



ATW310-31/ATW310-32

Wireless coordinator

User's Manual



v.1.0
Dec. 2019

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We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual is reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcome. All other product names referenced herein are registered trademarks of their respective companies.

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1 Preface

Purpose of the Manual

This manual supports you during the installation and configuring of the ATW310-32, as well as it explains some technical options available with the mentioned product.

Who Should Use This User Manual

This manual is to be used by qualified personnel or support technicians who are familiar with operations; This manual also provides helpful and handy information for first time users. For any related problems please contact your local distributor, should they be unable to assist you, please redirect your inquiries via www.atop.com.tw

User manual Applicable models

ATW310-31; ATW310-32

Warranty Period

We provide a **1 year limited warranty**.

Manufacturers Federal Communication Commission Declaration of Conformity Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Professional installation instruction

1. Installation personal

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

The product shall be installed at a location where the radiating antenna can be kept 20cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. External antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC limit and is prohibited.

4. Installation procedure

Please refer to user's manual for the detail.

5. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

UL listed power unit

Minimum ambient temperature 50 degrees

The ATW310-31/ATW310-32 series products are intended to be supplied by a UL Listed Power Unit marked with a "LPS" (Limited Power Source), output rate of 12 VDC, 1A maximum.

The ATW310-32 product this unit intended to be supplied by UL Listed PoE switch or power over Ethernet complied with a LPS or PS2, and rated voltage: 44-57Vdc, 0.18A maximum.

Caution

Beginning from here there will be extreme caution exercised.



Never install or work on electrical cabling during periods of lightning activity. Never connect or disconnect power when hazardous gases are present

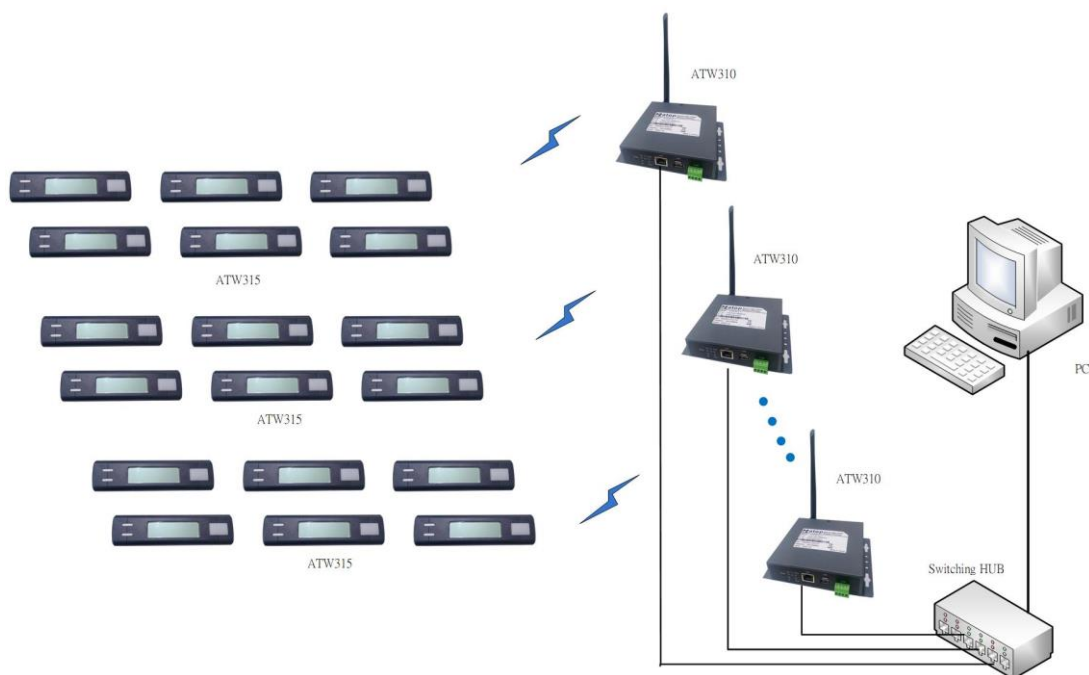


WARNING: Disconnect the power and allow to cool 5 minutes before touching.

2 Introduction

2.1 Product Overview

Wireless coordinator is a data transmission medium between picking control PC and all the picking devices. Which is Ethernet architecture product, following up the standard TCP/IP communication protocol to communicate with the host PC.



3 Getting Started

3.1 Inside the Package

Inside the product purchased you will find the following items:

Table 3.1

Item	Quantity	Description
ATW310-32	1	Wireless coordinator
Antenna	1	ANTENNA
Antenna	1	MAGNETIC BASE ANTENNA
Adapter	1	12 VDC, 1 A
Documentation	1	User's Manual
Self-tapping screws	4	M4 * 16mm, button Phillips

Note: Please notify your sales representative if any of the above items is missing or damaged in any form upon delivery. If your sales representative is unable to satisfy your enquiries, please contact us directly.

3.2 Front & Power Panels

The Front (Figure 3.1), and Power panels (Figure 3.2), are as follow:



Figure 3.1



Figure 3.2

3.3 First Time Installation

Before installing the device, please adhere to all safety procedures described below, Atop will not be held liable for any damages to property or personal injuries resulting from the installation or overall use of the device. **Do not attempt to manipulate the product in any way if unsure of the steps described here, in such cases please contact your dealer immediately.**

- Prepare the necessary cables, DC adapter, power cord, LAN cable, etc.: do not connect the unit yet.
- Install the antenna to the SMA connectors.
- Proceed then to plug the power source to the unit, starting from the ground and then the terminal block.
- Place the device in the desired location and connect it to the LAN via an Ethernet cable with a RJ45 connector.
- Connect your computer to the LAN network. Default configurations will be addressed later on Sections.

Note: remember to please consult your Hardware Installation Guide when attempting an installation. Also, please follow all safe procedures when doing so.

3.4 System Setup

The following section describes some critical settings for the ATW310-32.

3.4.1 PC IP address

View PC Host IP Location This example is 10.3.44.1 Figure 3.3

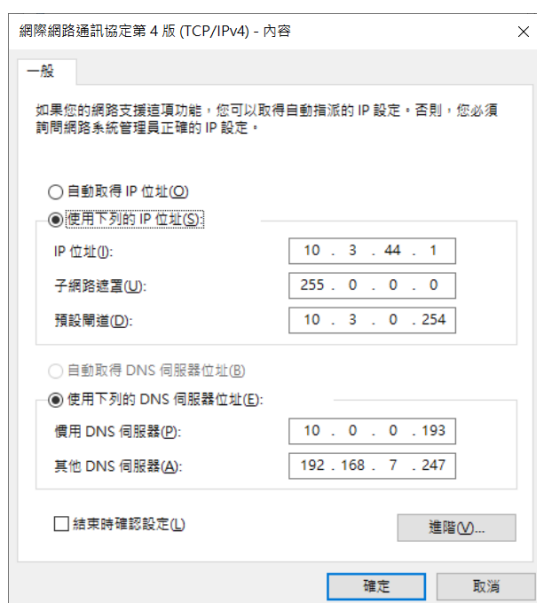


Figure 3.3

3.4.2 Set up PC IP

Use "System controller\wptl_sys.exe" Figure 3.4

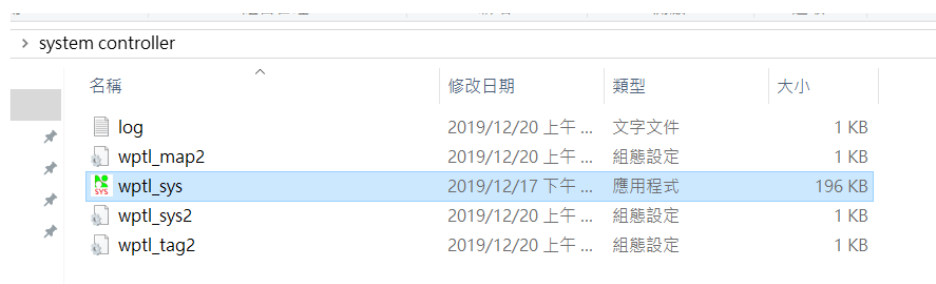


Figure 3.4

Enter the setting screen Figure 3.5

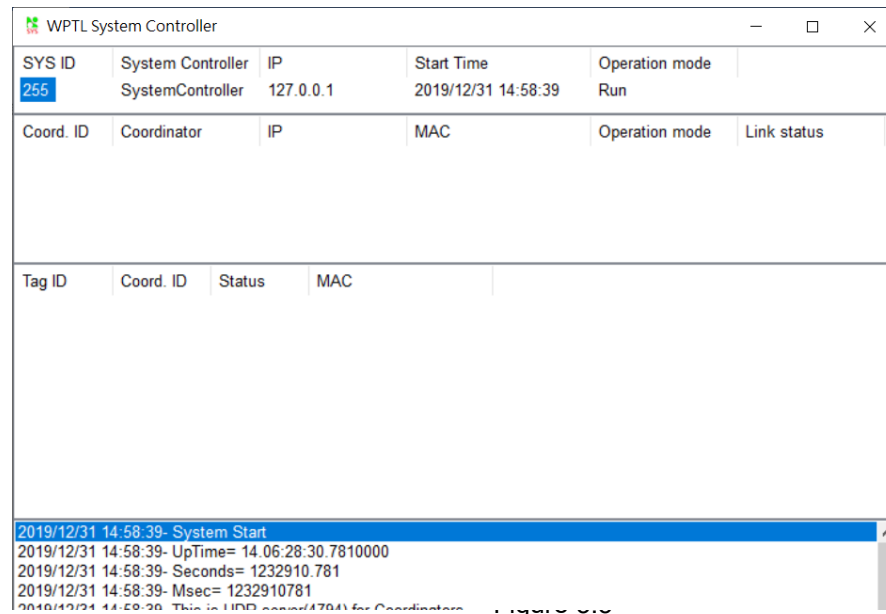


Figure 3.5

Click the “SYS ID”

Enter the setting screen Figure 3.6

“Working IP” Field is set to:10.3..44.1.

Click Update to complete the setting

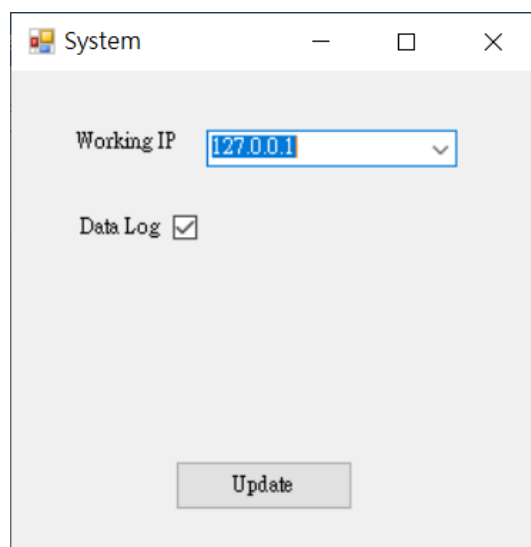


Figure 3.6

System Controller "10. 3. 44. 1" Figure 3.7

WPTL System Controller

SYS ID	System Controller	IP	Start Time	Operation mode	
255	SystemController	10.3.44.1	2019/12/31 14:58:39	Run	
Coord. ID	Coordinator	IP	MAC	Operation mode	Link status
Tag ID	Coord. ID	Status	MAC		
2019/12/31 14:58:39- System Start					
2019/12/31 14:58:39- UpTime= 14.06:28:30.7810000					
2019/12/31 14:58:39- Seconds= 1232910.781					

Figure 3.7

3.4.3 Set up Wireless coordinator IP Address

Use Manager. Click "Invite" then View Wireless coordinator IP Figure 3.8.

Wireless coordinator IP Address default IP 10.0.50.100

monitor ver2.41				
Broadcast IP				
255.255.255.255	Wishes	0	<input type="checkbox"/> Locate	
10.0.255.255	Reply	1		
255.255.255.255	Retry	0		
<input type="button" value="Invite"/> <input type="button" value="Reset"/> <input type="button" value="Config"/> <input type="button" value="Exit"/>				
IP Address	MAC Address	Gateway	Subnet Mask	Model
10. 0. 50.100	00:60:E9:23:2C:7D	10. 0. 0.254	255.255. 0. 0	ATW310

Figure 3.8

Click on the IP Address field and the " **Config** "option. Figure 3.9

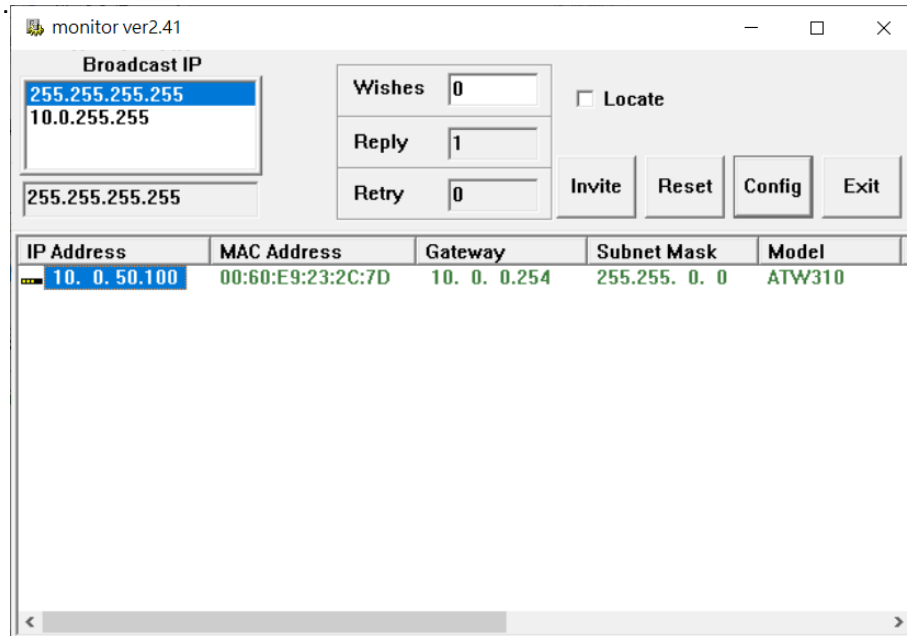


Figure 3.9

Enter the dialog screen .Figure 3.10



Figure 3.10

Modify the IP address / gateway to the same network as the PC. Figure 3.11

Dialog

MAC addr. 00:60:E9:23:2C:7D

IP address 10.3.44.10

GateWay 10.3.0.254

Mask 255.255.0.0

User ID admin

Password

Config Now

Cancel

Figure 3.11

Click “**Config Now**” to complete the setting, and the wireless coordinator will restart..

Click “**Invite**” to confirm the IP address to complete the modification. Figure 3.12

monitor ver2.41

Broadcast IP

255.255.255.255

10.0.255.255

255.255.255.255

Wishes 0

Reply 1

Retry 0

☐ Locate

Invite Reset Config Exit

IP Address	MAC Address	Gateway	Subnet Mask	Model
10. 3. 44. 10	00:60:E9:23:2C:7D	10. 3. 0.254	255.255. 0. 0	ATW310

Figure 3.12

Click “**Exit**” exit Monitor.

3.4.4 Wireless coordinator joins system

Use Config tool.\WPTLConfig_v.095. Figure 3.13

名稱	日期	類型	大小	標籤
lib	2019/12/20 上午 09:45	檔案資料夾		
atop_pic1	2018/8/13 上午 10:11	BMP 檔案	17 KB	
config	2018/8/13 上午 10:11	GIF 檔案	1 KB	
gnome-fs-network	2018/8/13 上午 10:11	GIF 檔案	2 KB	
icon1	2018/8/13 上午 10:11	圖示	1 KB	
nsl	2018/8/13 上午 10:11	GIF 檔案	1 KB	
rnsel	2018/8/13 上午 10:11	GIF 檔案	1 KB	
rsel	2018/8/13 上午 10:11	GIF 檔案	1 KB	
sel	2018/8/13 上午 10:11	GIF 檔案	1 KB	
WPTL_Configurati...	2019/5/7 下午 02:48	CONFIG 檔案	2 KB	
WPTLConfig_v.095	2019/10/21 下午 04:58	應用程式	544 KB	

Figure 3.13

Enter the setting screen Figure3.14

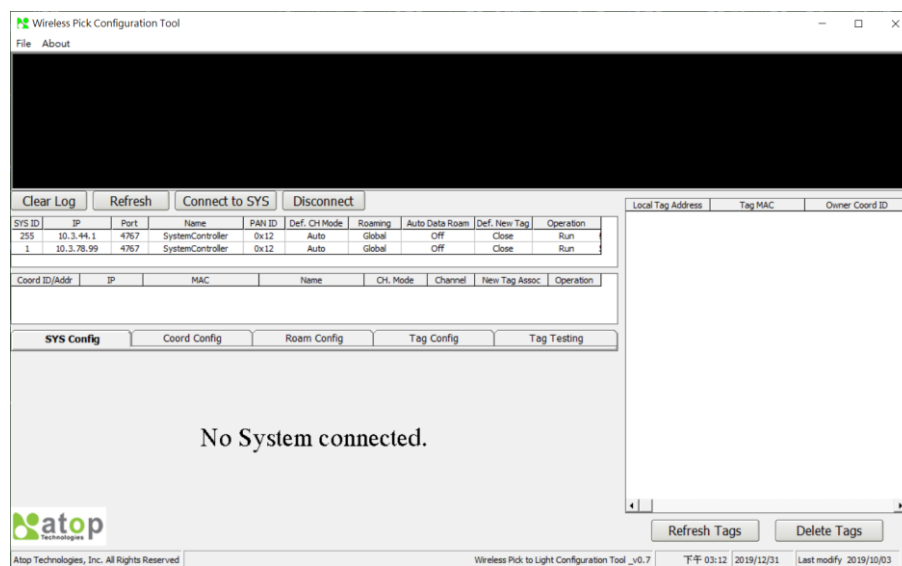


Figure 3.14

Atop Wireless coordinator
ATW310-31/ATW310-32
User Manual V. 1.0

Click the field to connect the PC. Figure 3.15

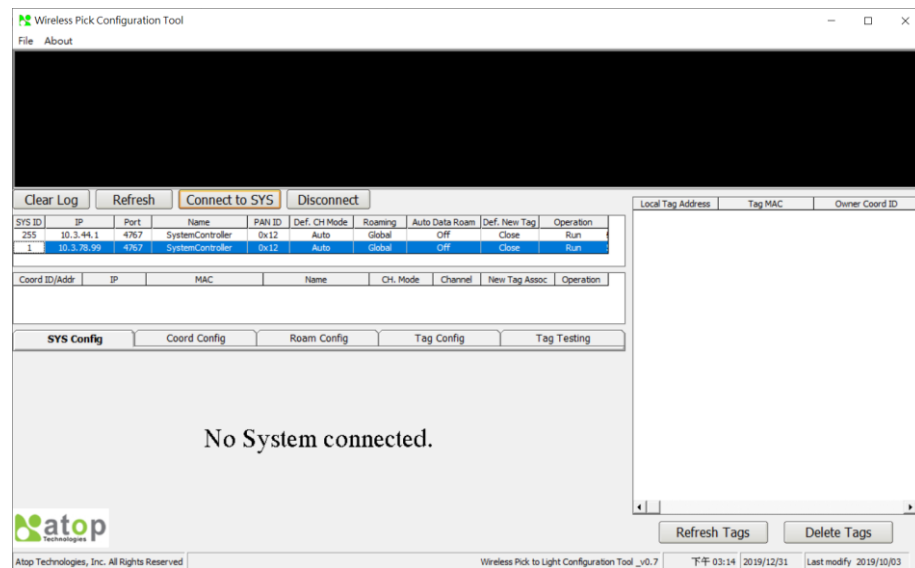


Figure 3.15

Click "connect to sys" connect PC. Figure 3.16

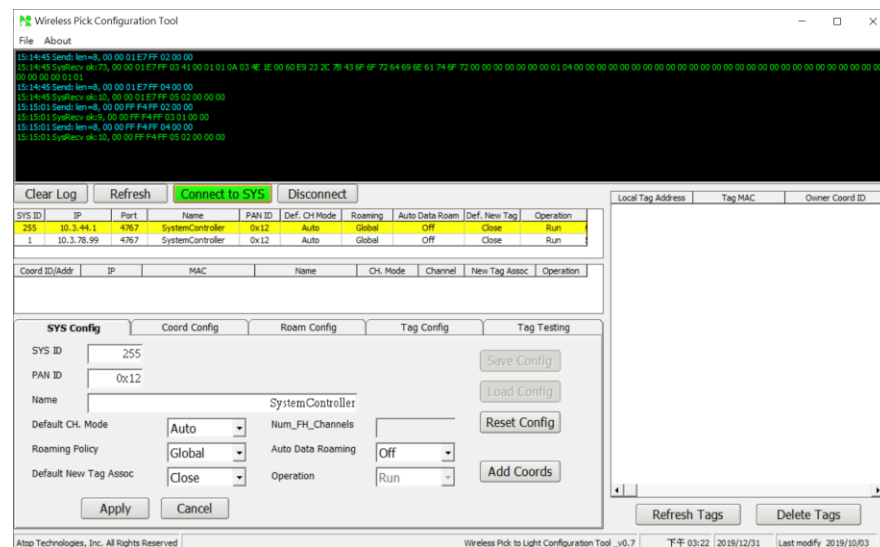


Figure 3.16

Check “SYS ID”

SYS ID field is 1 Figure 3.16

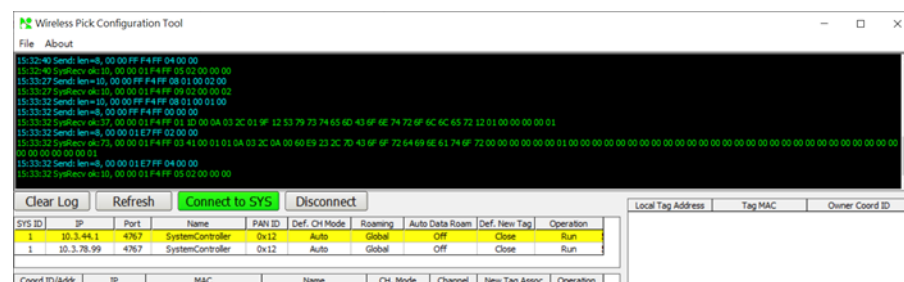


Figure 3.16

Click” **Add coords**” connect Wireless coordinator. Figure 3.17

The Wireless coordinator now makes a "B" sound.

Click “**ok**” Confirm the connection.

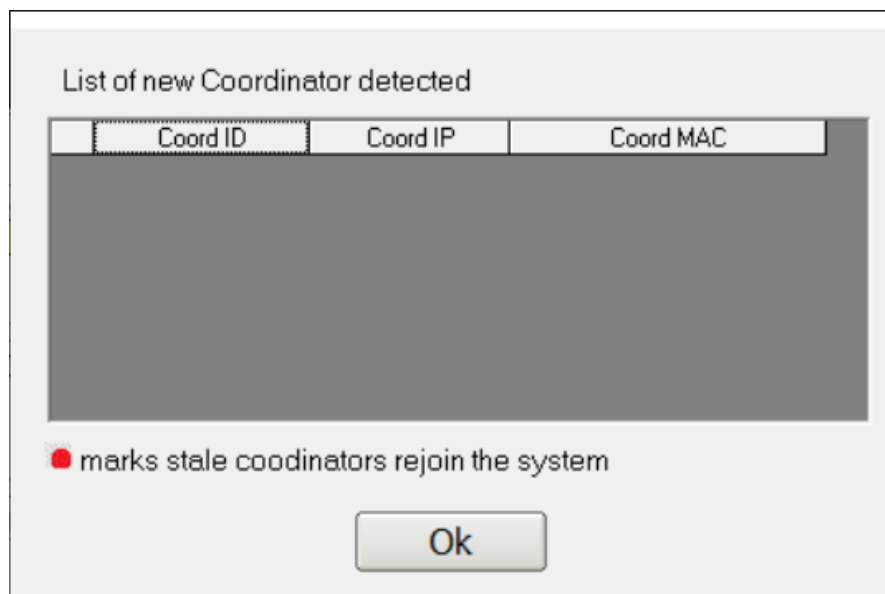


Figure 3.17

Wireless coordinator connection completed. Figure 3.18

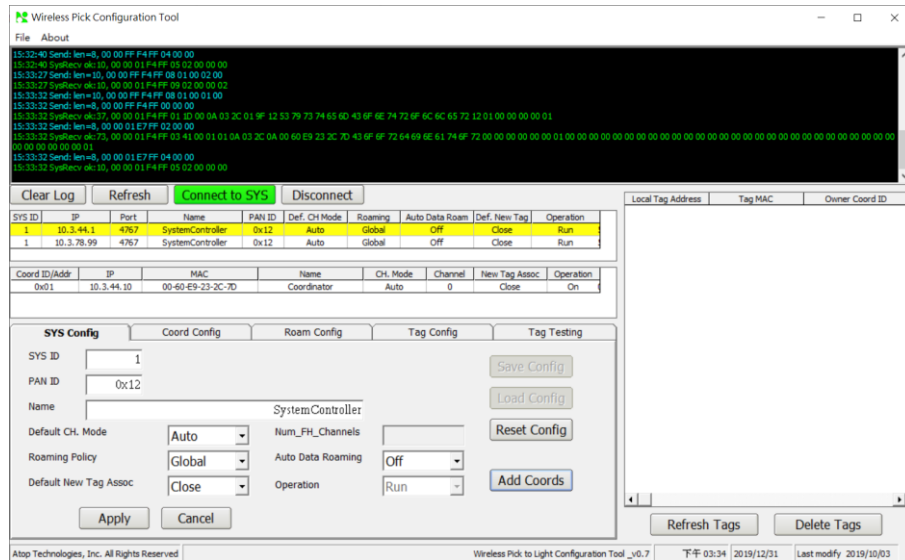


Figure 3.18

3.4.5 Connect Wireless Pick To Light

Click “Coord ID/Addr”. Figure 3.19

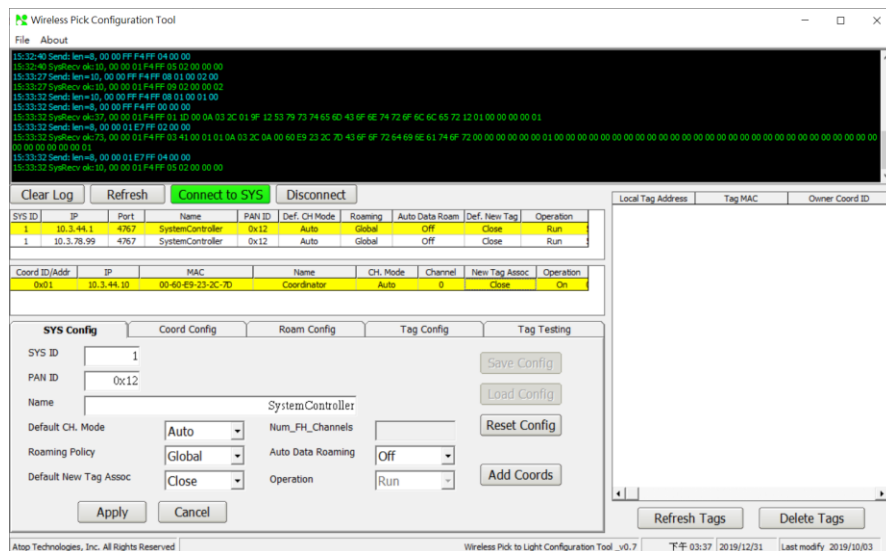


Figure 3.19

Atop Wireless coordinator

ATW310-31/ATW310-32

User Manual V. 1.0

Click “Coord config”. Figure 3.20

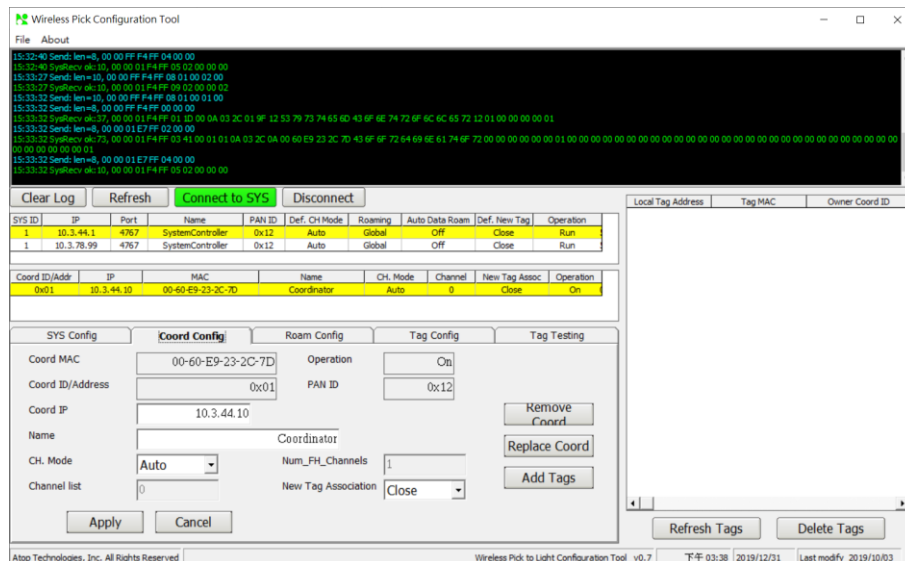


Figure 3.20

Set up Wireless Pick To Light channel.

CH.Mode field options”FIX”

Channel List field Select a Wireless Pick To Light channel Default channel 1 this example is 8.

New Tag Association field options”open”

Click “**APPLY**” Figure 3.21

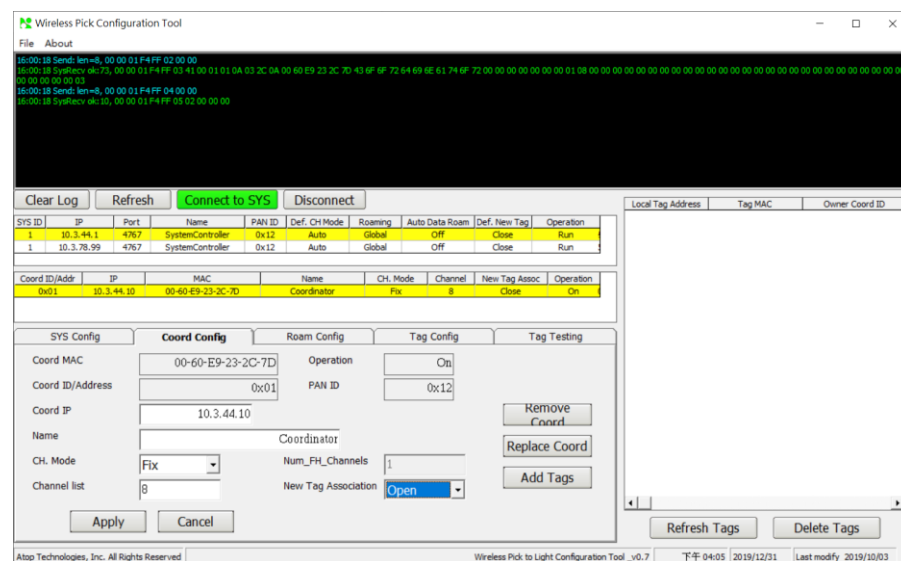


Figure 3.21

Click “**Add Tags**” enter List of new Tag detected screen Figure 3.22

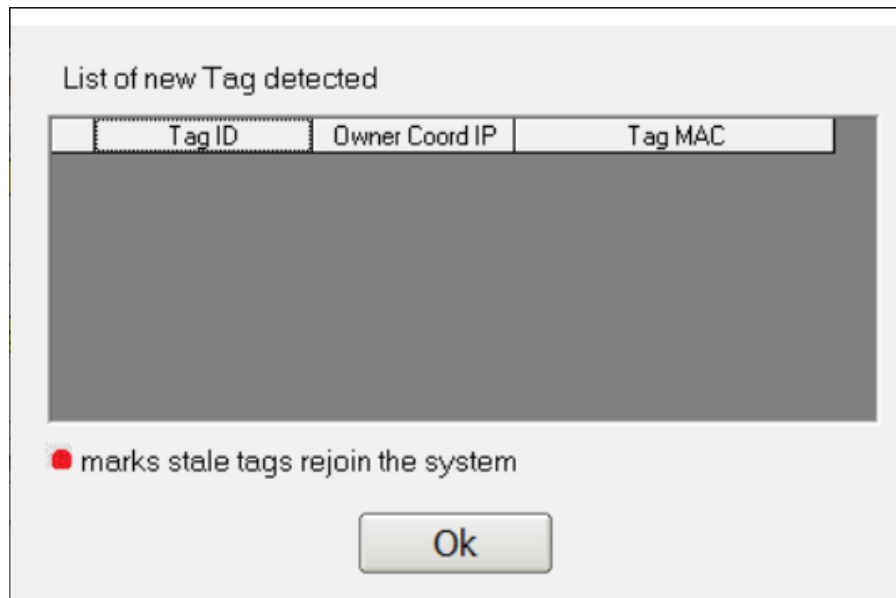


Figure 3.22

Start setting Wireless Pick To Light ID address.

Before setting, you must confirm that the tag displays **PEND** before setting. Figure 3.23



Figure 3.23

Setting Wireless Pick To Light ID address. Figure 3.24

Step1. Press and hold the B key.

Step2. Press and hold the A key. (about 1s).

Step3. Release the A key.

Step4. Press C key to complete ID Address setting.



Figure 3.24

If TAG does not show PEND status, please follow the steps below. Figure 3.25



Figure 3.25.

Step1. Press and hold the A key.

Step2. Single-click the C key. The LCD will display **TSTAG**.

Step3. Release the A key.

Step4. Single-click the B key. The LCD will display **DEFLT**.

Step5. Single-click the C key. The LCD will Final display **PEND**.

Click “OK”. Complete the Wireless Pick To Light ID Address setting. The screen will display Tag ID related information as shown below. Figure 3.26 & 3.27

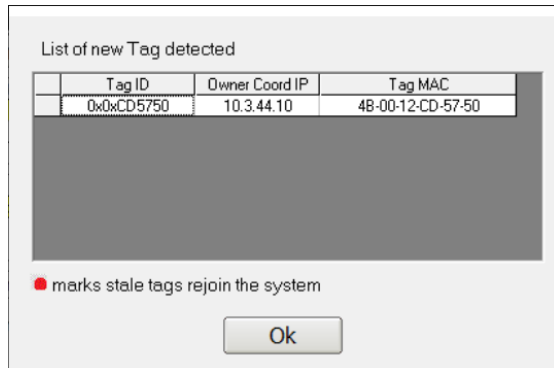


Figure 3.26

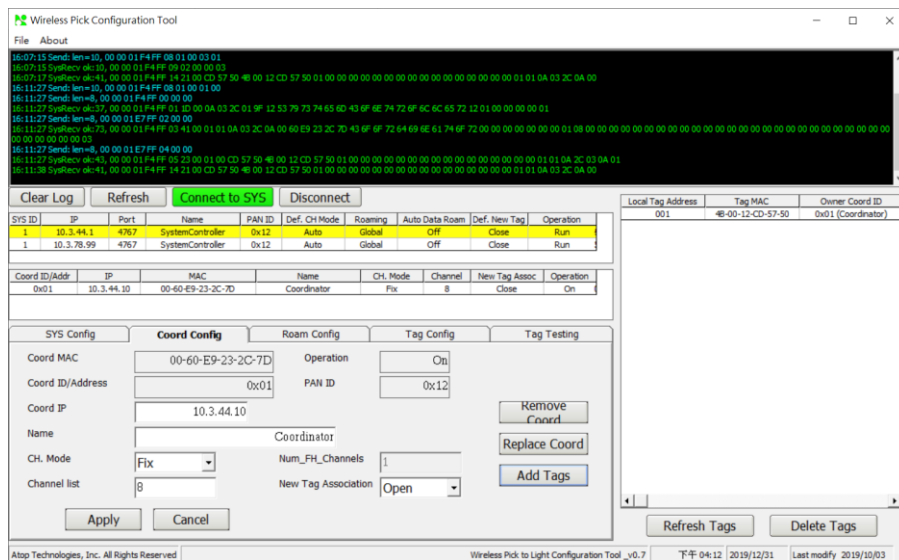


Figure 3.27

4 Specifications

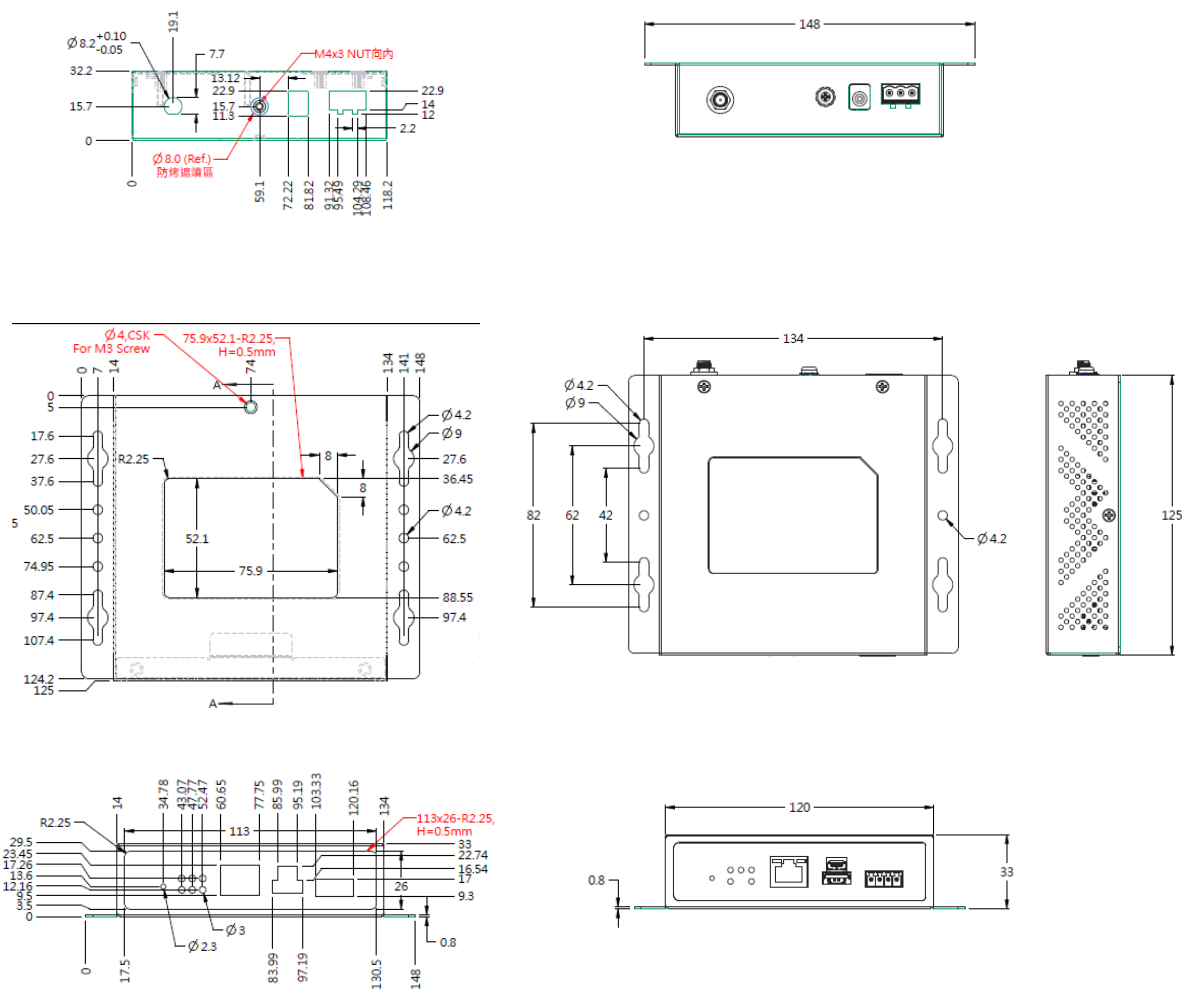
4.1 Hardware Specifications

Table 4.1

Item	Description
CPU	32bit ARM 800MHz CPU
Flash Memory	32Mbytes
RAM Memory	128Mbytes
EEPROM	64Kbits
Wireless Radio Bands	Bands Frequency Range Model: 915MHz Channels: 20, selectable by Menu control. Transmit Power: Up to 14dBm + 3dBi antenna. Receive Sensitivity: Up to -95dBm. Data Rate: 500Kbps Extend Antenna attached. Radiation: Omni-Directional. Distance cover range: Indoor 25 M
LAN	IEEE 802.3 Standards Support TCP/UDP Client/Server connection mode. 10/100/1000 Base-T/TX RJ-45 Connector. Auto-Negotiation (10/100/1000Mbps, Half/Full Duplex). Auto-Crossover Detection. 1.5KV Magnetic Isolation Protection.
USB Port	USB2.0 I/F model, Provide +5VDC,0.5A. Support assign WiFi Module for Communication (Option). Support Storage Device EXT3,32GB. Connector Type-A w/Lock.

Item	Description
COM	Extend RS-485 port (Reserved). Proprietary protocol. Connector: Terminal Block/Male/3.81mm pitch/4pins. Pin Assign: NC/D+/D-/G
LED indication	PWR: Power Indicator x 1 RUN: System Status Indicator x 1 Tx/Rx: Between Host & Device Communication x 2. RF: Wireless status Indicator x 1. LAN Indicator: Link & Speed Indicator x 2.
Reset/Default	Reset: Hold 3sec to Reboot device. Default: 6sec Reset to Factory Default & reboot.
Buzzer	Build in Buzzer beeper.
Power Requirement	Input: Voltage: DC +12VDC +/-10% Max. Current: 1A max. @ 12VDC. Connector Type: 1. DC-JACK(Inner V+, 2.1mm). 2. Terminal block (V+/V-/F.G.; Pitch:5.08mm /3pins/Male). Case Shielding Ground: M4 + Screwing. PoE IEEE802.af PD (option ATW310-32): Rated Voltage: 44-57Vdc, Current: 0.18A maximum Protection: 1. Inrush Current Protection. 2. Power Voltage Reverse Protection.
Operation Temperature	Operation: -10 to 50°C (14 to 122°F) Storage: -20 to 60°C (-4 to 140°F)
Ambient Humidity	Operation & Storage: 5 ~ 90% (non-condensing).
Housing	Size: 148mm x 125mm x 33mm (5.83 x 4.92 x 1.30 in). Material: Metal Case. Weight: 0.61kg (1.33 lb)

4.2 Three View Drawing:



4.3 Installation overview

Step 1. Use 4pcs M4 * 16mm, button Phillips to fix the product to the wall or beam.

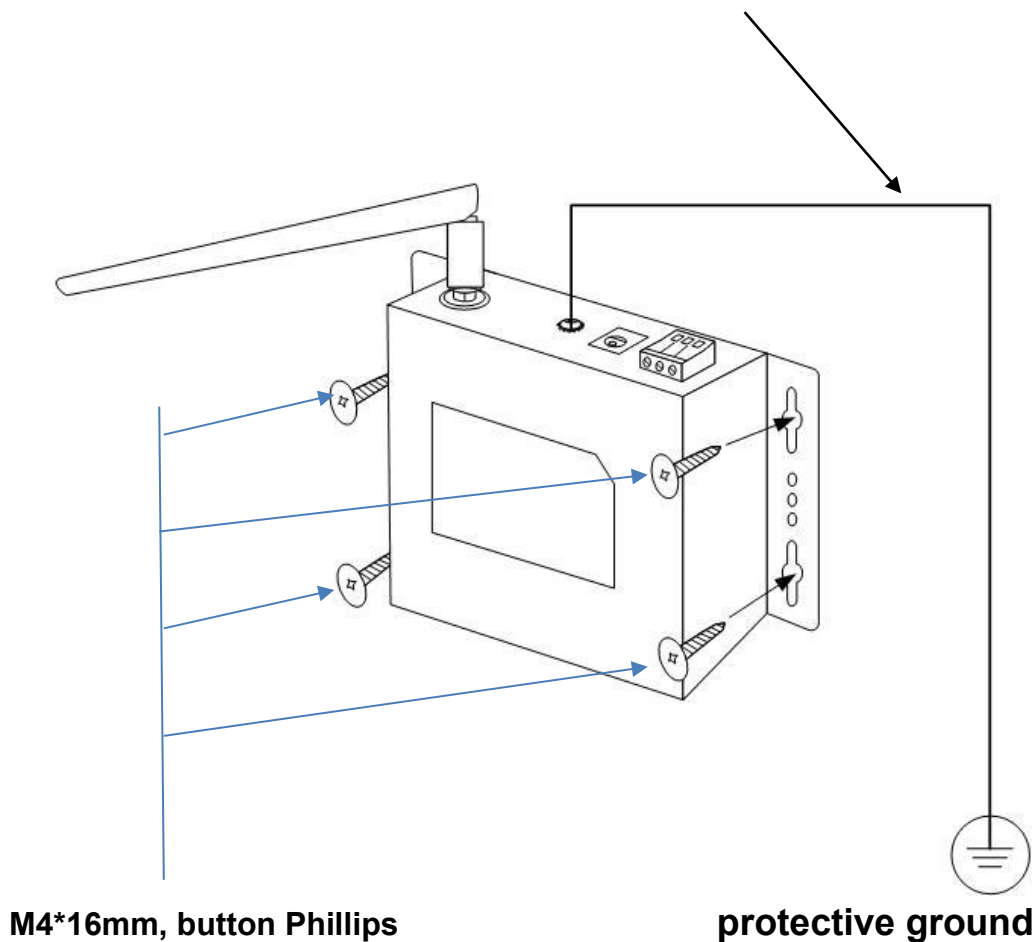
Step 2: Connect one end of the ground wire to the product ground screw and the other end to a protective ground terminal block.

Warning!

The equipment shall be connect one end of the ground wire to the product ground screw and the other end to a protective ground terminal block.

Step 3. Connect the network cable and power cable.

GROUND WIRE YELLOW/GREEN STRIPE 18AWG



4.4 LED Indicators

Table 4.2

Name	Color	Status	Description
PWR	Green	Steady	The device is power on
RUN	Green	Blinking	The device is running
TX	Green	Blinking	Data is transmitting on Wireless Pick To Light
RX	Green	Blinking	Data is receiving on Wireless Pick To Light
RF	Green	Blinking	The Wireless Communication is running

5 Warranty

Limited Warranty Conditions

Products supplied by us are covered in this warranty for undesired performance or defects resulting from shipping, or any other event deemed to be the result of Atop Technologies' mishandling. The warranty does not cover however, equipment which has been damaged due to accident, misuse, abuse, such as:

- Use of incorrect power supply, connectors, or maintenance procedures
- Use of accessories not sanctioned by us
- Improper or insufficient ventilation
- Improper or unauthorized repair
- Replacement with unauthorized parts
- Failure to follow Our operating Instructions
- Fire, flood, "Act of God", or any other contingencies beyond our control.

RMA and Shipping Reimbursement

- Customers must always obtain an authorized "RMA" number from us before shipping the goods to be repaired.
- When in normal use, a sold product shall be replaced with a new one within 3 months upon purchase. The shipping cost from the customer to us will be reimbursed.
- After 3 months and still within the warranty period, it is up to us whether to replace the unit with a new one; normally, as long as a product is under warranty, all parts and labor are free of charge to the customers.
- After the warranty period, the customer shall cover the cost for parts and labor.
- Three months after purchase, the shipping cost from you to us will not be reimbursed, but the shipping costs from us to the customer will be paid by us.

Limited Liability

Atop Technologies Inc., shall not be held responsible for any consequential losses from using our products.

Warranty

Atop Technologies Inc., gives a 1 year max for Wireless coordinator.