

SEATED LEG EXTENSION/LEG CURL

CT-MSEC ASSEMBLY INSTRUCTIONS

IMPORTANT NOTICES

Read all warning labels, instruction placards and this manual before attempting to use this machine. Always consult your physician and an exercise professional before beginning any exercise program/regimen.

Before any test or use check for proper assembly of the machine including (but not limited to): bolts and other hardware fastened properly, cables in pulley grooves and routed correctly. For safety use only the top weight for the first machine movement.

Maintain your machine in good working order by following the maintenance schedule provided on the equipment.

It is strongly recommended that a qualified dealer assemble this CT-MSEC Seated Leg Extension/Leg Curl machine.

Should there be any question during assembly contact your authorized Inflight Fitness dealer or call direct to 714 821 4177.

Before beginning assembly read this instruction manual thoroughly. Unpack and verify all parts and hardware quantities against the parts and hardware lists.

Follow the assembly steps in sequence. Failure to follow the order of assembly will result in disassembly later and possible damage to the machine components.

The 3/8" nuts provided with this machine are "centerlocking". They provide a more secure assembly than nylon locking nuts. Please note they do require more force to tighten than nylon locking nuts.

CT-MSEC PARTS AND HARDWARE

PARTS

PLATINUM FRAME PARTS

Main Upright	Seat Frame	Base Tube
Exercise Arm Frame	Support Ass'y	Handle Ass'y
Guide Rod Bracket	Forward Seat Support	

CUSHION FRAME PARTS

Back Support	Back Pad	Bottom Pad
Exercise Pad Ass'y	Thigh Pad Ass'y	

CABLES AND PULLEYS

Upper MSEC Cable	Lower MSEC Cable	4 ½" Pulleys (8)
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MISCELLANEOUS

Guide Rods (2)	Lube	Weight Stack Cushions (2)
Pulley Bracket	Instruction Placard	Triangular Plate
Weight Labels	Manual	Top Weight
Weight Pin with Lanyard	10 – 10# Weight Plates	10 – 5# Weight Plates

CT-MSEC PARTS AND HARDWARE

HARDWARE

DESCRIPTION	QUANTITY
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Bolts

1/2" x 5 1/2"	1
3/8" x 4 3/4"	12
3/8" x 4"	1
3/8" x 3 3/4"	1
3/8" x 3" w/ blue patch	1
3/8" x 2 1/2"	2
3/8" x 2 1/2" w/ blue patch	2
3/8" x 2 1/4"	1
3/8" x 2"	4
3/8" x 2" w/ blue patch	3
3/8" x 1 3/4"	2
3/8" x 1" w/ blue patch	1
3/8" x 3/4" w/ blue patch	2
3/8" x 1/2" w/ blue patch	1

Washers

1/2" Flat Washers	2
3/8" Flat Washers	37
3/8" Curved Washers	16
Cam Washer	1

Nuts and Miscellaneous

3/8" Nuts	23
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CT-MSEC ASSEMBLY INSTRUCTIONS

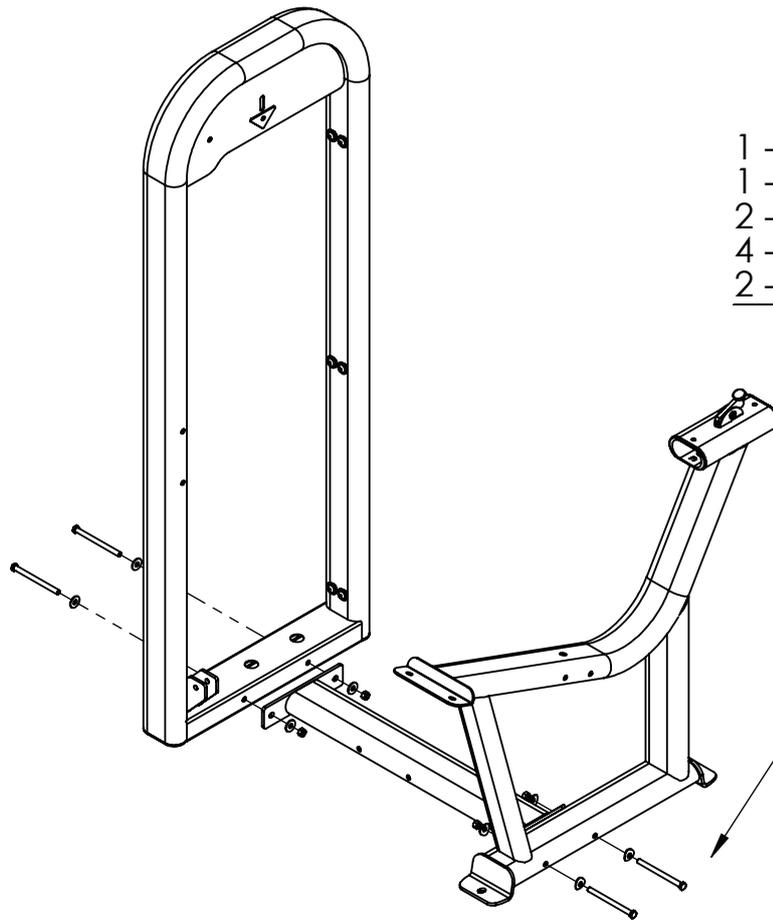
MAIN STRUCTURE ASSEMBLY

A1. Assemble the Seat Frame to the Base Tube using 2 – 3/8" x 4 3/4" bolts, 4 – curved washers and 2 – 3/8" nuts. Do not fully tighten the bolts at this time.

A2. Assemble the Main Upright to the assembly created in Step A1 using 2 – 3/8" x 4 3/4" bolts, 4 – flat washers, and 2 – 3/8" nuts. Do not fully tighten the bolts at this time.

A2

- 1 - Main Upright
- 2 - 3/8" x 4 3/4" Bolts
- 4 - Flat Washers
- 2 - 3/8" Nuts



A1

- 1 - Seat Frame
- 1 - Base Tube
- 2 - 3/8" x 4 3/4" Bolts
- 4 - Curved Washers
- 2 - 3/8" Nuts

CT-MSEC ASSEMBLY INSTRUCTIONS

MAIN STRUCTURE ASSEMBLY (continued)

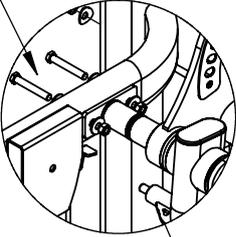
- B1.** Assemble the Exercise Arm Frame Assembly to the assembly made in Step A2 using 2 – 3/8" x 4 3/4" bolts, 4 – curved washers and 2 – 3/8" nuts. Do not fully tighten the bolts at this time.
- B2.** Assemble the Support Assembly to the lower tube of the Exercise Arm Frame Assembly and to the Main Upright using 4 – 3/8" x 4 3/4" bolts, 8 – curved washers, and 4 – 3/8" nuts. Do not fully tighten the bolts at this time.
- B3.** Assemble the Support Assembly to the pivot flange of the Exercise Arm Assembly using 2 – 3/8" x 2 1/2" bolts, 2 – 3/8" flat washers, and 2 – 3/8" nuts.
- B4.** Attach the Forward Seat Support to the Seat Frame using 2- 3/8" x 3/4" bolts with blue patch and 2 – 3/8" flat washers, and to the Exercise Arm Assembly using 1 – 3/8" x 1/2" bolt with blue patch and 1 – 3/8" washer.

FULLY TIGHTEN ALL BOLTS AT THIS TIME

- B5.** Attach the Handle Assembly to the Seat Frame using 2 - 3/8" x 4 3/4" bolts, 4 – 3/8" washers and 2 – 3/8" nuts. Tighten these bolts.

B3

- 2 - 3/8" x 2 1/2" Bolts
 - 4 - 3/8" Flat Washers
 - 2 - 3/8" Nuts
- (Cam hidden for clarity)



B4

- 1 - Forward Seat Support
- 1 - 3/8" x 1/2" Bolt w/ blue patch
- 2 - 3/8" x 3/4" Bolt w/ blue patch
- 3 - 3/8" Flat Washers

B5

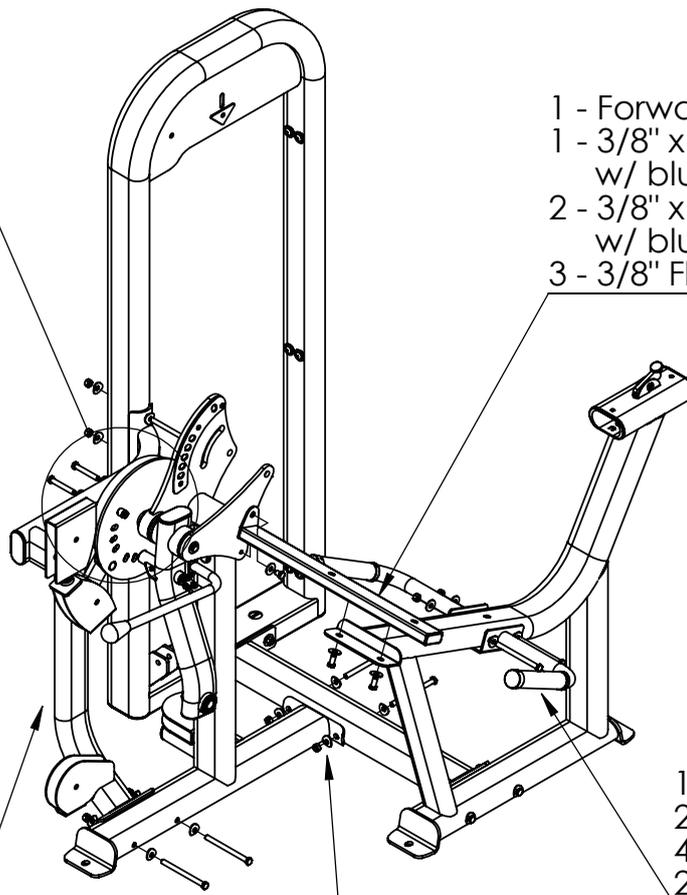
- 1 - Handle Assembly
- 2 - 3/8" x 4 3/4" Bolts
- 4 - 3/8" Flat Washers
- 2 - 3/8" Nuts

B2

- 1 - Support Assembly
- 4 - 3/8" x 4 3/4" Bolts
- 8 - Curved Washers
- 4 - 3/8" Nuts

B1

- 1 - Exercise Arm Frame Assembly
- 2 - 3/8" x 4 3/4" Bolts
- 4 - Curved Washers
- 2 - 3/8" Nuts



CT-MSEC ASSEMBLY INSTRUCTIONS

PAD ASSEMBLY

- C1.** Assemble the Exercise Pad to the Exercise Arm using 1 – $\frac{3}{4}$ " x 2 $\frac{1}{2}$ " Shaft, 1 – $\frac{3}{8}$ " x 3 $\frac{3}{4}$ " bolt, 2 – $\frac{3}{8}$ " flat washers and 1 – $\frac{3}{8}$ " nut.
- C2.** Insert the 1" x 4" Shaft into the bushings of the Thigh Pad Assembly. Assemble the Thigh Pad Assembly to the Exercise Arm Frame Assembly by first pulling the pop pin. Then insert the guide pin into the slot and rotate the bushing and shaft down between the plates at the top hole. Release the pop pin. Secure the Thigh Pad Assembly using 1 – $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " bolt, 2 – $\frac{1}{2}$ " flat washers, and 1 – $\frac{1}{2}$ " nut.
- C3.** Depress the ratchet lever on the Seat Frame and insert the chrome Back Support. Secure with a $\frac{3}{8}$ " x 1" bolt with blue patch in the threaded fitting below.
- C4.** Attach the Back Pad to the Back Support using 2 - $\frac{3}{8}$ " x 2 $\frac{1}{2}$ " bolts with blue patch and 2 – $\frac{3}{8}$ " flat washers.
- C5.** Attach the Bottom Pad to the Seat Frame using 2 - $\frac{3}{8}$ " x 2" bolts with blue patch, 1- $\frac{3}{8}$ " x 3" bolt with blue patch and 3 – $\frac{3}{8}$ " washers.

C2

- 1 - Thigh Pad Ass'y
 - 1 - 1" x 4" Shaft
 - 1 - 1/2" x 5 1/2" Bolt
 - 2 - 1/2" Washers
 - 1 - 1/2" Nut
- (Pull pop pin to install)

C3

- Back Support
 - 1 - 3/8" x 1" Bolt
 - w/ blue patch
- (Depress ratchet lever to install)

C4

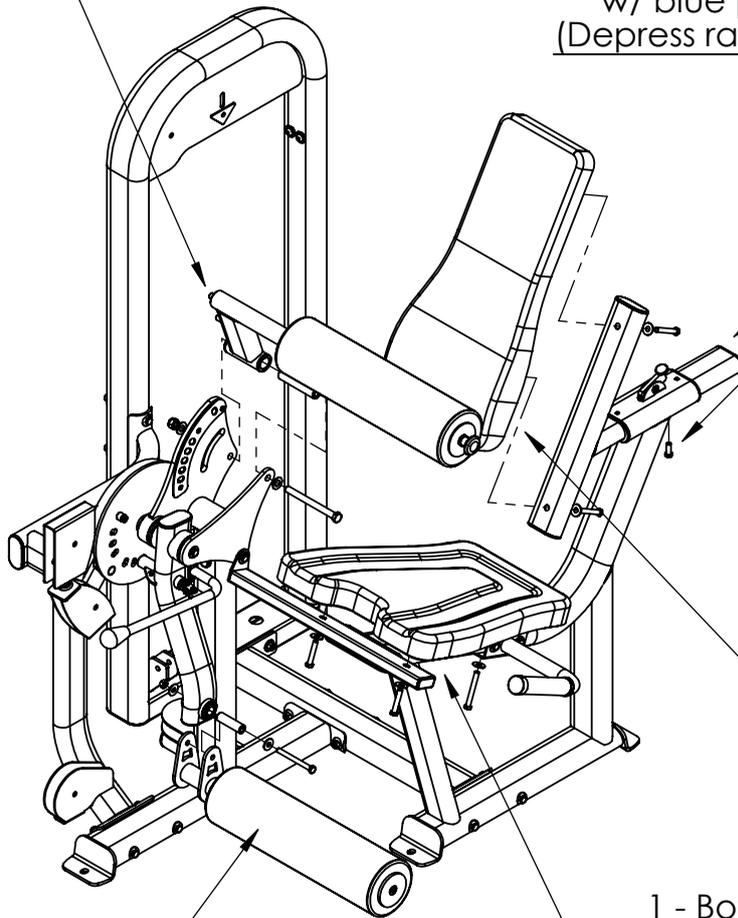
- 1 - Back Pad
- 2 - 3/8" x 2 1/2" Bolts
- w/ blue patch
- 2 - 3/8" Flat Washers

C1

- 1 - Exercise Pad
- 1 - 3/4" x 2 1/2" Shaft
- 1 - 3/8" x 3 3/4" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut

C5

- 1 - Bottom Pad
- 1 - 3/8" x 3" Bolt
- w/ blue patch
- 2 - 3/8" x 2" Bolt
- w/ blue patch
- 3 - 3/8" Flat Washers



CT-MSEC ASSEMBLY INSTRUCTIONS

WEIGHT STACK AND CABLE ASSEMBLY

D1. Insert Guide Rods into the base of the Loop Upright. Allow Guide Rods to lean back away from the machine. Place one weight stack cushion on each Guide Rod and slide down to the base. Apply lubricant to the Guide Rods from the weight stack cushions to the tops of the Guide Rods.

Making sure that the recess for the weight labels is facing towards the machine and that the three pads are facing down slide onto the Guide Rods: 10 – 10lb. weight plates and 10 – 5lb weight plates. Place the Top Weight with Cable on the Guide Rods with the drilled hole facing the machine and slide down to the stack.

D2. Before proceeding with the cable installation slide the loop of the weight pin lanyard over the end of the Upper MSEC Cable down to the top weight.

D3. Install Guide Rod Bracket onto top of guide rods. Place the Upper MSEC Cable over one 4 ½” pulley and slide up between the plates of the Loop Upright at the slot. Stand the weight stack assembly upright and bolt the Guide Rod Bracket, Pulley and Loop Upright together using 1 – 3/8” x 2” bolt, 1 - Cam Washer, 2 – 3/8” flat washers, and 1 – 3/8” nut. Do not tighten at this time.

D4. Place a pulley under the cable and insert between the plates of the Loop Upright. Fasten the pulley and the triangular plate using 1 – 3/8” x 2” bolt, 2 – 3/8” flat washers, and 1 – 3/8” nut. Use the pre-installed pin and E-clip to attach the end of the cable to the hole in the triangular plate.

D5. Bolt the second 5lb. weight to the selector stem using 1 - 3/8” x 4” bolt and 1 – 3/8” nut. **NOTE:** If a heavy stack is being installed bolt the first weight plate to the selector stem using the bolt provided with the heavy stack.

D3

- 1 - 4 1/2" Pulley
- 1 - Guide Rod Bracket
- 1 - 3/8" x 2" Bolt
- 1 - Cam Washer
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut

D4

- 1 - 4 1/2" Pulley
- 1 - Triangular Plate
- 1 - 3/8" x 2" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut
- 1 - Pin and clip (in cable)

D5

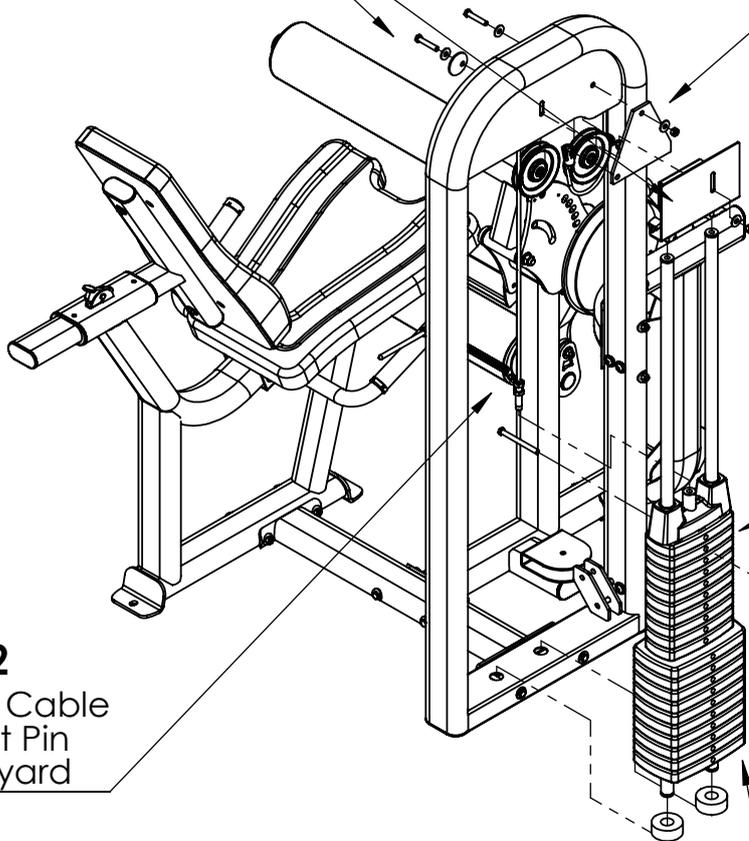
- 1 - 3/8" x 4" Bolt
- 1 - 3/8" Nut

D2

- 1 - Upper Cable
- 1 - Weight Pin w/Lanyard

D1

- 2 - Weight Stack Cushions
- 2 - Guide Rods
- 10 - 10lb. Weight Plates
- 10 - 5lb. Weight Plates
- 1 - Top Weight w/ cable



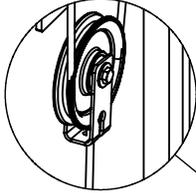
CT-MSEC ASSEMBLY INSTRUCTIONS

WEIGHT STACK AND CABLE ASSEMBLY

- E1.** Attach a ball end of the MSEC Lower Cable to the “U”-Bracket. Place a 4 ½” pulley onto the MSEC Upper Cable below the Triangular Bracket and fasten using the “U”-Bracket, 1 – 3/8” x 2” bolt, 2 – 3/8” flat washers, and 1 – 3/8” nut.
- E2.** Route the cable down between the plates welded to the base of the Loop Upright. Install a 4 ½” pulley over the cable and attach to the plates using 1 – 3/8” x 2” bolt, 2 – 3/8” flat washers, and 1 – 3/8” nut.
- E3.** Route the cable around a 4 ½” pulley and place the pulley into the pulley bracket welded on the base of the Exercise Arm Assembly. Fasten the pulley using 1 – 3/8” x 2” bolt with blue patch and 1 – 3/8” flat washer.
- E4.** Route the cable under a 4 ½” pulley and place in the pulley bracket welded at the base of the Support Assembly. Attach the pulley using 1 – 3/8” x 1 ¾” bolt, 2 – 3/8” flat washers, and 1 – 3/8” nut.
- E5.** Route the cable up to and through the pulley bracket welded at the top of the Support Assembly. Place a 4 ½” pulley under the cable inside the pulley bracket and fasten using 1 – 3/8” x 1 ¾” bolt, 1 – 3/8” flat washers, 1 3/8” small washer (on weld side) and 1 – 3/8” nut.
- E6.** Route the cable under a 4 ½” pulley and place inside the pulley arm of the Exercise Arm Frame and fasten using 1 – 3/8” x 2 ¼” bolt, 2 – 3/8” flat washers, and 1 – 3/8” nut.
- E7.** Route the cable up to and inside the cam. Insert the ball end into the hook welded inside the cam.

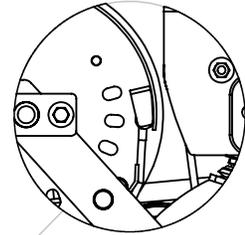
E1

- 1 - Lower Cable
- 1 - 4 1/2" Pulley
- 1 - Pulley Bracket
- 1 - 3/8" x 2" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut



E7

Cable end in hook



E6

- 1 - 4 1/2" Pulley
- 1 - 3/8" x 2 1/4" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut

E5

- 1 - 4 1/2" Pulley
- 1 - 3/8" x 1 3/4" Bolt
- 1 - 3/8" Flat Washer
- 1 - 3/8" Small Flat Washer
(on weld side)
- 1 - 3/8" Nut

E2

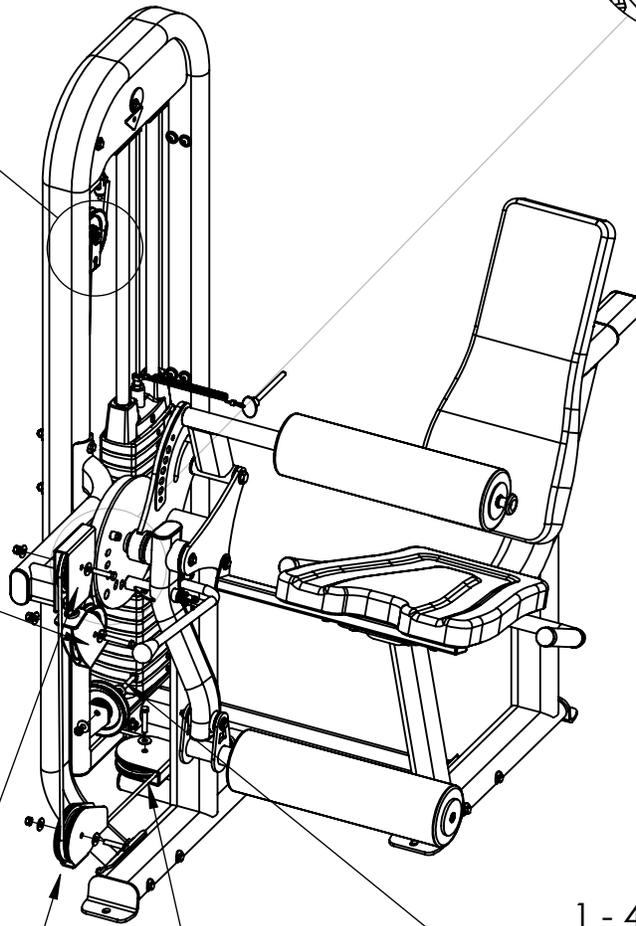
- 1 - 4 1/2" Pulley
- 1 - 3/8" x 2" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut

E4

- 1 - 4 1/2" Pulley
- 1 - 3/8" x 1 3/4" Bolt
- 2 - 3/8" Flat Washers
- 1 - 3/8" Nut

E3

- 1 - 4 1/2" Pulley
- 1 - 3/8" x 2" Bolt
w/ blue patch
- 1 - 3/8" Flat Washers



CT-MSEC ASSEMBLY INSTRUCTIONS

CABLE ADJUSTMENT

F1. Adjust cable tension per the following:

1. Raise the exercise arm to the highest leg curl position.
2. Make sure bolt was installed in second weight plate (STEP D5).*
3. Use the cam washer first to remove slack from the cable.
4. Use the threaded fitting on the top weight if needed to remove more slack.
5. Cable adjustment should be tight enough to raise the pulley arm to the stop without raising the top weight.
6. Check that the weight pin engages in each weight plate.

Note: If installing shrouds skip Step F2 and proceed to step G1.

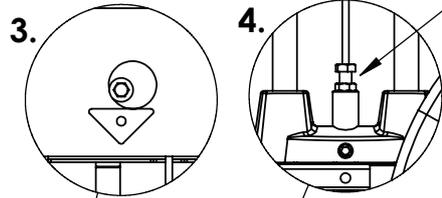
F2. Remove backing from foam tape on Instruction Placard. Attach Instruction Placards to Loop Upright aligning outside edge of placard to top and outside edge of Loop Upright. Remove the protective clear cover.

F1

Cable Adjustment

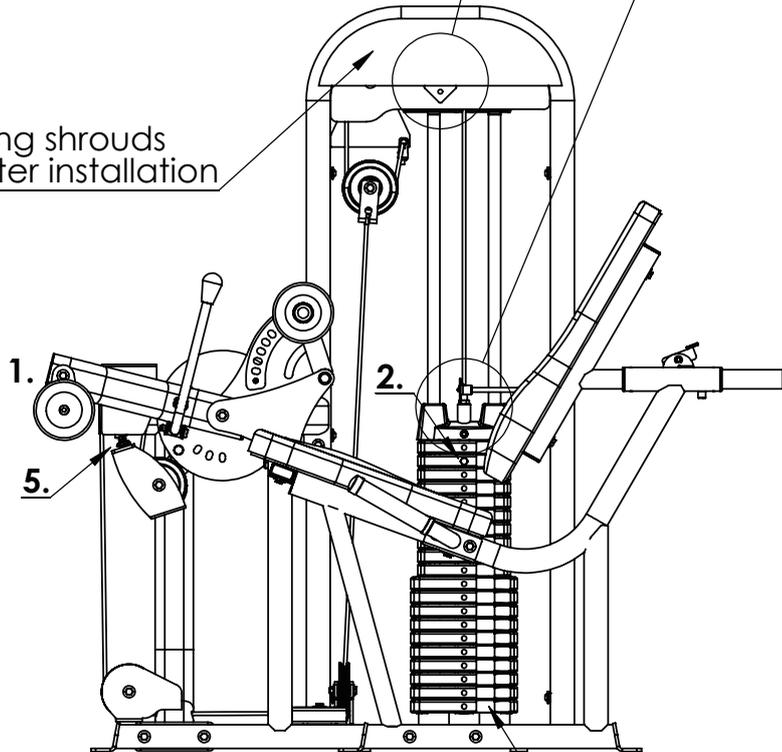
1. Make sure bolt was installed in second weight plate (STEP D5).*
2. Raise the exercise arm to the highest leg curl position.
3. Use the cam washer first to remove slack from the cable.
4. Use the threaded fitting on the top weight if needed to remove more slack.
5. Cable adjustment should be tight enough to raise the pulley arm to the stop without raising the top weight.
6. Check that the weight pin pins in each weight plate.

Maximum 1" from under bolt head to bottom of jam nut



F2

1- Placard
Only install if not installing shrouds
Remove protective film after installation



F2

20 - Weight Labels

*First weight plate if installing a heavy stack

CT-MSEC ASSEMBLY INSTRUCTIONS

SHROUD INSTALLATION

- F1.** Attach five double shroud brackets to the Main Upright using the preinstalled button head screws and washers.
- F2.** Attach the one single side shroud bracket to the Main Upright behind the lower pulley using the pre-installed button head screw and washer.
- F3.** Attach the front shroud to the brackets using 5 – 1/4" x 3/4" button head screws and 1/4" washers.
- F4.** Attach the rear shroud to the brackets using 6 – 1/4" x 3/4" button head screws and 1/4" washers.

