



Operating Instructions FS-PSN500 & FS-PSW500 Narrow & Wide Scales

ENGLISH

GENERAL INFORMATION

Upon delivery of the scale unit, inspect the scale for apparent damage and notify the delivery driver if any is found. Unpack the scale from the pallet or shipping carton and compare parts received against those listed on the appropriate Portable Scales Assembly Instructions. If any parts are missing, notify your Osborne Dealer immediately. **Shortages must be reported within five days.**

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO USE YOUR ACCU-ARM SCALE:

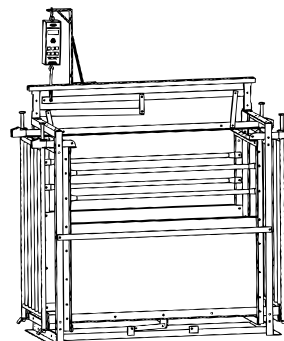
The basic scale unit when received is completely assembled, except for placement of the dial hanger bracket which has been removed for shipping. Follow the Scale Assembly Instructions for proper mounting of the bracket. All optional equipment purchased for use with the ACCU-ARM scales should be installed according to the Assembly Instructions that accompany the option.

Each scale has been checked for proper operation at the factory. To insure proper operation, proceed by reading the following instructions.

PREPARING FOR WEIGHING

Step One. Best weighing results are achieved when operating on a level surface. If the scale is equipped with a wheel kit, insure that the wheels have been released and the scale is firmly positioned before weighing. No part of the wheel kit assembly can touch the basket portion of the unit. The basket is the section in which the animal is enclosed during weighing. Inspect for interference carefully. This basket is only connected to the outer frame by ten (10) properly located sway bars, and by the ACCU-ARM linkage system (Refer to the assembly instructions for locations). It is essential that the basket remain free of interferences during weighing, both under the floor and between the basket and the frame. All sway bars and linkage points must be free of debris before weighing.

Step Two. After checking to insure that the unit is on level ground and that the basket is free and clear, zero the dial or the electronic meter using the correct procedures provided in the corresponding instructions. If an item of



known weight is available, place the item on the scale and weigh. (NOTE: Only use material which has been previously weighed on another quality scale for comparison. Feed sacks may vary in weight by +/- 2 lbs!) The reading on the dial or electronic meter should be accurate to +/- 1% of reading weight for the electronic meter and +/- 3% for the dial. (See Table 1 for acceptable reading tolerances).

WEIGHT	D500		E500R	
	MECHANICAL	DIAL	ELECTRONIC	METER
50	+/-	1.5	+/-	0.5
100	+/-	3.0	+/-	1.0
150	+/-	4.5	+/-	1.5
200	+/-	6.0	+/-	2.0
250	+/-	7.5	+/-	2.5
300	+/-	9.0	+/-	3.0
400	+/-	12.0	+/-	4.0
500	+/-	15.0	+/-	5.0

Step Three. Remove the weight from the scale and allow the unit to return to zero. If the dial or electronic meter registers a weight of one pound or more and fails to return to zero after the weight is removed, refer to the following section titled, "Checking for Malfunctions".

Step Four. If the displayed meter weight is below one pound, repeat weighing without re-zeroing the dial or meter. Some slight binding may occur and less than one pound residual will not greatly affect the accuracy of the weighing.

Step Five. Check the present reading against the known weight to determine if the reading falls within the acceptable tolerances. If the reading does not fall within the tolerances, refer to the section titled, "Checking for Malfunctions".

Step Six. If the reading is within the acceptable tolerance, (see chart above), the unit is ready to begin weighing.

CHECKING FOR MALFUNCTIONS

(P-Problem S-Suggestion)

P1: The dial or electronic meter displays a value greater than one pound after the unit has been properly zeroed, weighing has been completed, and the scale is empty.

- S1: Check for manure deposits which may have accumulated during the last weighing. If so, re-zero unit and reweigh.
- S2: If equipped with wheel kit, check for rubbing of the axle brackets against the basket. If found, adjust by pulling the axle bracket away from the side of the basket.
- S3: If the weigh-arm linkage is installed on the offset side of the scale, check for proper connection between hanging links and scale basket. Ensure the sway bars, located on the ends of the scale, are placed on the same side as the weigh arm linkage.
- S4: Check the sway bars for cleanliness and freedom. The sway bars should move freely on the bolts approximately 1/2-in. side to side and able to be tilted slightly, approximately 20 degrees. If not, remove the tight sway bar, check the alignment, clean any debris, and reposition. If the sway bar continues to bind, check for any bent parts on the scale frame or basket. Straighten any material that appears to be bent.
- S5: Insure the hanging links are free of debris and can move freely. Occasionally the hanging links may stick to the weigh-arms and may need to be separated. Remove the cotter pin and washer to provide room for separation. When the parts have been separated about 1/8-in., reassemble so that the hanging links do not rub against the weigh-arms. If the links continue to be in contact with the weigh-arm, the washer may be too thick and should be replaced with a thinner one, or the hole in the clevis pin may be drilled incorrectly and should be replaced. Contact your Osborne Dealer for replacement parts.
- S6: Check weigh-arms for the alignment. A slight curve in the arm is acceptable, but any excessive bend may need to be corrected. Insure weigh-arms are not touching the sides of the vertical pivots which support the end. If the weigh-arms are in contact with the pivots, release the weigh-arms by removing the end clevis pin and remaining linkage clevis pins. Straighten any bent parts and reassemble.

S7: If a vibration damper is installed, check that the damper moves freely within the cylinder. If not, remove the cylinder and clean. Replace cylinder and refill with clean oil. If the damper piston is bent, remove, straighten, and reassemble. **(Note: When using the electronic meter, the damper and piston are unnecessary and must be removed.)**

S8: Check the lower hook bolt to determine if interference is occurring between it and its clearance hole. If interference is occurring, loosen the bolt which fastens the dial hanging bracket to the top channel and move the bracket slightly until no interference is evident. Retighten the bolt.

S9: If the problem exists after checking the above items, locate another dial or electronic meter and retry. If the dial or electronic meter is found to be faulty, contact your Osborne Dealer for instructions on returning the meter for repair.

S10: If the mechanical dial or electronic meter check does not correct the problem and binding remains, call your Osborne Dealer for assistance.

P2: The scale unit zeros properly but the accuracy is not within the specified tolerance.

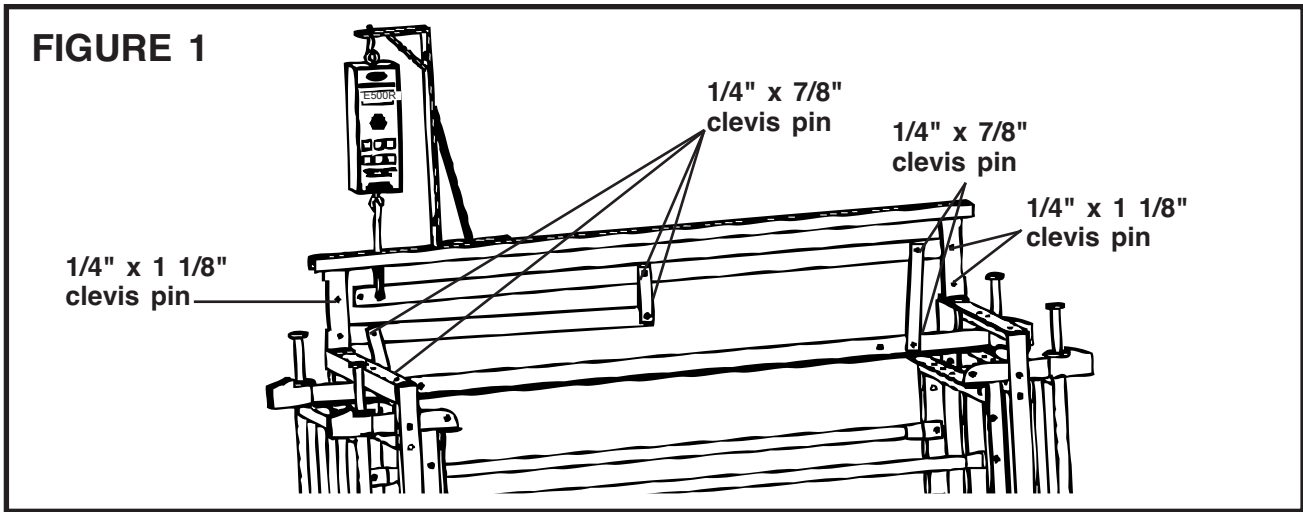
S1: Is anything in contact with the scale basket during weighing? Remember, gate handles, gates, panel sides, and top of unit are part of the basket unit and any contact of hands, equipment, or other material with these basket parts will directly effect the accuracy of the weighing.

S2: Check for interference between the tie bars on the side of the scale and scale basket. If interference exists, bend the tie bars slightly to remove interference.

S3: If a mechanical dial is used, make sure adequate clearance exists between the scale floor and all other stationary objects. NOTE: When using the mechanical dial, the basket unit at full load moves downward 3/16-in.

S4: Check all clevis pins in the weigh-arm linkage system for correct installation. The long weigh-arm has four clevis pin locations. The short weigh-arm has three clevis pins. (See Figure 1 for details).

S5: If the above steps have been completed and the scale continues to weigh inaccurately, locate another dial or electronic meter and retry. If the scale is equipped with a dial and is found



to be faulty, call your Osborne Dealer for instructions to return for calibration. If the scale is equipped with an electronic meter which appears to be out of calibration, follow the instructions included with the meter.

Contact your Osborne Dealer for instructions to return the meter for calibration and service. *(NOTE: If an animal exceeds 500 lbs. and is weighed, the E500R will display a maximum reading of 525 lbs. The meter is not damaged and weighing can continue for animals which weigh less than 500 lbs.)*

P3: The scale zeros properly and weighs accurately up to a certain weight, but beyond this weight the reading appears to be nearly the same for all heavier loads and from one weighing to the next.

P4: The D500 mechanical dial or the E500R electronic meter will not zero properly.

S1: If the D500 mechanical dial is used, insure the upper hook bolt on the dial hanger bracket is tightened to the bottom of the threads. The lower hook bolt attached to the long scale arm should be adjusted so that the long scale arm is approximately one inch above the level position. If necessary, use the upper hook bolt to provide additional adjustment. Note: The long scale arm requires approximately 1-1/2-in. of free travel for weighing 500 lbs.

S1: If the D500 mechanical dial is used, check that the proper adjustment procedure (on the back of the dial) has been followed. If the adjustment has been performed, but the dial does not zero, the dial may need calibration and should be returned. Contact your Osborne Dealer for instructions to return for service.

S2: If a D500 mechanical dial is used and adjustment has been attempted, but the problem continues to exist, check the dial hanger bracket for the alignment and insure all braces are firmly connected. If the dial hanger bracket is damaged, contact your Osborne Dealer for a replacement.

S2: If the E500R electronic meter is used, follow the zeroing and calibration instructions included with the meter. If zeroing cannot be achieved after following the instructions, the unit may require service. Contact your Osborne Dealer for instructions to return for service.

S3: If a D500 mechanical dial is used and the above steps have been taken, inspect the dial for binding operation. This is achieved by removing the dial from the scale unit and simply pulling on the dial weigh mechanism until the needle starts to rotate. Continue to pull on the weigh mechanism until binding occurs or the needle rotates two complete revolutions. If binding occurs, contact your Osborne Dealer for instructions to return the dial for service.

S4: If an E500R electronic meter is used, this observation may mean that the meter is faulty.

P5: The E500R electronic meter displays characters other than "000.0" or the corresponding weight reading.

(If the meter displays - - - -, sufficient tare weight is not available.)

- S1: Insure that the meter is attached to the scale properly and the meter has been zeroed.
- S2: If displayed during zeroing or weighing, apply slight pressure to the scale platform to return the display to "000.0".
- S3: If zeroing cannot be achieved and error read-

ings persist, remove meter and place in a dry location to remove any moisture, then retry weighing. *Contact your Osborne Dealer for instructions to return for service if error readings continue.*

P6: (If the meter displays 00:00 or a flashing colon (:), the battery has failed or is incompatible with the meter. Very low battery power will be indicated by "batt".

- S1: Replace the meter's battery with a fresh alkaline-type battery.

For additional information on the ACCU-ARM Portable Scale unit and accessories, refer to the following instructional materials:

- 1) *ACCU-ARM Portable Scale Assembly Instructions*
- 2) *ACCU-ARM Portable Scale Wheel Kit Assembly Instructions*
- 3) *Remote-Operated Center-Opening Gate Kit Assembly Instructions*
- 4) *E500R Digital Electronic Meter Operating Instructions*
- 5) *Top Closure Kit Assembly Instructions*
- 6) *Damper Cylinder Kit Assembly Instructions*



If any questions arise, please contact your Osborne Dealer or Osborne Customer Service • (800) 255-0316 • 785-346-2192
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