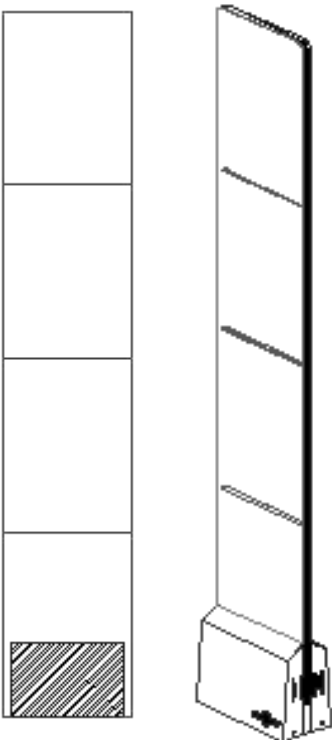


PG-308

User Manual



Contend

1.....	Safety
2.....	Product package and transportation
3.....	Product function description
4.....	Product installation instructions
5.....	Product operating instructions
6.....	Product maintenance
7.....	Product troubleshooting

1. Safety



Attention

The following notices can not prevent all the dangerous during the operation. To be totally preventing dangerous, the operator's experience and judgment is also very necessary. Each chapter of the manual has more detailed instructions of how to prevent the dangerous during the operation.

In the maintenance of the machine, the plug of the power supply should be pull off.

The responsible person has an obligation to tell the relevant legal provisions to the operator.

Before using the machine, operator must read this document. Without training or not operation personnel are forbidden to use the machine.

Do not take apart any removable parts of the machine package. Pay attention to the people around the machine, especially the children.

Before maintenance and reparation, the power supply should be turn off and the plug should be pull off.

Only professional personnel could repair the machine.

Pay attention not to stumble or kick off power supply plug.

Regularly check the power supply cable to make sure the cable is in good condition.

The machine could not be used if the power supply cable is damaged.

Please make sure that all the cable, plug, pneumatic junction are waterproof and good function when change those components.

Do not draw the machine by its power supply cable

The components should be replaced in our company or our authorized reseller.

We suggest that the machined should be returned to our office for maintenance after using 10 years.

The machine should be matched with user manual, warranty card, and certificate of qualification.

Avoid to use flammable or toxic solution to clean the machine, such as gasoline, benzene, alcohol.

Do not open the electricity cover when the machine is running.

This manual should be put in the convenient place for the operator checking, which make sure safety working condition. If the manual is loss or damaged, please ask for one new from our company.

The damage of the construction or improper maintenance will lower the machine protection ability.

Only our company engineer could repair or change the component of the machine.

During the maintenance, please put a sticker on the machine, shows "maintenance, no using"
Do not climb on the machine.

Do not contact the electric cable, switch, button of the machine by wet hand.

Before connecting the machine to the power supply, please check if the voltage and frequency are same as the machine requirement.

Make sure the socket connect the ground wire efficiently before connecting the power supply into the machine.

Only adult could use this machine.

Safety marking and symbol

The metal tag on the machine has safety marking, symbol, and other information.



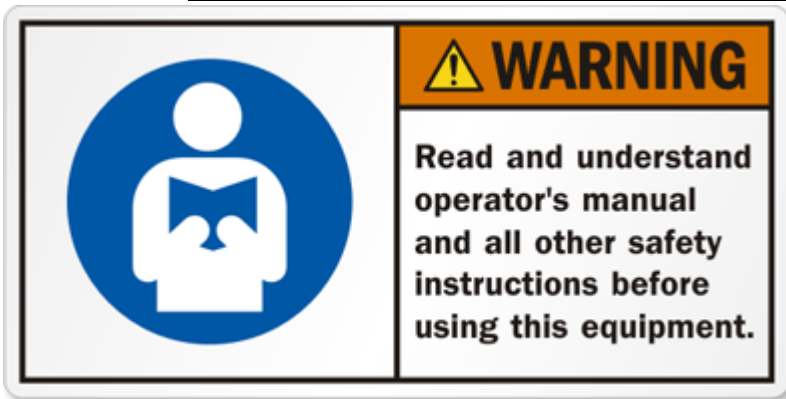
Attention

Make sure the words on the metal tag are clearly visible.

Use clothes, soap, and water to clean the metal tag, do not use solvent, diesel and gasoline to clean the metal tag.

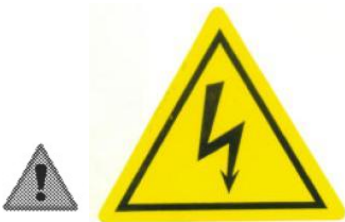
If metal tag is damage, please ask for one new from our company.

If the component which has metal tag is changed, please use new metal tag on the new component part.



Warning!

Read and understand operator's manual and all other safety instructions before using this equipment.



Do not open the machine cover when the machine is running.



Do not use wet hand to contact any electric parts of the machine and plug to avoid the electric shock risk.

2. Product transportation and package

The product should be packed by foam, put into the firm carton with straps.

Handle with care during the manual handling.

If transport the machine by forklift, the machine should be equally distributed weight onto the forklift.



3. Product description

Etagtron RF EAS systems meet many kinds of needs of the retailer industries by its advanced function and good outlook. It has wide detection range from 1.6 meter to 2.2 meter according to different labels and tags. It is widely used in supermarket, fashion store, electronic store, cosmetic store, book store, etc.

3.1 Feature

High class acrylic material, sturdy and durable.

Simplicity design, transparent and elegant.

Transmit-receive integration by pulse technique.

Continuous work by low power consumption and its good performance.

Suitable the store which has multi-exits and entrances or open type exits and entrances.

Easy to install and adjust.

Match for different 8.2MHz labels and tags.

3.2 Specifications

Central frequency: 8.2MHz

Size: 1525mm×280mm×20mm

Weight: 13.3kg/pcs

Working temperature: 0°C -45°C

Alarming light:blue/red

Voltage:input 230V,output: 18V

Power rate of work:30VA,Currency:2A

3.3 Detection Range

4040RF label:700mm

R50 hard tag:900mm

3.4 Packaging

Size:1740mm×462mm×200mm

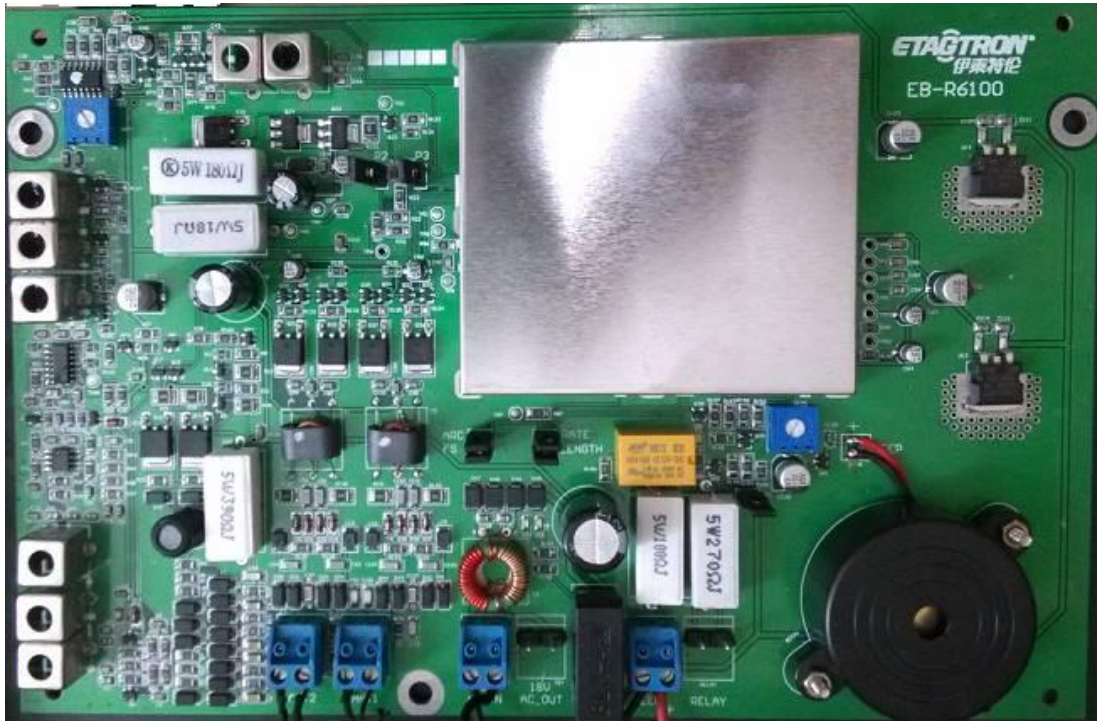
Weight: 20kg

3.5 EAS system is composed of three parts

EAS Sensor, EAS Deactivator and EAS Electronic Label and Tag. There are two kinds of electronic labels and tag: soft label and hard tag, the cost of soft label is lower, we can paste it on the “hard” commodities directly, one soft label just can be used for one time. The cost of hard tag is higher than the cost of soft label, but the hard tag can be reused for many times. The hard tag must work match with detacher, it is usually used on soft commodities which is easy to be penetrated. The deactivator is non-contact devices, it have a 15cm deactivation height. The deactivator will kill the soft label when the cashier put the soft label close but without contacting to the deactivator. There is also the deactivator and laser barcode scanner composing device, it can finish the barcode scanning and label deactivate at the same time, which is much more convenient for the cashier. If using this kind of composing device, we need pay much attention on the interferences between the deactivator and the laser barcode scanner, then we just can get a good deactivation height. If there are customers take the commodities without deactivation through the eas system, the system will alarm, then store staff will know and come to handle situation.

4. Installation instructions and Tuning manual

EB-R6100 is a multi-loop single panel system that provides enhanced detection when compared to a conventional single panel system. In this Manual, you will find the important field measurable parameters to verify proper system operation.



4.1 Antenna Wire Colors:

Pl ensure the different loops are connected to the correct terminal blocks, otherwise the system couldn't work.. The upper loop connect to ANT2 and the under loop connect to ANT1. The AC(18V) power supply is connected to AC_IN or AC_OUT, one power supply at most can power two

4.2 Alarm Rate:

The alarm rate can be set as fast or slow. The system comes with the fast rate set as the default. To change the alarm rate to SLOW, remove the jumper on "RATE/LENGTH".

4.3 ARC(Automatic Resonance Control):

Sometimes the system may alarm because of a resonance caused by either tagged merchandise being placed too close to the system or by an external condition that rings at a frequency within the transmitted signal band. While it is easy to move tagged merchandise beyond the detection area, external conditions may be intermittent or not easily found and corrected. The ARC circuitry helps in minimizing these effects. ARC is normally disabled. It may be activated by removing the jumper on "ARC" position 1. Activating ARC will cause the system to behave differently than when it is disabled. ARC will reduce the system sensitivity to a point where the offending resonance will no longer alarm the system. This will take from 20 seconds to over 1.5 minutes, depending upon the strength of the external resonance. A small resonance will take the smallest amount of time and a large resonance will take the most amount of time. The system will still work after ARC is activated, but will only respond to tags that present a greater signal level than the resonance. This means that the system's sensitivity will be reduced, so the detection distance will be reduced. Note that a large resonance may reduce the detection distance significantly. If the external resonance is removed, the system will recover and return to its normal sensitivity. Recovery time is approximately the same as activation time. Transitional resonance or tags will have little or no effect on system's sensitivity. However, since the ARC function is controlled by external conditions, best sensitivity will usually occur when ARC is disabled(jumper on).

4.4 FS(Frequency Select):

Another way to reduce the false alarms is by activating the FS feature. FS reduces the receiver bandwidth to exclude processing of any information received from the upper and lower frequency bands. Unlike ARC, the receiver sensitivity is not reduced except in these bands. Tag detection will not normally be affected. To activate FS, remove the jumper on "FS" position 1. While it may vary in frequency above and below 8.1 MHz, so normally do not use the FS function. If any tag frequency approaches the band edges, detection will be reduced. While the normal spread of tag frequencies is rather narrow, tags that are nearer the band edges may detect normally with FS deactivated but exhibit a shorter detection range if the FS jumper is removed.

4.5 Automatic Level Control(ALC):

This function can help us to solve the problem that the label becomes disabled suddenly(maybe some systems will "kill" the label when the label is too close to the system). We can check if the system's ALC is working properly by using the voltmeter to test the TPC voltage. The normal voltage of the test point is around 40V DC. The voltage of test point will reduce when we take the label close to the system, when we keep the distance between the label and system almost to zero, the voltage maybe will reduce to around 1V DC(the transmitted power reach to the lowest level). The voltage of test point will recover to the normal level automatically after we take the label away from the system.

4.6 TP3D. TP2D and TP3D:

We can know the noise figure of surrounding environment by testing the TP2D voltage and TP3D voltage. The voltage of testing point is related to the noise figure of surrounding environment. The normal voltage range is 70-90mv. It means that the noise is high when the voltage is more than the voltage range, there maybe are some strong noise source around. The electronic level of the test point shows the average value of the surrounding noise

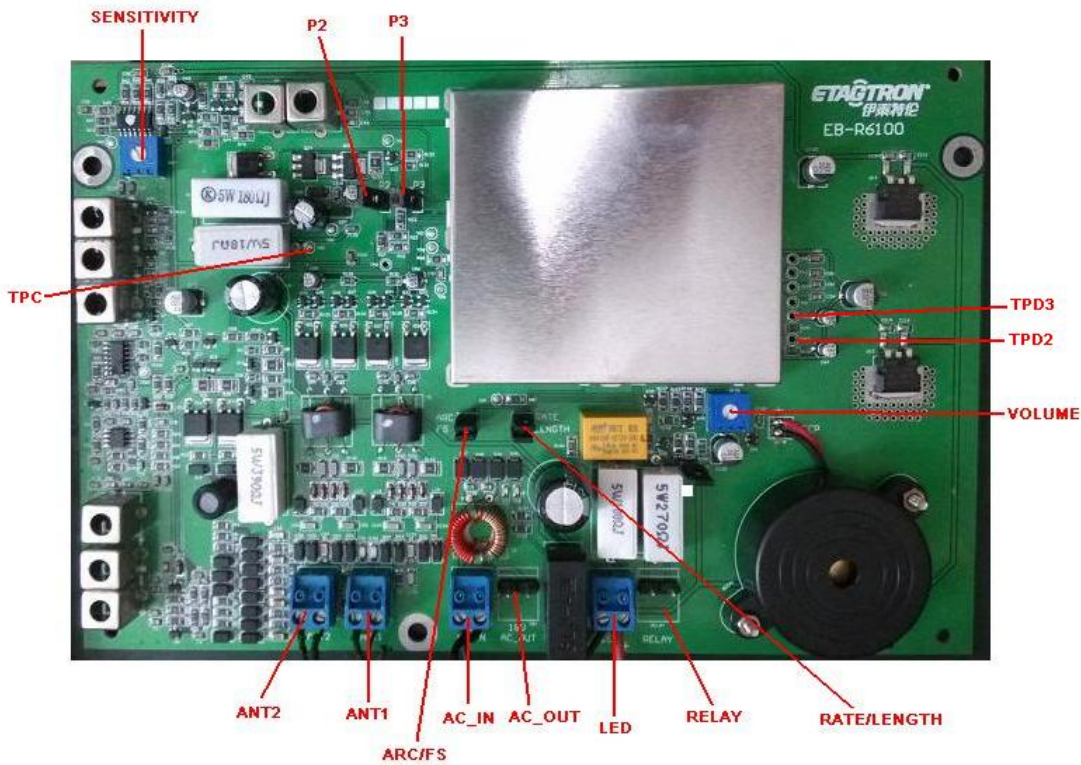
value, the time for stabilization is about 10s, it means that it will take about 10s for us to get the stable electronic level after we change to a new surrounding environment.

4.7 P2 and P3:

Jumper P2 and P3 can be used to forbid the transmitted function of the system, this is used to set the up loop and down loop mode. The default setting for two jumpers are the “on” condition. If you want to close the transmitted function of up loop, please pull up the jumper P2, under this condition, only the down loop is working (P2 off and P3 on). If you want to close the transmitted function of down loop, please pull up the jumper P3, under this condition, only the up loop is working (P2 on and P3 off). If you want to close all transmitted functions, you can pull up all both the jumper P2 and jumper P3. With this function, we can know the high voltage of TP2D and TP3D is resulting from the interference of active noise or the interference of passive noise. When you pull up JP2 and JP3 at the same time, if the voltage of TP2D and TP3D is reducing, the most possible reason is there are labels or tags around; if the voltage of TP2D and TP3D do not change, it means that there are strong interference source around.

4.8 Synchronization:

when the system is alarming, the RELAY port will output the Synchronization signal, which can trigger the external devices to work.



5. Product manual

- 5.1 Attach the magnetic bar on/in the packing.
- 5.2 Installing the detector and RF antenna.
- 5.3 When the item is gotten paid, the item will be deactivated manually, and the detector will not alarm when the item passes by.
- 5.4 If the item is not gotten paid, which still have the magnetic bar on/in it, the detector will alarm, which sending the warning to the store security of the lost products

6. Product maintenance instructions

6.1 Checking the equipment power supply is working correctly (daily) (check if the indicator light is on), if the equipment is not working correctly, then check whether the power plug, external power supply is fused or not.

6.2 Cleaning the equipment on a daily base, to prevent dust, water from affecting on its use.

6.3 Taking the sensitivity test on a daily base, to make sure it is working regularly.

6.4 Protecting the system by preventing damage of the hard hit.

7. Products daily troubleshooting

7.1 The system is not alarming:

7.1.11. Checking the power supply is working correctly, (whether the power supply is on or not, the power plug is lose or not.)

7.1.2 Taking the test with a hard tag see if the antenna is alarming or not (because the soft label may be deactivated without notice; or the soft label is damaged; or the soft label sticks on the good with metal packing; in these situations, the system will not alarm)

7.1.3 Checking the antenna's surrounding, if there are large volume of metal objects, such as lockers, freezer. If it has, then move the items away from the antenna.

7.2 Antenna mis-alarming:

7.2.1 Any other electrical equipment are not allowed on the antenna power lines. Please check the main switch in the switch board room, check if it is sharing with other electrical equipment.

7.2.2 Checking the antenna's surrounding, if there are electrical equipment in 2 meters. (Such as lockers, currency count machine, doll machine, freezer, etc. which circuits cannot be circularity.)

7.2.3 The rolled coil are not allowed existing in 10meters range of the antenna. Especially the pose machine's coil cannot be in circularity, if the checkout counter is not working, then the net coil have to be straight, in the up-close range, any wiring board or 380V power line is not allowed existing.

7.2.4 The checkout counter can't close to the antenna, otherwise it will lead to the mis-alarming.

7.2.5 checking the counters near the antenna, if there are labels on it.

7.2.6 Make sure the hard tag that recycled is not close to the checkout counter, storage the hard tag with a metal box if possible.

7.3 The deactivator is not deactivating:

7.3.1 Power is off, or the power plug is losing.

7.3.2 The LED light is on and the deactivator board is not deactivating: this phenomenon is usually because the connecting line between the deactivator to deactivator pad is pulled cut manually. Please rewiring after turning off the power supply.

Thanks For Buying

ETAGTRON

Dear customer, thank you for your purchase, this product is designed for store loss prevention, adopting quality material for manufacturing, to ensure the product's performance and durability. For a better understanding, we made a user manual for you. If you have any questions or concerns, welcome to contact us. We will do our best to help. Please visit our website if necessary: www.etagtron.com

- This system needs to be maintained in a fixed time, or the function would be influenced.
- The caution sign shows before dangerous procedures, please read the manual carefully before continuing the setting.



警告

If not according to this manual operation may result product damage, even personal injury



警告

If not according to this manual operation may result personal injury or property loss

Before Assembling

- Before assembling the system, please read the manual carefully (Please contact with us if needed)

Checking contents before assembling

- Please check the accessories whether they are enough or not
- Ensure there is no high-power wire in 5M around
- Confirm the installation power supply voltage, regulate the input voltage switch on power box

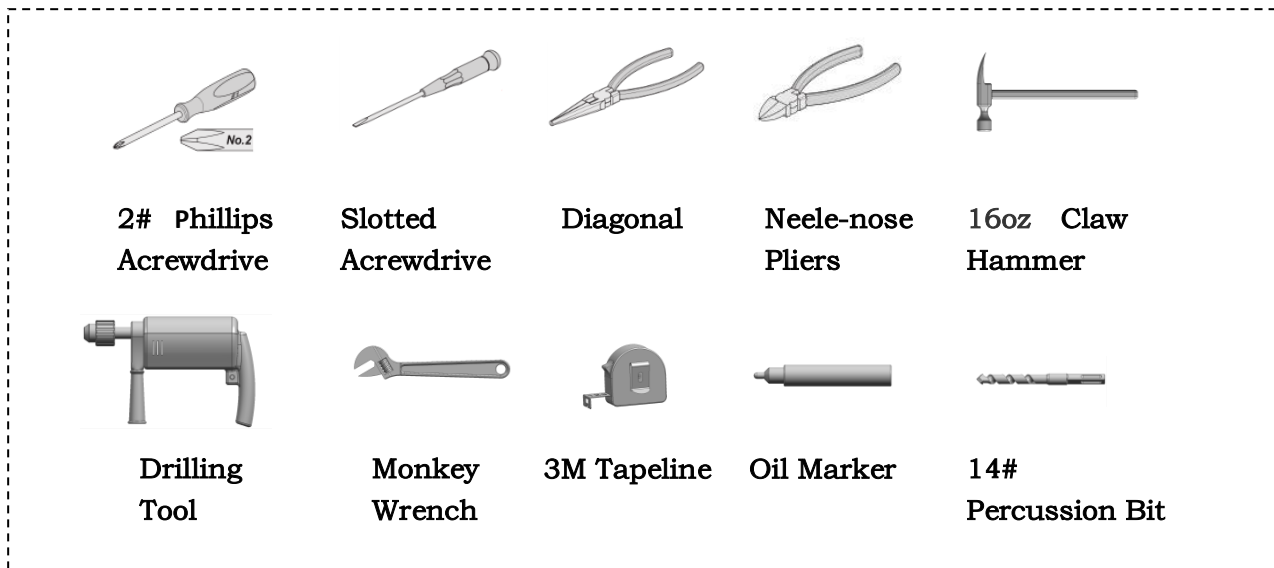
Operating

- Connecting the wires accurately according to the manual
- If abnormal operation happens, cut off the power supply immediately

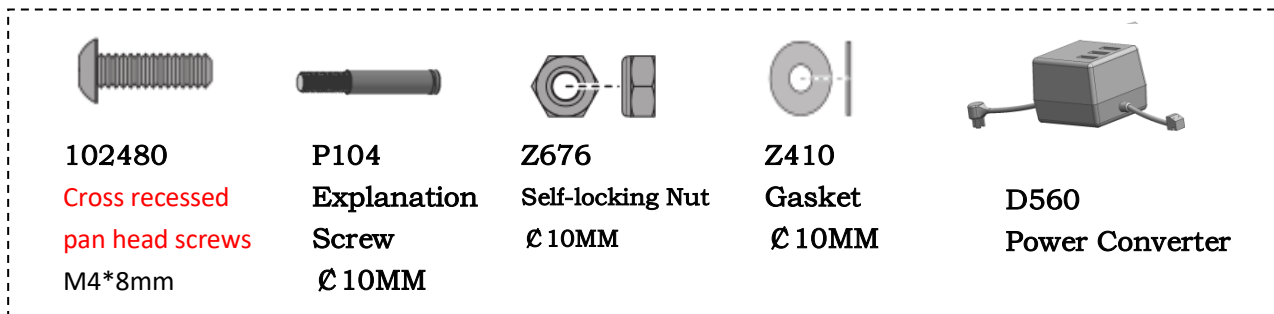
Component/Part Overview

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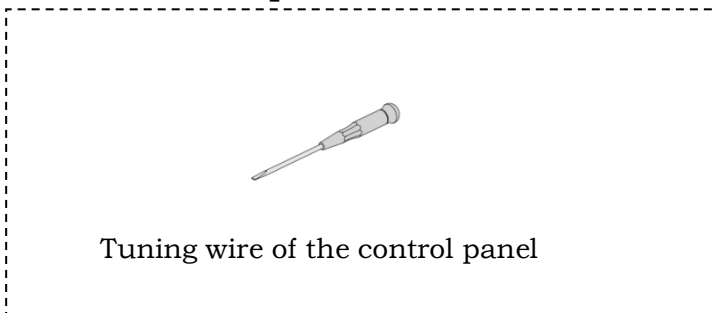
● Tools used in the installation



● Related component

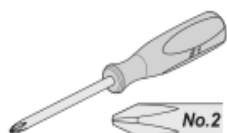


● Selection component



Detachment of the base

ETAGTRON

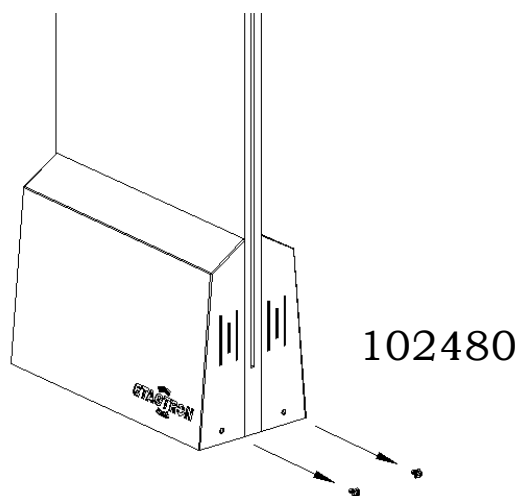


2# Cross
Screwdriver

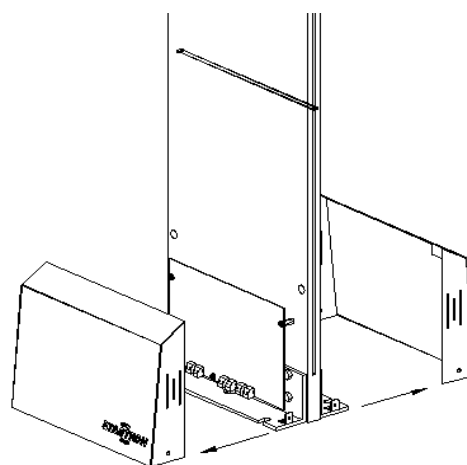


102480
Cross recessed
pan head screws
M4*8mm

Rotation Release



Dismountin



Fixed System

ETAGTRON



**Drilling
Tool**



**Oily
Marke**



14# Percussion Bit



3M Tapline



**16oz Claw
Hammer**

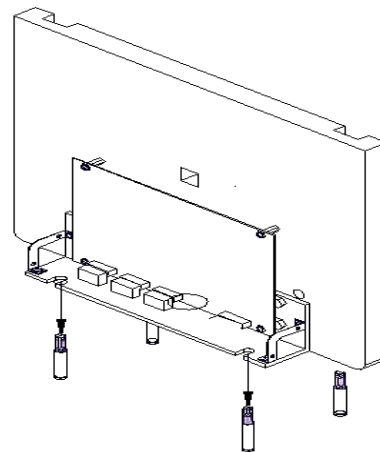


**P104
Expansion
Screw
Ø10MM**

Positioning



Punch Hole



P104

System wire connection

ETAGTRON



Monkey
Wrench



AlotType
Screwdriver



Diagonal
Pliers



Nipper



Z676
Locknut
Ø 10MM



Z410
Gasket
Ø 10MM



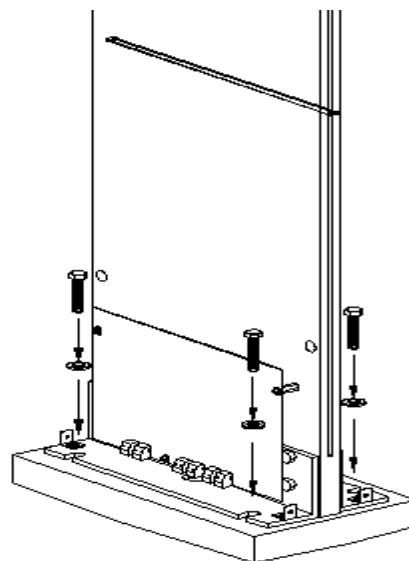
D560
Power Adaptor

Fixing

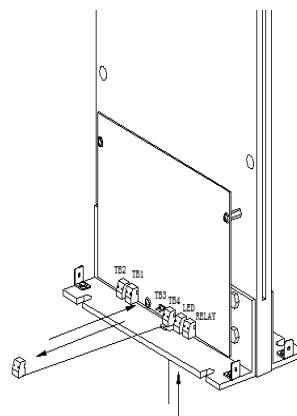
Z676



Z410



Wire connection



TB3为18V AC输入
TB1、TB2为天线
RELAY 输出报警同步信号，
可以用来触发外部设备

System Closure

ETAGTRON

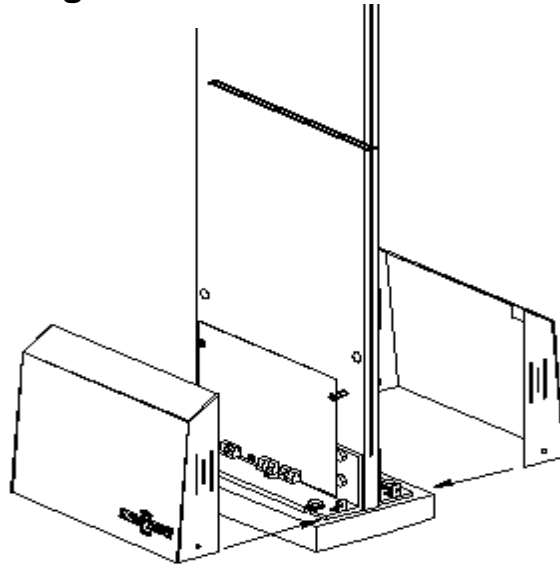


2# Phillips
Screwdriver

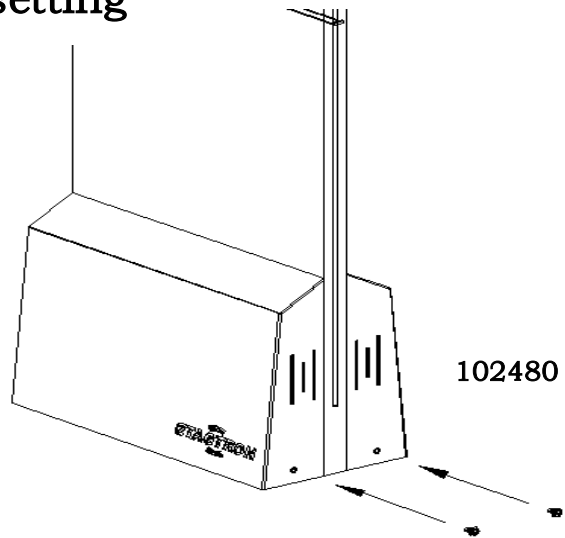


102480
Cross
recessed pan
head screws
bolt with
gasket
M4*8mm

Closing the cover



Resetting



System tuning 1

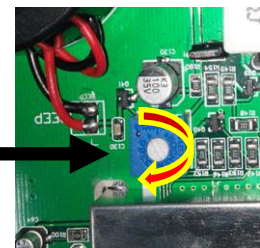
ETAGTRON



Gain adjustment



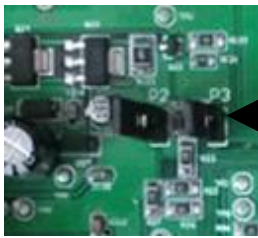
Gain adjustment Knob
:Clockwise, increase,
Counterclockwise,
decrease, mis alarming
may appear if there are
lots Gain.



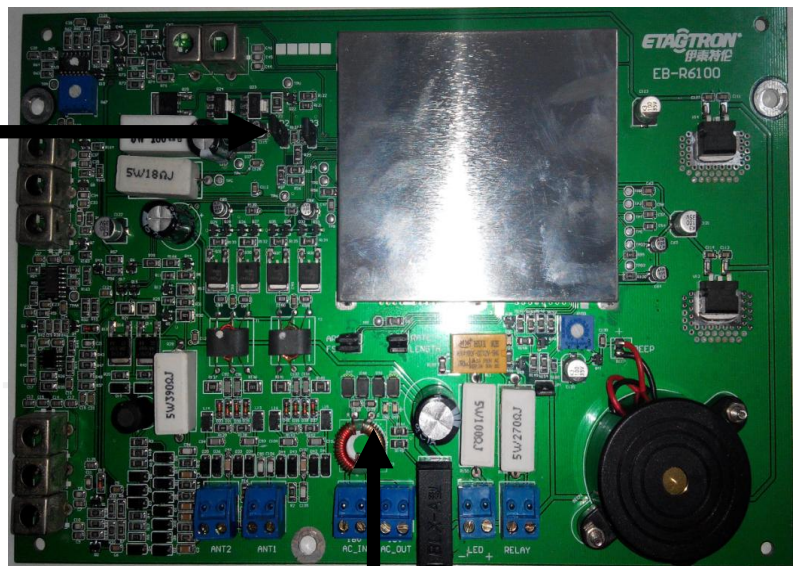
Gain adjustment
Knob
Clockwise maximum
volume
Counterclockwise
minimum volume

System tuning2

ETAGTRON



Forbid transmitting antenna
P2: up loop emission control
ON(default) OFF
P3:down loop emission control
ON (default)
OFF



RATE: alarm rate
ARC: auto threshold
FS: frequency choose
LENGTH: alarm length

Alarm speed (RATE):

the alarm rate can be set to fast or slow. The system default setting is fast. If you would have a alarm is set to slow, then unpin the jump cap on the jump wire rate.

Automatic threshold control (ATC):

When the goods stick with RF label, and close to the system, or the external environment has the interference that in the detection range, the system will mis-alarms. It is easy to move the RF label, and the external interference is intermittent and random, which is hard to eliminate. ARC circuit can decrease external interference factors. ARC function's default is off, to activate it, only needs to unpin the jumper cap on the jumper. ARC function will decrease the sensitivity to a certain degree, which will make the external interference not lead to mis-alarms. According to the external interference's strength, this process may take 20 seconds to 1.5 minutes. Light interference can be completed in a small amount of time, and the strength interference will take more time. When ARC function is activated, the system will alarm only when the label signal is bigger than external signal interferences. This is also mean the detecting sensitivity will decrease. Keep this in mind that strength interference will influence the detection range. After eliminating the external interference, the system will be in a normal sensitivity. Restore and activate time are the same. The occasional interference or label to system's sensitivity is rarely influenced, or no influence at all. Of course, because the ARC function is controlled by external environment, when the ARC function is off, the system will have the best sensitivity.

Frequency selection (FS):

The other one way of reducing the false alarming is activating frequency selection character. FS function reduces the band width of the receiving circuit to exclude the signal that lower or higher than the band width. This function is not like ARC function, FS function dose not lower the sensitivity when the signal is within the band width, it lowers the sensitivity when the signal is lower or higher than the band width. Activating the FS function will not affect the normal tag detection. If you want to use this function, please pull up the jumper cap of the FS jumper. This function may tend you to pull up the FS jumper, but please notice that the tag frequency will vary near the 8.2MHZ, so do not pull up it in the normal condition. If the tag frequency varies much, the detection sensitivity will be lower much. The normal tag frequency ranges small, when the FS function is closed, the tag can trig the system to alarm even if the tag frequency has big deviation from 8.2MHZ; but when the FS jumper is pull up, the detection range will be shorter for those tags which frequency has deviation from 8.2MHZ.

Alarm length control (LENGTH):

This function can set the alarm length, connect: long alarm length; unconnected: short alarm length.