

# User manual

## Change records

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## overview

AM M6000G-TR detection board for 58KHz sound magnetic (AM) detection system board. The system board is composed of a main board (M6000G-TR), and a receiving board (M6000G-R).

## Power supply:[EG105]

AC voltage: 110--120VAC@50Hz/60Hz

Power insurance: 0.63A, 250V

maximum current: 100mA

Power consumption: <50W

## Function Description:

### 1. Channel output

TR-CH2, TR-CH3 respectively receive two sub machines (receiver function board). Host TR-CH1 (transceiver function board + receive function board)

### 2. Software adjustment set:

COM: select the correct COM Drive

Baud: 115200

Parity: Even

Bits: 8

Key function:

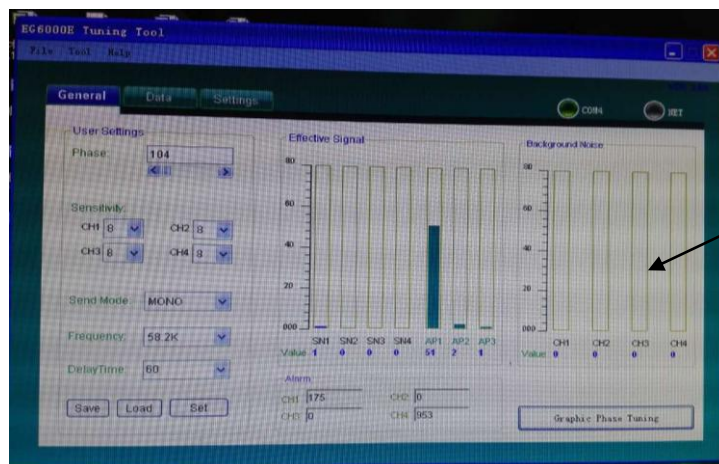
LOAD: Read and run data from internal storage.

SET: Make interface parameters run, but shutdown is not saved.

SAVE: Store interface parameters.

Graphic phase Tuning: Look at the disturbing signal curve around.

CH4:[8] Manual commissioning of equipment; [1-7] Device automation mode

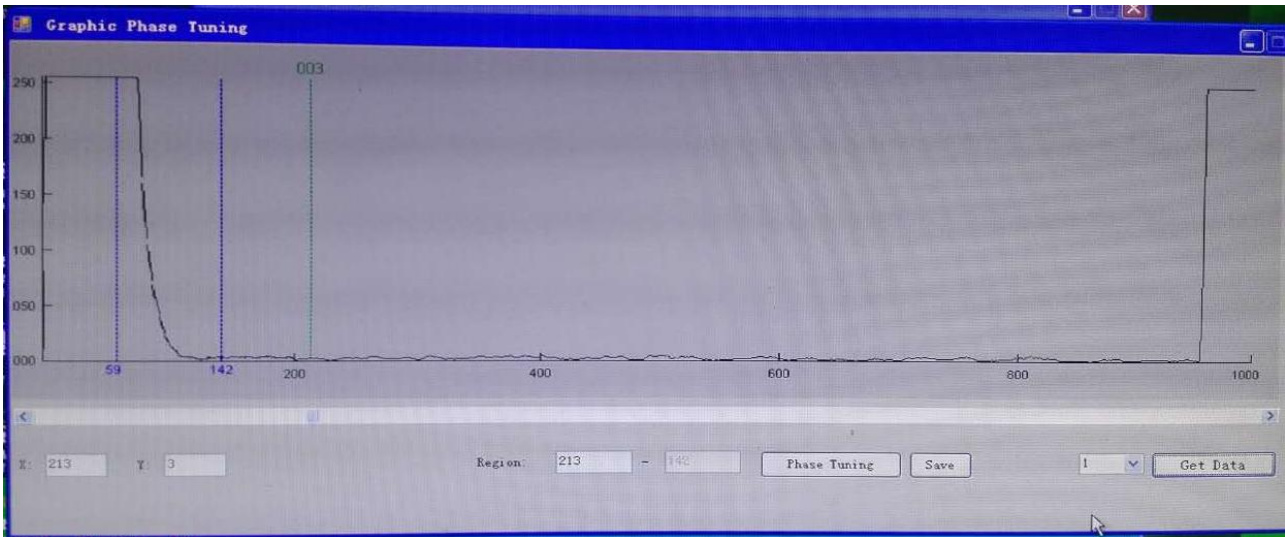


AP1, AP2, AP3 represent the transmit amplitude of the 3 antennas, and the maximum value is observed.

Factory settings: phase [0]; CH1-CH3 : SEN[8]; CH4:[8]; SEND MODE [MONO]; FREQUENCY[58.2K]; DELAYTIME[0].

Installing direction of antenna: One drag two (the main panel is facing the side panel of the auxiliary machine; the main board is in the same direction as the other side panel).

Graphic phase Tuning has the following curves and figures



Choose channel [1] or [2] or [3]; click GET DATA to slide the mouse green line, and the green line position data will automatically fill in REGION [], point Phase Tuning and then point GET DATA to adjust the curve will appear, repeat the above two steps until satisfactory; finally point SAVE saves PHASE into memory.

Note: PHASE adjustment can be carried out in the main interface or Graphic phase Tuning at present, but it must be noted that CH4 first needs to be adjusted to 8 [manual mode] when CH4 is 1-7, the device works in automatic PHASE mode, which is not commonly used.

### 3. Introduction of main JP functions

System function selection

1) The receiving signal of CH-TR1 [motherboard] channel will be shielded by inserting the jumper of IDE3 separately, that is, the receiving signal of this channel will not cause alarm, and the signal intensity will not be displayed by the indicator lamp. At this time, the signal intensity of CH-TR2 channel will be displayed by the signal lamp.

2) The [2-3] jumper of IDE 3 will be inserted separately to shield the reception of CH-TR2 channel, that is to say, the received signal of this channel will not cause alarm, and the signal intensity will not be displayed through the indicator lamp. At this time, the signal indicates the intensity of the received signal of CH-TR1.

3) The [1-2] [2-3] jumper of IDE 3 will be inserted at the same time to shield the received signals of CH-TR 1 and CH-TR2 channels. That is to say, the received signals of these two channels will not cause alarm, and the signal intensity will not be displayed through the indicator lamp. At this time, the signal lamp shows the received signal intensity of CH-TR3 channels.

4) IDE4[3-4] jumper is inserted, the system can use Q probe.

5) the IDE5[1-2] jumper will put the system in a malicious alarm mode.

Installing direction of antenna:

all antenna planes will be in one direction.

## 4. detection distance:

a, TR (Master) ---- TR (Slave)

Detection distance		M6090/M6088(D)	M6088S(D)	M6069	M6310(D)	M6320(D)
DR label	Parallel	1.0m	0.9m	0.85m	0.8m	0.90m
	Vertical	0.95m	0.85m	0.85m	0.75m	0.85m
	Horizontal	0.9m	0.85m	0.75m	0.7m	0.85m
10581 tag	Parallel	1.45m	1.30m	1.30m	1.20m	1.30m
	Vertical	1.35m	1.20m	1.20m	1.10m	1.20m
	Horizontal	1.30m	1.10m	1.10m	1.0m	1.10m

b,, TR (Master) ---- TR (Slave)

Detection as per above but x2.

c, TR (Master) --- R (Slave)

Detection distance	M6090/M6088(D)	M6088S(D)	M6069	M6310(D)	M6320(D)
DR label	1.60m	1.50m	1.50m	1.30m	1.50m
10581 tag	2.40m	2.20m	2.2m	1.90m	2.20m

Note: Backfield detection, 50% in TR (Master) and 25% in R (Slave)

d, T (Master) ---- R (Slave)

Detection distance	M6090/M6088(D)	M6088S(D)	M6069	M6310(D)	M6320(D)
DR label	1.50m	1.40m	1.40m	1.20m	1.4m
10581 tag	2.30m	2.10m	2.10m	1.80m	2.1m

Note: Backfield detection, 25% in both T (Master) and R (Slave)

## Antenna Setting Summary Table

Although tuning is conducted by software, the antenna configuration setting is via JP (plug-in and unplug):

	TR (Master)	T (Master)	TR (Slave)	R (Slave)
IDE3 (1-2)	Unplug	Plug-in	n.a.	n.a.
JP66	n.a.	n.a.	Unplug	Unplug

	TR (Master)	Side Transponders	
QT (JP) IDE4[3-4]	Plug-in	Two transponders per side	10581 tag +50cm DR label +25cm

	TR (Master)	
Anti-jamming IDE5(1-2)	Plug-in	When detected, alarm without LED

## Equipment installation matters needing attention and simple trouble shooting.

Matters needing attention in equipment installation:

- A. When installing the equipment, special attention should be paid to the installation direction of the antenna on the two sides; the main transmitting panel should be in the same direction as the auxiliary panel; and the main transmitting panel should be in the same direction as the other auxiliary panel.
- B. Before installation, the equipment should first evaluate the possible interference on the spot; the power supply lines of large-scale electrical equipment such as elevators equipped with frequency converters or energy-saving lamps may interfere with the equipment within 10 meters of the antenna, and it is better to know the power supply circuit diagrams of stores before installation.
- C. equipment must be reliably grounded when installed. It is required to use independent power supply, demagnetizer and equipment should use the same phase line of electricity, and demagnetizer and equipment power socket should be marked.
- D. The equipment should be tested first when it is fixed, and the installation distance should be decided finally according to the field test.

The commissioning of E. equipment is best after the electrical equipment of the store is completely fixed.

### Attention:

**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.**

**Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**