

# PAINTING SIGNAL JAMMER

Number of patent: 200930164231. 6/200920136078. 0/200920136079. 5

**USER' S GUIDE**

## Subassemblies of machine

---

---

Dear subscribers

Our company has developed the new model of painting jammer:

- ☉ Pretty outlook. The outlook and internal construction design have obtained national Patents
- ☉ You can replace the painting according to your favorite
- ☉ The working situation can be monitored by computer
- ☉ Easily operating with the irRemoter controller which can be used to switch on and off the machine as well as adjust each channel output power for a certain area that you want to cover
- ☉ Our product has obtained the certification of the quality test center of national safety department and the certification of the electronic test center of Shenzhen, as well as the certification of the magnetism transmission safety product test center of Guangdong
- ☉ Our company has gone through ISO9001: 2000 quality management system

☞ Open the package case and check the subassemblies as below:

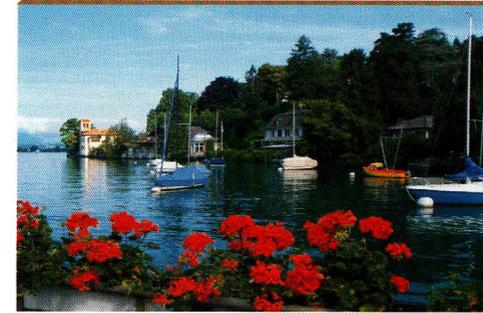
- One painting jammer
- One irRemote controller
- Two installation screws
- Two installation expand stuffer
- One the use' guide
- One the sheet of check out

# CONTENTS

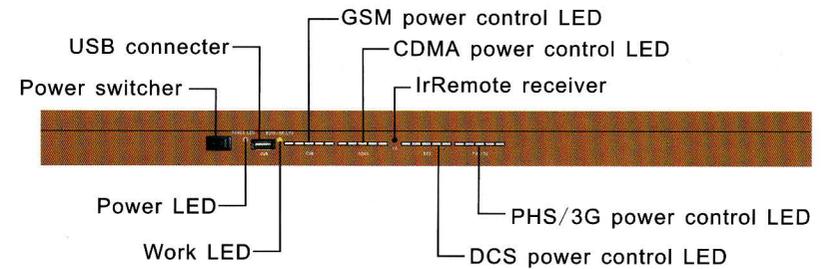
1. Introduction.....	1
1.1 Main view	
1.2 Side view	
1.3 Bottom view	
2. Features.....	2
2.1 Technique specification	
2.2 Technique features	
3. User's guide.....	3
3.1 Switch on and switch off	
3.2 Start work	
3.3 Special note	
4. Jammer shield properties.....	6
4.1 The according as theoretic	
4.2 Comparison of distance and pass through	
5. Cautions.....	7

## 1. Introduction

### 1.1 Main view



### 1.2 Side view



### 1.3 Bottom view



## 2. Features

### 2.1 Specifications

OUTPUT PORT	FREQUENCY BAND	BAND OUTPUT POWER	CHANNEL OUTPUT POWER
CDMA	851 <del>800</del> 894MHz	35dBm	5dBm/30KHz
GSM	925 <del>945</del> 960MHz	35dBm	1dBm/30KHz
DCS	1880 <del>1805</del> 1990MHz	33dBm	-5dBm/30KHz
PHS	1930 <del>1900</del> 1990MHz	33dBm	-8dBm/30KHz
3G	2110 <del>2100</del> 2170MHz	33dBm	-5dBm/30KHz

Antenna gain: 7.5dBi

Shield area: 5~80m      Side: 47.3X33.3X3.5cm

Power supply: AC110~220V/DC5V

Total consumption: 45W      Weight: 2Kg

((In the table: "channel output power" means maximum output power per each 30kHz))

### 2.2 Technique characteristics

- € Taking use of interfering technique with super-high frequency.
- € Higher of the antenna gain (7.5dBi), obtain larger area shielded.
- € One case style include in antenna, main machine and power supply, with high efficiency
- € Just interfere downlink signal and cause no interception to base station
- € High quality imported components, soft start up design of circuit. These components can maintain the stable operation condition with integration

## 3. User' guide

### 3.1 Switch on and switch off

Open the cover of power case on the bottom of the machine, put out the power line and connect electricity plug to AC 220v socket.

#### Switch on

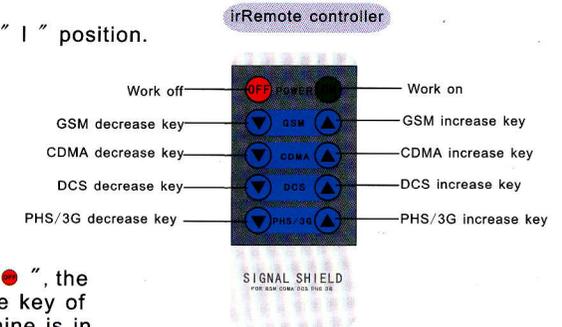
Put the switcher on the side bottom in " I " position.

#### Switch off

Put the switcher on the side bottom in " O " position.

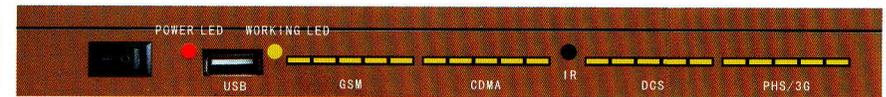
#### Standby

Put the key of the irRemote controller " ● ", the machine is in standby situation, put the key of the irRemote controller " ● ", the machine is in working situation.



### 3.2 Start work

3.2.1 When switch on you jammer, all the power control LEDs are light, which means the output power for all systems are maximum



3.2.2 Put the key of ( ● ) to decrease the outputpower for each system, one time put on one close LED will increase for correspond system.

3.2.3 Aim the irRemoter controller at the irRemote reciever on the side bottom off you machine, put the key of ( ● ) to increase the outputpower foreach system, one time put one light LED will increase for correspond system.

### 3. User' guide

#### 3. 2. 4 Comparison of power LEDs and output power

Maxmun output power	
CDMA output port	GSM output port
5dBm/30KHz	1dBm/30KHz
DCS output port	PHS output port
-5dBm/30KHz	-8dBm/30KHz
3G output port	
-5dBm/30KHz	

Put the key  of irRemote controller as shown in right



High output power	
CDMA output port	GSM output port
3dBm/30KHz	-1dBm/30KHz
DCS output port	PHS output port
-7dBm/30KHz	-10dBm/30KHz
3G output port	
-7dBm/30KHz	

Put the key again, the LEDs are shown as right picture



Middle output power	
CDMA output port	GSM output port
0dBm/30KHz	-4dBm/30KHz
DCS output port	PHS output port
-10dBm/30KHz	-13dBm/30KHz
3G output port	
-10dBm/30KHz	

### 3. User' guide

Put the irRemote controller key of (  ) of CDMA&GSM&DCS&PHS&3G, The LEDs are shown as right picture



Lower output power	
CDMA output port	GSM output port
-2dBm/30KHz	-6dBm/30KHz
DCS output port	PHS output port
-12dBm/30KHz	-15dBm/30KHz
3G output port	
-12dBm/30KHz	

Put the key again, the LEDs are shown as right picture



Minmun output power	
CDMA output port	GSM output port
-7dBm/30KHz	-11dBm/30KHz
DCS output port	PHS output port
-17dBm/30KHz	-20dBm/30KHz
3G output port	
-17dBm/30KHz	

#### 3. 3 Special notice

The frequency bands of each mobile System mentioned above are:

CDMA: 869~894MHz  
 GSM: 915~960MHz  
 DCS: 1805~1900MHz  
 PHS: 1900~1990MHz  
 3G: 2100~2170MHz

The bands can be changed according to subscriber's requirements, in this case, the each channel output power will vary some how accordingly. Jammer must be installed in front of the area which you want to shield.

## 4. Jammer shield properties

### 4. 1 According as theoretic

Wireless communication is effectively completed by ensuring adequacy carrier signal density to a certain noise density during transmission. A same frequency distortion signal is used to increase the ratio of carrier signal and noise (Nf) for shutting off the communication between the base station and mobile phone.

The output power of jammer is given, the shield radius in the situation of free space is confirmed according to the receiving signal lever from base station and free space attenuation in pass through. The below is given a formula of confirming shielding radius and a table of comparison of distance and pass through, based on carrier receiving power from base station, output power of jammer as well as gain of antenna:

$$P_{ch} + G_{at} - L + FAF \geq P_{rx}$$

In the formula:

- P<sub>ch</sub> : Minimum of carrier output power of jammer
- G<sub>at</sub> : Gain of antenna
- L : Attenuation in pass through
- FAF: Amending Figure of pass through, choosing 6db for 1.8G
- P<sub>rx</sub> : Maximum of carrier output power of base station

### 4. 2 Comparison of distance and pass through attenuation

LCDMA\GSM=32+20logd+FAF      LDCS\PHS\3G=32+20logd+FAF

d ( use meter as unit)

Distance (m)	CDMA\GSM Attenuation (dB)	DCS\PHS\3G Attenuation (dB)	Distance (m)	CDMA\GSM Attenuation (dB)	DCS\PHS\3G Attenuation (dB)
1	38	44	25	66	72
2	44	50	30	68	74
3	48	54	35	69	75
4	50	56	40	70	76
5	52	58	45	71	77
6	54	60	50	72	78
7	55	61	60	73	80
8	56	62	70	74	81
9	57	63	80	75	82
10	58	64	90	76	83
15	62	68	100	78	84
20	64	70	200	84	90

## 5. Cautions

1. Don't put jammer in water and near fire to avoid using in bad conditions of overwet, overhot, high voltage as well as high magnetism
2. Before connecting power supply is in " O " position. After connecting power supply. Put the switcher in " I " position.
3. Install the jammer in a position with good ventilation. avoid big block curtain off the disturbing signal in order to get good efficiency.
4. To avoid great nock the machine. Don't damage with pen, knife as well as acuity thing.
5. The effect of irRemote controller is not obvious, please check the hole of irRemoter on the side bottom of the machine whether it is blocked. Don't put the controller in wet, Please replace the batteries of the controller if it is out of work.
6. Please carefully clean the painting jammer with dishcloth with a little water, and don't use any other chemical.
7. Don't put the jammer near TV, computer etc in order to decrease the interfere coming from the jammer.
8. Not open the jammer without permission. Any ruin and disrepair operation and disassembly will be excluded from the repair with free of charge.
9. Main equipment, antenna and power supply are in one case. Please put the painting In front of the area which you want shield when installation.