

# **BASELINE<sup>®</sup>** **EVALUATION INSTRUMENTS**

12-1085 and 12-1086

## **FLEXIBILITY TESTER**

This Trunk Flexibility Tester (Sit and Reach Tester) is specifically designed to evaluate the flexibility of a selected set of joints and small muscles including the lower back vertebrae, larger hamstring muscles and hip flexor joints. These groups work together to provide trunk flexibility.

There are different protocols and different scales used for flexibility tests. We have provided some widely used scales and a basic procedure. Please adhere to the instructions provided with the testing protocol you are using when administering a test.

### **The Standard Flexibility Tester (12-1085) and the Modified Flexibility Tester (12-1086) are pictured below.**



**Standard Flexibility Tester  
Model 12-1085**



**Modified Flexibility Tester  
Model 12-1086**

(Designed for the modified sit and reach test  
can also be used for standard test)

#### **Care for Flexibility Tester**

The Flexibility Tester should be washed regularly with soap and water.



**Manufacturer and Master Distributor of  
Physical Therapy and Rehabilitation Products**

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#### **Fabrication Enterprises, Inc.**

PO Box 1500, White Plains, NY 10602 USA

tel: 800-431-2830

914-345-9300

fax: 800-634-5370

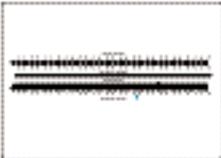
914-345-9800

info@FabricationEnterprises.com

Authorized CE Representative:  
RMS UK Ltd.  
28 Trinity Road  
Nailsea, Somerset BS48 4NU  
United Kingdom



## standard Flexibility Tester (12-1085) Assembly

| Qty | Part | Description                                |  |
|-----|------|--|--|
| 2   | SP   | Side Plates (left and right)               |     |
| 1   | TP   | Top Plate                                  |     |
| 1   | BP   | Bottom Plate                               |     |
| 1   | FP   | Foot Plate                                 |     |
| 10  | A    | Wing Nuts                                  |     |
| 1   | B    | Finger Plate                               |    |
| 8   | C    | 6-32 x 1/2" slotted screws                 |   |
| 2   | D    | 6-32 x 1 1/2" slotted channel mount screws |  |
| 2   | E    | Springs                                    |   |
| 4   | F    | Teflon Spacers                             |   |
| 1   | G    | Label with Flexibility Tables              |   |

# standard Flexibility Tester (12-1085) Assembly

## Step 1 - Box Assembly

Assemble box using the top (TP), bottom (BP), sides (SP), foot plate (FP), and 8 5/8" slotted screws and wing nuts.

Begin with the BP on the floor. Line the FP (groove side up) holes with the holes on the front of the BP. Line both SPs with the holes on the BP. The SPs should be positioned inside the lips of the FP, TP, and BP. Insert each of the bottom screws from the outside and tighten each of the wing nuts on the inside.\* Position the TP on the top, with the Baseline logo facing right. The lips should cover the SPs and FP. Insert the screws from the outside and tighten each of the wing nuts on the inside.\*

\*A screw driver may be needed to anchor the screw while tightening the wing nuts.

Remove the backing from the self-adhesive chart (G) and adhere it to a side of the box (SP) so that it is easily read.

## Step 2 - Slider Assembly

Insert the channel mount screws (D) through the holes on the finger plate (B) as shown in FIGURE 3 and put one teflon spacer (F) through each screw (D). Place the screws into the channel on the Top Plate (TP). Insert another spacer (F) into each screw under the Top Plate (TP). followed by a spring (E) and then a wing-nuts(A). (See Figures 3 and 4). Hand-tighten wing-nuts.

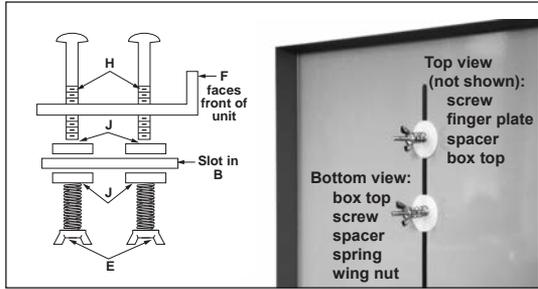
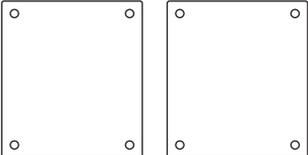
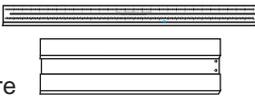
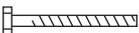
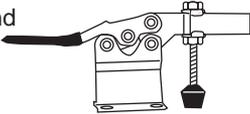
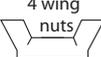
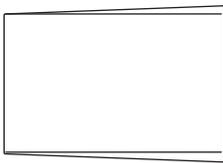
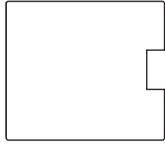
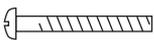


FIGURE 3  
Slide Device Assembly

FIGURE 4  
Slide Device

Adjust tension as needed by tightening /loosening the wing nuts. The slide device provides adjustable levels of friction.

# modified Flexibility Tester (12-1085) Assembly

| Qty | Part | Description                                 |   |
|-----|------|---|---|
| 2   | SP   | Side Plates (left and right)                |    |
| 1   | TP   | Top Plate with sliding channel and hardware | <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 2; padding-left: 10px;"> <p>TO MOUNT TOP PLATE</p> <p>2 6-32 x 15/16" slotted channel mount screws </p> <p>2 6-32 x 15/16" unslotted channel mount screws  finger tight</p> </div> </div>   |
| 1   | G    | Stopper and mounting hardware               | <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 2; padding-left: 10px;"> <p>TO MOUNT TO STOPPER TOP PLATE</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>4 screws</p> </div> <div style="text-align: center;">  <p>4 wing nuts</p> </div> </div> <p style="text-align: right; font-size: small;">hitch-pin picture on page 5 bottom</p> </div> </div> |
| 1   | BP   | Bottom Plate                                |    |
| 1   | FP   | Foot Plate                                  |    |
| 10  | A    | Wing Nuts                                   |    |
| 1   | B    | Sliding Measurement Indicator               |    |
| 8   | C    | 6-32 x 5/8" slotted screws                  |    |
| 2   | D    | 6-32 x 1" slotted channel mount screws      |    |
| 2   | E    | Springs                                     |    |
| 4   | F    | Teflon Spacers                              |    |
| 1   | G    | Label with Flexibility Tables               |    |

# modified Flexibility Tester (12-1085) Assembly

## Step 1 - Box Assembly

Assemble box using the top (TP), bottom (BP), sides (SP), foot plate (FP), and 8 5/8" slotted screws and wing nuts.

Begin with the BP on the floor. Line the FP (groove side up) holes with the holes on the front of the BP. Line both SPs with the holes on the BP. The SPs should be positioned inside the lips of the FP, TP, and BP. Insert each of the bottom screws from the outside and tighten each of the wing nuts on the inside.\* Position the TP on the top, with the Baseline logo facing right. The lips should cover the SPs and FP. Insert the screws from the outside and tighten each of the wing nuts on the inside.\*

\*A screw driver may be needed to anchor screw while tightening wing nuts.

## Step 2 - Slider Assembly

Insert the channel mount screws (D) through the holes on the finger plate (B) as shown in FIGURE 3 and put one teflon spacer (F) through each screw (D). Place the screws into the channel on the Top Plate (TP). Insert another spacer (F) into each screw under the Top Plate (TP), followed by a spring (E) and then a wing-nuts (A). (See Figures 3 and 4). Hand-tighten wing-nut.

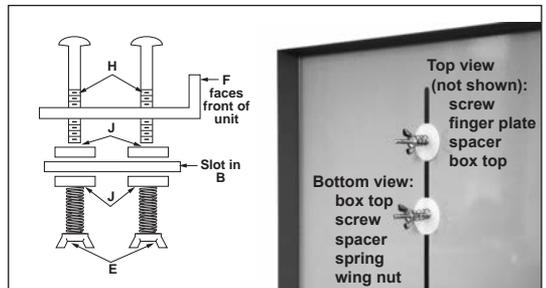


FIGURE 3  
Slide Device Assembly

FIGURE 4  
Slide Device

Adjust tension as needed by tightening /loosening the wing-nuts. The slide device provides adjustable levels of friction.

## Step 3 - Sliding Top Channel

Place the sliding channel in the Top Plate groove with the scales readable from the foot plate. Make sure 4 holes for stopper are on the side closer to the back of the unit. Thread the channel mount screws into the side holes on the top plate (TP) with the threaded part of the screw pointing into the channel and tighten. These screws hold the Sliding Top Channel onto the top plate (TP).

## Step 4 - Locking the Sliding Top Channel into place

Mount the stopper\* (G) to the Top Plate (TP) on the holes provided. This stopper is used with the modified flexibility tester to hold the Sliding Top Channel at one location.

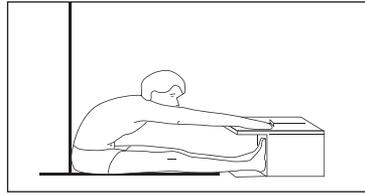
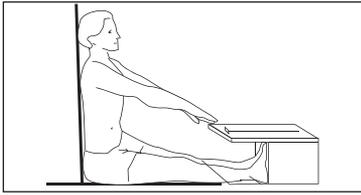
\*The nuts on the stopper may have to be adjusted for stopper to touch sliding top channel.

## Use the "Hitch-Pin" to Perform Standard Test on Modified Tester

Align the sliding top channel and top plate so that the hole (around number 18) on the sliding channel is on top of the hole on the Top Plate (TP) groove. Put the hitch-pin through both holes and latch closed. The hitch-pin may be stored on the hole on the back-side of the unit.



## 12-1085 Standard Flexibility Tester - Administering the Test



**NOTE** There are different protocols and different scales used for flexibility tests. We have provided 3 popular scales and a basic procedure. Please adhere to the instructions provided with the testing protocol you are using when administering a test.

### **Subject's Preparation Steps (left):**

1. Warm up before you perform the test.
2. Remove shoes. Place feet squarely against the box no wider than eight inches apart. Point toes toward the ceiling.
3. Sit on the floor with hips, back and head against a wall.
4. Extend legs fully with back of knees touching the floor. For Back-Saver testing method, extend one leg and bend the other.
5. Bottom of feet should rest firmly against the foot plate of the Flexibility Tester.

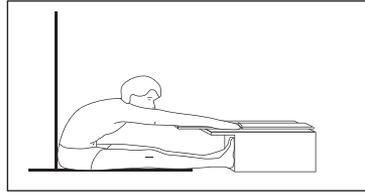
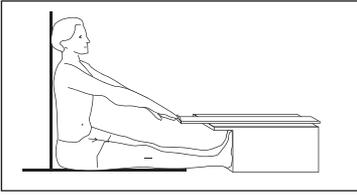
### **Subject Performing the Test (right):**

After all the **Preparation Steps** are performed, instruct subject to place one hand on top of the other (palms down) and reach as far as possible. The head and back can come off the wall. The back of the knees must be kept flat against the floor (unless using back-saver method). There should be no lunging, bobbing, or forced assistance. While stretching, the subject should push the finger plate along the top of the tester as far as possible. The stretch should be held for 1 second.

It is recommended to exhale on the reach and relax the neck when stretching.

The test should be repeated three times. The best of the three trials can be used to determine level of flexibility. Look up your flexibility percentile ranking under the appropriate age and gender categories on the side of the Flexibility Tester.

# 12-1086 Modified Flexibility Tester - Administering the Test



**NOTE** There are different protocols and different scales used for flexibility tests. We have provided 4 popular scales and a basic procedure. Please adhere to the instructions provided with the testing protocol you are using when administering a test. You can use the modified tester for standard tests by placing the “hitch-pin” through both holes on the adjustable top plate to lock the “standard” starting position.

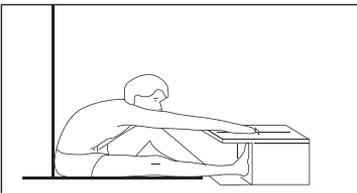
**WHY USE MODIFIED TESTER?** A standard flexibility tester does not compensate for variations in the length of arms and legs of the person being tested. People with long arms and short legs have an advantage, while people with long legs and short arms are at a disadvantage. The Modified Flexibility Tester measures normalized trunk and hamstring flexibility. You can still use this as a standard tester by securing hitch-pin to produce “standard” start point.

Have subject prepare for test as he/she would with standard flexibility tester.

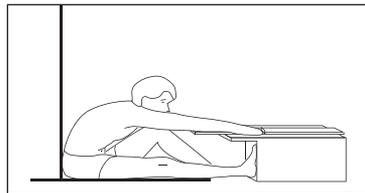
## Define the starting position of the Adjustable Top Plate:

1. Position the slider at the very front on the adjustable Top Plate.
2. Place one hand on top of the other (palms down).
3. Reach forward with your hands as far as possible without letting the head and back come off the wall (this is not a stretch). The trainer will move the adjustable Top Plate along the box so that the slider just touches the outstretched hands.
4. Secure the adjustable top plate in the starting position by using the stopper (G).

Have subject perform test as he/she would with standard flexibility tester. The difference is that the scale has a different starting point, which takes into account arm and leg lengths.



**12-1085**  
**Standard Flexibility Tester**



**12-1086**  
**Modified Flexibility Tester**  
(can also perform Standard testing)

## Back-Saver Flexibility Testing Position

If test protocol calls for “back-saver” method, subject is to bend knee per image above. Follow protocol specific to Back-Saver method.

# **BASILINE<sup>®</sup>** EVALUATION INSTRUMENTS

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hand dynamometer



pinch gauge



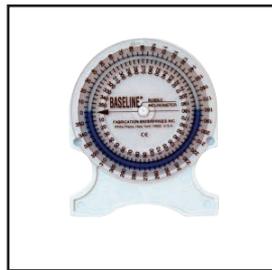
push-pull dynamometer



wrist dynamometer



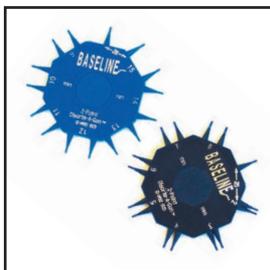
goniometer



bubble inclinometer



finger goniometer



2-point discrimination



skinfold caliper