



# SERVICE MANUAL



## CEASEFIRE WATER MIST BASED FIRE EXTINGUISHERS

## FOREWORD

This Manual is for the sole purpose as guideline help and procedural work to be carried out by competent, trained and authorised personnel of OEM to maintain portable fire extinguisher in line of BS 5306 part 3 & 8 and as per recommendation of OEM.

## SCOPE

This manual covers caution to be adhered while servicing the fire extinguisher. Instructions on maintenance service to be carried out annually or while routine service and service to be carried out as per schedule.

The manual shall also cover procedure work to be carried out while servicing and refilling the fire extinguisher. Manual contains identification of all components of fire extinguisher, specialised tool required for servicing and list of spare parts to replace damaged components.

## GENERAL SAFETY INSTRUCTIONS

### Prohibition

-  Appearance of this sign warrants unauthorized modifications are not allowed and any kind of operation which can result in unsafe situation and failure of equipment to function as intended. Unsafe working is not allowed.

### Caution/Note

-  This symbol draws attention to one of objection and situation as below.

- Possibility to loss of life and limb if instruction is not follow.
- Unsafe or improper working of the system can lead to damage to equipment and property.

## INDEX

|    | INDEX                             |   |
|----|-----------------------------------|---|
| 1. | CAUTION                           | 3 |
| 2. | MAINTENANCE & SERVICE INFORMATION | 3 |
| 3. | RECHARGE INSTRUCTIONS             | 3 |
| 4. | TECHNICAL SPECIFICATION TABLE (A) | 5 |
| 5. | ASSEMBLY DRAWING                  | 6 |
| 6. | PART LIST TABLE (B)               | 7 |
| 7. | SPECIAL TOOLS TABLE (C)           | 8 |

**CAUTION**

 Read the service manual carefully and completely. Manufacturer will not be liable for any loss of property, life, warranty in case of instruction of the manual is not followed.

In case of any malfunctioning the manufacturer would be liable to the limit of replacing the faulty part, parts or product.

\*Return of the faulty component is mandatory to process any warranty claim\*

1. Content under pressure. (Depressurize the cylinder before opening the valve to prevent injury)
2. Do not puncture, incinerate or tamper with the extinguisher.
3. Replace all parts which are missing, deteriorated and, or damaged.
4. Always tighten the threaded part with rated torque value.
5. Use appropriate PPE while servicing cylinder.

 Do not use the extinguisher outside the specified temperature range. Dispose all agent and parts as per local laws.

**MAINTENANCE & SERVICE INFORMATION**

 Maintenance is to be carried out only by authorized and trained persons of OEM.

 Maintenance and service is to be carried out in line with BS 5306 & BS 6643 and as per the OEM manual.

1. Examine the extinguisher carefully every 12 months or as per schedule on instruction sticker.
2. Periodically check and ensure the safety pin is not missing, corroded or damaged.
3. Check the Gross weight of the cylinder on a calibrated weighing Scale.
4. Remove the plastic base and then examine whole fire extinguisher for corrosion.
5. Check the Magnetic pressure gauge with magnet (SM-RM3448 See Table "C" SPECIAL TOOLS ) if the Needle is in green zone, it is ok.
6. A non-magnetic pressure gauge will be checked against calibrated pressure gauge such that you get approximately same reading.
7. Check the hose and nozzle for any clogging and signs of degradation and replace if required.
8. Check the cylinder label is ok. Replace if damaged and fill the inspection and the next inspection date.
9. Use only products and spare parts in conformity with agreed model for refilling, maintenance and replacement.
10. Regularly clean and ensure the exterior of the fire extinguisher is free from dirt and corrosion.

**RECHARGE INSTRUCTIONS**

**Applicable for Product code: - CF-000709, CF-000710, CF-000711, CF-000712.**

 This extinguisher must be charged or recharged by an authorised, trained and competent person only.

 Completely de-pressurise the extinguisher before opening cylinder's valve.

 Replace all parts only with the original part recommended.

**1. CHECKING SAFETY PIN**

- Check if the safety pin is intact to prevent any accidental usage.

 If the safety pin is missing place a temporary pin to avoid accidental usage till the time fire extinguisher is ready for discharge.

**2. REMOVAL OF DISCHARGE VALVE ASSEMBLY FROM CYLINDER AND SERVICE**

- Remove the hose assembly from the valve and check for damage or deterioration to it and the nozzle.
- Remove the pressure gauge and test it against calibrated pressure gauge.
- Remove the safety pin and discharge the cylinder.

 Discharge the cylinder as per regional discharge norms/law and collection of extinguishing agents specially, keeping environmental and personal safety in mind.

- Open the valve on the cylinder using special spanner (part code RM-3449 See Table "C" SPECIAL TOOLS) for two turns or until the relief notch on valve thread is exposed to release any residual pressure.

-  Do not hammer the trigger assembly.
-  Open the valve completely only when sure all propellant has escaped.
  - Remove the valve and syphon tube carefully from the cylinder as a loose dip tube may get dislodged in to the cylinder and may be difficult to remove.
  - Remove the syphon tube/dip tube from the valve using spanner and check it for any damage to it and its thread. Clear any clogging in the tube and check if the rotors are moving freely.
  - Depress the lever to check the smooth operation of the lever and valve.
  - Examine the valve for any damage or deterioration in the valve and thread of the valve.
  - Clean the valve thoroughly using appropriate cleaning technique.
  - Make sure that the valve is completely dry and free of any wet agent used for cleaning.
-  Replace faulty part or valve in case of damage or deterioration. (Available part as per Table "B" PART LIST)
  - Syphon tube is screwed back on to the valve and firmly tightened using an open spanner with torque setting of up to 6Nm.
-  Only use torque of up to 6 N-m. Never over tighten.

### 3. EXAMINE THE CYLINDER FOR DAMAGE

- Remove the plastic base cap by gently tapping it with a Teflon hammer.
- Examine the fire extinguisher's exteriors for any signs of damage or deterioration.
- Empty the cylinder shell and clean any residual agent with a clean cloth and dry nitrogen if required.
-  Very low-pressure nitrogen less than 1 bar pressure could be used to clean and dry components.
-  Thoroughly clean all residue dust or grease from internal bores, spindle, spindle seal, neck and neck threads.
  - Examine interior of shell for any corrosion.

### 4. FILLING OF AGENT IN TO CYLINDER

- Refill cylinder using recommended service pack (Table "A" REFILL PACKS).
-  Refilling and pressurization of cylinder is to be carried out at recommended ambient condition.
  - A) Clean, dry, area
  - B) Temperature of @ 20°C.
- Fill contents as per (Table "A" TECHNICAL SPECIFICATION) recommended refill contents for your product size.

-  Do not over fill.

### 5. REFIT DISCHARGE VALVE ASSEMBLY TO CYLINDER

- Insert a new "O" ring (seal) on valve and lightly grease "O" ring (seal), any moving part and neck thread.
- Reinsert the valve body with syphon tube carefully in to filled cylinder and tighten the valve using special spanner (part number SM-RM3449 See table "C" SPECIAL TOOLS) to recommended torque settings.
-  Only use torque of 30 N-m. Never over tighten.
-  Change "O" ring (seal) for valve, Hose assembly and pressure gauge every time opened for service.

### 6. PRESSURIZING THE FIRE EXTINGUISHER

#### Method 1: THROUGH NRV PORT OF DISCHARGE VALVE

- Fix a recharging adaptor to the NRV port of the valve (port where pressure gauge was installed).
- Pressuring the cylinder to recommended service pressure of 15 bars at ambient temperature of @ 20°C.
- Disconnect the recharging adaptor after relieving pressure from the pressurizing line.
- Refit pressure gauge using torque spanner with recommended torque settings.
-  Change the O ring for the pressure gauge every time it removed from the valve
-  Only use torque of up to 8 N-m. Never over tighten.

#### METHOD2: THROUGH OUTPUT PORT OF DISCHARGE VALVE (ALTERNATIVE METHOD)

- Refit pressure gauge using torque spanner with recommended torque settings.

-  Change the "O" ring for the pressure gauge every time it removed from the valve.
-  Only use torque up to 8 N-m. Never over tighten.
  - Fix a recharging adaptor (10x1) to the outlet of the valve.
  - Depress the valve lever to pressuring the cylinder to recommended service pressure of 15 bars at ambient temperature of @ 20°C.
  - Release the valve lever and disconnect the recharging adaptor after relieving pressure from the pressurizing line.

#### 7. LEAKAGE CHECKING AND REFITTING HOSE ASSEMBLY.

-  Check all the joints and PRV (available on the opposite side of the NRV) for leakages using soap bubble solution.
-  Re-tighten to stop all leakages. This can only be done for minor adjustments, else depressurise the fire extinguisher and change "O" ring (seal) and recharge. Clean the extinguisher of any residual soap solution.
  - Fix the hose assembly to the valve using torque spanner with torque setting of 6 N-m.
-  Never use torque above the recommendation.

#### 8. SECURING THE FIRE EXTINGUISHER

- Insert a safety pin or seal and plastic base cap to extinguisher.

#### 9. FIXING THE CYLINDER LABEL

- Fix new instruction sticker if required and mark the next maintenance schedule date on the sticker.

#### 10. REFIXING THE EXTINGUISHER.

- Return the extinguisher to its original location or stand.

-  Check if the extinguisher is securely mounted on the wall mount else refix the mount and then mount the extinguisher again. In case of a stand see that it does not obstruct general passage.

TABLE (A)

| SR. NO. | PRODUCT CODE & DESCRIPTION   | SPECIFICATION         |                                                                                                                                                                                                         | REFILLING CONTENT                          |                                                                                                                                      |
|---------|------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1.      | CF-000709- 2 ltr Water Mist  | Fire Rating 5A 25F.   | Extinguishing medium: Water<br>Propellant: Dry Nitrogen.<br>Body Test Pressure: 35Bar.<br>Maximum service pressure: 20bar.<br>Operating pressure: 15bar.<br>Operating temperature range: +5°C to +60°C. | 2000ML potable water<br>(Total content 2L) | Tolerance limit of -5%<br>(by Volume.)<br>Do not overfill.<br>Then insert<br>1 water disinfection tablet<br>(Neudos 330 Legionella). |
| 2.      | CF-000710 - 3 ltr Water Mist | Fire Rating 8A, 25F.  |                                                                                                                                                                                                         | 3000ML potable water<br>(Total content 3L) |                                                                                                                                      |
| 3.      | CF-000711 - 6 ltr Water Mist | Fire Rating 13A, 75F. |                                                                                                                                                                                                         | 6000ML potable water<br>(Total content 6L) |                                                                                                                                      |
| 4.      | CF-000712 - 9 ltr Water Mist | Fire Rating 21A, 75F. |                                                                                                                                                                                                         | 9000ML potable water<br>(Total content 9L) |                                                                                                                                      |

## ASSEMBLY DRAWING



CF-000709 - 2 litre Water mist.

### PRODUCT CERTIFICATION

Designed and manufactured under Pressure Equipment Directive 97/23/EC-PED and BS EN3.



EN 3 LPCB Cert ref. 1329b



1128



KM 666994



CF-000710 - 3 litre Water mist.

### PRODUCT CERTIFICATION

Designed and manufactured under Pressure Equipment Directive 97/23/EC-PED and BS EN3.



EN 3 LPCB Cert ref. 1329b



1128



2831/2022



KM 666994



CF-000711 - 6 litre Water mist.

### PRODUCT CERTIFICATION

Designed and manufactured under Pressure Equipment Directive 97/23/EC-PED and BS EN3.



EN 3 LPCB Cert ref. 1329b



1128



2831/2022



KM 666994



CF-000712 - 9 litre Water mist.

### PRODUCT CERTIFICATION

Designed and manufactured under Pressure Equipment Directive 97/23/EC-PED and BS EN3.



EN 3 LPCB Cert ref. 1329b



1128



2831/2022



KM 666994



TABLE (B)

| PART LIST |                                                                                                | PRODUCT CODE                        |                                     |                                     |                                     |
|-----------|------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| PART NO.  | Part Description                                                                               | CF-000709<br>2 litre<br>Water mist. | CF-000710<br>3 litre<br>Water mist. | CF-000711<br>6 litre<br>Water mist. | CF-000712<br>9 litre<br>Water mist. |
| 1.        | Valve Assembly (Safety Pin, 'O' Ring for Valve Assembly SS Rivet Pin 4x26 Plastic Safety Seal) | SM-VA0074                           |                                     |                                     |                                     |
| 2.        | Safety Pin                                                                                     | SM-RM2397                           |                                     |                                     |                                     |
| 3.        | Hose Assembly                                                                                  | SM-HA0006M                          | SM-HA0037M                          | SM-HA0018M                          | SM-HA0024M                          |
| 4.        | Plastic Base Black                                                                             | SM-RM1008                           | SM-RM0302M                          | SM-RM0345M                          |                                     |
| 5.        | Pressure Gauge                                                                                 | SM-RM2087                           |                                     |                                     |                                     |
| 6.        | Cylinder                                                                                       | N/A                                 |                                     |                                     |                                     |
| 7.        | 'O' Ring for Valve Assembly                                                                    | SM-RM1133                           |                                     |                                     |                                     |
| 8.        | 'O' Ring for pressure Gauge                                                                    | SM-RM1144                           |                                     |                                     |                                     |
| 9.        | SS Rivet Pin 4x26                                                                              | SM-RM2076                           |                                     |                                     |                                     |
| 10.       | Dip Tube with Rotor Assembly                                                                   | SM-RM2525A                          | SM-RM2525B                          | SM-RM2525C                          | SM-RM2525D                          |
| 11.       | Plastic Safety Seal                                                                            | SM-RM0288                           |                                     |                                     |                                     |
| 12.       | 'O' Ring for Hose Assembly                                                                     | SM-RM1136                           |                                     |                                     |                                     |
| 13.       | Water Disinfection Tablet                                                                      | SM-RM2472                           |                                     |                                     |                                     |

TABLE (C)

| SPECIAL TOOLS |                                                                                                         |           |                                                |
|---------------|---------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------|
| SR. NO.       | ITEM NAME                                                                                               | ITEM CODE | APPLICATION                                    |
| 1.            | Magnetic Test Tool<br> | SM-RM3448 | To check the working of Pressure Gauge         |
| 2.            | Special Spanner<br>   | SM-RM3449 | To screw and un-screw the Brass Valve Assembly |



## ACCESSORIES

|                                                                                    |                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p><b>Item Code</b> - SM-RM2083</p> <p><b>Description</b> - J Bracket for Portable Fire Extinguisher -Set of 10 pcs</p> <p><b>Applicable For</b> - CF-000709 - 2 Ltr Water mist</p> <p>Product with "J-Bracket" only for original product ordered with suffix "A". "CF-XXXXXXA"</p>                                                                          |
|  | <p><b>Item Code</b> - SM-RM2083A</p> <p><b>Description</b> - J Bracket for Portable Fire Extinguisher -Set of 10 pcs</p> <p><b>Applicable For</b> - CF-000710 - 3 Ltr Water mist</p> <p>CF-000711 - 6 Ltr Water mist</p> <p>CF-000712 - 9 Ltr Water mist</p> <p>Product with "J-Bracket" only for original product ordered with suffix "A". "CF-XXXXXXA"</p> |

All Models with MED & PED certification are also available in UKCA-MED & UKCA-PED.

## DISCLAIMER

1. All pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.
2. Regular R &D and product improvisations may lead to change in product specifications.

### Contact Details

#### CEASEFIRE INDUSTRIES UK LIMITED

Office Number 301.3 One Victoria Square, Birmingham West  
Midlands B1 1BD, United Kingdom

**Website:** [www.ceasefire.co.uk](http://www.ceasefire.co.uk), **Email:** [response@ceasefire.co.uk](mailto:response@ceasefire.co.uk)

**Call our Free Hotline Number:** Tel +0-113-868-6666 / 0-126-891-9999

