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PSKD50-100B

REMOTE CONTROL WATER CANNON / MONITOR

Vehicles Mounted / Industries

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Firefighting Equipment Manufacturer

FOREDE ® PSKD-B Series cannon/monitor is electric wired (or wireless remote control) DC drive, which fully realizes the advantages of remote separation between the operator and the fire scene, and can well protect the personal safety of the fire extinguishers.

PSKD-B has the characteristics of stable and reliable performance, flexible operation, convenient maintenance, long range, light weight and small size. When spraying water jets, it can extinguish solid fires; when spraying blooming water mist, it can be used for cooling and fire fighting.

This product is suitable for being equipped with light fire trucks and fire boats. It can also be used as the front monitor of fire fighting vehicles to remove fire sources near the fire truck and effectively protect the safety of the fire truck. At the same time, the monitor can also be used as an industrial and mining enterprise and warehouse. Stationary fire extinguishing equipment in places such as, museums, exhibition halls, oil fields, storage tanks, etc.

FEATURES

- Light aluminum alloy construction
- Elevation travel of 180°, from -75° to +90°
- 360° Rotation horizontally
- Nozzle has a built-in Stream Sharper
- Complete with full control system (optional)
  - Vehicles mounted (Joystick, RC transmitter)
  - Industries (RC transmitter, Control box)
- IP67 waterproof
- Long service and easy repair
- Flow rate 3000-6000LPM, Automatic nozzle
- Water Jetting Range: Max ≥85 meters
- Working Pressure: 8.5-12 bar (0.85-1.2MPa)
- Weight: 35kg
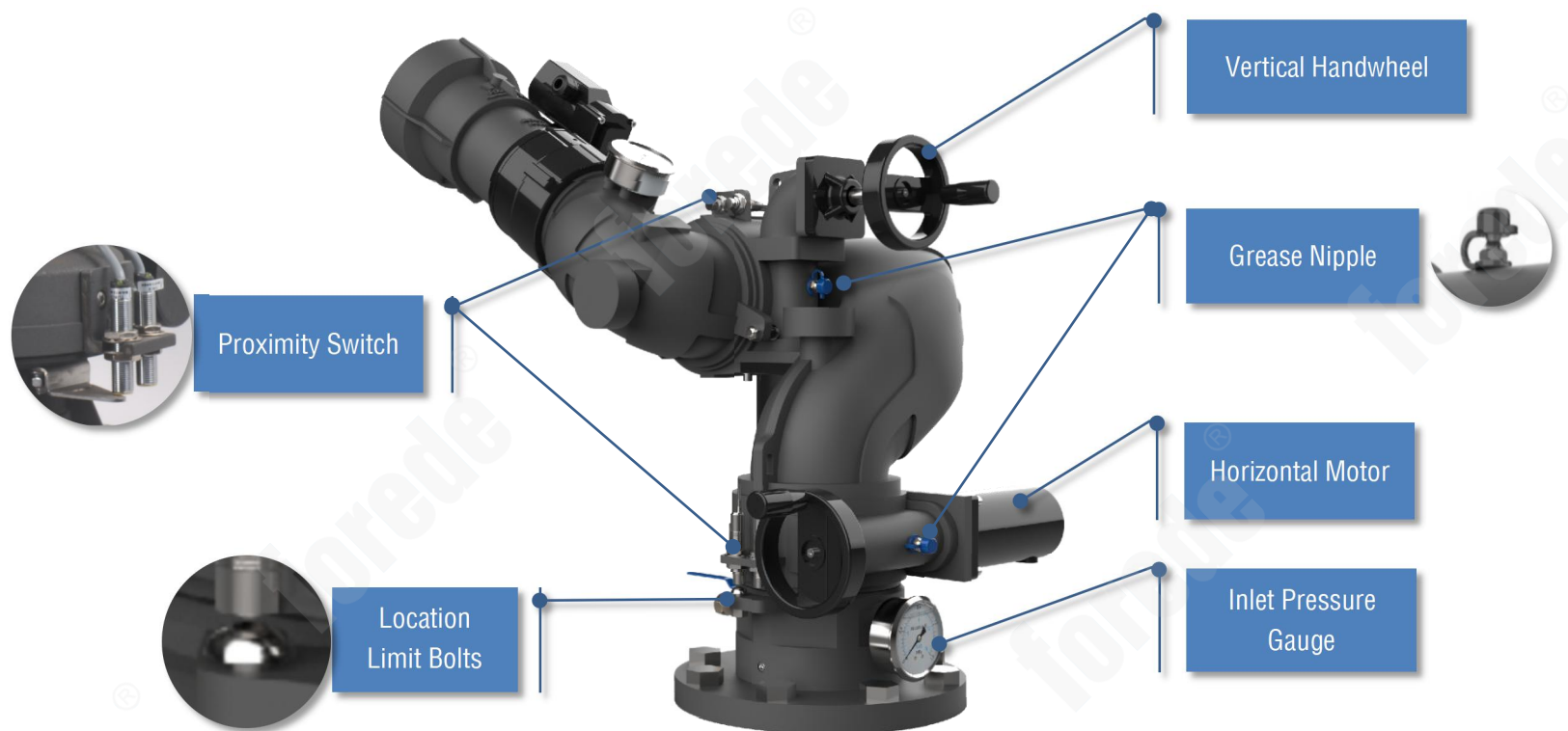- Carton Package: 48kg/77.5*52*63.5cm
- Color: RAL3000 Red standard

IP67   JOYSTICK   RC TRANSMITTER

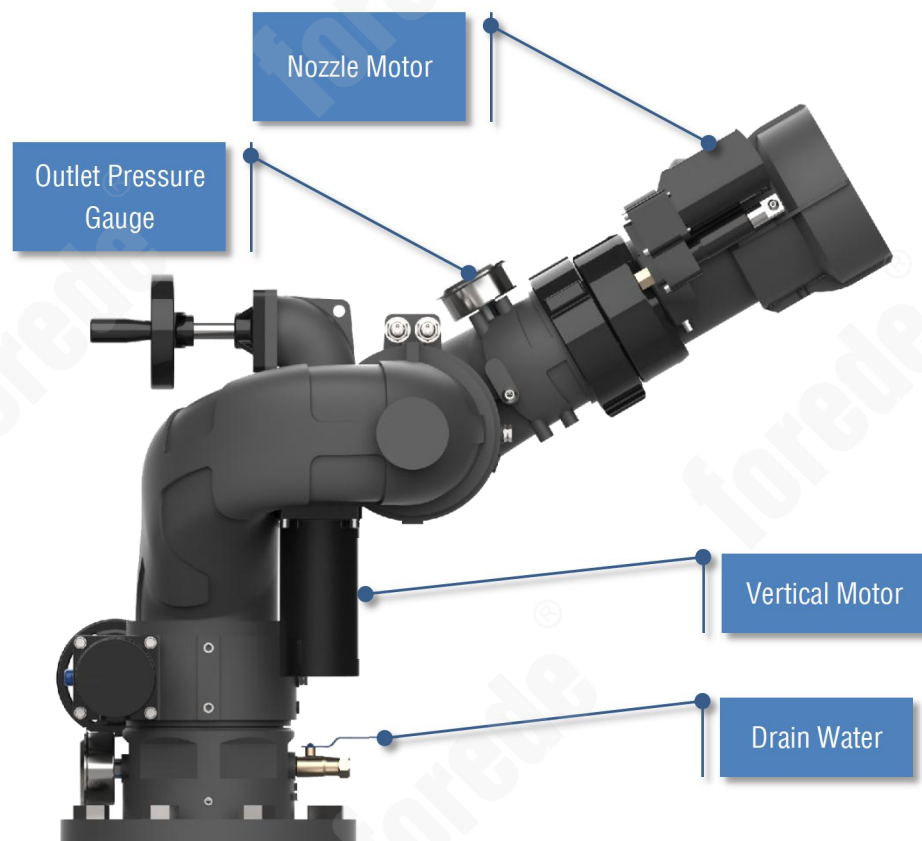| Material	
Body	Hard Anodized Aluminum alloy
Nozzle	Hard Anodized Aluminum alloy
Handwheel	Hard Anodized Aluminum alloy
Flange	Hard Anodized Aluminum alloy

Model	PSKD50B	PSKD60B	PSKD80B	PSKD100B
Flow Rate	3000LPM	3600LPM	4800LPM	6000LPM
Working Pressure	0.85 MPa	0.95 MPa	1.0 MPa	1.2 MPa
Water Jetting Range	≥ 70 meters	≥ 75 meters	≥ 80 meters	≥ 85 meters
Max Range of Motion	-75° to +90° Vertically, 360° Rotation, degree customized			
Turning Speed	24° /Second rotation, speed customized			
Power Supply	DC 24V is standard, DC 12V and AC 220V optional			
Waterway Size	3'' (80mm)			
Outlet	3'' NH Connection			
Inlet	4'' BS 4504 Flange is standard (other sizes & std. are available)			

APPLICATION

- Anti-Riot vehicles
- Police trucks
- Coastal patrol boats
- Anti-Riot boats
- Police boats
- High buildings
- Firefighting vehicles
- Industries

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Vertical Handwheel

Grease Nipple

Proximity Switch

Horizontal Motor

Location Limit Bolts

Inlet Pressure Gauge

SIDE A DETAILS VIEW

Nozzle Motor

Outlet Pressure Gauge

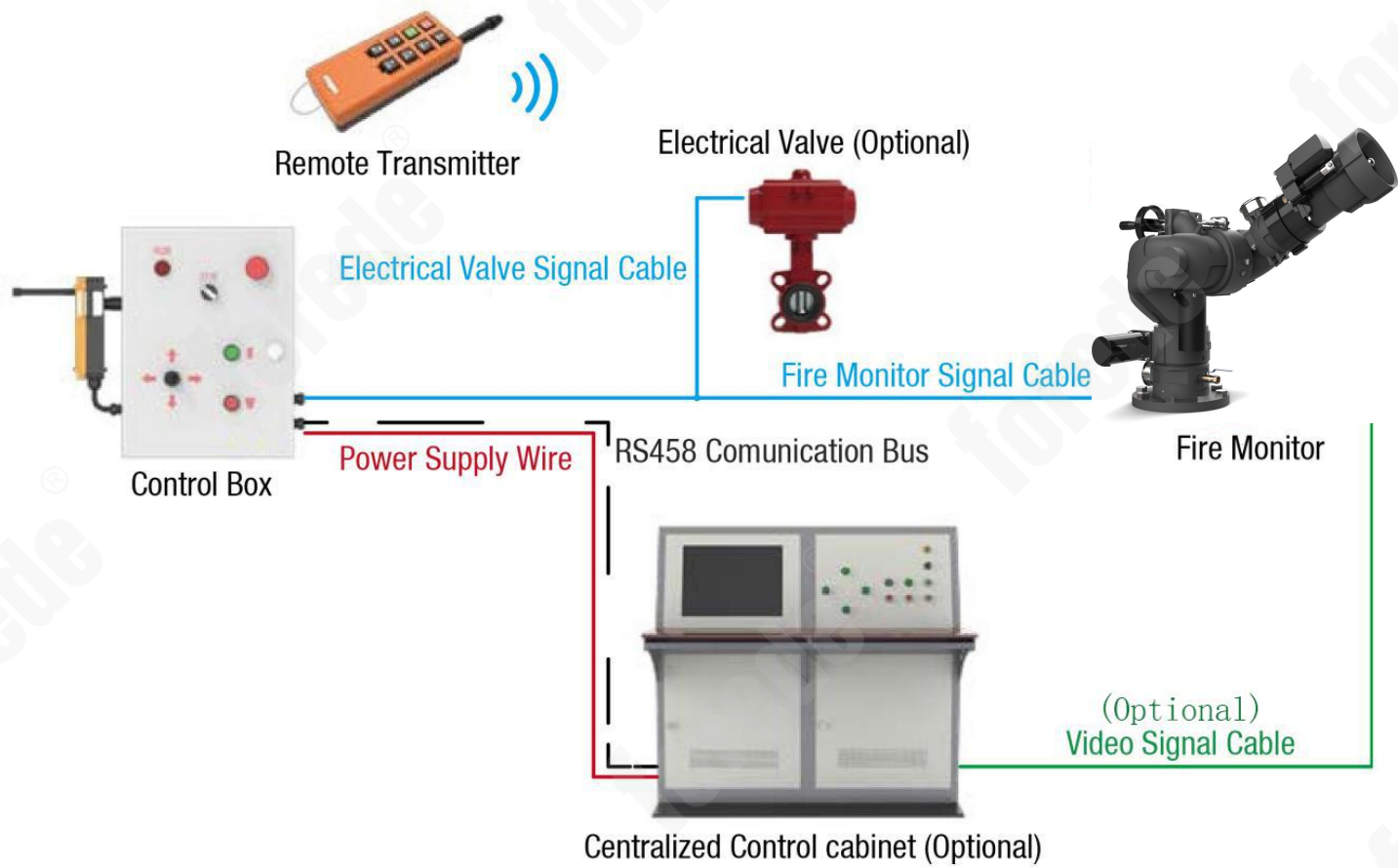Vertical Motor

Drain Water

SIDE B DETAILS VIEW

According to the different usage applications, we introduce two control systems as below:

① CONTROL SYSTEM FOR INDUSTRIAL USE **(ICS-01)**
② VEHICLE-MOUNTED CONTROL SYSTEM **(VMCS-01)**
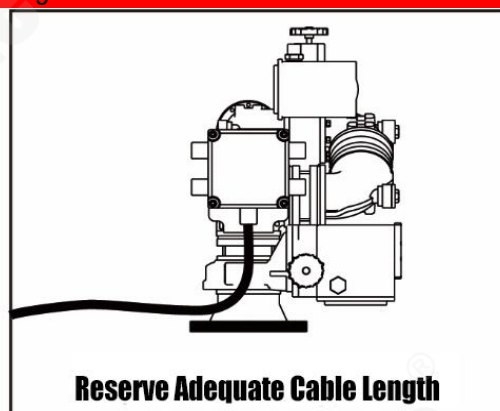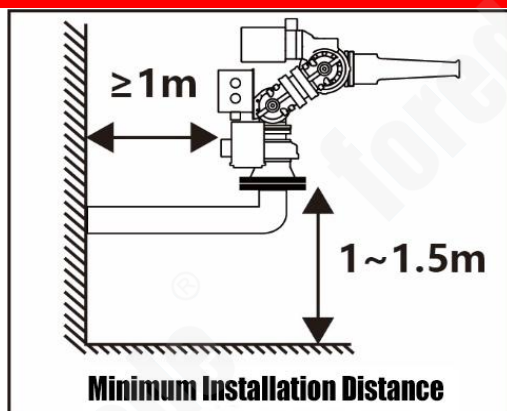
① ICS-01 CONTROL SYSTEM COMPONENT LIST

NAME	Monitor Device (Standard)	Cables (Standard)
IMAGE		
MODEL NO.	PSKD-80-B	CTRL-CB01 / CTRL-CB02
DESCRIPTION	DC 24V is standard, DC 12V / AC 220V optional 4'' inlet flange, others customized	5meters standard for Control box connect with monitor

NAME	Control Box (Standard)	RC Transmitter (Standard)
IMAGE		
MODEL NO.	KZX-SX-01	CTRL - RCT01
DESCRIPTION	Standard Control Box for Industrial Use IP67 Standard Sealed	Max. 150 meters RC Distance IP67 Standard Sealed

*STANDARD CABLE'S LENGTH IS 5 METERS, PLEASE ADVICE US THE SPECIFY CABLE'S LENGTH WHEN ORDER

NAME	Electrical Valve (Optional)	Centralized Control Cabinet (Optional)
IMAGE		
MODEL NO.	DDF-SX	JZKZ-SX
DESCRIPTION	DC 24V is standard, DC 12V / AC 220V optional 4 inch / DN100 Rating Power 15W	Standard Piano Platform Cabinet Remote centralized control C/W Camera,available for video playback

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① ICS-01 CONTROL SYSTEM WIRING

Remote Transmitter

Electrical Valve (Optional)

Electrical Valve Signal Cable

Fire Monitor Signal Cable

Control Box

Power Supply Wire

RS458 Comunication Bus

Fire Monitor

Centralized Control cabinet (Optional)

(Optional)
Video Signal Cable

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① INSTALLATION

! Warning

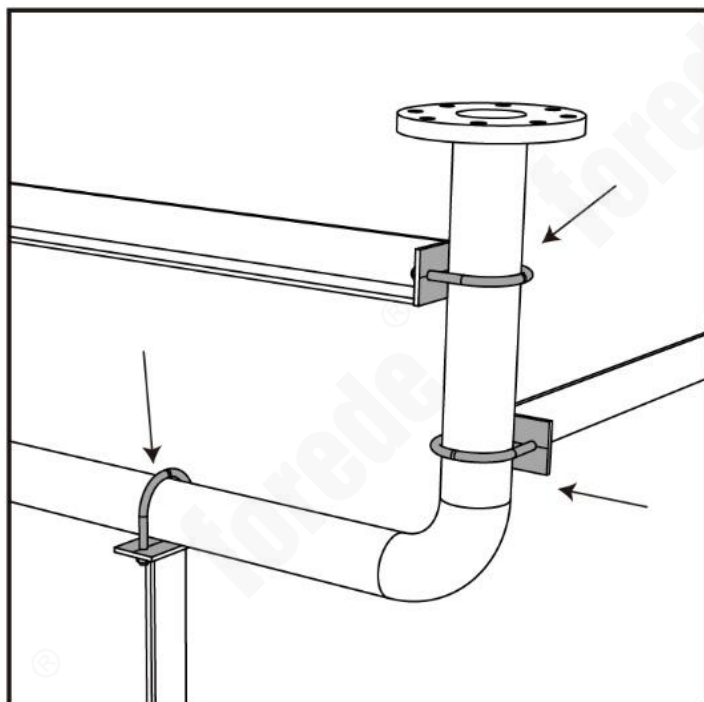**Minimum Installation Distance**   **Reserve Adequate Cable Length**
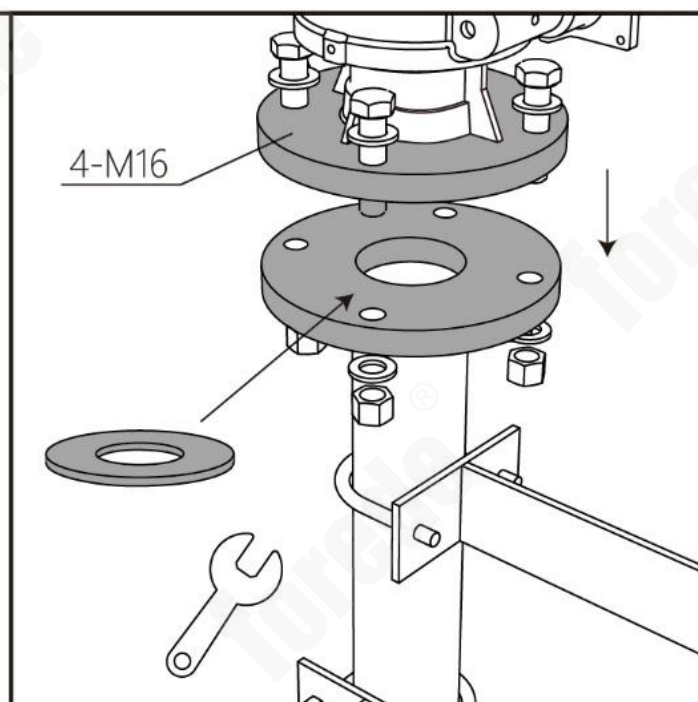
≥1m   1~1.5m

1. There shall be no obstacles within the radius of 1 meters around the fire monitor,so as not to affect the rotation of the fire monitor;Keep a distance 1~1.5 meters from the fire monitor inlet flange to the under platform,so as not to affect the jetting range of the fire monitor.

2. In order to ensure the normal rotation of the fire monitor,before install the fire monitor, the wire harness of the fire monitor must be reserved with a certain length, so as to prevent the fire monitor from being strangled and unable to rotate normally due to the short wire harness.

3. Shut off power supply before installation and maintenance.
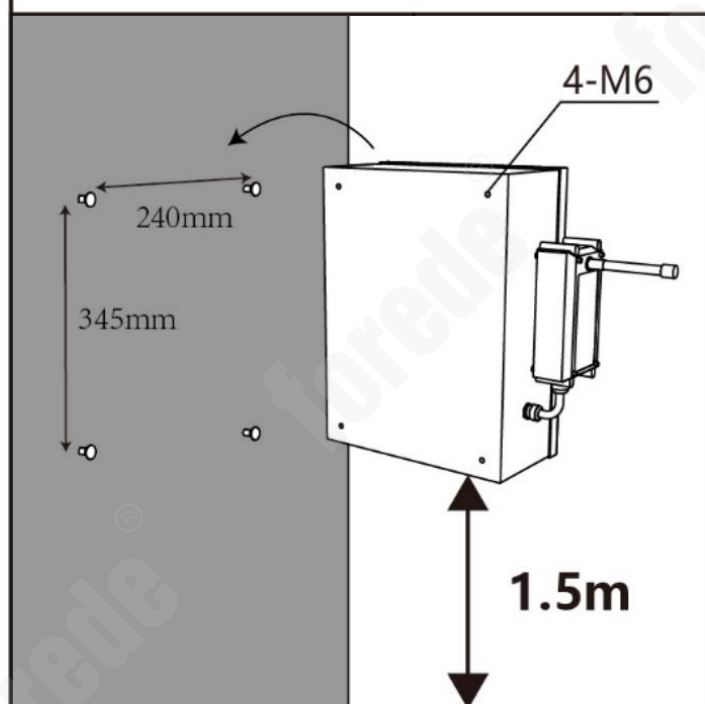
! Important

1. During installing,the load-bearing capacity of the installation pipe should be considered,the support of the pipe should not less than two in two directions, the support frame should not be less than two.

2. The fire monitor should be installed after the pipeline installation, washing and pressure test.

3. The fire monitor should be properly kept before installation, and corresponding measures should be taken to prevent dust, moisture and corrosion.

4. The pipe connected with the fire monitor flange should be vertically upward to ensure that the nozzle of the fire monitor is horizontal after installation.

5. The pipe flange plane connected with the fire monitor flange should be horizontal to prevent inclination.

6. Handle with care, avoid Collision.
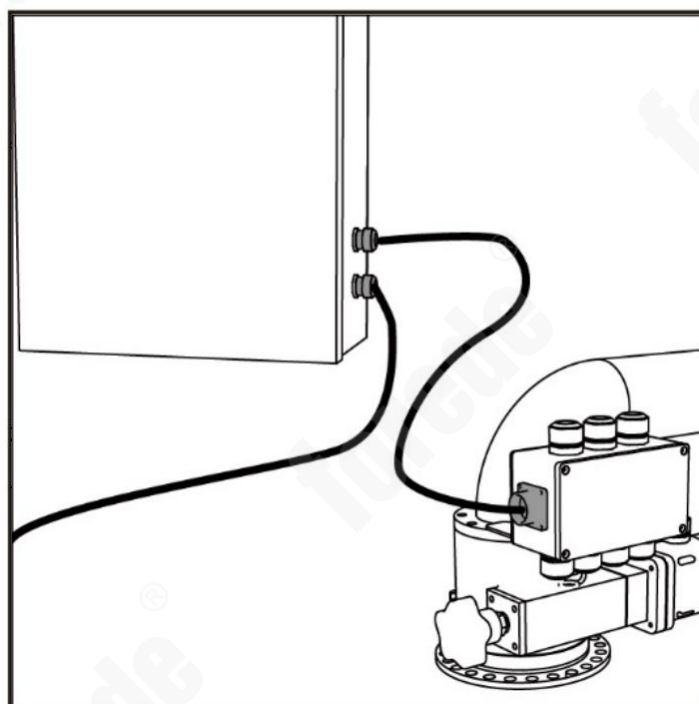
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1,The installation of fixed support.The image is for reference only, please install the fixed support according to the actual situation of the area where the fire monitor is installed.

4-M16

2,Place the sealing gasket between the flange; after aligning the mounting hole, insert the M16 bolt (with metal gasket),place the metal gasket at the other side and fix the nut,croos install the other 3 bolts.

4-M6

240mm

345mm

1.5m

3,Mount the control box on the wall near the fire monitor,the install area should be able to observe the movement of the fire monitor clear,and convenient to evacuate.The control box install height is 1.5 meter from the ground.
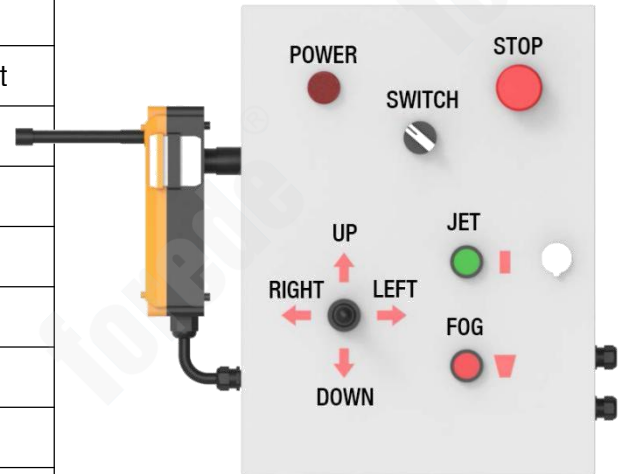
4,Connect in the power supply wire,handle before the electric is shut off.

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① ICS-01 CONTROL SYSTEM OPERATION INTRODUCTION

The Fire Monitor is able to be controlled by Control box and RC transmitter:

BUTTONS	DESCRIPTION
POWER	Indicate the power,light up-power on,light off-power off
SWITCH	Switch knob,control the power supply,left-on,right-off
STOP	Stop button, press for emergency power cut off, re-rotating for reset
JET	Straight stream
FOG	Fog spray
LEFT	Joystick left,turn left the nozzle horizontally
RIGHT	Joystick right,turn right the nozzle horizontally
UP	Joystick up,turn up the nozzle vertically
DOWN	Joystick down,turn down the nozzle vertically
OPEN	Open the electrical valve (Not standard)
CLOSE	Close the electrical valve (Not standard)

PS:Electrical Valve is not standard configuration,all function relate to the Electrical Valve should base on the Electrical Valve is selected in your order.

BUTTONS	DESCRIPTION
EMERGENCY STOP	The red button,press to disconnect the signal connection with Fire Monitor
START	The green button,connect the signal connection with Fire Monitor
JET	Straight stream
FOG	Fog spray
LEFT	Turn left the nozzle horizontally
RIGHT	Turn right the nozzle horizontally
UP	Turn up the nozzle vertically
DOWN	Turn down the nozzle vertically
VALVE ON	Open the electrical valve (Not standard)
VALVE OFF	Close the electrical valve (Not standard)

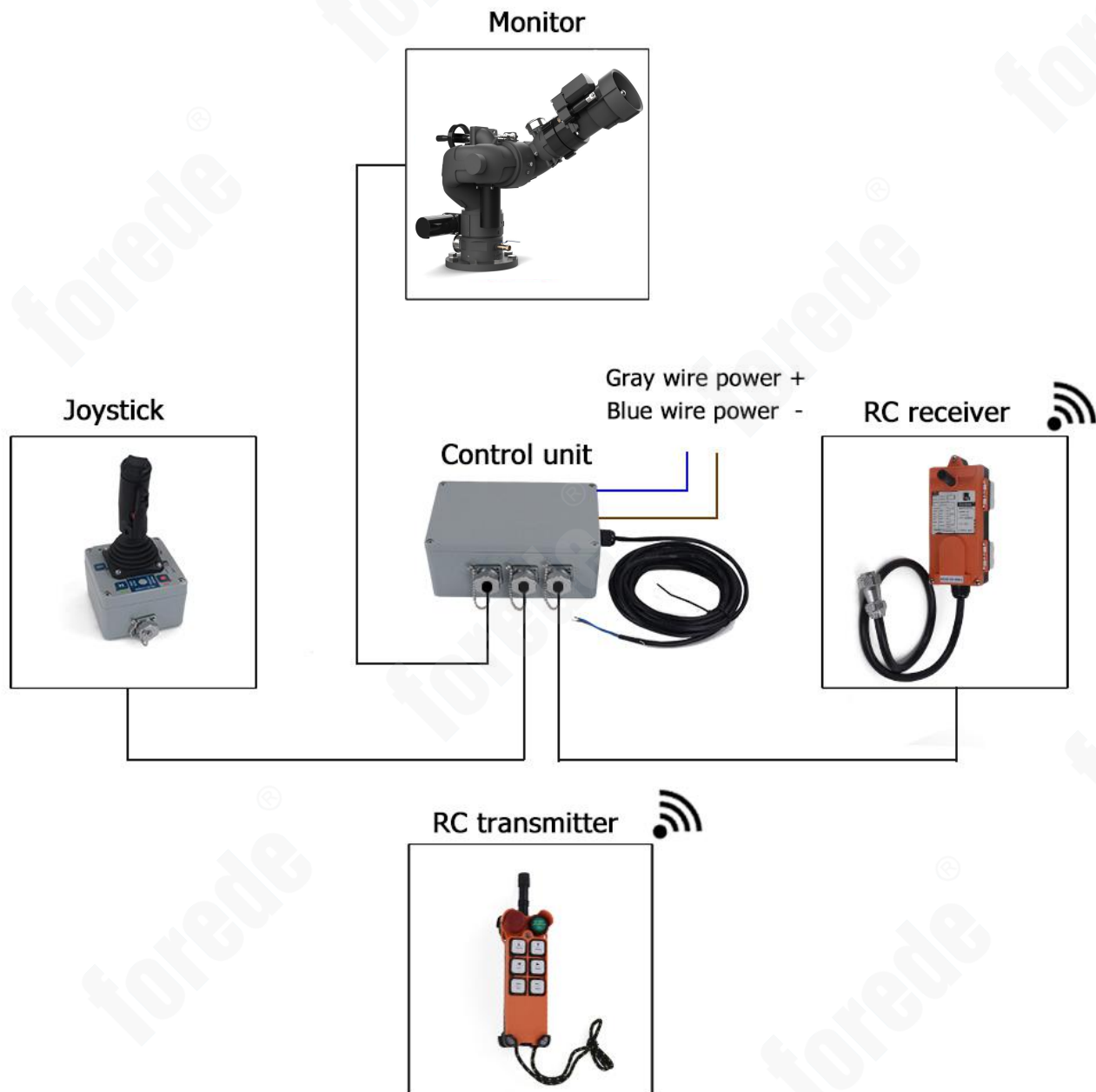PS:Electrical Valve is not standard configuration,all function relate to the Electrical Valve should base on the Electrical Valve is selected in your order.
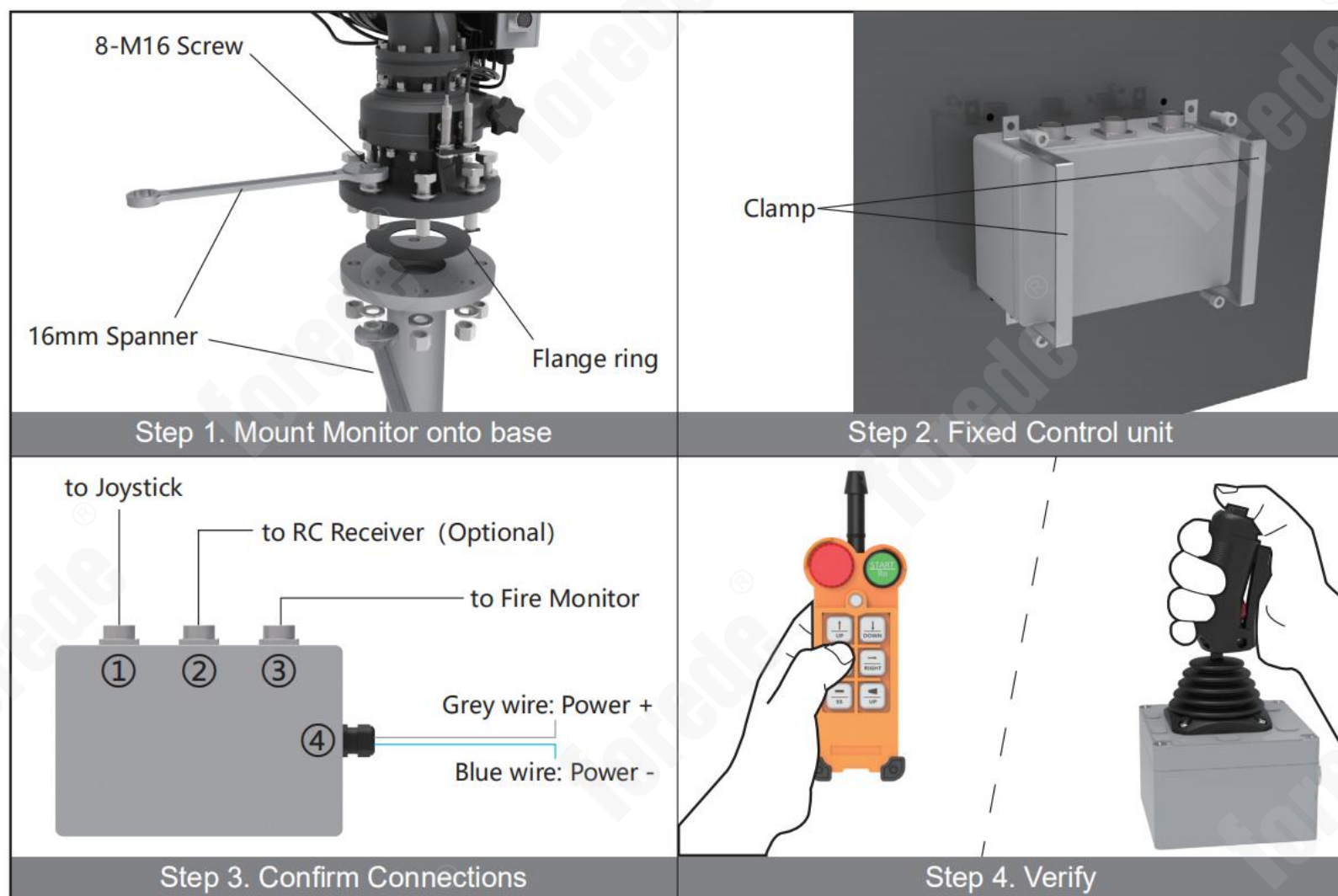
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② VMCS-01 CONTROL SYSTEM COMPONENT LIST

NAME	Monitor Device (Standard)	
IMAGE		
MODEL NO.	PSKD-80-B	
DESCRIPTION	DC 24V is standard, DC 12V / AC 220V optional	
	4'' inlet flange, others customized	

NAME	Joystick (Standard)	RC Transmitter (Standard)
IMAGE		
MODEL NO.	CTRL-J01	CTRL - RCT01
DESCRIPTION	Up-down-left-right,straight stream/fog function	Max. 150 meters RC Distance
	IP67 Standard Sealed	IP67 Standard Sealed

NAME	Cables (Standard)	Control Unit (Standard)
IMAGE		
MODEL NO.	CTRL-CB01 / CTRL-CB02	CU-01
DESCRIPTION	Joystick to control unit cable- 5m length	Aluminum cover
	Monitor to control unit cable- 5m length	IP67 Standard Sealed
	Other length cables please specify	

NAME	RC Receiver (Standard)	Electrical Valve (Optional)
IMAGE		
MODEL NO.	CTRL - RCR01	DDF-SX
DESCRIPTION	Max. 150 meters RC Distance	DC 24V is standard, AC 220V optional
	IP67 Standard Sealed	4 inch / DN100
		Rating Power 15W

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② VMCS-01 CONTROL SYSTEM WIRING

Monitor

Joystick

Gray wire power +
Blue wire power -

RC receiver

Control unit

RC transmitter

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② INSTALLATION

8-M16 Screw

16mm Spanner

Flange ring

Step 1. Mount Monitor onto base

Clamp

Step 2. Fixed Control unit

to Joystick

to RC Receiver (Optional)

to Fire Monitor

① ② ③

④

Grey wire: Power +

Blue wire: Power -

Step 3. Confirm Connections

Step 4. Verify
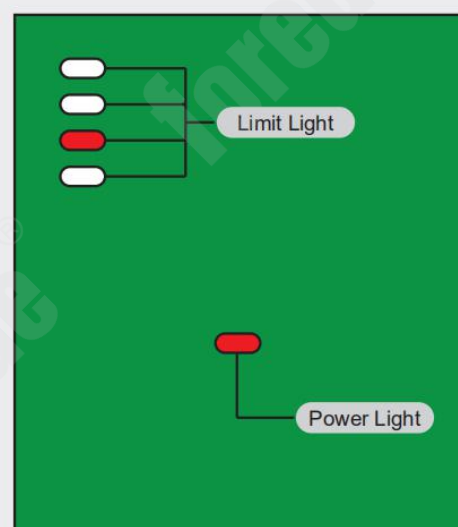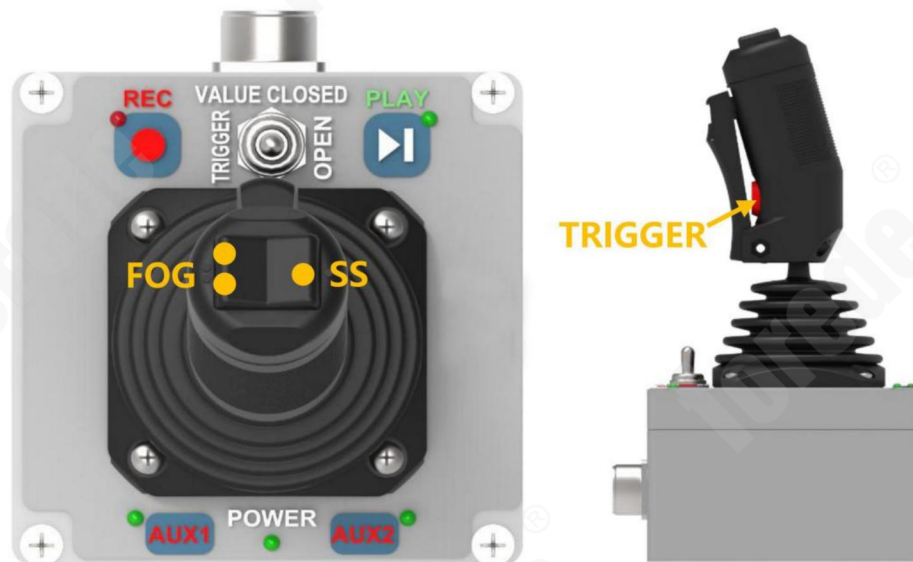
When the cannon stop moving no matter how we operate, then we can do as below:

1   If there are enough parts to exchange, then try to find out the faulty parts by exchanging parts.

2   If not, open the control unit and check the power light whether it is on. If it is on, there is no problem on power. Then check the 4 limit lights whether they turn on respectively when the joystick moves to each limit. (left, right, up and down). (see drawing on the right)

3   If all are ok, then check the sensors/limits on the cannon body. If the sensor lights are on all the time when you move the joystick, then the sensor is defective. The light only turns on when the cannon is close to the sensor. That is correct.

4   If you can not find out the problem, then contact the service people.

Limit Light

Power Light

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② VMCS-01 CONTROL SYSTEM OPERATION INTRODUCTION

The Fire Monitor is able to be controlled by Joystick and RC transmitter:

● Joystick Operation Guide:

Buttons	Description
REC	Red Indicator Light,press this button to record the movement of the monitor, press "PLAY" to stop recording. (Not appropriate for this model)
PLAY	Green Indicator Light,press this button to start play the recorded movement of the monitor, press any button to stop. (Not appropriate for this model)
VALUE	Toggle switch, (Optional) Middle position - close inlet valve; Turn to"TRIGGER" side: Let Trigger take over the control of the inlet valve; Turn to"OPEN" side -open the inlet valve.
POWER	Green Indicator Light, Always on to indicate the power on-state.
AUX1	Reserved auxiliary button,customized function.
AUX2	Reserved auxiliary button,customized function.
FOG/SS	Fog spray / Straight stream (FOG button: Flat spray for Foam monitor with blabbermouth)
TRIGGER	Pull to open the inlet valve, release to close.
Handle	Turn up-down-left-right of the fire monitor.

PS:Electrical Valve is not standard configuration,all function relate to the Electrical Valve should base on the Electrical Valve is selected in your order.

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BUTTONS	DESCRIPTION
EMERGENCY STOP	The red button,press to disconnect the signal connection with Fire Monitor
START	The green button,connect the signal connection with Fire Monitor
JET	Straight stream
FOG	Fog spray
LEFT	Turn left the nozzle horizontally
RIGHT	Turn right the nozzle horizontally
UP	Turn up the nozzle vertically
DOWN	Turn down the nozzle vertically
VALVE ON	Open the electrical valve (Not standard)
VALVE OFF	Close the electrical valve (Not standard)

PS:Electrical Valve is not standard configuration,all function relate to the Electrical Valve should base on the Electrical Valve is selected in your order.

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SAFETY INFORMATION

❖ All personnel who may be expected to operate this equipment must be thoroughly trained in its safe and proper use.

❖ Before flowing water from this device, check that all personnel (fire service and civilian) are clear of the stream path. Also confirm stream direction will not cause avoidable property damage.

❖ Become thoroughly familiar with the hydraulic characteristics of this equipment, as well as the pumping system used to supply it.

❖ Whenever possible, this equipment should be operated from remote location to avoid exposing personnel to dangerous fire conditions.

❖ Always open and close valves slowly to avoid water hammer.

❖ After each use, and on a scheduled basis, inspect equipment per instructions in the maintenance section.

❖ Keep fingers and hands clear of moving parts.

❖ Disconnect power before servicing and electric valve or electric valve controller.

❖ Any modifications to the electrical will destroy the IP-66 rating and void warranty coverage of the enclosure and all comp

INSTALLATION

❖ Installation under the guidance of professionals, and do not install or replace parts without authorization.

❖ During transportation and installation, handle with care to avoid collision damage.

❖ The installed foundation should be able to withstand the load of the fire monitor infrastructure due to unstable factors such as jet reaction force and wind disaster.

❖ Fire monitors should be installed in the upwind direction of the protected place where the wind prevails all the year round.

❖ The pipeline must be flushed before the fire monitor is installed to prevent debris from entering the fire monitor to block the nozzle.

❖ After installation, the nozzle should face the object of protection, and should not face the position of the operator at any time.

❖ The bottom of the control cabinet of the electric and hydraulic fire monitors should be installed indoors, and should be set in a position where each turret can be directly observed. When necessary, the fire control room should be equipped with monitors and other auxiliary observation equipment.

❖ The fire control room should have good fireproof, dustproof and waterproof measures, and the layout of the system control device should be easy to operate and maintain.

OPERATIONAL REQUIREMENTS AND PRECAUTIONS

❖ The personnel operating the fire monitor must be trained in operation and be familiar with the relevant operation process.

❖ The inlet pressure of water shall not be higher than the working pressure of the monitor.

❖ Before using the fire monitor, all personnel in front of the muzzle should be evacuated to avoid danger.

❖ When manually operating the fire monitor, please take the handle to avoid danger.

❖ When operating, it should be jetted downwind as far as possible to increase the range.

OPERATION

Step 1. In the event of a fire, immediately start the fire pump set of the fire monitor system.

Step 2. The operator holds RC Transmitter/Joystick/Control box, and slowly opens the fire monitor inlet valve(if customer ordered the valve from us, we could equipped the valve on/off function on control system).

Step 3. Using RC Transmitter/Joystick/Control box to adjust the monitor working angle and rotation, to make sure water fully cover the burning material.

Step 4. According to the situation of the fire scene, we can use RC Transmitter/Joystick/Control box to control fire monitor achieve Straight stream or fog pattern.

Step 5. After using, turn off the system fire pump set.

Step 6. Tilt the nozzle to pour out the remaining liquid in the cavity, then put it in right position, lock the positioning and lock device.

Step 7. Close the inlet valve of fire monitor and check all parts which should be no damage.

MAINTENANCE

*The maintenance of fire monitors should be handled by dedicated personnel.

❖ The fire monitor should be kept clean. After use, the nozzle should be tilted to pour out the remaining liquid in the cavity, and the exterior should be cleaned with clean water and wiped off the water stains. Dual-purpose monitor(water/foam), the interior must be rinsed with clean water, and then the accumulated water must be released.

❖ The fire monitor should be maintained regularly, and all fasteners of the fire monitor should be inspected after use and every six months. Operate the control cabinet of the electric fire monitor every three months to ensure the normal and stable operation of the motor.

❖ The meshing part of the worm gear and other rotating parts should be filled with grease for half a year to ensure flexible rotation.

❖ All parts should be kept in good condition. If the fasteners are found to be loose and other accessories are damaged, they should be repaired in time.

❖ When not in use, cover it with a rain-proof cloth. The mobile gun should be stored in a normal temperature, dry and non-corrosive place.

❖ When the working pressure of the fire monitor is found to be too high or the shooting range is short, check whether there is any blockage at the nozzle, and clear it in time.

❖ If there is leakage at each connection part of the fire monitor, check whether the seal is intact, and replace the seal in time if damaged.

❖ The rotating part of the fire monitor is not flexible, the operation is difficult, or the angle adjustment cannot reach the expected range, grease should be applied to the rotating part or the parts should be replaced in time.

❖ The control cabinet of the electric fire monitor cannot operate the motor. Check whether the connection between the control cabinet and the motor is normal. If it is connected and still cannot be operated, it should be repaired or replaced in time.

❖ In cold areas, take measures to prevent cold and frost, such as drainage and heat preservation.

When the fire monitor is used as the vehicle-mounted monitor of a fire truck, the spray tube bracket of the fire monitor should be installed and fixed to prevent bumps during driving and damage to the gun parts.

ORDERING GUIDE

■ Model Number
■ Application/Control system
■ Inlet Connection way, size and standard.
■ Order Quantity
■ Shipping/Transportation Way

***Other special requirements please contact FOREDE SALES TEAM.**

Tips: for more related products or other firefighting equipment, please forward to our website,   www.forede.com