

 **CLEAN ROOM DEVICES, INC.**

CRD 410
MANUAL FITTING INSERTER

OPERATIONS MANUAL



VERSION 2.2
LAST EDITED 03.01.2022
cleanroomdevices.com

Table of Contents

Title Page.....	1
Table of Contents.....	2
1.0 General Product & Safety Information.....	3
1.1 Product Information	
1.2 Safety Information	
2.0 Installation.....	3
2.1 Jaw Installation	
2.2 Nest Installation	
3.0 Operation.....	5
4.0 Maintenance.....	7
5.0 Product Specifications.....	7
6.0 Durometer Scale.....	8
7.0 Parts List.....	8
8.0 Warranty.....	10
8.1 Warranty	
8.2 Warranty Period	

1.0 General Product & Safety Information

1.1 Product Information

- The Fitting Inserter is designed to hold and locate soft tubing and push it onto fittings.
- The minimum/maximum outside tube diameter is 1/16" to 3/8"

1.2 Safety Information

- This product uses a geared lever action to insert fitting into tubing. Avoid placing your hands or fingers between the jaws or the nest.

2.0 Installation

Ensure all four (4) rubber suction feet are completely stabilized on your work surface prior to using the unit.

2.1 Jaw Installation

- Select the jaw set that corresponds to the tube OD being used.
- Assemble jaw halves using two (2) .250 x 1-1/2" dowel pins and compression spring. (Figures 1&2)



Figure 1

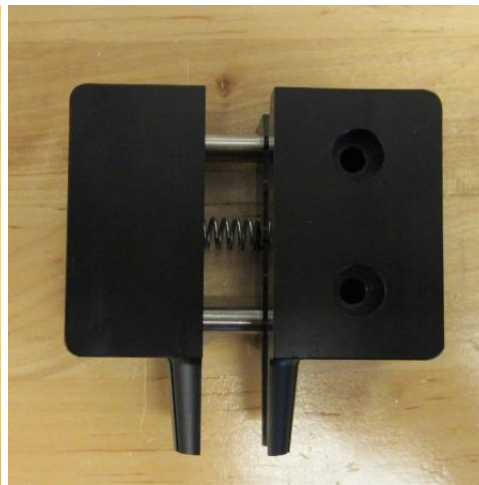


Figure 2

- Slightly squeeze jaws together and place on the two (2) dowel pins extending from thrust plate. (Figure 3) Attach jaws using two (2) 10-24 x 1-3/8" socket head cap screws. (Figure 4)

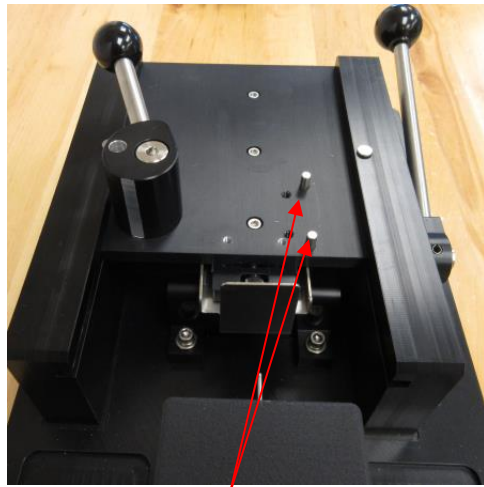


Figure 3

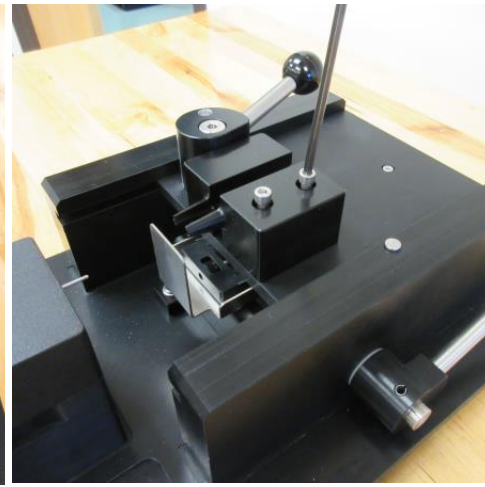


Figure 4

2.2 Nest Installation

- Select the nest set that corresponds to the fitting being used.
- Rotate the nest to fitting position desired and simply place on the four (4) dowel pins.
- A magnet holds the nest in place. (Figure 5)

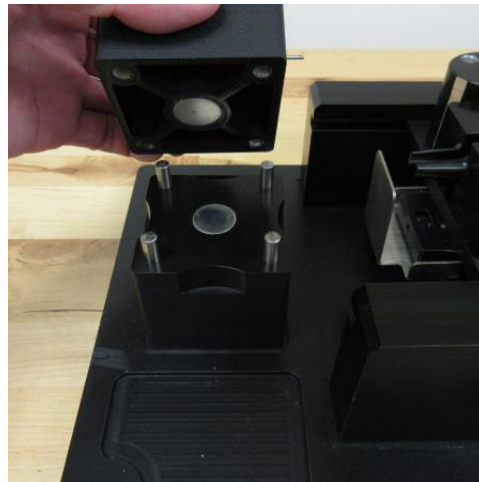


Figure 5

3.0 Operation

Setting the Stop Gate

- The stop gate allows for repeatable insertion of the tubing onto the fitting to a desired position on that fitting. (halfway on, fully on up to shoulder, etc.) The stop gate is adjusted via the thumb wheel. (Figure 6)

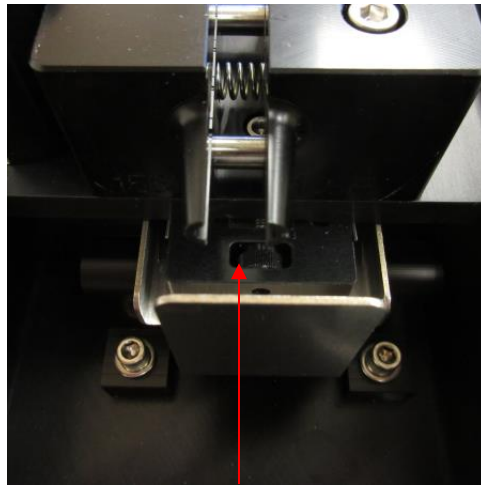


Figure 6

Loading Nest and Jaws

- Ensure that the thrust lever is all the way back and the stop gate is in the upright position.
- Lock the fitting into the nest, ensuring the fitting is properly seated. (Figure 6)

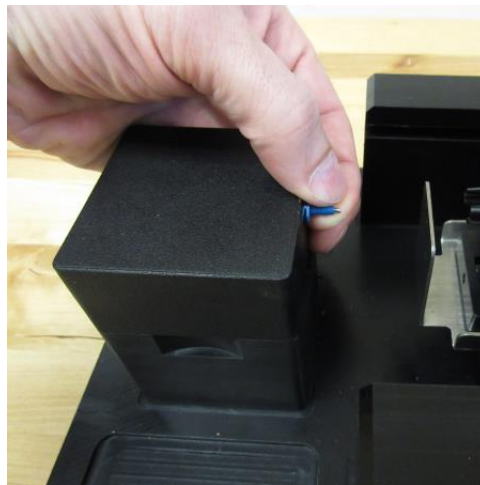


Figure 6

- Open the jaws to the semi open position by rotating the cam until the flat is resting on the jaw (Figure 7)
- With the jaws in the semi open position, insert tubing into jaws up to the stop gate and lock in position with the locking lever. (Figures 7&8)

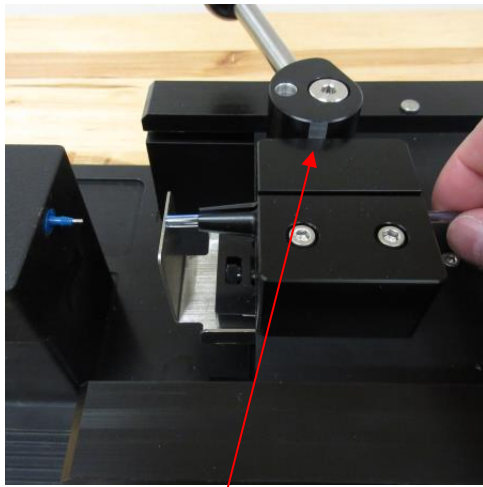


Figure 7

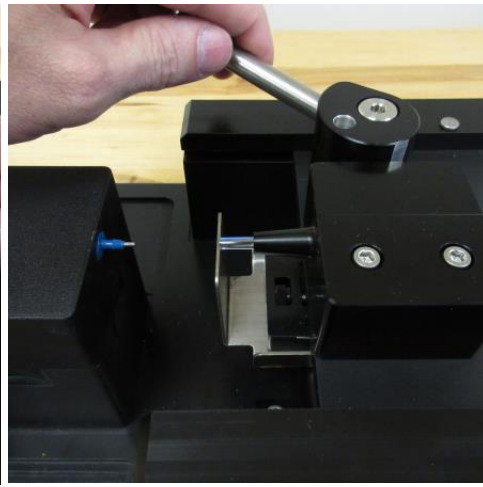


Figure 8

- Pull the thrust lever back until the fitting is inserted to desired position. (Figure 9)
- Open the jaws and then push the thrust lever partway forward so as to clear the stop gate. (Figure 10)
- Remove the fitting from the nest.

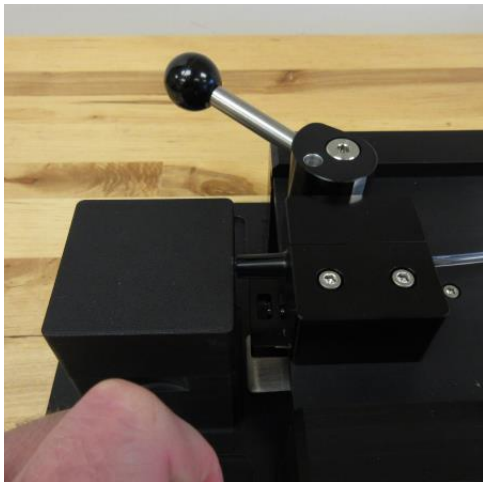


Figure 9

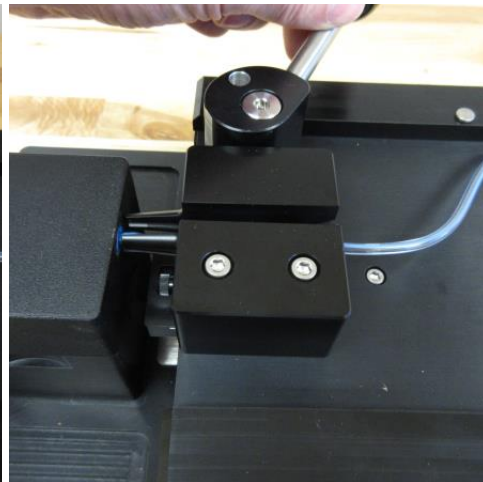


Figure 10

- Once the tubing and fitting have been removed from the machine, return the thrust lever to the rear position. (See Figure 3 for reference) Locate the Stop Gate Lever on the side of the machine, next to the Thrust Lever. (Figure 11)

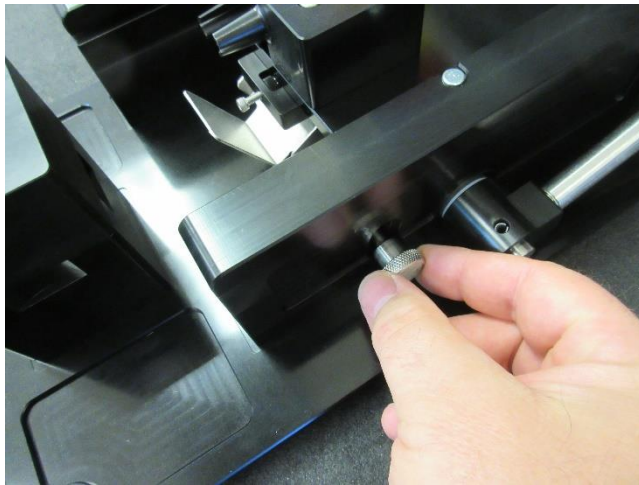
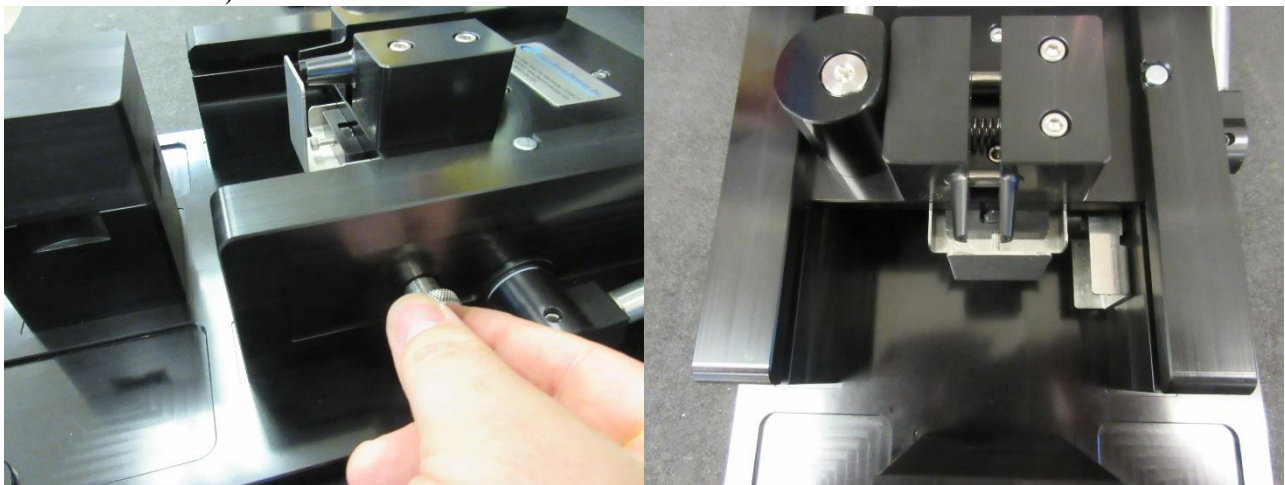


Figure 11

- Move the Stop Gate Lever to the “up” position to reset the Stop Gate. (Figures 11a & 11b)



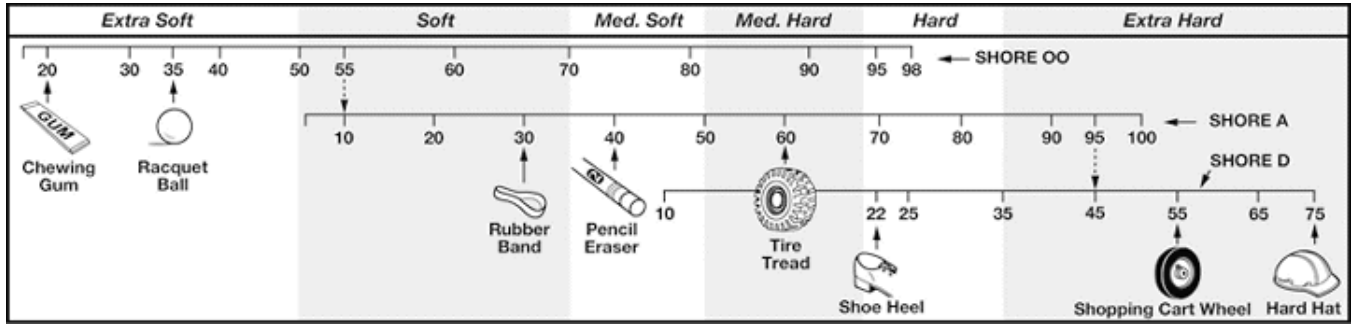
4.0 Maintenance

- Wipe down outer surfaces with alcohol, septihol or mild detergents as required.
- Once every three months check screws for tightness.

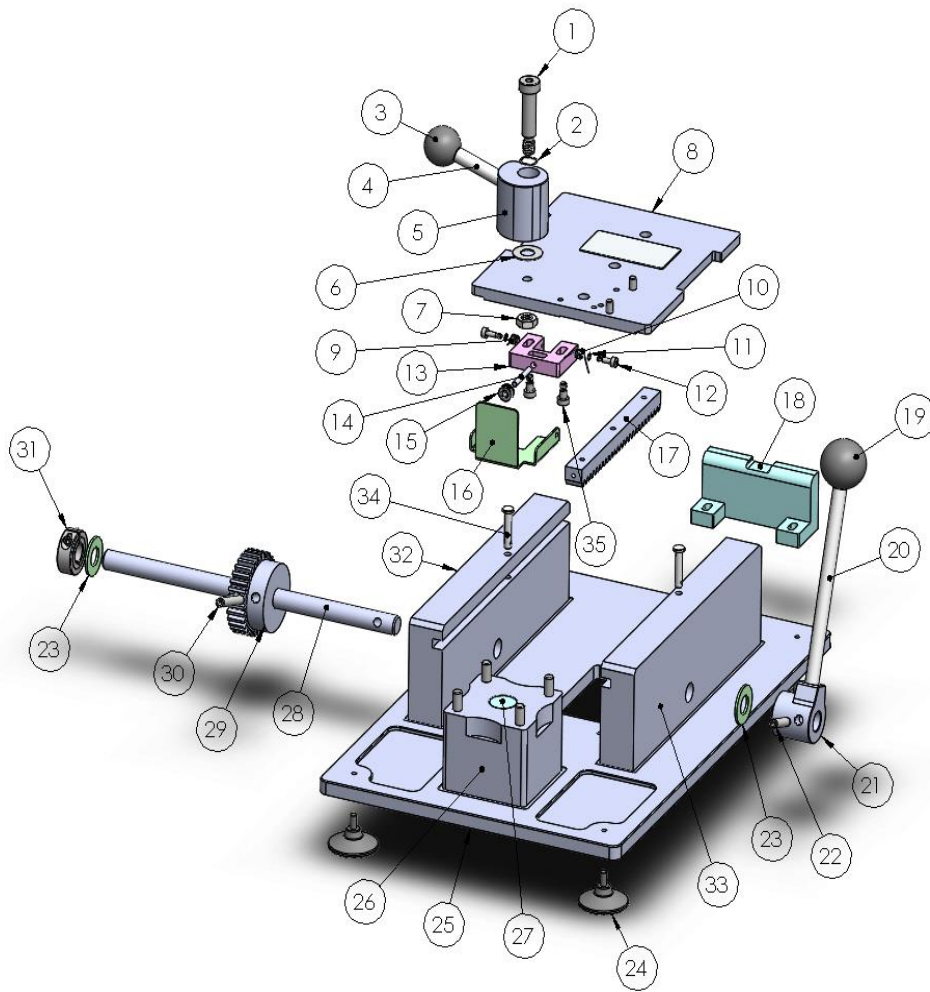
5.0 Product Specifications

Unit Weight	11 LBS / 4.99 KG
Overall Dimensions	14 in. lg. x 9 in. w. x 8.5 in. ht.

6.0 Durometer Scale



7.0 Parts List



Item Number	Part Number	Description
1	P00469	SHOULDER SCREW, .375 X 1.25
2	P00470	WAVE SPRING, .375 ID
3	P00473	BALL KNOB, 1.00 DIA, BLACK
4	P00472	LEVER SHAFT, .375 X 1.75
5	410-008	CAM, JAW ACTION
6	P00468	WASHER, .375, PTFE
7	P00471	HEX NUT, .3125-18 THIN
8	410-006	PLATE, SLIDE
9	P00524	Torsion Spring, 120 Degree Angle, .235" Spring OD, .025" Wire, Left-Hand
10	P00525	Torsion Spring, 120 Degree Angle, .235" Spring OD, .025" Wire, Right-Hand
11	P00529	Type 18-8 Stainless Steel Round Shim, 0.020" Thick, 1/8" ID, 3/16" OD
12	P00523	Tight-Tolerance Socket Drive Shoulder Screw, 3/16"
13	410-078	PIVOT, DROP GATE
14	P00527	Type 18-8 Stainless Steel Fully Threaded Stud, 6-32 Thread, 1" Long
15	P00526	Round Acetal Thumb Nut , 6-32 Thread Size
16	410-079	DROP GATE
17	410-007	RACK, GEAR
18	410-080	LIFT BLOCK
19	P00467	BALL KNOB, 1.375 DIA, BLACK
20	P00671	Stainless Steel Lever Shaft with 3/8"-16 Thread
21	410-467	SHAFT COLLAR, LEVER MOUNT
22	P00475	SPRING PIN, .219 X 1.00
23	P00464	THRUST BEARING, .500, ACETAL
24	P00461	SUCTION CUP, RUBBER
25	410-001	Base Plate
26	410-002	Pedestal
27	P00462	MAGNET, HIGH PULL
28	410-011	DRIVE SHAFT
29	410-005	SPUR GEAR
30	P00476	SPRING PIN, .219 X 1.50
31	P00464	THRUST BEARING, .500, ACETAL
32	410-004	GUIDE, SLIDE LHS
33	410-003	GUIDE, SLIDE RHS
34	P00477	CLEVIS PIN, .188 X 1.00
35	P00530	Tight-Tolerance Socket Drive Shoulder Screw, 3/16" Diameter x 7/32" Long Shoulder, 8-32 Thread

8.0 Warranty

8.1 Warranty

The manufacturer warrants the product manufactured by it, when properly installed, operated, applied and maintained in accordance with the procedures and recommendations outlined in the manufacturer's operation manual, to be free from defects in material or workmanship for a period as specified below, provided such defect is discovered and brought to the manufacturer's attention within the stated warranty period.

The manufacturer will repair or replace any product or part determined to be defective by the manufacturer within the warranty period, provided such defect occurred in the normal service and not as a result of misuse, abuse, neglect or accident. Normal maintenance items requiring routine replacement are not warranted. The warranty covers parts and labor for the warranty period unless otherwise specified. Repair or replacement shall be made at the factory or the installation site, at the sole discretion of the manufacturer. Any service performed on the product by anyone other than the manufacturer must first be authorized by the manufacturer.

Unauthorized service voids the warranty and any resulting charge or subsequent claim will not be paid. Products repaired or replaced under warranty shall be warranted for the unexpired portion of the warranty applying to the original product.

The foregoing is the exclusive remedy of any buyer of the manufacturer's product. The maximum damages liability for the manufacturer is the original purchase price of the product or part.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR STATUTORY, AND IS EXPRESSLY IN LIEU OF THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. THE MANUFACTURER SHALL NOT BE LIABLE FOR LOSS OR DAMAGE BY REASON OF STRICT LIABILITY IN TORT OR ITS NEGLIGENCE IN WHATEVER MANNER INCLUDING DESIGN, MANUFACTURE OR INSPECTION OR THE EQUIPMENT OR ITS FAILURE TO DISCOVER, REPORT, REPAIR, OR MODIFY LATENT DEFECTS INHERENT THEREIN.

THE MANUFACTURER, HIS REPRESENTATIVE OR DISTRIBUTOR SHALL NOT BE LIABLE FOR LOSS OF USE OF THE PRODUCT OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE BUYER, WHETHER ARISING FROM BREACH OF WARRANTY, NEGLIGENCE OR STRICT LIABILITY IN TORT.

The manufacturer does not warrant any product, part, material, component, or accessory manufactured by others and sold or supplied in connection with the sale of manufacturer's products.

8.2 Warranty Period

Parts and labor are for ninety (90) days from the date of shipment from the factory. Freight to the factory on units that the manufacturer requests to be returned shall be paid by the purchaser, all return freight to be paid by the manufacturer; means of transportation to be specified by the manufacturer.

For additional information contact: www.cleanroomdevices.com

Clean Room Devices, Inc.
10855 Dover Street, Suite 100
Westminster, CO 80021
303-438-0853