



**UNIVERSAL SCALE MOUNTS  
FOR  
1 DB, 1<sup>7</sup>/<sub>8</sub> DB & 2<sup>1</sup>/<sub>8</sub> DB**

**INSTALLATION INSTRUCTIONS  
OPERATOR'S MANUAL  
AND SERVICE PARTS**

**DIGI-STAR  
790 West Rockwell Avenue  
Fort Atkinson, WI 53538**



# INTRODUCTION

Universal mounts provide for simple and effective implementation of Digi-Star scales in custom applications. Universal mounts simply bolt into position and provide for all structural and accuracy requirements.

For information on ordering repair parts, refer to the Service Parts section at the back of this manual.

You are urged to study this manual and follow instructions carefully. Your efforts will be repaid in better operation and service as well as savings in time and repair expense. If you do not understand instructions in the manual, contact your Dealer or Digi-Star in Fort Atkinson, WI 53538.

This supersedes all previous published instructions.

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## OPERATION

See Indicator Owner's Manual enclosed with Electronics Pack.

## MAINTENANCE

Refer to Electronic Owner's Manual for guidance when trouble shooting the indicator, load cells and junction box components. Typical mechanical trouble shooting procedures follow.

## TROUBLE SHOOTING

TROUBLE	PROBABLE CAUSE	CORRECTIVE ACTION
Unit weighs too low.	Debris collected around mounts or under scale structure.	Clean mounts and scale under structure.
Corners of scale do not read the same weight within 1 count increment or $\pm 1/2\%$ tolerance; whichever is greater.	Debris collected under mounts or under scale structure.	Clean mounts and scale under structure.
	Corners of scale are not level.	Adjust corners of scale with leveling pins built into the 1 DB mounts or by shimming $1/8$ & $2/8$ DB mounts. Each mount must equally share the load.

## SITE WORK AND PLANNING

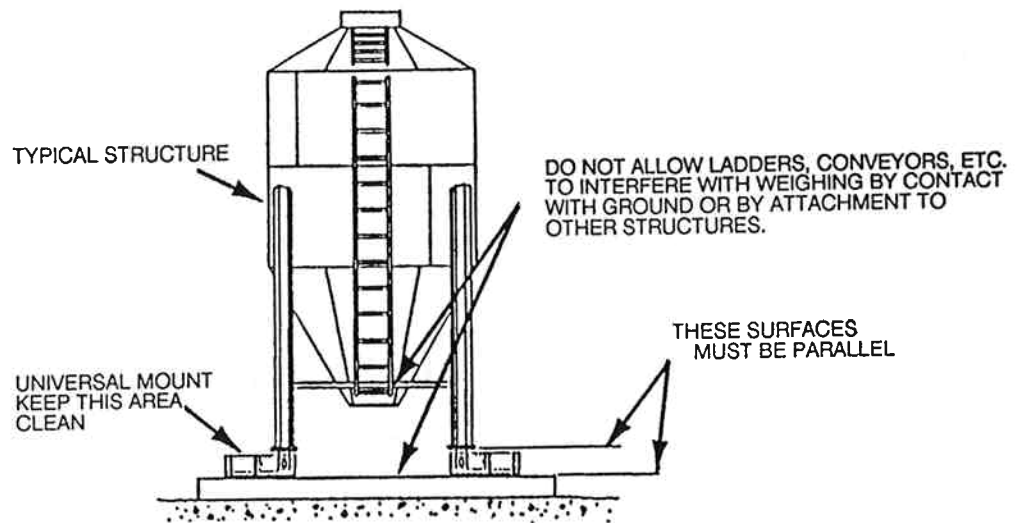
The scale must be installed on a flat, level, well drained surface. Concrete is preferred. Be sure to provide footing matched to the application.

The junction box must be located and cables routed so as to protect them from physical damage. Cables can be routed through conduit if necessary. Careful planning is required so that cables can be routed so that the purchased lengths will reach (16' is typical).

**IMPORTANT: DO NOT SPLICE OR CUT weighbeam or junction box cables.**

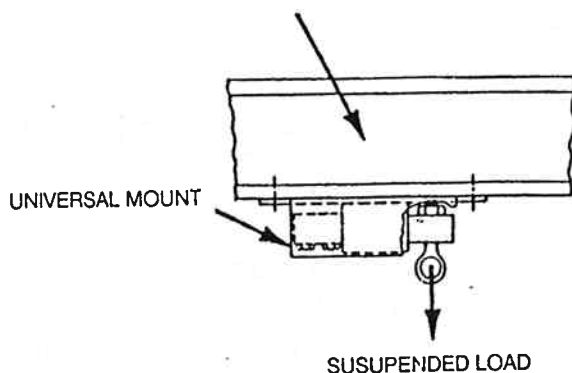
**IMPORTANT:** Do not overload the mounts. Refer to specifications (page 4) for load capacity of each mount.

**IMPORTANT:** The top and bottom surfaces of the mount must be attached to a parallel surface. Examples are the I-Beam of a platform or the base of a bulk bin leg must be parallel to the concrete slab on which the mount is anchored. See Figure 1. Also be careful to avoid allowing any components such as ladders, conveyors, etc. to interfere with accurate weighing because of contact with the ground or by their attachment to another structure.



**FIGURE 1. TYPICAL INSTALLATION**

TYPICAL OVERHEAD SUPPORT (I-BEAM, ETC.)



**FIGURE 2. TYPICAL OVERHEAD LOAD INSTALLATION**

**IMPORTANT:** Welding with the weighbeam installed may cause damage to it. Do not allow welding current to pass through the weighbeam.

**IMPORTANT:** Do not exceed the eight load cells per indicator.

**NOTE:** Mounts may be used in any number up to the limitations shown above. Also note that mounts need not be used in compression. For example, a mount may be installed overhead with an eyebolt suspended through the clearance hole of each mount. See Figure 2.

# INSTALLATION

## 1 DB MOUNT

1. Attach the Mount base to the foundation with 5/16 bolts supplied by others. Attach the Top Mount to the structure. Holes are not provided for attaching the Top Mount to the structure. Field drill to suit. If the Top Mount will be welded to the structure, do so before installing the Weighbeam in the Mount to avoid damage to the Weighbeam.
2. Assemble a Weighbeam to each Mount using  $\frac{3}{8}$  x  $1\frac{1}{2}$  Hex Head Capscrews.
3. Be careful to install the Weighbeam properly. A general application decal is affixed to the Weighbeam. Use this decal to install Weighbeam in such a manner that the shaded Arrow on the decal points the same direction the Weighbeam will be deflected when under load. For most universal mount applications this arrow will point "downward" when properly installed.
4. Screw a Leveling Pin into the nut welded on each Top Mount. Screw in equally on each Mount.
5. When used in compression the Leveling Pins slide into the clearance hole on the Weighbeams and are retained with "E"-Rings.
6. Level each corner using the wrench flats provided on each Leveling Pin. When the Scale is empty each Mount must equally share the load.

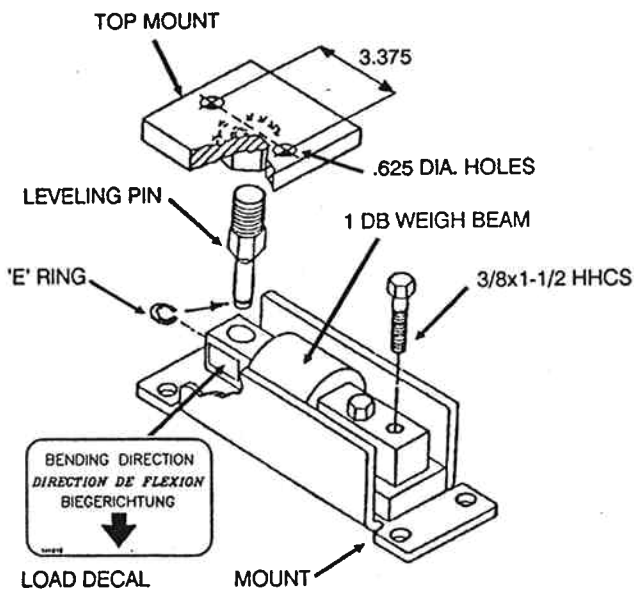


FIGURE 3. 1 DB ASSEMBLY

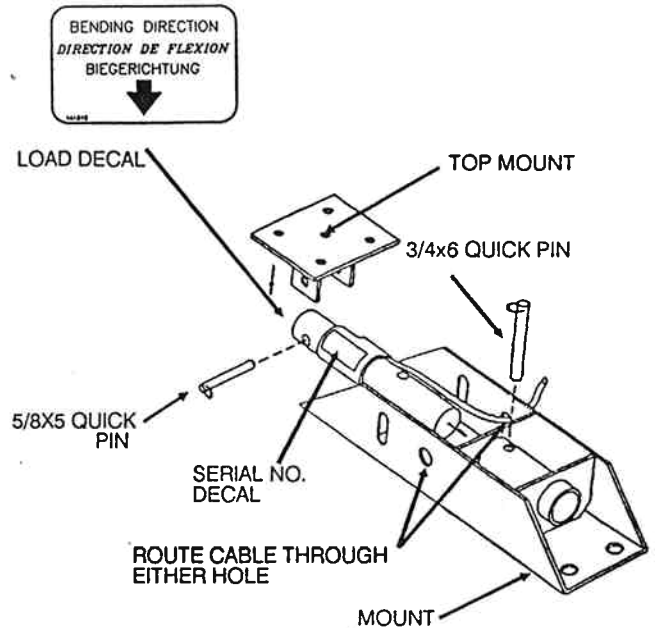


FIGURE 4. 1 7/8 & 2 1/8 DB ASSEMBLY

## 1 7/8 DB & 2 1/8 DB MOUNT

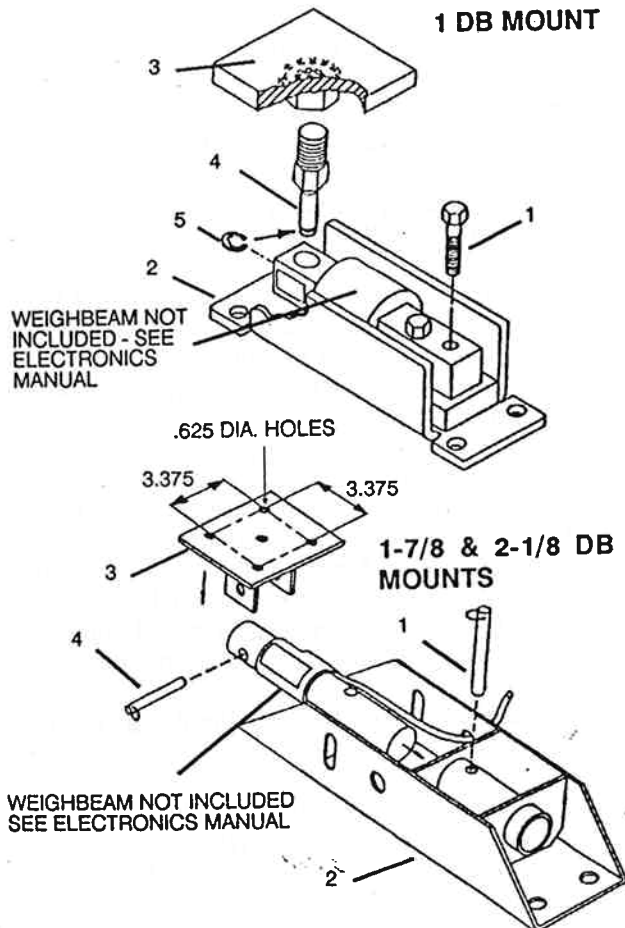
1. Attach the Mount base to the foundation and the Top Mount to the structure using  $\frac{1}{2}$  bolts supplied by others. If the Top Mount will be welded to the structure, do so before installing the Weighbeam in the Mount to avoid damage to the Weighbeam.
2. Lubricate long end of Weighbeam and Mount tube with grease or Never Seize. Insert the long end of the Weighbeam into the Mount tube and retain with  $\frac{3}{4}$ " Quick Pin. Route the Cable through one of the 1" holes on either side of the Mount.
3. Be careful to install the Weighbeam properly. A general application decal is affixed to the Weighbeam. Use this decal to install Weighbeam in such a manner that the shaded Arrow on the decal points the same direction that the Weighbeam will be deflected when under load. For most universal mount applications this arrow will point "downward" when properly installed.
4. Connect the Top Mount to the Weighbeam with a  $\frac{5}{8}$ " Quick Pin.
5. Level each corner by shimming between the Top Mount and the structure. When the Scale is empty each Mount must equally share the load.

## MOUNT JUNCTION BOX

The Junction Box is water resistant, not water proof. It should be mounted to avoid submersion during wet weather and to avoid physical abuse (examples; at least 12" high on nearby post, on a grain bin leg, or nearby wall).

### CONNECT ELECTRICAL CABLES

1. Attach each Weighbeam Cable to Terminal Block inside of Junction Box using labels on Printed Circuit Board as guides.
2. Care should be taken to insure that all Cables are loosely routed between Scale and Junction Box.
3. The Junction Box Cable is connected to the bottom of the Indicator. The Power Cord is connected to a 12VDC source and the Indicator. The red wire is the +12VDC and the white wire is the ground. Refer to the Indicator manual for the purpose and connection of other power cord wires.
4. See the Electronics Manual for detailed instructions for all electronics components.



## GROUND SCALE AND JUNCTION BOX

The structure attached to the Mounts and the Junction Box grounding lug should be grounded to protect Weighbeams and Indicator from voltage surges. Refer to Grounding Specifications (F3050) for details.

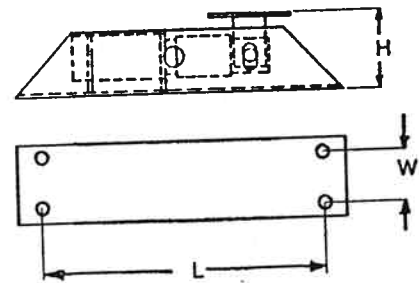
## SPECIFICATIONS

### Load Capacity:

1 DB Mount	1,500 lbs.
1 $\frac{7}{8}$ DB Mount	3,500 lbs.
2 $\frac{1}{8}$ DB Mount	12,500 lbs.

### APPROXIMATE DIMENSIONS:

Mount	H	W	L
1 DB Mount	3.5	2.0	7.5
1 $\frac{7}{8}$ DB Mount	4.75	2.75	16.63
2 $\frac{1}{8}$ DB Mount	4.75	2.75	16.63



## REPAIR PARTS

1 DB MOUNT			
KEY	SYMBOL	DESCRIPTION	QTY
1	---	Bolt $\frac{3}{8}$ x 1 $\frac{1}{2}$ Gr 5	2
2	140775	Base Wldmt	1
3	141631	Top Mount Wldmt	1
4	840699	Leveling Pin	1
5	141629	"E" Ring Retainer	1
1 $\frac{7}{8}$ DB AND 2 $\frac{1}{8}$ DB MOUNTS			
1	143407	Quick Pin $\frac{3}{4}$ x 6"	1
2	143982	Wldmt Base 1 $\frac{7}{8}$ DB	1
	141807	Wldmt Base 2 $\frac{1}{8}$ DB	1
3	143981	Top Mount 1 $\frac{7}{8}$ DB	1
	141243	Top Mount 2 $\frac{1}{8}$ DB	1
4	140722	Quick Pin $\frac{5}{8}$ x 5"1	