



IB Series

Model IBFL500

Assembly Instructions



0046-M570-O1 Rev A
02/13

CARDINAL SCALE MFG. CO.
PO Box 151 • Webb City, MO 64870
Ph: 417-673-4631 • Fax: 417-673-5001
www.detectoscale.com

Printed in USA

Technical Support: Ph: 866-254-8261 • techsupport@cardet.com

INTRODUCTION

Thank you for purchasing our DETECTO™ IB Series Model IBFL500 in-bed scale. It has been manufactured with quality and reliability at our factory in Webb City, MO USA. This scale has been assembled and tested before leaving our factory to insure accuracy and dependability for years to come.

This manual is provided to guide you through the assembly of your scale. Please read it thoroughly before attempting to assemble your scale and keep it handy for future reference.

COPYRIGHT

All rights reserved. Reproduction or use, without expressed written permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

DISCLAIMER

While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon the individual accuracy, skill and caution. For this reason the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging the procedures do so entirely at their own risk.



DANGER! NOT A PATIENT TRANSPORT DEVICE!

This scale is NOT intended for use in transporting patients! It is to be used ONLY for weighing a patient. Failure to observe this warning may result in serious injury to the patient and/or the scale operator.

PRECAUTIONS

Before beginning assembly of this scale, read this manual and pay special attention to all "NOTIFICATION" symbols:



IMPORTANT:

ASSEMBLY INSTRUCTIONS

The IB Series Model IBFL500 in-bed scale is shipped disassembled in two (2) separate cartons. Carefully inspect all cartons for damage that may have taken place during shipment. It is the responsibility of the purchaser to file all claims with the shipping company for damages or loss incurred during transit.

Packing Checklist

NOTE: All nuts, bolts or screws are already in position on the scale and “finger tight”. No hardware is package separately. Contents of cartons should include:

✓	Item Description	Part Number	Qty
Carton 1			
<input type="checkbox"/>	Base Assembly	0046-D533-1A	1
<input type="checkbox"/>	Column Weldment	0046-D547-0A	1
Carton 1 – Inner Upper Section			
<input type="checkbox"/>	Boom Assembly	0046-C279-0A	1
<input type="checkbox"/>	Hydraulic Cylinder	6540-1119	1
<input type="checkbox"/>	Indicator / Handle Assembly	0046-B549-1A	1
<input type="checkbox"/>	Stretcher Cup	0046-B005-08	1
<input type="checkbox"/>	Anti-Swing Bar	0046-B518-08	2
<input type="checkbox"/>	*0.5 ml Capsule, Loctite®	6560-1046	1
<input type="checkbox"/>	Indicator	Model 750	1
Carton 1 – Inner Lower Section			
<input type="checkbox"/>	Stretcher Hoop	0046-D261-08	2
Carton 2			
<input type="checkbox"/>	Stretcher Support Bars	0046-C248-08	2
<input type="checkbox"/>	Stretcher	0046-C247-08	1

*The capsule of Loctite® is in a plastic bag taped to the Boom Assembly.

Tools Required

The following tools are required to assemble the IB Series Model IBFL500 in-bed scale:

- 1/2" drive ratchet wrench
- 1/2" drive 15/16" and 3/4" standard socket
- 15/16", 1/2" and 7/16" wrench (open end, box end, or combination)
- 5/16" and 3/16" Allen wrench
- Small Flat Blade Screwdriver

Unpacking



IMPORTANT: UNPACKING AND ASSEMBLY OF THIS PRODUCT REQUIRES TWO PEOPLE. PLEASE READ THROUGH THE INSTRUCTIONS CAREFULLY BEFORE STARTING TO ASSEMBLE THE SCALE.

Remove the shipping straps and packing material to unpack the IB Series Model IBFL500 in-bed scale. Check the parts against the PACKING CHECKLIST. If any are damaged or missing, please contact our Parts Department at 1-800-641-2045 or by email at parts@cardet.com.



NOTE: Leave the shipping straps and packing material on the Boom Assembly until instructed to remove it in Step 7.



Carton 1



Carton 1 – Inner Upper Section



Carton 1 – Inner Lower Section



Carton 2

Step 1 – Prepare the Base Assembly

1. With the help of an assistant, remove the Column Assembly from Carton 1.

Remove Column Assembly



2. Next, remove the plastic bag and packing from the Base Assembly in Carton 1.

Remove Plastic Bag and Packing



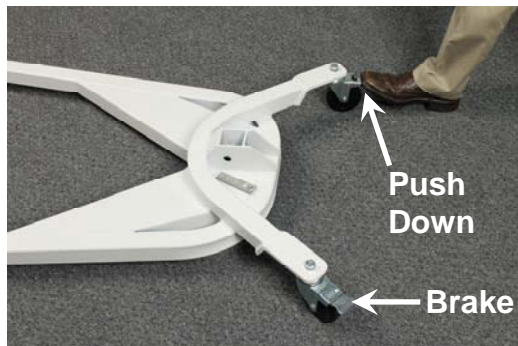
3. Again, with the help of an assistant, remove the Base Assembly from the Carton 1.

Remove Base Assembly



4. Set the brakes on the rear wheels.

Set Brakes on Rear Wheels



Step 2 – Install Column Assembly

1. Remove* the 5/8-11 elastic stop nut and 5/8-11 x 3 1/2" hex head bolt in the top of the base assembly.
2. Next, then turn the base over (upside down) and remove* the 5/8-11 elastic stop nut and 5/8-11 x 3 1/2" hex head bolt in the bottom of the base assembly.

*Use the 1/2" drive ratchet with the 15/16 socket and 15/16" wrench if needed.



Remove Top Bolt from Base, then turn over to remove Bottom Bolt from Base

3. Place the Column Assembly into the rectangular opening of the base assembly until it stops. **NOTE:** The opening in the base assembly is angled back away from the leg assemblies of the base. The column assembly must be inserted at an angle and then slid into the opening.



Insert Column at an angle



Install Top Bolt and Nut



Turn base on its side and install Bottom Bolt and Nut



Rectangular opening in Base

4. Install** the 5/8-11 x 3 1/2" hex head bolt and 5/8-11 elastic stop removed in step 1 in the top hole of the base assembly.
5. Next, turn the base on its side and install** the 5/8-11 x 3 1/2" hex head bolt and 5/8-11 elastic stop removed in step 2 in the bottom hole of the base assembly.

**Use the 1/2" drive ratchet with the 15/16 socket and 15/16" wrench to tighten.

Step 3 – Install Stretcher Cup

1. Remove the 1/4-20 x 1/2" hex head bolt from the Stretcher Cup mounting bracket. *Use the 7/16 wrench if needed.*
2. Place the Stretcher Cup on the mounting bracket, align the center hole in the cup with the hole in the mounting bracket and secure with the 1/4-20 x 1/2" hex head bolt. *Use the 7/16 wrench to tighten.*



Remove mounting bolt



Use center mounting hole



Stretcher Cup Installed

Step 4 – Install Boom Assembly

1. Remove the 1/2-13 elastic stop nut and 5/8" split lock washer from the 5/8 x 2 1/2" shoulder bolt in the column assembly and then slide the bolt out of the column assembly. *Use the 1/2" drive ratchet with the 3/4" socket and 5/16" Allen wrench if needed.*
2. With the help of an assistant, place the Boom Assembly between the mounting plates of the column assembly and align the hole in the boom assembly with the holes in the column assembly mounting plates.
3. Insert the 5/8 x 2 1/2" shoulder bolt removed in step 1 through the hole in the mounting plate of the column assembly. Next, install the 5/8" split lock washer and 1/2-13 elastic stop nuts removed in step 1 and tighten. *Use the 1/2" drive ratchet with the 3/4" socket and 5/16" Allen wrench to tighten.*



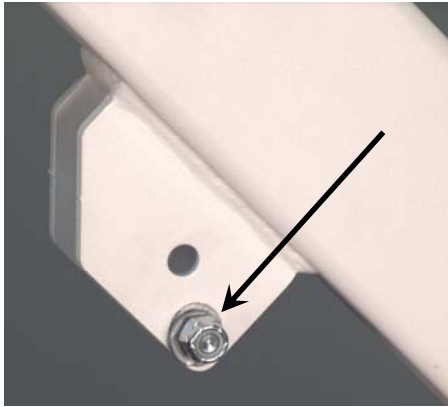
Remove Bolt from Column



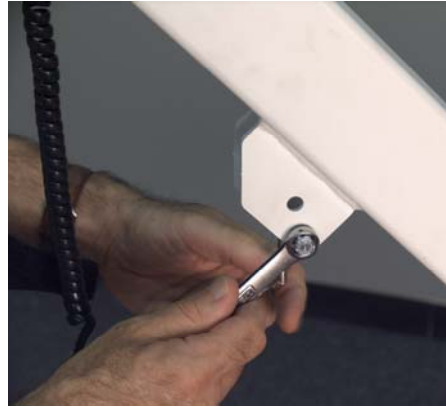
Have an assistant hold the Boom Assembly while inserting the bolt

Step 5 – Install Hydraulic Cylinder

1. Lower the boom assembly and remove the 5/16-18 elastic stop nut and 3/8" split lock washer from the 5/16-18 x 1/2" socket head shoulder bolt in the boom assembly, then slide the bolt out of the boom assembly. **IMPORTANT:** Note the location of the bolt in the cylinder mounting plate; it must be re-installed in the same location. *Use the 1/2" wrench and 3/16" Allen wrench if needed.*

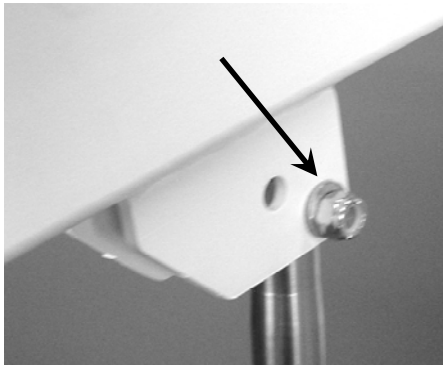


Note original location of Bolt



Remove Bolt, Washer & Nut

2. While the assistant is holding the boom assembly up, place the shaft end of the hydraulic cylinder (end with the hole) between the cylinder mounting plates in the boom assembly and then align the hole in the shaft with the holes in the mounting plates.
3. Insert the 5/16-18 x 1/2" socket head shoulder bolt into the hole (where it was removed in step 1) in the mounting plate, through the cylinder shaft and out the mounting plate. Next, install the 3/8" split lock washer and 5/16-18 elastic stop nut removed in step 1 and tighten. *Use the 1/2" wrench and 3/16" Allen wrench to tighten.*



Bolt installed in correct location



**Align ball end with ball socket
Hand-tighten only!**

4. Next, align the ball end of the hydraulic cylinder with the ball socket on the column assembly and insert the ball into the socket. Tighten the cylinder nut to hold in place. *Hand-tighten only.*

Step 6 – Install Push Handle

1. Remove the (4) 1/4-20 x 1/2" hex head bolts (two on each side) from the column assembly. *Use the 7/16" wrench if needed.*

Remove Push Handle Bolts



2. Place the Push Handle on the column assembly (the opposite direction of the legs) and align the top hole in the handle mounting bracket with the top hole in the column assembly. Insert a 1/4-20 x 1/2" hex head bolt through the hole and finger tighten.
3. Align the bottom hole in the handle bracket with the bottom hole in the column assembly and insert a 1/4-20 x 1/2" hex head bolt through the hole and finger tighten.
4. Repeat steps 2 and 3 for the push handle bolts on the other side of the column assembly.



Install top Bolt and finger tighten. Next, install bottom Bolt and finger tighten. Repeat for other side.

5. Completely tighten all bolts to secure the push handle to the column assembly. *Use the 7/16" wrench to tighten.*

Tighten all Push Handle Bolts

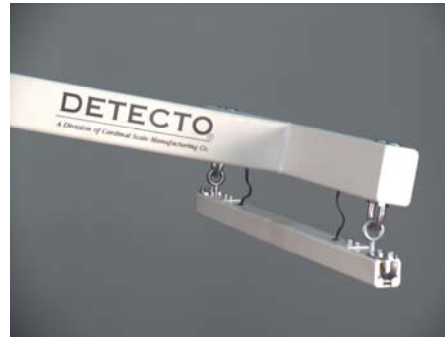


Step 7 – Install Stretcher Support Hoops

1. Remove the shipping straps and packing on the boom assembly and load cell tube.



Remove Packing & Straps



Packing & Straps Removed

2. Remove the outer (2) 1/4-20 x 1/2" socket head screws on the end of load cell tube. Next, loosen the single inner 1/4-20 x 1/2" socket head screw enough to rotate the hoop retainer plate to one side. *Use the 3/16" Allen wrench if needed.*



**Remove outer 2 Screws
Loosen inner Screw**



Rotate Hoop Retainer Plate

3. Align the hole in the stretcher support hoop with the hoop support hook on the load cell tube and place on the support hook.



**Align hole in Stretcher Hoop
with Support Hook**



Stretcher Hoop Installed

Step 7 – Install Stretcher Support Hoops, Cont.

4. Rotate hoop retainer plate until two outer holes align with the holes in the load cell tube.
5. Remove Loctite® from plastic bag and follow instructions on bag to prepare Loctite®.
6. Apply a small amount of Loctite® to the threads of the (2) 1/4-20 x 1/2" socket head screws removed in step 2.



Apply a small amount of Loctite® to screw threads

7. While slightly lifting the hoop, insert the screws through the holes in the hoop retainer plate and finger tighten.



Lift hoop slightly to ease screw installation



Completely tighten all three retainer plate screws

8. Completely tighten all three screws to secure the hoop retainer plate to the load cell tube weldment. *Use the 3/16" Allen wrench to securely tighten.*
9. Repeat steps 2 through 8 to install the stretcher support hoop on the other end of the load cell tube.

Step 8 – Install the Model 750 indicator

1. Remove the indicator from its box and unpack it. Obtain and install six “AA” batteries in the indicator.
2. Route the coiled load cell cable from the boom assembly around the boom and down through the indicator mounting bracket between the bracket supports.



Route cable around boom...



and down through bracket

3. Turn the indicator face down (display away from you). Locate the 9-pin load cell connector on the bottom rear panel of the indicator. Align the long edge of the load cell cable connector with the long edge of the indicator connector. Place the load cell cable connector on the indicator connector and secure using the load cell cable retaining screws. *Use the small flat blade screwdriver to securely tighten.*



Install load cell cable and secure with cable connector retaining screws



Align screw heads with large end of slotted holes and pull down to secure indicator

4. Place the screw heads on the back of the indicator into the large end of the slotted holes in the bracket. Pull down to secure the indicator. The spring plunger will lock the indicator to the bracket.

NOTE: For more detailed information on installing the batteries, mounting the indicator on the scale bracket and connecting the load cell cable, refer to the 750 Owner’s Manual, 8555-M483-O1.

Step 9 – Install the Stretcher

1. Remove the pre-assembled Stretcher and Support Bars from Carton 2 and then unroll the stretcher.



Remove Stretcher from box and then unroll the stretcher



Insure support bars holes are aligned with stretcher openings

2. **NOTE:** The stretcher support bars may have moved in the stretcher during shipment. Make sure the holes in the stretcher support bars are aligned with the opening in the stretcher and towards the edge of the stretcher. In addition, check that the Velcro® tabs on the end of the stretcher are closed to seal the stretcher support bars in.
3. The stretcher attaches to the stretcher support hoops by inserting the hooked ends through the four holes in the stretcher support bars.



Attach stretcher to hooked ends of support bars



Store stretcher in stretcher cup when not in use

4. For transport and storage, store the stretcher in the Stretcher Cup at the base of the scale and secure to the column assembly with the Velcro® straps. Secure the stretcher support hoops to the column using the Anti-Swing Bars, attaching the rear anti-swing bar to the cylinder with the Velcro® strap.

