For your safety and proper use of this equipment, please read carefully and understand the contents of this manual. Return or keep this manual in its designated place after reading or when not in use.

Pre-Engineered
Automatic Clean Agent
Fire Extinguishing System

HFC-227ea
HFC-125
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   © Detailed Drawing of PCB
   © Electrical Wiring Diagram
   © Installation Methods and Notice
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Chapter 1. Overview

This manual describes the proper handling and operating of the Cabinet Automatic Fire Extinguishing System manufactured by Masteco Industry Co., Ltd.

Specific instructions for components installation, operation, inspection and maintenance are included. Users are strongly advised to carefully follow these instructions to ensure proper operation and prolong the life of the equipment.

Maintenance procedures that require replacement of the PCB components are not illustrated in this manual, please contact nearest authorized agent or Masteco at telephone number 032-811-1301.

Applicable Products
1. HFC-227ea Cabinet Automatic Fire Extinguishing System (Low Pressure)
2. HFC-125 Cabinet Automatic Fire Extinguishing System (Low Pressure)

Chapter 2. Characteristics and Specifications

2-1. Characteristics

1. Direct installation in the protected area
Cabinet Automatic Fire Extinguishing Systems are pre-engineered automatic clean agent fire extinguishing system consists of a set of functional components packed in steel enclosure or cabinet as a single piece or unit of equipment. The unit is directly installed in the protected area therefore, does not require specific agent cylinder storage room.

2. Fast and automatic fire extinguishment
Cabinet Automatic Fire Extinguishing Systems are designed to discharge the clean agent in less than 10 seconds. This means that fire is extinguished relatively fast.

3. Applicable for both occupied and non-occupied protected area
When installed accordingly in specified size of protected space, the agent concentration is safe for humans - making the Cabinet Automatic Fire Extinguishing Systems suitable for occupied protected areas.

4. Power-loss worry free
Cabinet Automatic Fire Extinguishing System are equipped with emergency back-up power to ensure proper equipment operation when main power supply is cut off for as long as 60 minutes.

5. State-of –the-art control circuit
Cabinet Automatic Fire Extinguishing Systems utilize small ultramodern electronic circuit with excellent control functions.
6. Multi-check function

The products feature multiple-check functions. Users can easily confirm any trouble in the equipment by reviewing the audible and visual warnings.

7. Operation by smoke and heat detector

Cabinet Automatic Fire Extinguishing Systems utilize smoke and heat detectors that are setup in “synchronous operation” to ensure accurate fire detection. Fire is only confirmed after simultaneous operation of both heat and smoke detectors. If only either one of these detectors activate the detection system is automatically reset after predefined time.

8. Clean

The extinguishing agent FM-200 or HFC-125 leaves no residue after discharge and fire extinguishment – minimizing time for repair or restoration of protected areas.

### 2-2 Specifications

1. Specifications of Cabinet Automatic Fire Extinguishing System

1) HFC-227ea System

<table>
<thead>
<tr>
<th>Agent Container Capacity</th>
<th>50kg×1B/T</th>
<th>75kg×1B/T</th>
<th>100kg×1B/T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>HFC-227ea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>(캐04-4), (캐04-4-1)</td>
<td>(캐04-9), (캐04-9-1)</td>
<td>(캐04-8), (캐04-8-1)</td>
</tr>
<tr>
<td>Protected Area (Max. Ceiling Height 3.7 m)</td>
<td>74.16 m³</td>
<td>111.24 m³</td>
<td>148.32 m³</td>
</tr>
<tr>
<td>Storage Pressure &amp; Discharge Time</td>
<td>2.48 MPa 10 sec</td>
<td>2.48 MPa 10 sec</td>
<td>2.48 MPa 10 sec</td>
</tr>
<tr>
<td>Working Temperature</td>
<td>-10 °C to 40 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure Size (W×D×H)</td>
<td>500 x 500 x 1900 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enclosure Material</td>
<td>KSD3503  1.6t</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Ivory (ED003K)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Power Supply</td>
<td>220V AC, 60Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alarm</td>
<td>Siren, Vocal Broadcasting, LED Lamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Weight</td>
<td>190 kg</td>
<td>230 kg</td>
<td>265 kg</td>
</tr>
</tbody>
</table>
### 2) HFC-125 System

<table>
<thead>
<tr>
<th></th>
<th>25kg×1B/T</th>
<th>50kg×1B/T</th>
<th>75kg×1B/T</th>
<th>100kg×1B/T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agent Container Capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Agent</strong></td>
<td>HFC-125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model</strong></td>
<td>캐09-11</td>
<td>캐07-18</td>
<td>캐07-19</td>
<td>캐07-9</td>
</tr>
<tr>
<td><strong>Protected Area (Max. Ceiling Height 3.7 m)</strong></td>
<td>38.52 m³</td>
<td>77.05 m³</td>
<td>115.57 m³</td>
<td>154.09 m³</td>
</tr>
<tr>
<td><strong>Storage Pressure &amp; Discharge Time</strong></td>
<td>2.48 MPa 10 sec</td>
<td>2.48 MPa 10 sec</td>
<td>2.48 MPa 10 sec</td>
<td>2.48 MPa 10 sec</td>
</tr>
<tr>
<td><strong>Working Temperature</strong></td>
<td>-10 °C to 40 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enclosure Size (W×D×H)</strong></td>
<td>500 x 500 x 1900 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enclosure Material</strong></td>
<td>KSD3503 1.6t</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Ivory (ED003K)</td>
<td></td>
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<tr>
<td><strong>Main Power Supply</strong></td>
<td>220V AC, 60Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alarm</strong></td>
<td>Siren, Vocal Broadcasting, LED Lamp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross Weight</strong></td>
<td>165 kg</td>
<td>190 kg</td>
<td>230 kg</td>
<td>265 kg</td>
</tr>
</tbody>
</table>
**Chapter 3 Control Panel**

**3-1 Overview**

The Control Panel is built in the cabinet or enclosure. It electronically controls the functions of the entire Cabinet Automatic Fire Extinguishing System which include confirmation of fire detection, actuation for agent discharge and activation of alarms. It consists of electronic control circuits, switch, fuse, etc. and embedded with control program carefully designed for reliable and safe system operation.

**3-2 Essential Electronics**

**3-2.1 Power Circuit**

Main electrical power to the Cabinet Automatic Fire Extinguishing System is supplied at the conventional rating of 220V AC, 60Hz. The power circuit is equipped with suitable transformers and other electrical devices that enable conversion of current and supply of 24V DC to the Control Panel while also charging the batteries for back-up power supply.

- Power normal condition: At normal condition, the Control Panel is supplied with electrical power from the main electrical power source i.e. AC source at the same charging the batteries if necessary.

- Power cut-off condition: When power is cut-off, the batteries automatically supply the electrical power to the Control Panel. When fully charged, batteries are capable of supplying the needed power for about 60 minutes. When the main power is restored, the system automatically switch to power normal condition as pointed out above.

**3-2.2 Vocal Broadcasting**

The Cabinet Automatic Fire Extinguishing System are equipped with Vocal Broadcasting system that produces programmed voice announcement through the speaker in case of fire and general instructions for safe escape. The speaker is fitted with volume controller that is used to adjust voice level. The amplifier output is 10 W with the speaker impedance of 8 Ω. Prior to Vocal Broadcasting siren alarm is sounded that lasts for 10 seconds. The following are the sequence of alarms produced by the fire extinguishing system in the event of fire.

2. Vocal Broadcasting for Escape: Vocal instructions for fire escape that is computer pre-programmed within the integrated circuits.
3-2.3 Detection Circuit
In the event of fire, electrical signal from the detectors located in a protected flows through the detection circuit and into the control panel. Control panel then activates the fire signal lamp and emergency vocal broadcasting.

3-2.4 Discharge Circuit
As the electrical signal from the detectors is received by the control panel, the solenoid cutter is also activated. The solenoid cutter then actuates the agent container valve allowing the discharge of fire extinguishing agent. The extinguishing agent pressure actuates the pressure switch which signals the control panel of the agent discharge. The control panel in turn activates the LED lamp to indicate that the agent is being discharged. The electronic connection of the control panel, solenoid cutter, pressure switch and LED lamp forms the discharge circuit.

3-2.5 Cut-out circuit
This cut-out circuit is used to constantly monitor the connectivity of the electric wires of detectors, solenoid valve, discharge lamps and manual control box. Trouble in the electrical line or some abnormal status can be confirmed by the alarm sound (cricket sound) with the green lamp on.
3-3 Control Panel Interface

The control panel interface provides a means for operating, testing and monitoring the status of the Cabinet Automatic Fire Extinguishing System. Operating commands can be input to the control panel via the button switches while system status can be verified via the LED lamps. Button switches and LED lamps are labeled accordingly. The function of each button and lamp is described in this section.

<table>
<thead>
<tr>
<th>No</th>
<th>Display Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Speaker</td>
</tr>
<tr>
<td>2</td>
<td>Power Lamp</td>
</tr>
<tr>
<td>3</td>
<td>Aux Power Lamp</td>
</tr>
<tr>
<td>4</td>
<td>Aux Power Trouble Lamp</td>
</tr>
<tr>
<td>5</td>
<td>Fire Lamp</td>
</tr>
<tr>
<td>6</td>
<td>Circuit Trouble Lamp</td>
</tr>
<tr>
<td>7</td>
<td>Actuator Lamp</td>
</tr>
<tr>
<td>8</td>
<td>Discharge Lamp</td>
</tr>
<tr>
<td>9</td>
<td>Manual Actuating Lamp</td>
</tr>
<tr>
<td>10</td>
<td>Detector 1 Lamp</td>
</tr>
<tr>
<td>11</td>
<td>Detector 2 Lamp</td>
</tr>
<tr>
<td>12</td>
<td>Voltmeter</td>
</tr>
<tr>
<td>13</td>
<td>Battery Check Switch</td>
</tr>
<tr>
<td>14</td>
<td>Sound ON/OFF Switch</td>
</tr>
<tr>
<td>15</td>
<td>Actuator Stop Switch</td>
</tr>
<tr>
<td>16</td>
<td>Reset Switch</td>
</tr>
<tr>
<td>17</td>
<td>Detector Test Switch</td>
</tr>
<tr>
<td>18</td>
<td>Detector 1 Test Switch(L1+,-)</td>
</tr>
<tr>
<td>19</td>
<td>Detector 1 Test Switch(L2+,-)</td>
</tr>
<tr>
<td>20</td>
<td>Operating Auto mode</td>
</tr>
<tr>
<td>21</td>
<td>Operating Manual mode</td>
</tr>
<tr>
<td>22</td>
<td>Mode Select Switch</td>
</tr>
<tr>
<td>23</td>
<td>Manual Actuating Switch</td>
</tr>
<tr>
<td>NO</td>
<td>Lamp/Switch</td>
</tr>
<tr>
<td>----</td>
<td>----------------</td>
</tr>
<tr>
<td>1</td>
<td>Speaker</td>
</tr>
<tr>
<td>2</td>
<td>Power</td>
</tr>
<tr>
<td>3</td>
<td>Battery</td>
</tr>
<tr>
<td>4</td>
<td>Monitor of Battery</td>
</tr>
<tr>
<td>5</td>
<td>Fire</td>
</tr>
<tr>
<td>6</td>
<td>Line Disconnected</td>
</tr>
<tr>
<td>7</td>
<td>Operating Device</td>
</tr>
<tr>
<td>8</td>
<td>Gas Discharge</td>
</tr>
<tr>
<td>9</td>
<td>Manual Actuation</td>
</tr>
<tr>
<td>10</td>
<td>Detector 1</td>
</tr>
<tr>
<td>11</td>
<td>Detector 2</td>
</tr>
<tr>
<td>12</td>
<td>Voltage</td>
</tr>
<tr>
<td>13</td>
<td>Battery Test</td>
</tr>
<tr>
<td>14</td>
<td>Sound ON/OFF</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15</td>
<td><strong>Abort Discharge</strong></td>
</tr>
<tr>
<td>16</td>
<td><strong>Reset</strong></td>
</tr>
<tr>
<td>17</td>
<td><strong>Detector Test</strong></td>
</tr>
<tr>
<td>18</td>
<td><strong>Detector 1</strong></td>
</tr>
<tr>
<td>19</td>
<td><strong>Detector 2</strong></td>
</tr>
<tr>
<td>20</td>
<td><strong>Auto Mode</strong></td>
</tr>
<tr>
<td>21</td>
<td><strong>Manual Mode</strong></td>
</tr>
</tbody>
</table>
Chapter 4 Installation Methods

1. Install the cabinet (fire extinguishing system) in a suitable location where the agent can be distributed uniformly throughout the protected area during discharge. An optimum location can be the farthest and obstruction-free point in the protected area.

2. Fire Extinguishing Agent Container Fixtures
   As delivered, verify that the Extinguishing Agent Container is fixed to the steel cabinet using the provided steel band. The flexible hose is also mounted to the container.

3. Pressure Switch Connection
   The pressure switch is actuated by the pressure from the agent during discharge. It shall be appropriately connected to the unit through the flexible hose using copper tube and fittings.

4. Connecting the Solenoid Cutter
   Solenoid Cutter is used to open the agent container valve to enable the discharge of agent. Ensure that the safety pin is secured with the needle head and the safety clip is properly mounted to the push button. Install the Solenoid cutter to the top of the container valve by tightening the nut adapter. Connect the wire terminals accordingly. Refer to the Installation Method and Suggestions for more details.

5. External Devices Wiring Connection
   Electrical devices not built-in with the cabinet must be properly connected to the unit. Connect all detectors, manual station, discharge lamp, and speaker wiring to the control panel of the Cabinet Automatic Fire Extinguishing System in accordance with the corresponding wiring diagrams attached to the control.

   **CAUTION:** It is highly recommended that manufacturer’s suggested devices be used. If other devices are used, make sure that they are compatible with the Control Panel.

6. System Integration with Other Facilities
   After making the necessary connections with the Cabinet Type Auto-Fire Extinguishing System, if applicable, the unit can be connected to other facilities such as air-conditioning system, ventilation system, security system, etc.

7. System Function Verification
   Test all functions of the Cabinet Automatic Fire Extinguishing System. Execute corrective measures of any functional issue is found.
Chapter 5 Operating Methods

5-1 Automatic Operation

The Cabinet Automatic Fire Extinguishing System automatically operates via the detectors. In case of fire, the detectors are activated sending electrical signal to the Control Panel. The Control Panel activates the fire alarms (audible and visual) systematically and at the same actuates the Solenoid Cutter to open the agent container valve. As the agent is discharged through the flexible tube, part of it flows into the copper tube connected to the pressure switch. The pressure from the discharged agent actuates the switch and electrical signal is sent to the Control Panel to activate the discharge alarm lamp while rest of the fire extinguishing agent is discharged to the protected area through the discharge head that is exposed over the top of the cabinet.

5-2 Manual Operation

Manual agent discharge operation of the Cabinet Automatic Fire Extinguishing System can be initiated from inside or outside the protected area (room).

5-2.1 Operation from Inside the Protected Area

5-2.1.1 Operation Using the Manual Actuation Button
To manually operate the unit for agent discharge, proceed to the control panel interface and find the Manual Actuation button. Crush/Break the acrylic plate cover of the Manual Actuation button then press the button.

5-2.1.2 Operation Using the Solenoid Cutter
To manually operate the unit for agent discharge, open the cabinet door and find the Solenoid Cutter. Pull-off the safety clip from the Solenoid Cutter and press the Push button.

5-2.2. Operation from Outside the Protected Area
To manually operate the unit for agent discharge from outside the protected area, proceed to the Manual Station located by the room door. Open the Manual Station cover, break/crush the safety protection panel and press the button.
5-3 Abort Operation

In an unlikely case of faulty operation of the detectors and/or false fire alarm, the system operation can be aborted to prevent agent discharge. To totally abort the agent discharge operation, proceed to the Control Panel interface located at the front of cabinet. Press the Abort Gas Discharge button.

Alternatively, the system operation can be temporarily aborted via the Abort Switch if installed with the system to hold and/or delay agent discharge. To execute the system abort, proceed to the Abort Switch located by the door outside the protected room. Press and continuously hold down the button to abort system operation. Abort is only active while the button is being held down. Upon release of the Abort Switch, the agent discharge sequence will be re-initiated and the agent will be discharged within 30 seconds. The abort/delay is normally utilized in case of emergency where protected area occupants are being evacuated out of the protected area prior to agent discharge.
Chapter 6 Inspection & Maintenance

6-1 Inspection

1. Daily Inspection
Daily inspection should be carried out to cover the following activities.
◎ Confirm the Auto-Manual Mode switching operation.
◎ Confirm the status of lamps.
◎ Confirm the status of switches.
◎ Confirm the power voltage of digital voltmeter.
◎ Confirm the agent storage status of the agent container.
◎ Confirm the transformation and corrosion of external shape.
◎ Confirm that the space in front of cabinet is free of any possible obstruction of agent discharge.
◎ Confirm the auxiliary battery power.

2. Quarterly Inspection
The quarterly inspection is carried out once every other three months. This should be inspected by the firefighting engineer, qualified fire manager, or expert of the Cabinet Type Auto-Fire Extinguisher.
◎ Confirm installed position or status of the fire extinguisher.
◎ Confirm the damage or corrosion of the component of the unit.
◎ Confirm the position of component, and any modification of fixed parts.
◎ Confirm the status of solenoid cutter and safety clip and sealing conditions of the unit.
◎ Confirm the electrical wiring terminals are properly connected.
◎ Confirm that cylinder shows no sign of agent leakage or loss of pressure.
◎ Confirm the status of the power supply.
◎ Confirm the operating status of the solenoid cutter.
◎ Inspect and confirm all functions of the control system.

6-2 Maintenance
◎ Maintenance should be performed by firefighting engineers in accordance to instructions of the expert of Cabinet Type Auto-Fire Extinguishing System.
◎ Contact the manufacturer for any difficulty or issues related to the product.
Chapter 7 Special Notice on Maintenance & Service

1. As the AC power should be connected at all times (for 24 hours), the users should confirm that electrical power is continuously supplied.

2. Users should always check the battery charging operation. The battery will not recharge after it has been drained or discharged to 8V or below. In such case, the battery must be replaced.

3. The Solenoid Cutter is equipped with slender needle having sharp tip. Take precaution in handling to avoid personal injury. Handle the device with care, avoid external shock and always excessive humidity.

4. When resetting the Solenoid Cutter after the inspection, the users should pay close attention not to damage the needle.

(Refer to the Installation Method and Special Notice.)
### Chapter 8 Troubleshooting

When installing or operating this unit, if any abnormal operation occurs, please take necessary action according to this troubleshooting guide. If the troubleshooting solution herein does not solve the problem, contact MASTECO at telephone number 032-811-1301.

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
</table>
| When the POWER lamp turns off | *Inferior inlet power line.  
*The power switch is off.  
*Abnormal AC fuse.  
*Inferior AC LED Lamp. | *Confirm the input line.  
*Confirm On-Off switch.  
*Change the fuse when the fuse is cut-off.  
*Change LED. |
| When BATTERY lamp is on | *AC power is off.  
*The power switch is off.  
*Abnormal AC fuse. | *Confirm the power connection and the power supply.  
*Powerswitch should be on.  
*Change the fuse when the fuse is cut-off. |
| When MONITOR OF BATTERY lamp is on | *DC power is off, but battery is on.  
*Inferior battery charging or fuse is cut-off. | *AC switch should be on.  
*Battery should be connected and the fuse should be changed or battery should be changed. |
| When the FIRE lamp is on | *In case of detector 1 is operating.  
*In case of detector 2 is operating.  
*In case of manual starter is operating. | *Inspect the detector 1 and if it is mis-operated, please reset it.  
*Inspect the detector 2 and if it is mis-operated, please reset it.  
*When operated by manual starter, as the agent is discharged within 30 seconds, in case of no fire, push the discharge stop switch, and reset it after investigating the cause. |
| When DETECTOR 1, DETECTOR 2 lamps are on | * In case of DETECTOR 1, DETECTOR 2 is cut-off.  
*Terminal is disconnected from the register  
*Trouble relay fail by the faulty wiring. | *Reset the cut-off wiring.  
*Connect the terminal register.  
*Change the trouble relay. |
<table>
<thead>
<tr>
<th>Trouble</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting status of LINE DISCONNECTED lamp.</td>
<td>DETECTOR 1 is cut-off. DETECTOR 2 is cut-off. Trouble relay is disordered by the faulty wire connection.</td>
<td>Restore the cut-off line. Make out the terminal register. Change the trouble relay.</td>
</tr>
<tr>
<td>No fire, alarms sound</td>
<td>*Manual box door is open</td>
<td>Close the door of the manual box.</td>
</tr>
<tr>
<td>No voltage signal at the VOLTAGE (the signal : DC24 is correct, but 00:0 is not normal)</td>
<td>Troublesome of regulator IC. Electrical shock and damage</td>
<td>Change the regulator IC. Change the 4051MUX IC.</td>
</tr>
<tr>
<td>Trouble</td>
<td>Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>If the warning sound is too low or too loud.</td>
<td>• Adjust the volume of warning sound.</td>
<td>*There is volume control at the center of the board equipped to the top end. Adjust volume accordingly. Clockwise : - (Decrease) Counter-clockwise : + (Increase)</td>
</tr>
<tr>
<td>In case of adjusting the delay time of Solenoid Cutter operation.</td>
<td>*Adjust the time delay.</td>
<td>*The volume equipped to the board of the lower end is adjusted. Clockwise : - Counter-clockwise : +</td>
</tr>
</tbody>
</table>

Detailed Dwg of PCB
CABINET AUTOMATIC FIRE EXTINGUISHER CONFIGURATION

HEAT DETECTOR

SMOKE DETECTOR

DISCHARGE LAMP

MANUAL BOX

OPERATION PAD
Installation Method and Safety Notes

(Low Pressure Cylinder 50,75,100KG)

1. The extinguishing agent container should be installed in suitable location such that the discharged agent is equally distributed in the protected area.
2. The cabinet should be installed indoor on level floor and away from any flammables. The rear side should evenly rest against the wall and the bottom fixed to the floor by anchor bolts.
3. Remove possible obstacles from the discharge head located on top of the cabinet.
4. The flexible hose should be assembled to the container valve according to the installation drawing.
5. Ensure that the extinguishing agent container is securely fastened to the cabinet by bands and bolts.
6. Note that the safety pin must be removed from the needle head to ensure solenoid cutter actuation. Failure to remove the safety pin may result to system inability to discharge agent even during fire.
7. Operator of the equipment MUST read the manual for other details.
LIMITED WARRANTY SHEET

Warranty Period : 1 year from the date of purchase
Model No./Product Description :
Date of Purchase :
Buyer Information (Name/Company) :
Address :
Sales Agent/Representative :
Address :
Phone :

GENERAL POLICY:
☑ All Cabinet Automatic Fire Extinguishing System products are inspected and approved by Korea Fire Institute;
☑ Masteco Industry Co., Ltd., the manufacturer based in Incheon, Korea provides a limited warranty against defects in material and workmanship on all Cabinet Automatic Fire Extinguishing System components;
☑ One (1)-year warranty is limited the following options (to be decided by manufacturer):
   (a) Replacement or free-of-charge repair of defective components;
   (b) Refund of purchase price for such components paid by buyer;
☑ Buyer to pay transportation-related fees incurred from sending to manufacturer or service center any component for repair and receiving the repaired or replacement component;
☑ The buyer has the right to enforce such warranties;
☑ On-site inspection or repair services rendered after expiration of 1-year warranty are subject to appropriate charges.

WARRANTY SHALL NOT APPLY WHEN:
☑ Product has been subjected to neglect, misuse, abuse or damage;
☑ Product has been installed or operated other than in accordance with the instructions in this manual;
☑ Repair or reassemble was done by party/parties other than authorized servicemen;
☑ Product has been damaged due to natural calamity, fire, flood disaster;
☑ Warranty Sheet is not provided when requested.

To make warranty claim contact:

MASTECO INDUSTRY CO., LTD.
Head Office: 1101ho, Beotkkot-ro, Geumcheon-gu
Seoul, 153-788, Korea
Tel.: 02-785-1301, Fax: 02-785-1313
Service Center: (146BL-13LT) 715-12, Gojan-dong, Namdong-gu
Incheon, 405-821, Korea
Tel.: 032-811-1301 Fax: 032-811-1305
◆ This product is inspected and approved by the Korea Fire Institute.
◆ Within 1 year from the date of procurement, this product can be after serviced (A/S).
◆ After 1 year of warranty period, this product can be after serviced at suitable cost.
◆ This warranty sheet shall be presented when requested during after service.