

# Maintenance and Operating Instructions

Pop-up Sprinkler

**Hydra M (W,D)-H-TC**

PERROT





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## 1 Safety

This operating & safety manual contains fundamental advice to be heeded during installation and operation. It is therefore imperative that the fitter and relevant engineer/operator read this manual thoroughly prior to commissioning and operation.

Please follow both the general safety instructions specified in this 'safety' section and the specific safety warnings included in other sections.

### 1.1 How instructions are marked in this manual

Safety instructions that, if ignored, could endanger human life or limb are marked with the general "danger" symbol:



"Warning" is printed next to instructions that, if ignored, could be hazardous to the sprinkler and its operation.

**WARNING**

### 1.2 Hazards of ignoring safety instructions

Failing to heed the safety instructions may result in danger to life and limb, harm to the environment and/or damage to the device. Failing to heed the safety instructions may lead to the loss of any right to claim compensation.

## 2 Description

*View from above*

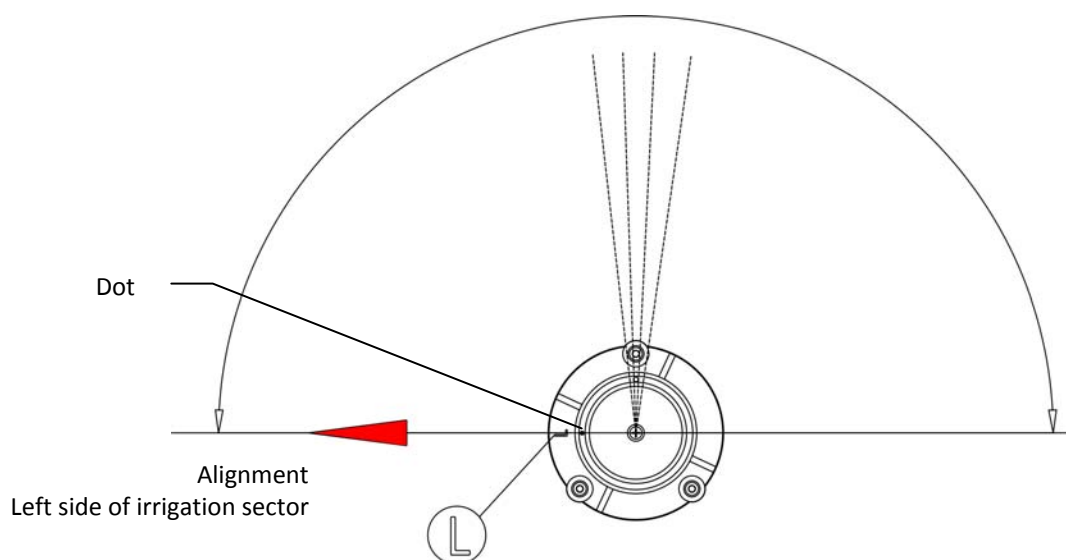


*Side view*







### 3 Installation

- ☆ Thoroughly flush the pipeline before installing the sprinkler
- ☆ Seal connecting thread with Teflon tape.
- ☆ Note: Part-circle sprinklers must be set up in such a way that the 'L' mark is aligned in a straight line from the left side of the irrigation sector.
- ☆ A dot is located on the border of the housing cover with sod cup as an additional identification mark.



### 4 Special tools

Retainer for sprinkler head Hydra L/M/S	Changing nozzle		RT14031
Flushing equipment Hydra M	Flushing pipes		RT14934
Wrench for changing nozzles	Changing nozzles		ZB98276
TORX-key	for screw at the lid		ZB98289

## 5 Commissioning / Preparing for winter

### 5.1 Commissioning

- a) Slowly open water supply to the sprinkler until operating pressure is present.
- b) Once the water supply is open and the maximum operating pressure has been reached, check sprinkler and connection for leaks. Sprinkler head rises and begins to rotate.



**Do not stand facing the nozzle opening!**

### 5.2 Preparing for winter

- ☆ Before the onset of any winter frosts, the sprinkler needs to be emptied. To do this, a powerful compressor needs to be attached to the pipeline network. Then open the solenoid valve in front of the sprinkler and keep it open until nothing but air comes out of the nozzle.



This model does **not** have a discharge valve and can therefore not be emptied the traditional way by gravity.

## 6 Setting irrigation sector (Part-circle sprinklers only)

Since the irrigation sector adjustment screws are located under the cover with sod cup on the Hydra M-TC version, the cover must be disassembled to make irrigation sector adjustments.

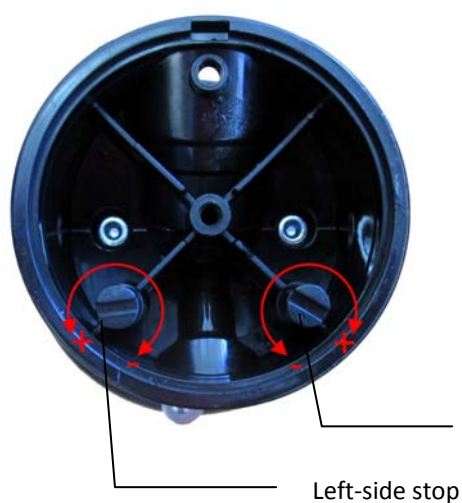
First remove the plug and then the coder fastening screw using a Torx-key TX20.



Then the sprinkler head cover with sod cup can be unsnapped by pressing it lightly rearward.



Left stop position can be adjusted by +/- 90°



**Note:**

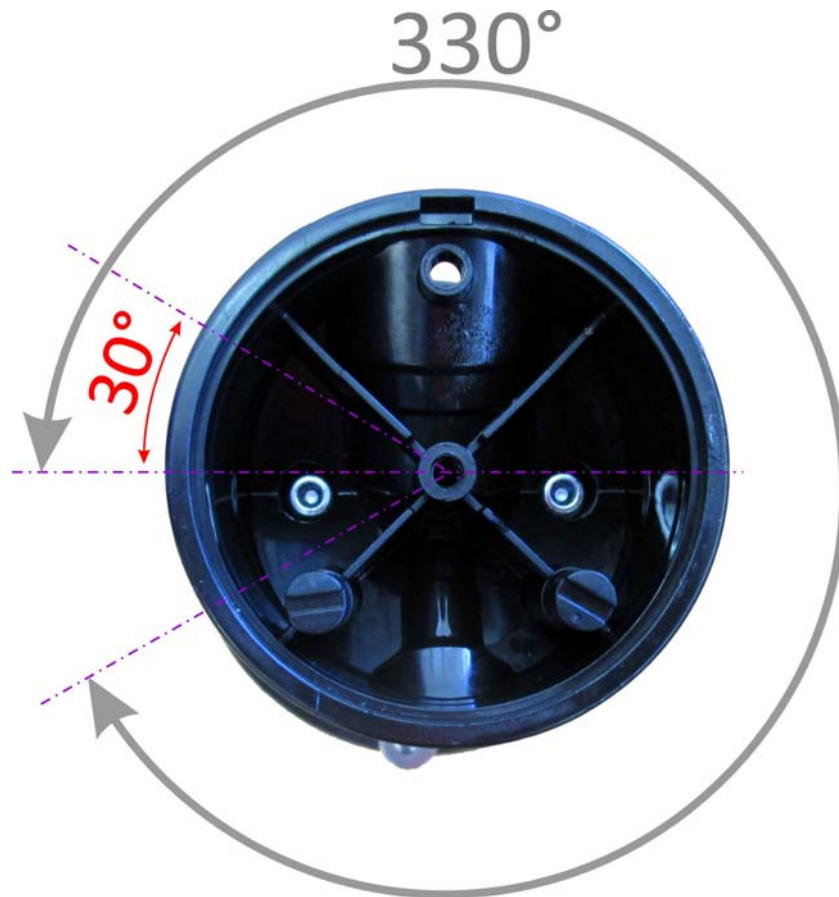
One complete revolution of the adjuster screw adjusts the sector stop position by 60°

Right-side stop

Left-side stop

☆ Set right side stop position:

Right stop position can be set to a watering sector of 30° to 330°.



**Note:** The sprinkler has a factory setting of 180°

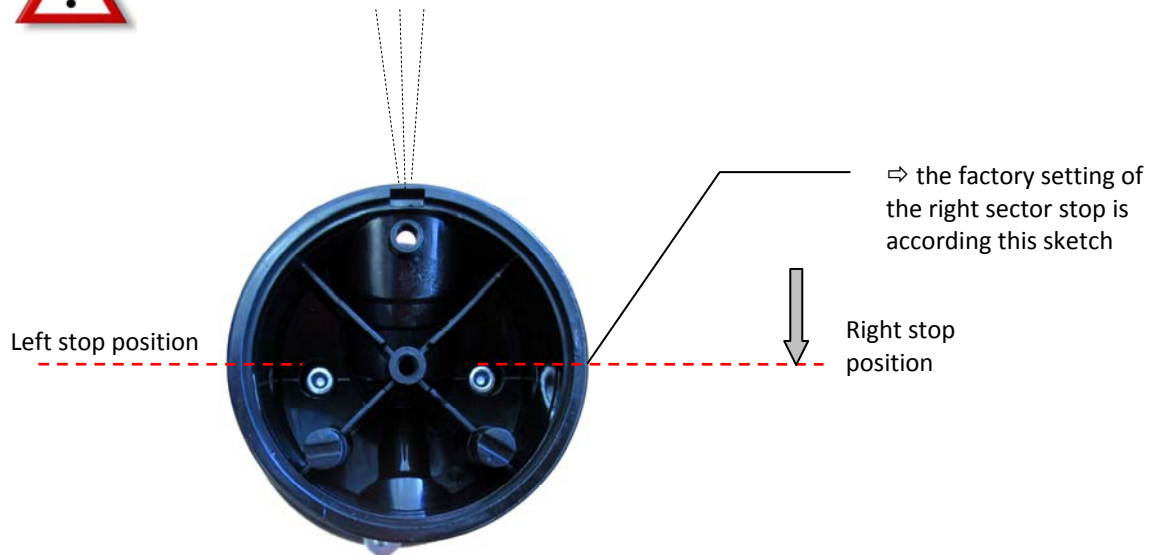




**Note:** In order to speed up the setting of the irrigation sector, the sprinkler head can be manually turned forward with the rotating direction. .



**DO NOT TURN BACK!**

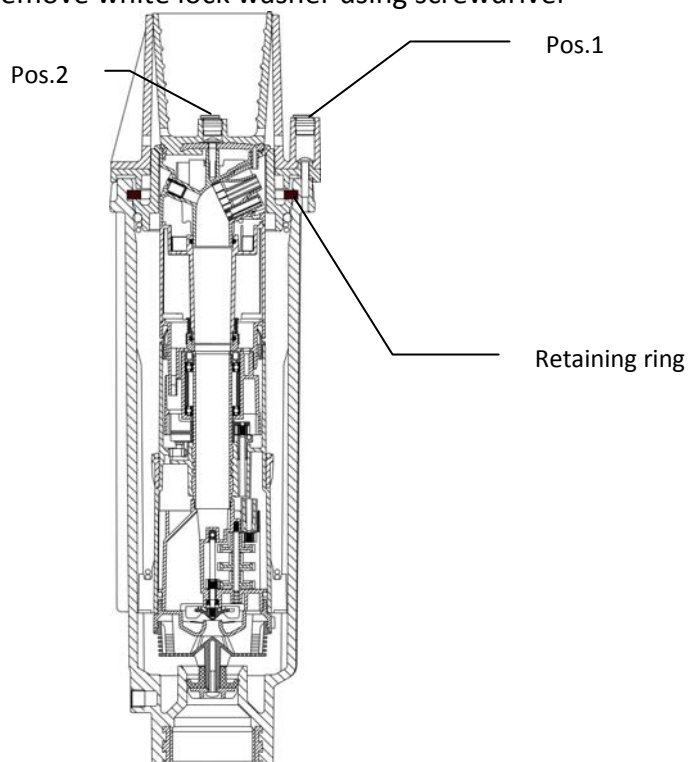


## 7 Replacing the nozzle



**Ensure sprinkler is not under pressure.**

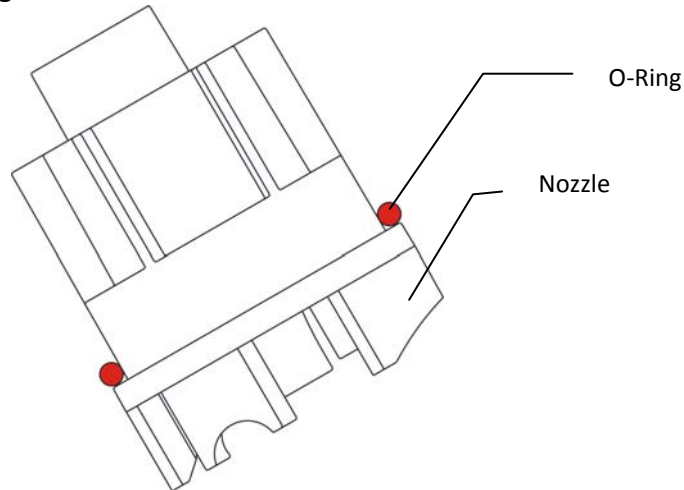
- ☆ Disassemble housing cover with sod cup by unscrewing the three (3) sheet metal screws (item 1) using a Torx-key.
- ☆ Pull the cover off in an upward direction
- ☆ Disassemble sprinkler head cover with sod cup by unscrewing the central cover mounting screw (item 2).
- ☆ Now the sprinkler head cover with sod cup can be unsnapped by pressing it lightly rearward (see also photo on next page).
- ☆ Remove white lock washer using screwdriver



- ☆ Pull sprinkler insert out of the housing
- ☆ Push down the flange and secure the head with the retainer



- ☆ Rotate nozzle to the left using pliers and then pull out.
- ☆ **Optionally** the sprinkler can be assembled with a tail nozzle. This nozzle can be refitted or/and also closed with a corresponding plug.
- ☆ Put O-ring over the new nozzle



and, reversing the procedure, re-install in the sprinkler head.

- ☆ Fit cover with sod cup into sprinkler head's snap-in connection by first pushing it as far as it will go against the side opposite the nozzle and then snapping it completely into place on the nozzle side.

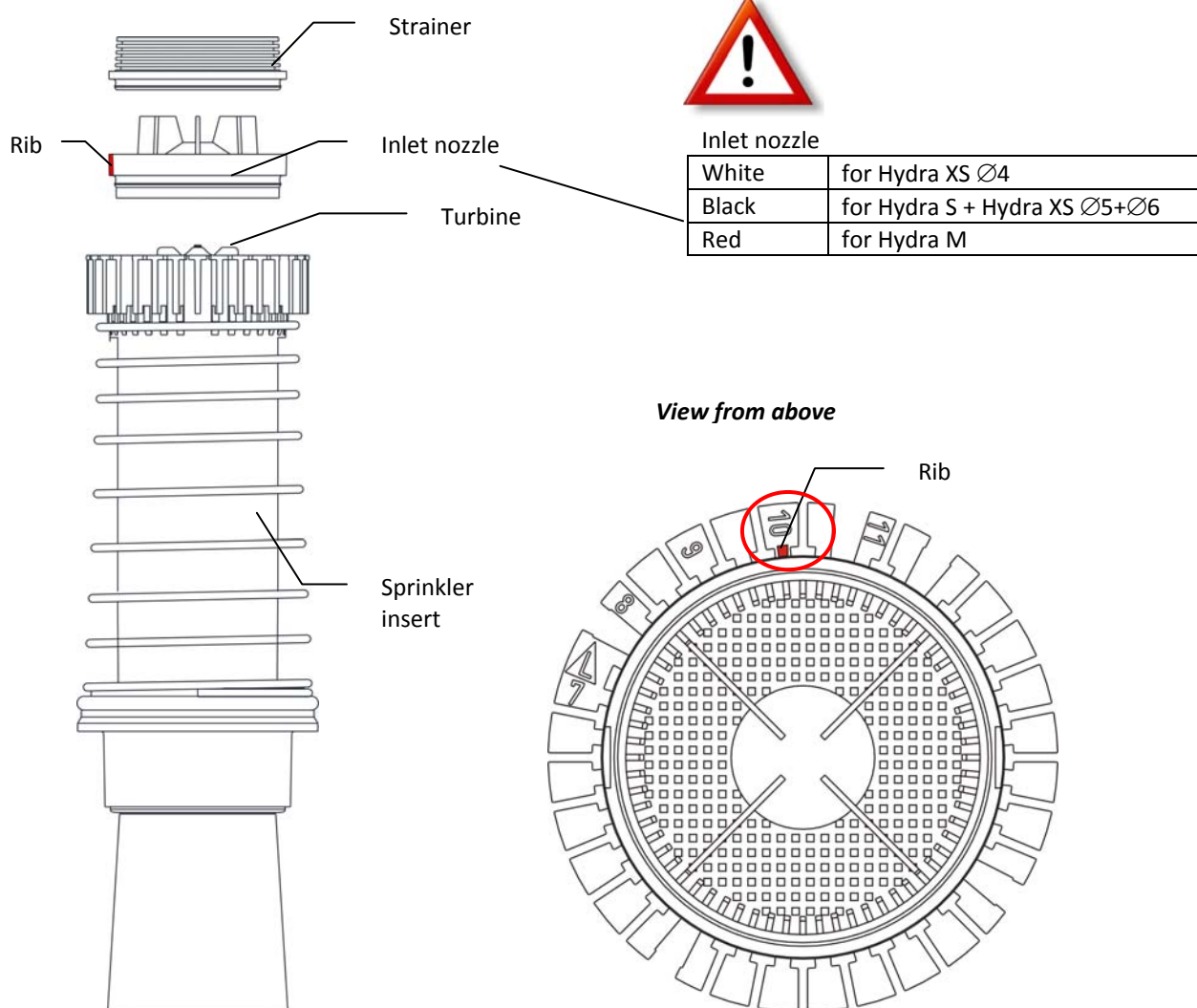


- ☆ Using a Torx-key, tighten the cover fastening screw (item 2) of the cover with sod cup and plug it.

## 7.1 Adjusting the inlet nozzle

The recommended rotational speed is maintained by correctly adjusting the inlet nozzle. Adjust as follows:

- ☆ Take off inlet nozzle and filter together by using a screwdriver to lever up the inlet nozzle at the notch.
- ☆ Snap inlet nozzle back onto the sprinkler module so that the elongated rib is pointing to the nozzle diameter being used.

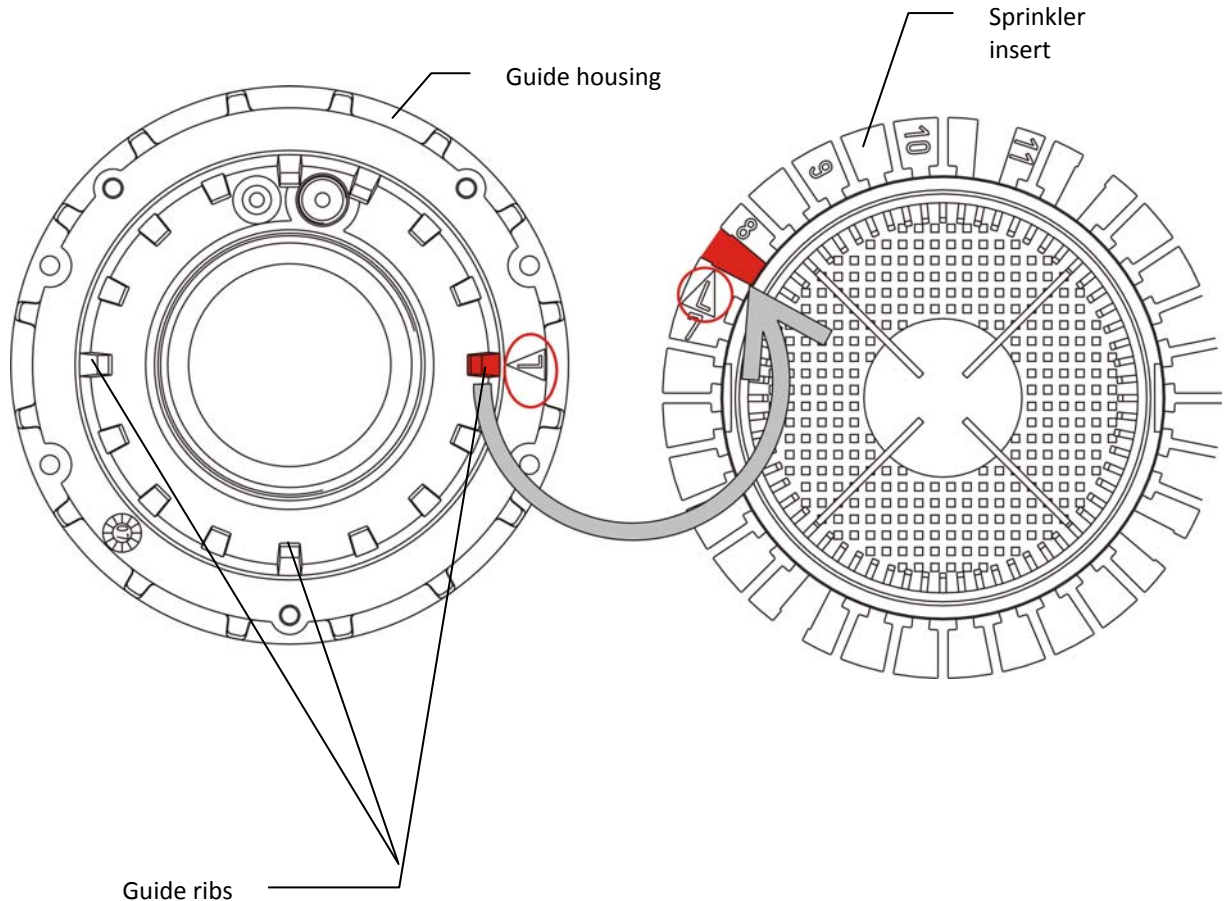


**Note:** *If you want a higher rotational speed, the rib must be pointing to a smaller diameter than that of the nozzle actually being used.*

## 7.2 Fitting the sprinkler insert


- ☆ Fit O-ring onto flange and lightly grease for easier assembly.
- ☆ Fit sprinkler module inside housing.

**WARNING** Ensure correct alignment.



- ☆ Push flange down as far as it will go.
- ☆ Fit retaining ring.

**WARNING** Retaining ring must be fully inserted into the slot.

- ☆ Assemble cover with sod cup by mounting the cover on the guide housing such that the  mark of the guide housing and cover are at the same position. Tighten the cover with three (3) sheetmetal screws (item 1).
- ☆ Check sprinkler is working properly as per point's 5a-5b.

## 8 Maintenance

- ☆ After applying sand to the sprinkler location, check to make sure that there is not too much sand in the space between the sprinkler head cover with sod cup and cover with sod cup. If necessary, clean with a wet vacuum cleaner.

## 9 Troubleshooting

### *Malfunctions*

<b>Problem</b>	<b>Cause</b>	<b>Remedy</b>
Stop valve fails to close completely	Bits of dirt between sealing plate and stop valve.	Clean stop valve seat and sealing plate
Rotary speed too low / too high or does not rotate at all	Inlet nozzle incorrectly set (see chapter 7)	Set inlet nozzle to correct nozzle diameter
	Turbine blocked by stones or bits of dirt	Clean turbine
	Inlet nozzle or filter have worked loose	Clip parts together again
Output pressure at sprinkler nozzle too low or casting range too short	Stones and bits of dirt are hindering an unimpeded flow-through of water	Clean stop valve and flush sprinkler

Subject to change without prior notice.



## Notizen / Notes



**Für weitere Informationen stehen wir Ihnen gerne zur Verfügung.  
*We remain at your full disposal for any further information you may require!***

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