

IB

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MMR20

Instruction Manual for Operation & Maintenance



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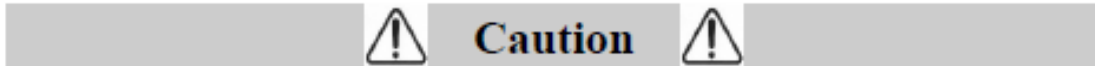
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Introduction

Thank you for purchasing a Mini Micro Rain MMR20 travelling sprinkler system. Please read this manual carefully before operation in order to become familiar with all components and their function. Safety is the main priority and failure to follow these instructions may cause serious injury. IB International is not responsible for machine failure or personal injury if these procedures and operation instructions are not followed.



- **Do not operate your Micro Rain Irrigator without a serious overview of this manual**
- **Keep children and unauthorized people away from Irrigator.**
- **Never allow children access to use the Irrigator**



- **Use caution when disconnecting couplings**

When the traveller shut-off valve activates, the supply hose remains pressurized at the end of the run. First, relieve the pressure with the relief valve, then disconnect the supply hose.

- **Use caution with the sprinkler heads**

Pressurized water from the sprinkler head could cause serious damage to people or objects.

- **Never service the Irrigator when it is in operation**

Before servicing, stop the Irrigator and disconnect the supply line. All safety guards and shields must be in place while operating the Irrigator.

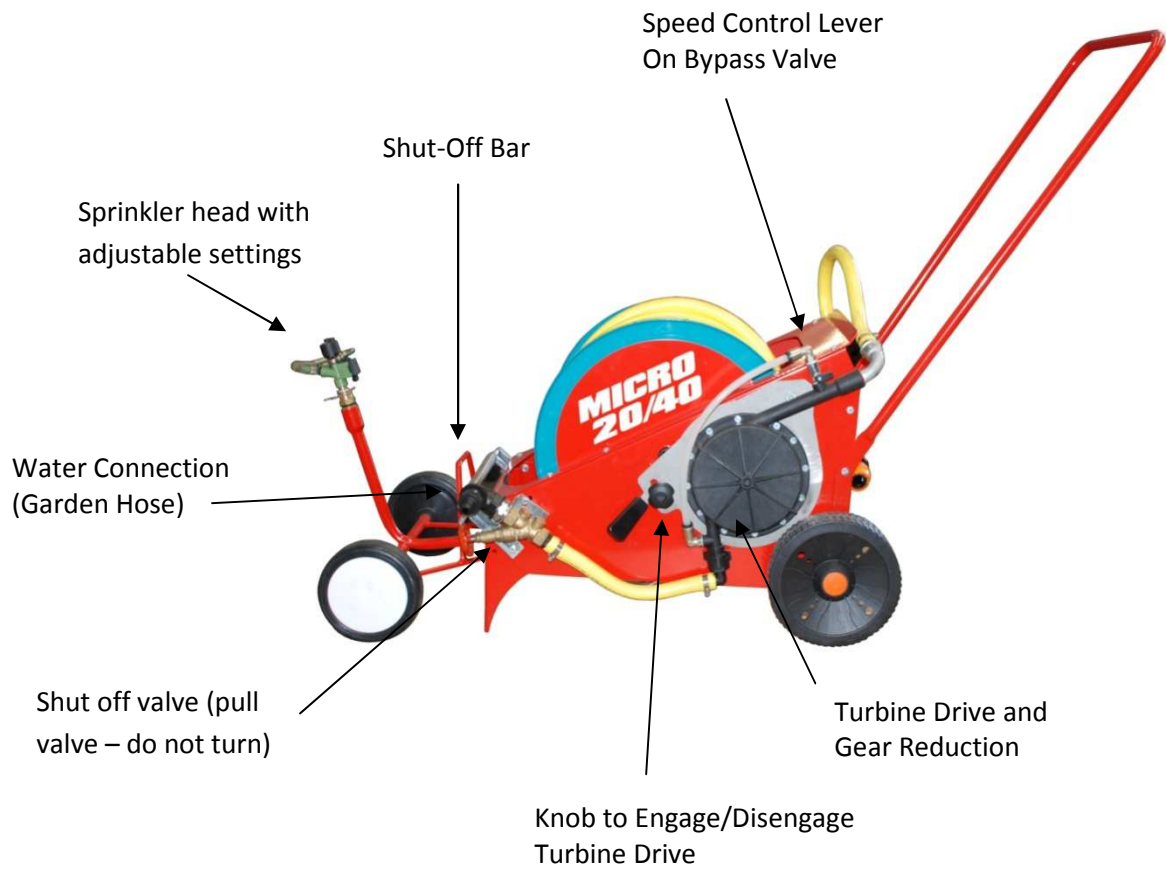
- **Beware of power lines**

Irrigation water should never contact power lines or any other power source. Never let any part of the Irrigator or any irrigation pipe get in contact with power source.

Identification Data

The identification plate includes the model and serial number for your machine.

Machine Controls & Components



Conditions For Machine Operation

The MMR20 is designed for clean water suitable for irrigation. The machine is not designed for water that includes large pieces of debris or slurry/wastewater conditions.

Start Up Procedure/Operation



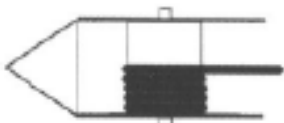
1) Push the machine to the desired location. Position the machine with the sprinkler cart facing the direction to be irrigated. Insure that the machine is sitting level in order for the tube to wrap properly.



2) Loosen the black turbine lock knob as shown at the bottom of the image to the left by turning counter-clockwise. Now the turbine drive assembly and bracket will slide down and away from the sprinkler cart (as shown by white arrow) to disengage the turbine drive gears. Re-tighten the knob to hold the turbine drive gear away from the drum gear. Drum will now spin freely allowing sprinkler cart to be pulled out.



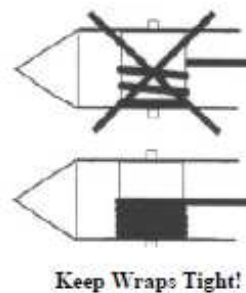
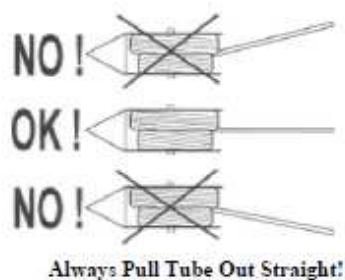
3) Sprinkler cart may now be pulled out by hand. **IMPORTANT:** Pull the sprinkler cart out in a straight line from the machine to allow the tube to wrap back onto the drum straight. Never make sharp turns with the polyethylene hose and always leave one or two wraps on the drum to keep from pulling the tube off of the drum.



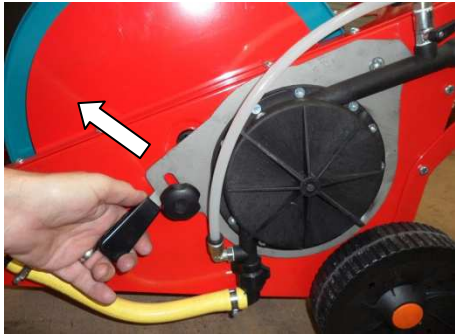
4) Proceed back to the drum and tighten the few loose coils that are left on the drum by hand. This will ensure that the coils start wrapping in the correct manner when the drum starts turning.

Keep remaining wraps tight!!

****IMPORTANT: ALWAYS PULL CART OUT STRAIGHT AND TIGHTEN LOOSE WRAPS BEFORE START UP!**

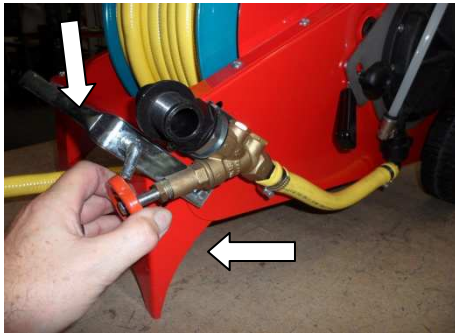


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5) Re-engage the turbine assembly by loosening the black knob again and sliding the turbine bracket back into place as shown by white arrow, so that the drive gears mesh. Tighten the black lock knob again to hold the turbine in place.

IMPORTANT: Before proceeding, try turning the drum by hand to make sure it is locked in gear. It should be locked and will not turn.



6) Open shut off valve by pulling the valve handle into the open position and the latch will drop into position to hold valve open as shown.

IMPORTANT: PULL VALVE, DO NOT TURN!

NOTE: DO NOT PULL VALVE OPEN UNDER PRESSURE. OPENING UNDER PRESSURE WILL DAMAGE VALVE!



VALVE SHOWN IN OPEN, LATCHED POSITION



7) Attach supply hose provided to the inlet of the machine and lock into place as shown

IMPORTANT: MAKE SURE SUPPLY HOSE IS CLEAN AND FREE OF FOREIGN OBJECTS THAT WOULD PLUG THE TURBINE SYSTEM OR SHUT OFF VALVE!



8) Turn on the water source to the MMR20. The sprinkler equipped with the MMR20 can be set to water a full circle pattern or any part of a circle. It is generally recommended to water a three-quarter circle pattern behind the cart, away from the direction of travel. The MMR20 is equipped with a pressure regulator at the inlet to maintain system pressure at no more than 60 psi.



9) Adjust the speed of cart retraction by moving the bypass lever or speed control lever in the directions shown by the arrow. Closing this valve will increase the retraction speed and opening the bypass valve will slow down the retraction speed.



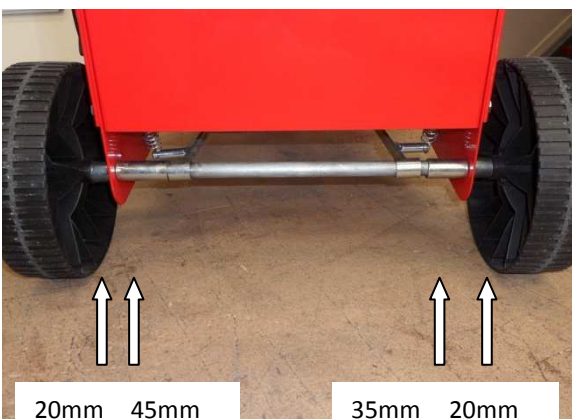
10) Once the speed is set, the MMR20 will automatically roll the tube on the drum and stop at the end of the run utilizing the shut off valve.

IMPORTANT: Your MMR20 Irrigator operates between 10-15 Litres per minute. This is regulated by changing the sprinkler nozzle to match your water source's capability. The smallest nozzle is installed in the sprinkler from the factory. If you have a good water source with adequate pressure, it is possible to increase to a larger nozzle size if needed. Consult your application chart and servicing dealer for more information.

Assembly of hose tensioner & Axle Spacers.



The hose tensioner is fitted when the wheels are assembled to the chassis.



In this photo we are looking at the back of the Irrigator.

Mount the spacers as instructed in the photo.

Maintenance Schedule

Inlet seals:

Drum gear:

Turbine Seals:

Grease inlet seals every 100 hours.

Grease drum gear every 100 hours.

Replace turbine seals every 500 hours or once a season. Consult your dealer for information.

Troubleshooting

1) PROBLEM: NO WATER AT THE SPRINKLER

- SOLUTION:
1. Make sure shut off valve is open.
 2. Potential blockage – clean inlet screen/sprinkler nozzle.
 3. Potential blockage – check/clean turbine & By-Pass.

2) PROBLEM: MACHINE WILL NOT ROLL UP

- SOLUTION:
1. Make sure turbine is in the engaged or run position as shown in start up steps.
 2. Turbine bypass valve (speed control valve) is opened too far. Close valve to increase speed.
 3. Not enough pressure to initiate turbine drive.
 4. Debris in inlet filter screen not allowing flow into the machine.
 5. Potential blockage see problem 1.

3) PROBLEM: MACHINE STOPPED DURING RETRACTION

- SOLUTION:
1. Water flow stopped or was lowered during retraction, causing the turbine to stall. Simply turn the bypass valve closed to start retraction once again and adjust speed as needed.

Performance Chart

Flow Rate.	10 - 15 lpm
Pressure Req.	2 - 4 bar (30 – 60 psi)
Wetted Width.	15 - 25 mets
Irrigated Run Lth.	Max 50mets