

**Hongkong Promatic Group**

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# **EAS Mono System Manual**



**Version: V1.0**

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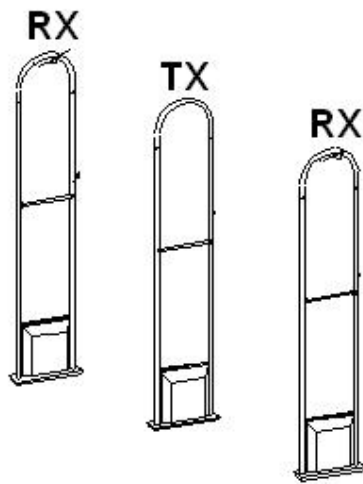
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# Catalog

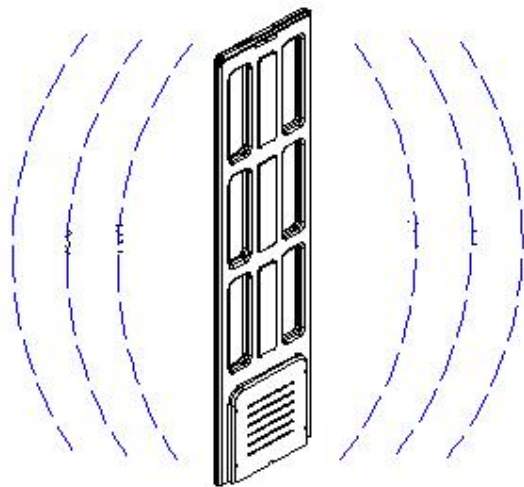
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## 1. System Features

EAS Mono System is a kind of EAS Sensor which integrates with the Transmitter and the Receiver. The brand new Mono system technology has already lead the EAS RF system to a mature time. Compared with the original EAS system, the Mono system is excellent with its fashionable configuration ,high performance and convenient installation.

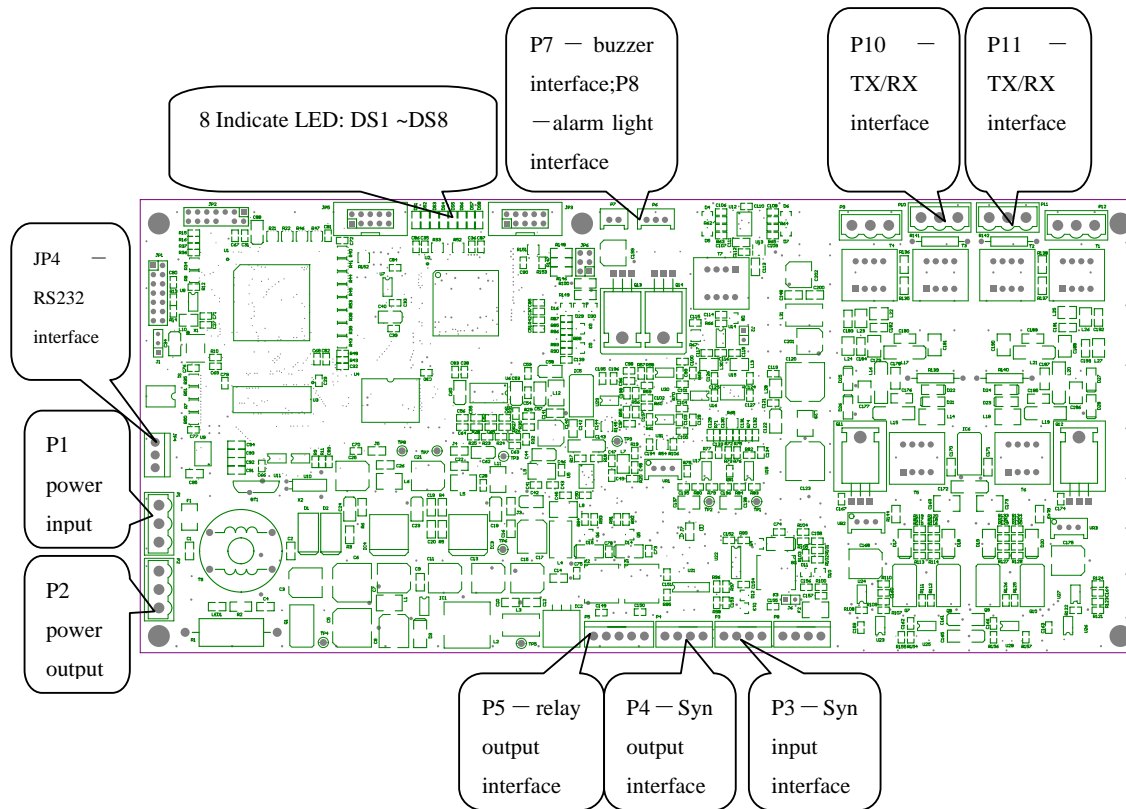


Pic1:2 access with original EAS system

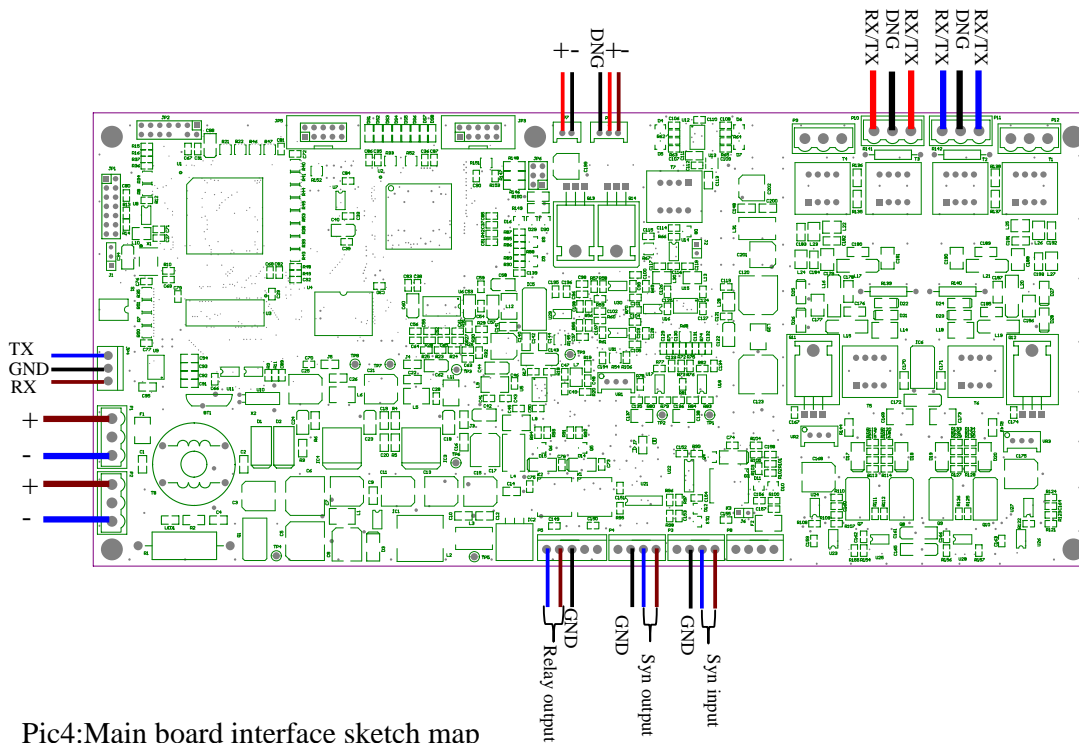


Pic2:2 access with Mono system

## 2. Interface Explanation



Pic3: Main board interface sketch map



Pic4: Main board interface sketch map

#### DS1~DS8 explanation

1)DS1: indicate alarm status,flashing when detect the tag/label signal

2)DS2~DS4,for indicating noise level of the system working circumstance.

DS2~DS4 three LED all go out:little noise

DS2 lighting:Low level of noise

DS2 &DS3 lighting:Medium level of noise

DS2&DS3&DS4 all lighting:High level of noise.

When in normal status,through adjusting the VR1 to get the DS2 lighting,and the DS3 flashing.

3)DS5 (null)

4)DS6&DS7:indicate system working status

DS6&DS7 go out:Working as a master status;

DS6 goes out and DS7 is lighting:Working as a slave status;

DS6&DS7 lighting:Function closed.

5)DS8:indicate program running,lighting when in normal status.

### 3.System Installation

#### 1)System Synchronization Installation

When need to install more than one Mono sensor in a project,synchronization connection is necessary.And the syn cable use resistance  $\geq 100 \Omega$  twisted-pair cable, synchronized connection way refer to Picture 4. From master signal output to slaver signal input, if you want to install one more, connect the syn cable from the slalver signal output to other slaver signal input.

#### 2)Cable laying and connection

①Keep the Mono system away from these cables:network reticle;power cable(>110VAC).The syn cable can not be crossed with other cables,else cover the syn cable with the metallic pipe.

②The Mono system adopt the appropriative power supply,can not share power supply with computer,display or other electricity equipment

③Due to the Mono system has double side detection effect,,articles with label must be placed at the distance of more than 1.5m.

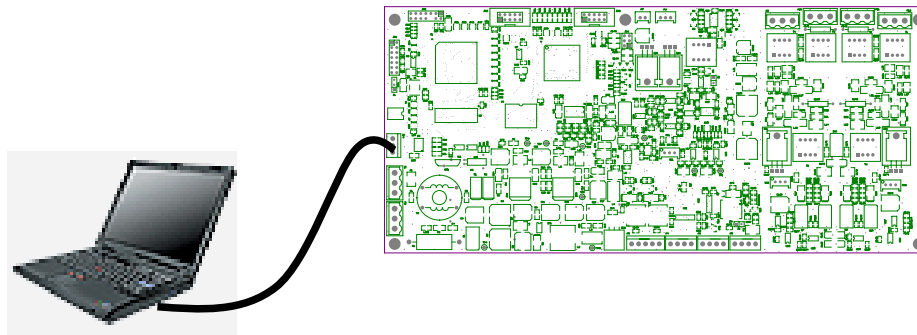
④Keep the Switching Power Supply away from the Mono system.(at least 2m away)

⑤The system power cable must adopt  $1.5\text{mm}^2$  twisted-pair shield cable.

#### 4. System Adjustment

After installation,each Mono sensor need adjustment through communication interface with computer .Normally adopt the RS232 communication interface.

1)Connection between the PC and the sensor PCB

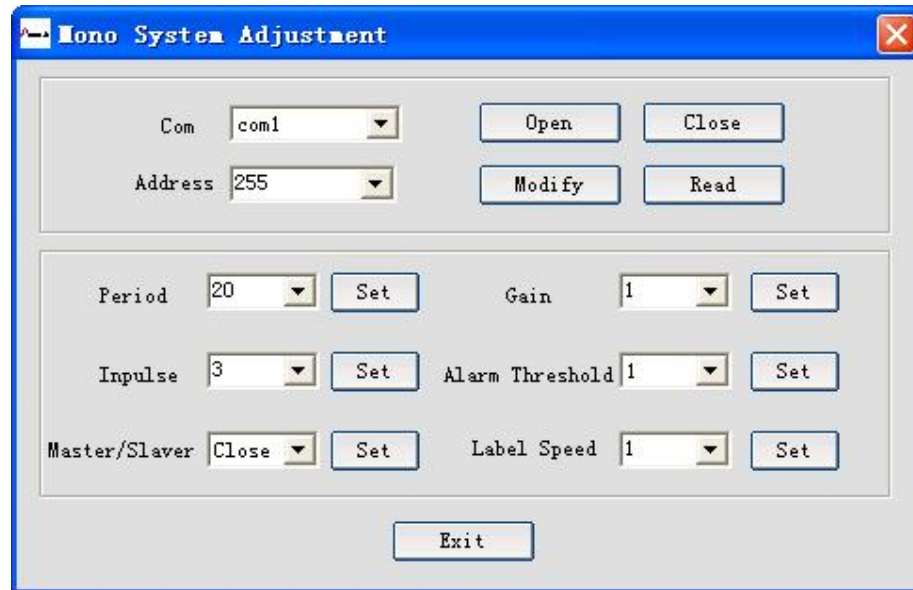


**Pic6: Connection Sketch Map**

Adopt the standard COM port communication cable,connect one side of the cable with the PC RS232 interface,and connect the other side of the cable with the sensor PCB JP4(RS232 interface). Please connect Tx&Rx cable and ground cable in corret way. After conenction ,if can not open the communication connection,please exchange the TX&RX cable (at the JP4)position and check again.

#### 2)Adjustment software explanation

After correct connection as the instruction above,run the 'Mono system adjustment' program:



### Operation Step:

(1) Build the connection: select the corresponding 'Com' port and press the 'Open' button, 'Address' set to :255 (default).

(2) 'Master/Slaver': Select the 'Master', and press the 'Set' button. This 'Master/Slaver' function has 3 options, each means:

- 'Close'---- DS6&DS7 both lighting, system is off working status
- 'Slaver'----only DS7 lighting, need synchronization signal input
- 'Master'----DS6&DS7 both no lighting, system work in normal status.

(3) 'Period': 3 options: '20/40/60'; or can input a value in the range: 14~20 (propositional, the default value is 16)

(4) 'Gain': the default value is 1; propositional value: 1~5

(5) 'Pulse': the default value is 3 (refer to the circumstance condition); normally input 3 or 4

(6) 'Alarm Threshold': the default value is 1, input range: 1~3 (refer to the circumstance condition)

(7) 'Label speed': the default value is 1, input range: 1~5 (refer to the circumstance condition)

(the item3 to item7 above:refer to the circumstance condition to set)

### 3)Each parameter explanation

**Period**----valid data period;(Period $\uparrow$ →System detecting precision $\uparrow$ →System detecting speed $\downarrow$ ),standard value range is 14~20.

**Gain**----means the gain between the label signal and the noise signal(Gain $\uparrow$ → False Alarm $\downarrow$ → Detecting Range $\downarrow$ ),standard value range is 1~5.

**Pulse**----means the valid signal quantity(Pulse $\uparrow$ → False Alarm $\downarrow$ → Detecting Range $\downarrow$ ),standard value is 3~4.

**Alarm Threshold**----means the system alarm start-up value(Alarm Threshold $\uparrow$ → False Alarm $\downarrow$ → Detecting Range $\downarrow$ )

**Label Speed**----means the label signal level when the label passing through the system detecting range.(Label Speed $\uparrow$ →False Alarm $\downarrow$ →Detecting Range $\downarrow$ ), standard value1-5.

**Master/Slaver**----set the system working status. Now it has system turn off, master and slaver three kinds of setting status.



## **FCC Warning:**

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 to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

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 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.

The equipment compliance with FCC radiation exposure limit set forth for uncontrolled Environment