

# *Operation and Assembly Manual*

for the

## *EarthWay® M40 12-volt Broadcast Spreader*



**When applying heavy materials like ice melt, you must remove the agitator.**

### **WARRANTY**

EARTHWAY guarantees this product to be free of defects in original workmanship and materials for a period of 90-days from sale to the original user. If any defect develops during this period EARTHWAY will repair or replace this product or part at no charge provided the defect is not the result of mishandling or tampering. If advised by EarthWay that the product or part is to be returned, the shipping charges must be prepaid to EarthWay Products, Inc. 1009 Maple St. Bristol, IN 46507. For quicker service you may call EARTHWAY at (574) 848-7491 or write and describe the nature of the defect and we will send repair parts to you.

Due to the corrosive nature of most fertilizers and ice melters, EARTHWAY PRODUCTS, INC. makes no warranty or guarantee against corrosion failure on models with plated steel or painted steel frames. Clean and dry your spreader thoroughly after each use. Warranty covers parts only, not labor charges for the repair or replacement of the parts.



# EarthWay®

## Electric Spreaders

### Models M40

1. Always wear protective clothing, eyewear, and dust mask to prevent contact with chemicals and other materials being applied with this machine.
2. Remove any material in the hopper before lifting or detaching this machine from the vehicle.
3. Care must be taken when lifting this machine so as not to cause personal injury or equipment damage. Never attempt to install this machine to the vehicle alone. Recruit the help of someone to assist when attaching and detaching this machine from the vehicle.
4. Refer to the material packaging or the Material Safety Data Sheet for precautionary measures required when handling materials to be applied.
5. Before attaching this machine, consideration must be given to the load capacity of the vehicle. Refer to the owner's manual of the vehicle for rated load capacity. Be sure to take into account the weight of this machine **30lbs.** and the weight of the material to be placed in the hopper when calculating the total load.



**KEEP HANDS AWAY FROM ANY SPINNING OBJECT, SHUT-OFF PLATE, SOLENOID LINKAGE, AND THE INSIDE OF THE HOPPER, EXTREME INJURY CAN OCCUR.**

### **HOW TO OPERATE SAFELY:**

1. Read, understand, and follow all product label information provided on the material being applied.
2. An adjustable solid stop is provided that allows the operator to adjust to the desired opening position on the rate setting control prior to operation of the vehicle. This allows repeatability to the stop without the need to look at the control while operating the vehicle.
3. Establish the correct rate and then lock the stop in that position using the thumb wing nut on the setting control.

### **MOUNTING INSTRUCTIONS:**

Position the M40 on the vehicle so that the vertical center frame brace is positioned at the edge of the vehicle, this will allow a full 180 degree spread pattern.

Shown in photo is a cross-bed mounting frame.



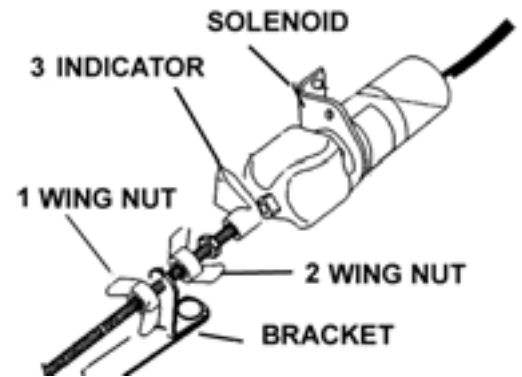


Use Caution ~ disconnect power supply.

### **OPERATING INSTRUCTIONS:**

Before filling hopper, become familiar with the operation of this spreader. (Practice the following steps)

1. Connect only the black wire (ground) to the negative (-) post on the battery. Connect the other two wires to the positive (+) post on the battery.
2. Turn the motor switch to the **ON POSITION**, so that the impeller is turning before going on to the next step.
3. While driving forward turn the solenoid switch to the **ON POSITION**, this opens the shut off plate on the spreader.
4. To stop the flow of material, turn the solenoid switch to the **OFF POSITION**, then turn the motor off when finished.
5. When finished empty any remaining material from hopper.
6. Thoroughly wash spreader and allow to dry before storing. No oiling is necessary.



### **CALIBRATION INSTRUCTIONS:**

1. Remove power connect from the positive terminal on the battery.
2. Loosen # 1 wing nut.
3. Turn # 2 wing nut clockwise to reduce setting or turn counter clockwise to increase setting to desired hole opening. Setting 15 places the shut-off plate inside hopper to half open. By turning this wing nut, indicator will travel along side gauge.
4. Tighten # 1 wing nut firmly to lock calibration setting in place.



### **IF RATE SETTINGS ARE NOT AVAILABLE USE THE FOLLOWING PROCEDURE TO CALCULATE THE SETTING:**

1. Determine how much material is to be applied per 1,000 sq/ft.
2. Measure off a distance of 50 feet, preferably on a paved surface such as a parking lot.
3. Weigh out enough of the material to be applied to fill the hopper at least half full. Record the weight for future use.
4. With the unit mounted on the vehicle and the hopper at least half full of the material to be spread, position the vehicle far enough before the beginning of the 50 foot test area so that the vehicle will achieve the desired speed before you reach the starting line.
5. Set the rate setting stop at a position that you feel would be an appropriate setting.
6. Start the vehicle in motion and as you cross the starting line (of the 50 feet) move the rate lever to the open position against the stop. Take care to be aware of what is going on around you maintaining control of the vehicle.
7. Continue from the starting line with the unit spreading the material. As you cross the finish line move the rate lever to the closed position.
8. Stop the vehicle and note the width of the spread path that was just completed.
9. Return to the start point and empty the remaining material from the hopper into your weighing container and re-weigh.

# EarthWay®

## Electric Spreaders

### Rate Setting Worksheet

Desired Application Rate (lbs/1,000 sq ft) \_\_\_\_\_

To determine the desired application rate divide the area (sq ft) the bag should cover by the weight of the bag, then multiply by 1,000. (example: 5000 sq ft / 25 lbs = .005 x 1,000 = 5)

\_\_\_\_\_ Weight of Material Placed in Hopper  
- \_\_\_\_\_ Weight of Material Left in Hopper  
= \_\_\_\_\_ Weight of Material Used

50 Length of Test Area  
x \_\_\_\_\_ Width of Spread Area  
= \_\_\_\_\_ Total Spread Area

Divide the Weight of Material Used by the Total Spread Area = \_\_\_\_\_ lbs/sq ft

Multiply the lbs/sq ft times 1,000 = \_\_\_\_\_ lbs/1,000 sq ft

Compare the results of your test to the desired application rate.

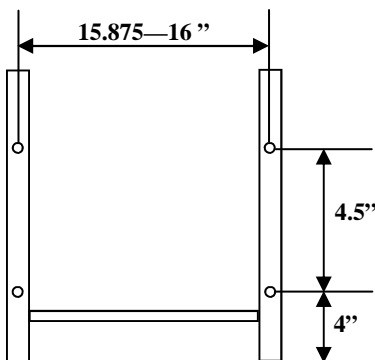
Adjust the rate setting stop accordingly and run through the test again.

Repeat this process until you have achieved the desired application rate.

The settings furnished on the Rate Setting Chart are intended as a guide only. Variations in physical characteristics of material applied, brisk walking speed (3 mph.), and roughness of ground surface may require slightly different spreader settings. Due to the above conditions, EARTHWAY PRODUCTS INC. makes no warranty as to the uniformity of coverage actually obtained from the setting listed.

### Mounting Systems

EarthWay recommends that the M40 be mounted into the bed of a vehicle or to a secure horizontal or vertical surface capable of holding a 300lb weight. The hole location dimensions for reference are shown below.



**M40 Frame Detail**



**Custom Bed mount for Carrvall 1 Utility Cart.**

The mount bolts securely to the top and the bottom of the side of the bed at the positions shown by arrows.

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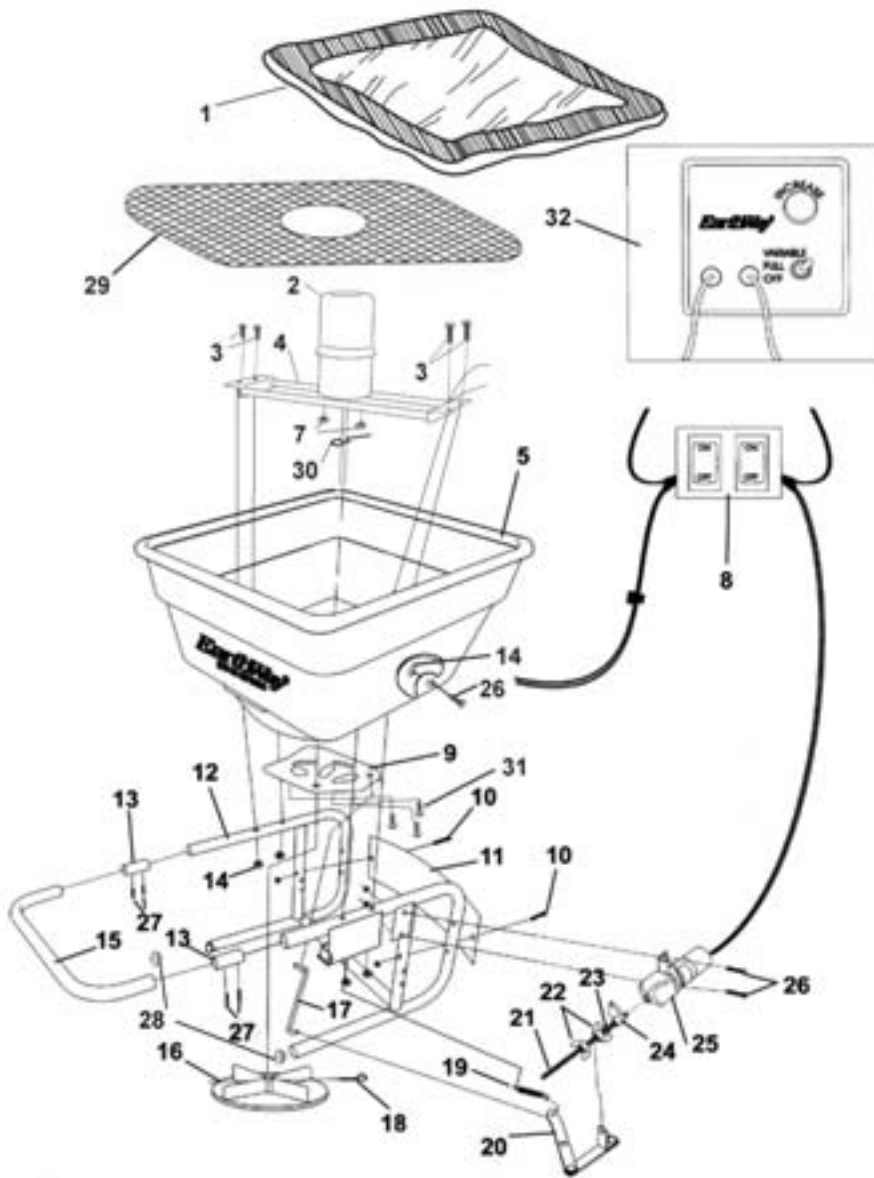
Products, Inc.

P.O. Box 547

Bristol, Indiana 46507

(574) 848-7491

www.earthway.com



## HOW TO ORDER SPARE PARTS

All spare parts listed herein may be ordered direct from the manufacturer, **EARTHWAY PRODUCTS, INC.** Be sure to give the following information when ordering.

**1. Model Number**

**2. Part Number**

**3. Part Description**

Call (574)848-7491 or write for current prices.

Key #	Part #	Description	Key #	Part #	Description
1	77002	Heavy Duty Rain Cover	18	N/A	1/8" x 1 1/4" Cotter Pin
2	77102	Electric Motor with Shield	19	70182	Extension Spring
3	N/A	1/4-20 x 1 1/2" Hex Head Bolt	20	60352	Linkage Assembly
4	60330	Motor Support Assembly	21	42272	Adjusting Rod
5	19112	Hopper Assembly Includes Key #9	22	N/A	1/4-28 Wing Nut
6	N/A	.080" x 1-3/16" Hair Pin Clip	23	N/A	1/4-28 Stainless Steel Hex Nut
7	N/A	10-32 Nylon Insert Locknut	24	12308	Indicator
8	60512	Wire Harness Assembly	25	70189	Solenoid
9	12278	New Pro Shut Off Plate Assembly	26	N/A	1/4-20 x 1" SS Hex Head Bolt
10	N/A	1/4-20 x 1 1/4" Hex Head Bolt	27	N/A	#8 x 5/8" Screw
11	42266	Back Deflector	28	19113	1" Hole Plug
12	60348	Frame Assembly	29	12315	Debris Screen
13	24708	Bumper Connector	30	33117	Agitator
14	N/A	1/4 - 20 Nylon Insert Locknut	31	31138	#8 X 3/8" PMT #8 HD Coarse Black
15	24707	Bumper	32	77009	(Optional) Motor Speed Control
16	12109	Impellor		60513	(Optional) Truck Mount Wire Harness w/ Lighter Plug
17	41276	Control Rod		N/A	- can be found at most local hardware stores



*EarthWay Products, Inc.*  
P.O. Box 547  
Bristol, Indiana 46507  
USA

### EC DECLARATION OF CONFORMITY

(Machinery Directive & Electromagnetic Compatibility Directives)

Herewith we declare that the machinery described below is in accordance with the relevant health and safety requirements of the EC Council Directives concerned with Machinery and Electromagnetic Compatibility. No alterations are to be made to the machine without prior consultation and approval of EarthWay Products, Inc. otherwise the Declaration may become invalid. This equipment must be commissioned, used and maintained strictly in accordance with the operating and maintenance instructions issued with the machine. Operators must be trained in accordance with the recommendations given in the operating and maintenance instructions issued with the machine.

Description of Machine: EarthWay M40 12-volt Broadcast Spreader

Serial Number: AS STAMPED ON MACHINE


Date of Supply: AS INVOICED DATE

***Relevant EC Council Directives:***

Machine Directives 89/392/EEC and subsequent amendments.

Electromagnetic compatibility Directive 89/336/EEC and subsequent amendments.

***Issued by:*** Jeffrey Kendall on behalf of EarthWay Products, Inc.

***Signed by:*** 

***Date:*** Sunday, May 21, 2006

***Position of Signatory:*** Vice President  
Sales & Marketing

**DO NOT RETURN TO DEALER FOR REPAIR**

**EARTHWAY PRODUCTS, INC.**  
1009 Maple Street  
P.O. Box 547  
Bristol, IN 46507

**FOR YOUR RECORDS**

**Date Purchased:** \_\_\_\_\_  
**Store Name:** \_\_\_\_\_