

Royal Sovereign RBW-1500S Professional Vinyl Banner Welding Machine

Instruction Manual



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Owner's Manual

RBW-1500

BANNER WELDER



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Royal Sovereign International, Inc.

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1. INTRODUCTION

Thank you for choosing a Royal Sovereign RBW -1500. It has been designed and manufactured to provide years of continuous service. For complete operating and maintenance information please read this manual thoroughly. Upon receipt of your Banner Welder, please inspect the box, the machine and all other contents for shipping damage. Damage should be brought to the immediate attention of the delivering carrier (See page 6 for list of shipment elements).

2. SAFETY PRECAUTIONS

Failure to comply with any of the following safety procedures could result in serious injury. Please read all instructions carefully and keep for future reference. Royal Sovereign International Inc. cannot be held responsible for any damages to people, animals or objects due to noncompliance with the safety norms and recommendations of these documents.

1. Only a licensed electrician should install wiring and outlet for the Banner Welder.
2. Ensure the unit is plugged into a properly grounded outlet with the correct voltage.
3. During operation, keep hands away from heating blocks and avoid inserting foreign objects into the machine.
4. Keep flammable and wet objects away from the machine.
5. Place machine on a level surface.
6. Avoid excessive sunlight, humidity and extreme temperatures.
7. Ensure the unit is turned off and unplugged from the outlet prior to moving and/or repairing.
8. Keep out of reach of children.
9. Only Royal Sovereign authorized maintenance and service technicians should make repairs.
10. Do not attempt to weld items that exceed total recommended material thickness for the unit.
13. Tampering with the protections and safety devices is dangerous for the people using the machine and for those exposed to it. Royal Sovereign International Inc. cannot be held responsible for any damages to people, animals or objects due to tampering with the protections.
14. Pay attention to the danger notices on the Banner Welder.

Dangerous areas and residual risks

To avoid the risk of injury or health problems avoid all moving parts.

Pay attention to hands when operating the Banner Welder.

During certain intervention procedures on the machine, which are pointed out each time in this manual, residual risks for the operator may arise. Residual risks can be avoided by carefully complying with the procedures of this manual and using the personal protection devices indicated. such as:

- Carefully positioning the power cord so that it cannot be stepped on or damaged.
- Maintenance and service operations must be carried out only by the engineers authorized by the manufacturer.
- Pay attention to the danger notices on the Banner Welder.

Banner Welder should only be operated by trained personnel

DO NOT PLACE HANDS NEAR THE HOT ZONE !



3. PRODUCT IDENTIFICATION



NO	PART NAME	NO	PART NAME
1	Guide Plate	8	Main Switch
2	Feed Table	9	Adjustable Stand
3	Top Cover	10	Support Bar
4	Speed Knob	11	Base
5	Body	12	Caster
6	Emergency Switch	13	Leveling Legs
7	Rear Cover		

4. INSTALLATION

Note: The Banner Welder should be installed and assembled by a trained service technician

The Banner Welder should only be used in an area with the following characteristics:

- Protection from atmospheric agents.
- Proper illumination.
- Normal ambient operating conditions.

4.1 Electrical requirements

Royal Sovereign recommends that licensed electrician ensures proper power installation to your Banner Welder in accordance with electrical codes in your area.

4.2 Box contents

Thoroughly inspect the parts and the unit. It is imperative that any missing parts are reported and a claim is filed with the reseller immediately upon receipt of shipment.

	Part name	Quantity	Picture
Main box	Banner Welder Body	1	
	Banner Guide	1	
	Feed Table 1	1	
	Feed Table 2	1	
	Guide Plate	1	
	Adjustable Stand	1	

	Part name	Quantity	Picture
	Support Bar	1	
	Base	1	
	Caster	4	
	Foot	4	
	Tube stopper inside	4	
Tool box	5/16 Hexa Head Bolt Screw (M8*80)	3	
	Star Washer (Ø8.2)	3	
	Knob-Bolt Guide	2	
	5/16 Hexa Head Bolt Screw (M8*30)	4	
	Spring Washer (Ø8.2)	4	
	Welding Belt	4	
	Wood Screw	6	
	Washer Plain	6	
	Fuse (AC250V 10A Lanbao) (100-120V)	1	
Fuse (AC250V 6.3A Lanbao) (220-240V)	1		
Fuse (AC250V 4A 5*20)	2		

4.3 Assembly

1. Open the box carton and remove all parts.
2. Open the tool-box.
3. Attach the caster to the base.(Fig. 4-1)
4. Attach the support bar to the base using the supplied screws (M8x80).(Fig. 4-2)

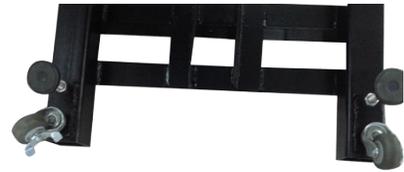


Fig. 4-1



Fig. 4-2



Fig. 4-3

5. Attach the adjustable stand to the support bar with a suitable height using the supplied screws (M8x80).(Fig. 4-3)
6. Place the Banner Welder body on the adjustable stand and secure it with the supplied screws(M8x30).
Adjusting the leveling legs to keep it level and solid.(Fig. 4-4)



Fig. 4-4



Fig. 4-5

7. Attach the guide plate to the feed table using the KNOB-BOLT GUIDE. And then fasten the feed table to the work table (Note: work table is not supplied by manufacturer) using the supplied screws.(Fig. 4-5) Attach the second feed table as needed.

8. The machine is now ready for Operation(Fig. 4-6). Note the recommended component spacing.



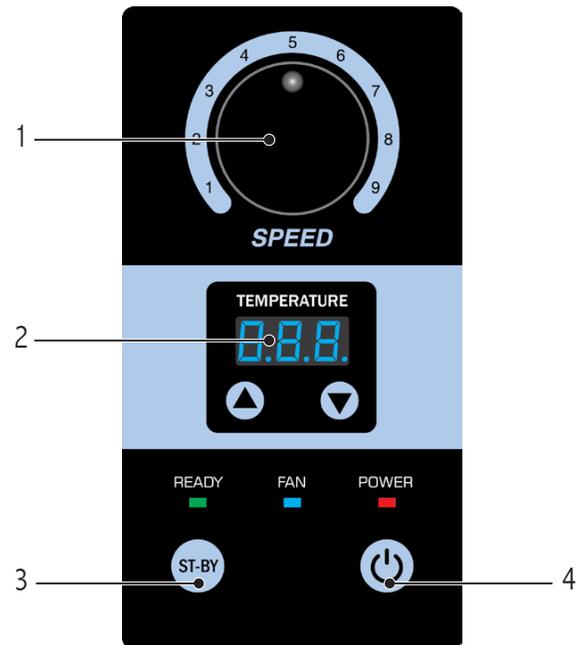
Fig. 4-6

5. CONTROL PANEL

1. Speed: To adjust the speed of the welding belt, turn the speed knob clockwise to increase speed or counter-clockwise to decrease the speed.
2. Temperature: To change the temperature use the up arrow to increase temperature or the down arrow to decrease temperature.
3. ST/BY: To switch to stand-by mode (temperature will be automatically set to 176°F) press the ST/BY button.

If the machine is in Stand by Mode and no activity is made for 5 minutes the machine will automatically power off.

4. Power: Power button will power the belts and heater on/off.
(Note: To completely power the unit on/off, toggle the main switch located near the power cord)



6. OPERATION

The Banner Welder must only be used by trained and qualified personnel.

The Banner Welder must be used only for welding material for which it has been designed.

For recommended maximum welding thickness see page 15.

Welding:

NOTE: When you feed the banner into the machine, you should guide the banner by the hand or by Banner Guide to keep it move in a straight line.

1. The Banner Welder should be positioned on a level surface in an area with adequate lighting and enough work space for feeding materials. Connect the power cord to the AC outlet and turn the Power Switch to the on position. Depress the power button on the control panel. The machine should only be operated from the front (control side) of the machine.
2. Before welding, first determine the folded area to be welded, adjust the guide plate and set it to the proper position. Set the temperature and speed referencing the Recommended Temperature and Speed section. (Note: Due to varying manufacturing processes of banner material fine tuning may be required).
3. Fold over material to allow for a minimum of 1/2" weld.
4. The point of the arrow is the middle of the weld. Align the outer edge of the fold over to the inner edge of the arrow.(Fig. 6-1)
5. Guide the banner into machine. The drive belts will grab banner and pull the banner through machine.(Fig. 6-2)
6. Welded banner will exit machine.
7. Test the weld for tight seal.
8. For best results rotate the banner 90° in a clock wise direction. Fold over the short side and guide the banner into the machine with the 4 layer fold entering last. (Note: Turn the speed down 1 to 2 positions to compensate for the extra layers of material).



Fig. 6-1



Fig. 6-2

9. Turn the speed back up and rotate the banner again and fold the longer side of the banner and guide the banner into the machine with the 4 layer fold entering last. (Note: Turn the speed back down 1 to 2 positions to compensate for the extra layers of material).
10. Turn and weld last end of banner. (Turning the speed down accounting for the extra layers of material).

Pole Pockets:

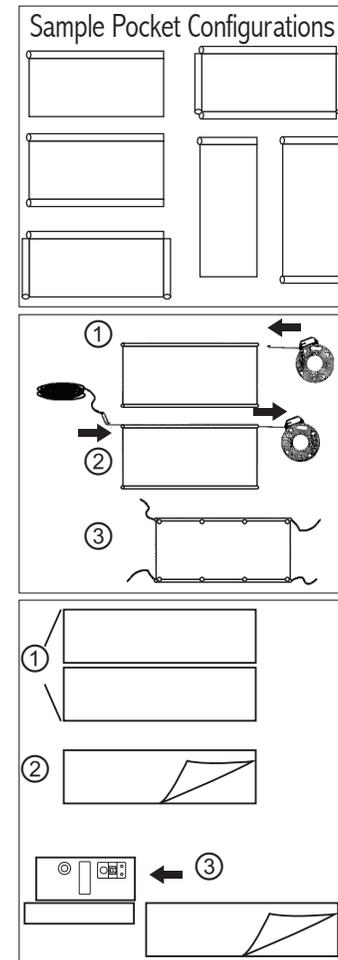
1. Weld all unpocketed sides first. (If you weld pockets before regular sides, your pockets will be sealed closed).
2. Loosen the Knob-Bolt Guide on the guide plate on the bottom of the table. Slide guide out to desired depth of pocket. Tighten the knobs on the guide plate.
3. Weld pocket at slower speed than regular weld side.

Rope Pockets:

1. Weld banner the same as with pole pockets only making a smaller rope pocket.
2. Insert an electrician's fish tape through pocket and hook on end of rope using a large paper clip. Pull rope through pocket.

Joining Two Pieces Together:

1. Cut two pieces to size.
2. Weld one outside edge on each piece.
3. Lay the two pieces together FACE to FACE.
4. Run through machine welding center seam.



7. MAINTENANCE

The banner welding machine has all sealed bearings which do not need any additional lubrication. The only maintenance you may need to perform is replacing the worn out or ripped welding belts, or if you run a printed banner at too high heat, you may need to clean your welding belts.

This is a simple procedure you do while the machine is running.

1. Run a piece of scrap material 2-3 times through the unit. This should clean belts sufficiently.

If you need a more in depth cleaning go to step 2.

2. Power the unit off and unplug the unit from the outlet. Once the unit has sufficiently cooled remove the top and bottom cover (as needed) and use a rubber sand belt cleaner to remove residual adhesive from the belts.

DON'T TRY TO REPLACE BELTS WHEN MACHINE IS HOT

Unplug the unit and allow it to sufficiently cool.

1. Remove the top/board covers. Unscrew the Philips head screws on the top cover and bottom cover.(Fig. 7-1)

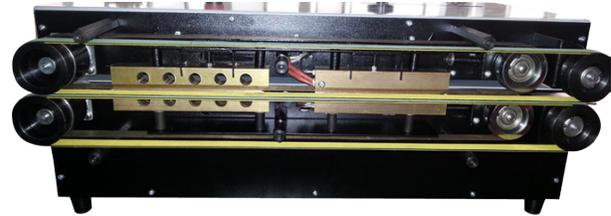


Fig. 7-1

2. Remove the drive belt and the three wheels. Push the adjustable base and take off the worn out welding belts.(Fig. 7-2)

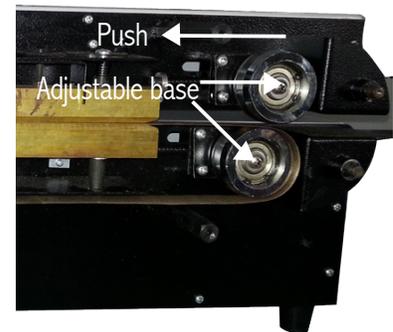
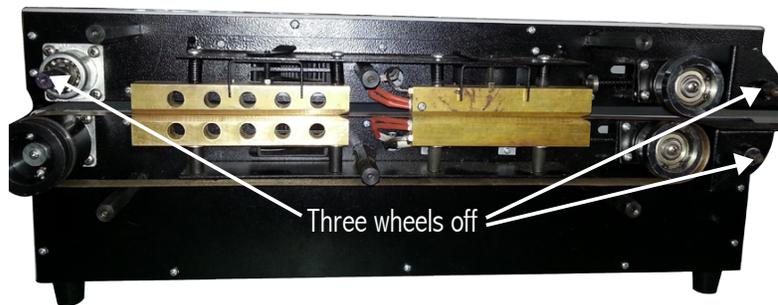


Fig. 7-2

3. To increase or decrease tension on the heating blocks use the adjustment screw, one for the heating block and one for the cooling block.(Fig. 7-3)



Fig. 7-3

4. Replace the worn out belts with new belts.
5. Loosen the adjustment screw. If the banner is too thick, please tight the adjustment screw.
6. Replace the drive belt and three wheels.(Fig. 7-4)

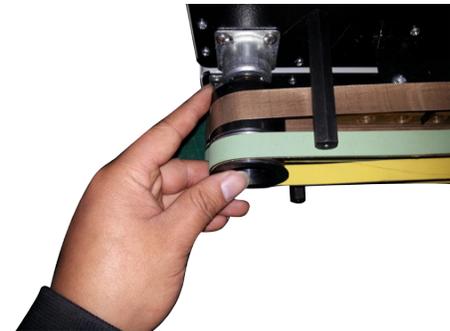


Fig. 7-4

7. Adjust the upper and lower screws to ensure the belts run in the proper position.(Fig. 7-5)

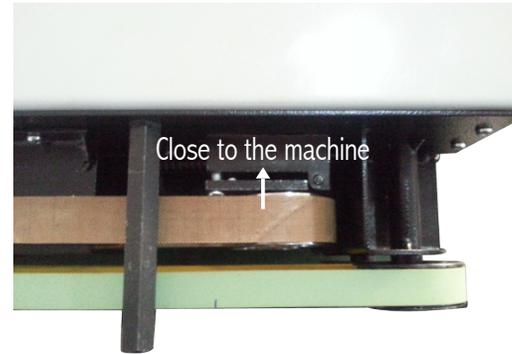
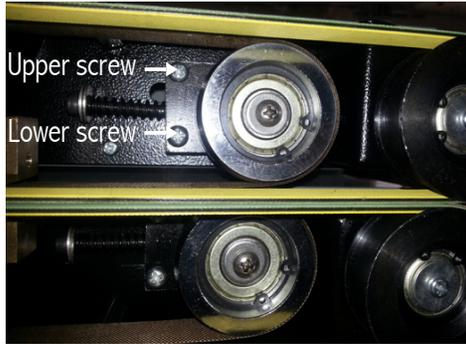


Fig. 7-5

To move the belts closer to the machine loosen the upper screw and tighten the lower screw.
(To move the belts away from the machine tighten the upper screws and loosen the lower screw).

8. Replace covers.

8.TROUBLE SHOOTING

Symtom	Cause	Possible solution
Machine will not turn on	a. Power switch is in “off” position. b. Blown main power fuse.	a. Put the power switch to the “on “position b. Replace the fuse
The display show “E0”	The emergency switch is in “on” position	Put the switch in “off” position
The display show “E1”	a. The wire of the upper sensor is abnormal b. The upper sensor is broken	a. Check the wire b. Replace the upper sensor
The display show “E2”	a. The wire of the lower sensor is abnormal b. The lower sensor is broken	a. Check the wire b. Replace the lower sensor
The display show “E3”	The upper sensor is overheated	Check the wire and pcb
The display show “E4”	The lower sensor is overheated	Check the wire and pcb

9. SPECIFICATION

Model Name	RBW-1500
Input Voltage	220V(60Hz),220~240V(50Hz),100V(50/60Hz),110~120V(60Hz)
Power Consumption	800W
Welding Width	0.6" (13~15mm)
Stock Thickness	0.03" (0.2mm-0.8mm)
Max. Pocket Width	6" (150mm)
Welding Speed	16 ft./min. (0-5m/min)
Max. Heating Temperature	662°F(350°C)
Adjustable stand	29"-42" (735 ~ 1055mm)
Cooling Method	Fan
Digital Display	LED
Unit Dimensions	24" x 15" x 9" (600 x 366 x 216 mm)
Unit Dimensions with Stand	24" x 15" x 42" (600 x 366x 1133 mm)
Net Weight	106 lbs. (48Kg)

10. RECOMMENDED SETTING

No	Media Thickness	Temperature	Speed
1	10~13 OZ	464~518°F (240~270°C)	6~7
2	15 OZ	482~536°F (250~280°C)	5~6
3	18 OZ	536~572°F (280~300°C)	4~5

11. WARRANTY

Royal Sovereign International warrants the equipment sold is free from defects in material and workmanship for a period of One (1) year for Parts and Labor from the date of installation. This warranty is valid only to the original purchaser. This warranty is the only warranty made by Royal Sovereign International and cannot be modified or amended. Royal Sovereign's sole and exclusive liability and the customer's sole and exclusive remedy under this warranty shall be, at Royal Sovereign's option, to repair or replace any such defective part or product. These remedies are only available if Royal Sovereign's examination of the product discloses to Royal Sovereign's satisfaction that such defects actually exist and were not caused by misuse, neglect, attempt to repair, unauthorized alternation or modification, incorrect line voltage, fire, accident, flood or other hazard. All warranty claims must be filed through Royal Sovereign or the authorized Royal Sovereign dealer or reseller through which the equipment was originally purchased. Model, serial number and date of delivery are required for all claims.

The obligation to this warranty shall not extend to the following. The adjustment or replacement which are the normal responsibility of the owner. Example Welding Belts, loosened fasteners (bolts, screws etc.) Chipped paint or other items such as fuses that show wear under normal use. Normal operating adjustments to heat, speed or tension. Parts that are not manufactured by Royal Sovereign International Inc.

The warranty made herein is in lieu of all other warranties, expressed or implied, including any warranty or merchantability or fitness for a particular purpose. Royal Sovereign will not be liable for personal damage or personal injury (unless primarily caused by its negligence), loss of profit, or other incidental or consequential damages arising out of the use or inability to use this equipment.

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