioning and Starting a Network

2.3.1 Joining Ethernet Gateway to an existing network:

- On command prompt type “sudo ot-ctl” then press enter
- Command prompt will print “>”
- On command prompt type “ifconfig up” then press enter
- Command prompt will print “up”
- On command prompt type “joiner start 123456” then press enter’
- Command prompt will print “Done”, and if joining with the device is successful, command prompt will print “joiner successful”
- On command prompt type “thread start” then press enter
- Command prompt will print “Done”

2.3.2 Commission a device to the network

- On command prompt type “sudo ot-ctl” then press enter
- Command prompt will print “>”
- On command prompt type “Commissioner start” then press enter
- Command prompt will print “Done” and “> Commissioner: active”
- On command prompt type “commissioner joiner add * 123456” then press enter
- Command prompt will print “Done”
- To close commissioner type on command prompt “commissioner stop” then press enter
- Command prompt will print “Commissioner: disabled” and “Done”

2.3.3 Start a Network

- On command prompt type “sudo ot-ctl” then press enter
- Command prompt will print “>”
- On command prompt type “dataset init new” then press enter
- Command prompt will print “Done”
- On command prompt type “dataset channel *x*”; where x represents the desired channel. Valid numbers are between 1 and 10. then press enter
- Command prompt will print “Done”
- Type “dataset commit active”
- Command prompt will print “Done”
- Type “ifconfig up”
- Type “thread start”
-

FCC & IC Statements

FCC Class B Part 15

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by BossPac Engineering Technology Inc. may void the user's authority to operate the equipment.

ISED RSP-100 Statement

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.

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.

FCC/IC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this equipment must be installed to provide a separation distance of at least 8 inches (20cm) from all persons.

Cet équipement est conforme à l'exposition aux radiations de FCC et d'Industrie Canada établies pour un environnement non contrôlé. L'antenne (s) utilisé pour cet équipement doit être installé pour fournir une distance d'au moins 20cm à partir de toutes les personnes.

For further Technical Assistance
Email support@bosspac.com
Or call (866) 616-1226 or (403) 216-1226