# **BAGEN** BATHROOM MIRROR MIRROR DEFOGGER







# **COMPANY PROFILE**

As the leading manufacturer of mirror defoggers, lighted mirror cabinet and energy saving demister system, Shanghai Bagen Electronic Science & Technology Co., Ltd is dedicating to the study and application of electronic heating and de-fogging products, and supplying the building industry with high technology and professional products. Our success is based on the thorough understanding of heating materials as well as others in the building industry, which enables us to provide professional solutions and superior products to building projects. Many 5 star hotels, top apartments and luxury villas have adopted our system and designated to use Bagen mirror defogger for the bathroom decoration in China and abroad in years. In past 10 years, our mirror defogger, as well as our services, have been widely approved and appreciated by the industry; Bagen bathroom fog free mirror has become a necessity for hotels and residential projects.

With the philosophy of "Honesty, cooperation & innovation", our company is always energetically striving to achieve and serve the market, Bagen has been ISO-9001 certified in quality control systems since 2002 and has undergone stringent quality tests by CE, UL, Rohs, SAA, PSE from 2004-2007. Bagen products have been widely sold to all parts of the world.

In October 2007, we successfully designed and applied for a patent of a new Energy Saving Defogger System. This new system shall be launched in the market around August 2008; it will provide an absolute economic benefit to the hotels by making them save electric energy over 90%. In addition, we have new product - lighted fog-free mirror cabinet series. It is innovative design. Its thickness can be reach 40mm. Compared to the traditional lighted mirror box, it is easier to change the lamps when the lamps are broken.



# BAGEN MIRROR DEFOGGER

# **Technical Specification**

#### I Working principle

Bagen mirror defogger effectively transforms electricity power into heat energy, and then passes directly on mirror to heating up the mirror surface, warm up the mirror to a comfort temperature by the special rated power, which prevents the mirror surface from condensation of steam in bathroom effectively.

#### ${\rm I\hspace{-1.5pt}I}$ Size and Energy consumption of defogger

The size of defogger can be customed to meet your special demands.



1. rectangular mirror defogger





Series I :Rectangular				
Code	Size		Power rating(watt)	Energy consumption (kw.h)
R-1826	450mm×650mm	( 18"× 26")	57	0.057
R-2432	600mm×800mm	( 24"× 32")	96	0.096
R-2436	600mm×900mm	( 24"× 36")	108	0.108



R-3040	750mm×1000mm	( 30"× 40")	150	0.15
R-3448	850mm×1200mm	( 34"× 48")	204	0.204
R-4052	1000mm×1300mm	( 40"× 52")	260	0.26
R-4860	1200mm×1500mm	(48"×60")	360	0.36

### 2、Oval mirror defogger





Series II : Oval				
Code	Size		Power rating(watt)	Energy consumption (kw.h)
O-1826	450mm×650mm	(18"× 26")	45	0.045
O-2432	600mm×800mm	(24"× 32")	76	0.045
O-2436	600mm×900mm	(24"× 36")	87	0.087
O-3040	750mm×1000mm	(30"× 40")	123	0.123
O-4048	1000mm×1200mm	(40"× 48")	201	0.201
O-4852	1200mm×1300mm	(48"× 52")	218	0.218

## 3、Round mirror defogger







Series III:Round				
Code	Size		Power rating(watt)	Energy consumption (kw.h)
R-1515	380mm×380mm	( 15″× 15″)	20	0.02
R-2020	520mm×520mm	( 20"× 20")	41	0.041
R-2525	640mm×640mm	( 25"× 25")	65	0.065
R-3131	780mm×780mm	( 31″× 31″)	99	0.099
R-3535	880mm×880mm	( 35"× 35")	127	0.127
R-4040	1000mm×1000mm	( 40"× 40")	166	0.166
R-4444	1100mm×1100mm	( 44"× 44")	202	0.202
R-4848	1200mm×1200mm	( 48"× 48")	243	0.243

#### **III** Feathers of defogger

- 1. Light and thin: the thickness film is 0.4mm, this thickness guarantees the effective transfer of energy.
- 2. **Energy saving:** the defogger is with full backing self-adhesive glue, this ensures effective energy conduction.
- 3. Safely to use: all the defoggers are manufactured by excellent raw materials according to international standard. The finished product quality conforms to the corresponding international standard. The back self-adhesive glue is not only good for heat conducting, but also prevent water from mirror. And it's safe to use in moist bathroom.
- 4. **various options:** the heating area of the defogger is made in different shapes and sizes such as rectangular, oval, round etc. This not only plays the role of mirror demising but also meets the personal requirement of creating a more comfortable and beautiful environment.

5. **Easy to install:** the defogger with self-adhesive backing glue is easy to install on mirror and works effectively.

#### **IV** The Specification of Bagen Mirror Defogger

Product thickness: 0.4mm

Voltage: 12V, 24V, 110V, 220V, 230V, 240V



Power rating: 1.8-2.5W/d m<sup>2</sup>

Temperature rise: 12-25°C

V Bagen Mirror Defogger has been gone through strict tests by CE, UL, ROHS, SAA, PSE, TUV, IP54.

VI **Warranty:** 5 years warranty offered. Your warranty will be in effect as long as the requirements for the installation are met with our installation instruction.

VII Bagen Electronic Science & Technology Co., Ltd has supplied our mirror defogger for 80% hotel in

China. Parts of our overseas engineering achievement for your reference. Please see as follows.

# Parts of Engineering Achievements of Bagen Advanced Electronic Demister Mirror

Atlantis The Palm, Dubai	Bavaria Executive Suites, Dubai	
Eurotraveller Hotel London, UK	St Regis Hotel, Singapore	
Winford Manor Bristol, UK	Fortune park, Mumbai	
Fountaine Bleau Miami,USA	Tehran International Tower Tehran, Iran	
CORNICHE,Rosewood Hotel Dhaka, Bangladesh	Rockwood hotel Mumbai, India	
Pan pacific sonargaon hotel Bangladesh, Saudi Arabia	Palace Heights New Delhi, India	
Sheraton Medina, Saudi Arabia	Fortune Hyderabad Hyderabad, India	
Ritz-Carlton, Dubai	Djibouti Kampinski Hotel, Djibouti	
Dolce La Hulpe Belgium, Germany	Radission SAS hotel Astana, Kazakhstan	
FountaineBleau Resorts, Miami, USA	Miyako Hotel Los Angeles, USA	
Westin Pune, India	Sun-n-Sand Hotel, Nagpur, India	
Hotel CROWN PLAZA, Rohini, DELHI, India	Shekhar Resorts, Agra, India	
Intercontinetal Hotel , Huahin , Thailand	SK Hotel ,Thailand	
Eurotraveller Hotel London, UK	Hilton, Egypt	
Intercontinetal Hotel,Nepal	Le richemond roccoforte hotel, Geneva	
Bestech Hotel, India	Marriott, Egypt	

The Westin Shanghai

Howard Johnson Plaza

# BAGEN BATHROOM MIRROR DEFOGGER INSTALLATION INSTRUCTION

# SAFETY POINTS:

- 1. BAGEN Defogger is to be used as a bathroom mirror defogger only. Install in accordance with thes instructions. Any other use is not recommended.
- 2. Installation is not difficult and conforms to standard industry practice. As with any electrica product, we do recommend installation be performed by a qualified person in accordance with loca building and electrical codes. Disconnect power at the fuse breaker panel before installation.
- 3. HANDLE WITH CARE: DO NOT CUT, PUNCTURE, USE STAPLES, OR NAILS TO MOUNT The heating element of mirror defogger should never be cut or damaged. This will render th product useless. It cannot be repaired. Please take particular care not to damage the element. (Yo may trim the excess material as long as the actual heating element is NOT damaged. This is commo for BAGEN oval and round series. Round and oval Defoggers may have excess adhesive backin material trimmed not closer than 20 mm from the electrical heating grid component.)

Example:



4. The power supply cable of the defogger should not be pulled or drawn forcefully, this may caus damage to the defogger.

## FITTING THE HEATER TO THE MIRROR

- 1. Adhere the heater to the back of the mirror, NOT to the wall.
- 2. Always handle mirrors with care. Lay the mirror face down on a padded surface.
- 3. The back of the mirror must be absolutely clean, dry and grease free.
- 4. Peel off the protection paper approximately ten centimeters and fold paper back, adhere th heater with self-adhesive backing, directly onto the back of the mirror. Use towel or other so material to press the back of the defogger, as you pull off the rest of the protective paper. B careful not to leave air-bubbles between mirror and defogger.



# BAGEN BATHROOM MIRROR DEFOGGER

## INSTALL THE HEATED MIRROR ONTO THE WALL

The heated mirror can be installed on walls made of wood, ceramic tile, marble, etc. Walls must be dry, stable, and smooth.

The heated mirror should be wired directly into wall circuit.

Before installing mirror, apply clear silicon around the mirror with applicator onto the surface of wall of choice. Or if the mirror rests on clips, place a layer of silicon on the bottom of the clips.

Please allow a 2mm gap between the mirror and hard substances (e.g. ceramic brick, marble, tiles as well as metal and wood periphery around mirrors) If you have metal periphery, please ensure the mirror is grounded according to local regulations. (This may require a GFI circuit)



## ELECTRICAL INSTALLATION INFORMATION

Connect the wires of the defogger according to local regulations. (This may require a GFI circuit)

The power supply cable may be connected to the vanity lighting switch circuit. The heater should be switched. It is recommended heaters be switched with bathroom lights to turn on and off with the lights.

Fix the mirror onto wall by silicon or clips, then apply neutral silicon again to seal around the edge of the mirror, which is the same way with normal mirror.

Switch the power on and test the mirror. In approximately 3-5 minutes, the mirror should become warm.



There are several issues should pay attention when design & install electric heated mirror

#### Electric mirror may crack under the follow conditions



#### 1, There is no gap between mirror and hard substances

There is no gap between mirror and hard substances. If there is marble or ceramic tile round electric heated mirror, and mirror is concaved in this hard substances, and there is no gap between mirror and hard substances, mirror may crack during heating of expansion.





#### 2, After installed on wall, mirror bottom line has nail or rigidity substances

After installed on wall, mirror bottom line has nail or rigidity In order to keep mirror stable and flat, and ensure there is no marble or ceramic tile on the bottom, so need some soft substances to fill. If people misused hard substance, mirror may crack.

Mirror has outer angle



Mirror with a hole exceed diameter 50mm

#### 3. The following 3 ways digging may cause mirror crack.

1, mirror with rectangular hole for switch or other appliance.

- 2, mirror with a hole exceed diameter 50mm, for tap or other purposes.
- 3, mirror has inner angle as shown on the drawing.



	Conventional Center	Hotel	house
Howard Johnson Palm Beach Resort	The Ascott Puoloug Shanghai	Howard Johnson Oriental Hotel Zhejiang	Ramada Plaza ShangHai
JW Marriott Hotel Shanghai at Tomorrow Square	Central Hotel ShangHai	Renaissance Tianjin TEDA Hotel & Convention Centre	BaoLong Hotel ShangHai
Renaissance Suzhou Nison Hotel	Renaissance Suzhou Nison Hotel	Seagull Hotel ShangHai	Sofitel Westlake Hangzhou
Gubei Wan Hotel	Sofitel Silver Plaza Jinan	Guang Dong Hotel Shanghai	Sheraton Suzhou Hotel & Tower
Purple Mountain HOTEL	Holiday Inn Crowne Plaza Hotel	Xi Jiao Guest house	Four Seasons Hotel Shanghai
Salvo Hotel ShangHai	Pudong Shangri-La Hotel	Chongqing Carlton Hotel	Shangri-La Hotel ChangChun
Sheraton Jiuzhaigou Resort	Shangri-La Hotel QinDao	Liang An Hotel	Crowne Plaza Hotel PuDong
SH Shimao Riviera Garden	Portman Ritz-Carlton Hotel	SH Shimao Lakeside Garden	Radisson Plaza Xing Guo Hotel
Jin Jiang Tower	Zhejiang Xizi Hotel	Huating Hotel	Longhill Hotel
Dongfang hotel GuangZhou	Grand Hyatt Guangzhou	Sheraton Shanghai Hotel Residences, Pudong	The Westin Guangzhou

# Parts of Engineering Achievements of Bagen Backlit Mirror

Westin Hotel in New Orleans, Louisiana, USA	Asian Beach Games,Oman
Radisson BLU hotel, Oman	Sheradon, Oman
Intercontinental Apartment&Hotel - Qatar	Marriott Singapore
Holiday Inn, China	St. Regis Villa Hainan
Sheraton Qingdao	Crowne Plaza Guangzhou
The Peninsula Hotel Shanghai	Peace Hotel
Crowne Plaza Huadu	Sunny Bay Hainan
Marriot Hotel Sanxi	Intercontiental Hotel Shanghai

In 2008, our company supplied our product for the luxury seven-star hotel -- Atlantis the Palm as below picture which was invested 1.5 billion US Dollars by Dubai.



7F,No.1 Lane 400 Tangqiao Rd,Pudong,Shanghai,200127CN TEL: (8621) 5090 7817 FAX: (8621) 5135 7376 Http://www.beigen.com E-mail:ivy@yashdefogger.com



Bagen Co. Limited Bagen Electronic Science & Technology Co., Ltd Bagen Bathroom Equipment Co., Ltd (Shanghai) Factory Address: Sanzao Indutrial Park, No.466 Xuanqiu Road,Pudong, Shanghai,201318CN Office Address: 7F,No.1 Lane 400 Tangqiao Rd,Pudong,Shanghai,200127CN Contact: Ivy Tang Mobile:86-1360 1620 992 Email: ivy@yashdefogger.com MSN: ivy123.tang@hotmail.com Skype:ivy2426 Tel:86-21-5090 7817 Fax:86-21-5135 7376 Website: www.beigen.com www.yashdefogger.com