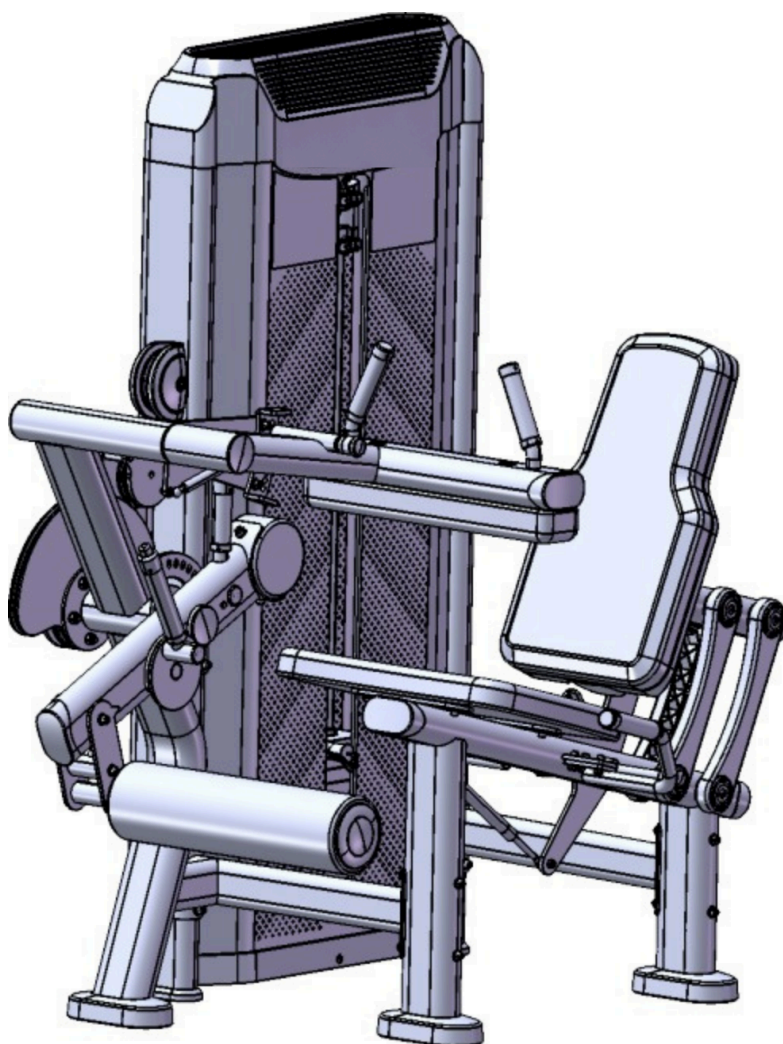


FRACTAL SERIES

Leg Extension / Leg Curl

Assembly & Owner Guide



BUILT TO PERFORM.

Read before assembly. Keep this guide for future reference.

01 / PREPARE

Before you begin

Set up your space

Assemble indoors on a level, stable surface with clear access around the equipment. Protect the floor and allow enough room to lay out the frame and hardware.

Check every part

Unpack and compare the components with the illustrated lists. Keep hardware grouped by stage. Reference numbers identify parts in the drawings; they may restart at each stage. Quantities are for the corresponding source list and should not be added across stages.

Prepare tools and help

Have metric hex keys and suitable metric wrenches or sockets ready for the listed fasteners. Use sufficient help to support heavy frames and moving assemblies. Keep hands clear of pinch points and never work beneath an unsupported load.

Follow the assembly drawings

Work through the stages in order. Match each numbered callout with its parts list. Confirm orientation before fitting fasteners. A part described as an assembly is supplied as a component; the wording does not instruct you to weld it.

Check connections before use

Use the specified hardware at each joint. Confirm that fasteners are secure and moving parts operate freely. If a part, dimension or connection is unclear, stop and contact Build A Gym before continuing.

ASSEMBLY SUPPORT

Build A Gym • (512) 591-8553 • buildagym.com

02 / SAFETY

Use and care safely

- Use the equipment indoors in a dry, supervised area. Keep the surrounding floor level and unobstructed.
- Children under 12 must not use this equipment. Provide appropriate supervision and assistance for other users who need it.
- Before each use, inspect moving components, fasteners, pins and attachments. Have loose or damaged parts corrected before use.
- Wear suitable exercise clothing and athletic shoes. Warm up before exercise and use slow, controlled movements.
- Increase resistance gradually. Stop exercising if you feel pain, discomfort or anything unusual, and consult a doctor.
- Consult your doctor before starting an exercise program.
- Keep hands, clothing and other objects clear of moving parts. Make sure adjustment pins and any safety stops are fully engaged.
- Clearly mark the equipment “Out of Use” during servicing or repair. Keep this guide available for future reference.

Your assembly sequence

Stage 1 → Stage 2 → Stage 3 → Stage 4 → Final inspection

Use the PDF bookmarks to jump directly to a stage.

STAGE 1 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 1 QTY 1  Adjust assembly	REF 2 QTY 1  Side frame assembly	REF 3 QTY 1  Reversing frame
REF 5 QTY 1  Rope reel limit assembly	REF 7 QTY 1  Compression leg assembly	REF 12 QTY 1  Arm assembly
REF 13 QTY 4  Leg support assembly	REF 32 QTY 2  Pin shaft	REF 35 QTY 12  Sintered bushing
REF 47 QTY 3  Large gasket	REF 55 QTY 3  70 end cap	REF 64 QTY 2  Sintered bushing

STAGE 1 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 66

QTY 1



Outer circular 50 aluminum end cap

REF 72

QTY 45



10 mm washer

REF 74

QTY 9



10 mm spring washer

REF 76

QTY 15



M10 nut

REF 78

QTY 6



Deep groove ball bearing

REF 84

QTY 22



Socket-head bolt

REF 90

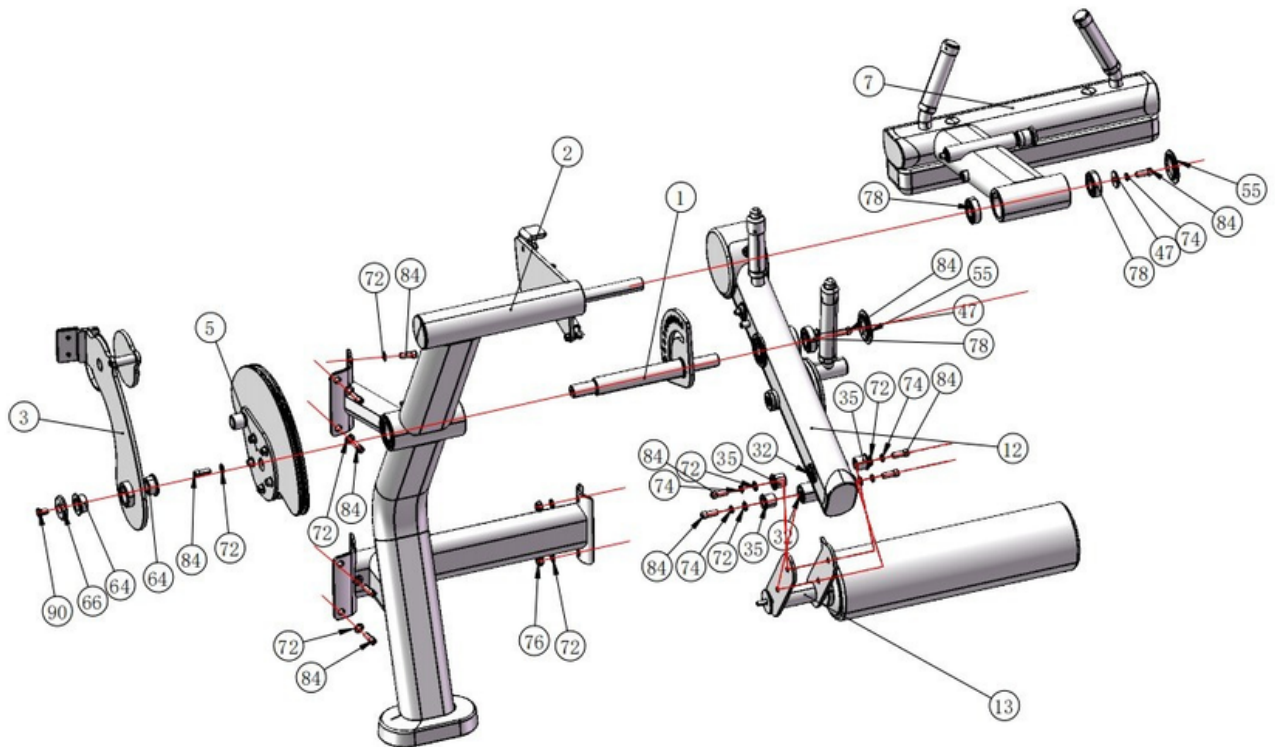
QTY 1



Countersunk socket bolt

STAGE 1 / DRAWING 1 OF 1

Assembly stage 1



Match the numbered callouts to the Stage 1 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 1: Assemble the Reversing Arm

Use Stage 1 references. Screw 84 has no size in this list but is listed as M10 × 25 in Stage 2; verify the supplied screw at each joint.

1. Stand and support the side frame

Position side frame 2 on a level surface as drawn. Keep it braced independently until it is connected to the seat frame and tower. Identify the long upper pivot shaft and the lower frame connection mounts.

2. Fit the adjustment and compression assemblies

Fit adjustment assembly 1 through the frame pivot with bearings 78 in the shown order. Support compression-leg assembly 7 while sliding it onto the shaft. Fit the indicated large washer 47, spring washer 74 and screw 84, then end cap 55. Confirm the shaft is positively retained.

3. Fit the cam and reversing frame

Position rope-reel limit assembly 5 and reversing frame 3 at the opposite side of the pivot. Fit bushings 64 and the shown washer 72 and screw 84. Fit end cap 66 with countersunk screw 90. The source omits screw 90 dimensions: confirm the supplied fastener before securing it. Preserve the factory cam and cable settings.

4. Assemble the lower roller linkage

Support arm 12 and leg-support assembly 13. Fit bushings 35 and pin shafts 32 in the illustrated order, then retain them with washers 72, spring washers 74 and screws 84 where called out. Do not remove support until all shaft retainers are installed.

5. Check both exercise settings

Engage the adjustment pin and carefully check the reversing mechanism and roller linkage without cable load. Confirm the selected leg-extension and leg-curl positions lock positively, bearings turn freely and all pivot end caps are fitted.

Check before continuing

The pivot, cam, reversing frame and roller linkage are retained and move without binding.

STAGE 2 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 6

QTY 1



Main frame assembly

REF 8

QTY 1



Connection support assembly

REF 11

QTY 1



Backrest assembly

REF 18

QTY 1



Gas spring

REF 28

QTY 1



Pull pin rod

REF 30

QTY 2



Short fixed axis

REF 35

QTY 12



Sintered bushing

REF 42

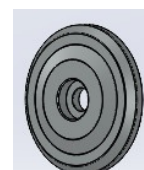
QTY 4



Long crank

REF 43

QTY 8



Aluminum protective cover

REF 58

QTY 5



25 round hole plug

REF 60

QTY 1



Back cushion

REF 61

QTY 1



Seat cushion

STAGE 2 / PARTS

Identify your components

Match each reference and quantity to the drawing for this stage.

REF 71

QTY 22



8 mm washer

REF 72

QTY 45



10 mm washer

REF 73

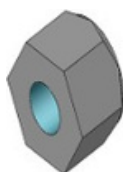
QTY 17



8 mm spring washer

REF 75

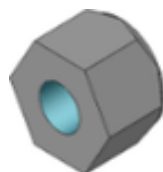
QTY 8



M8 nut

REF 76

QTY 15



M10 nut

REF 81

QTY 8



M8 x 25 Socket-head screw

REF 82

QTY 7

M8 x 25 hexagon socket head
cap screw

REF 83

QTY 6

M8 x 15 hexagon socket head
cap screw

REF 84

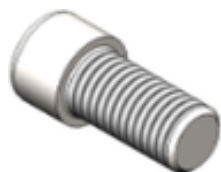
QTY 22



M10 x 25 Socket-head screw

REF 86

QTY 4



M10 bolt · length to confirm

REF 87

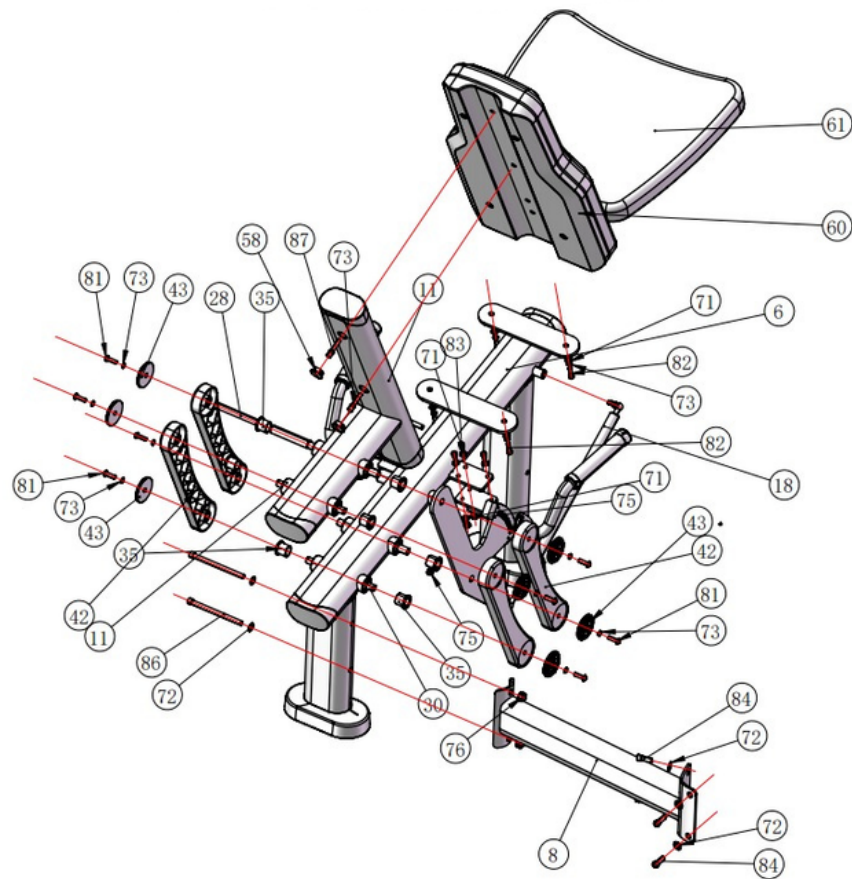
QTY 3



M8 x 40 Socket-head screw

STAGE 2 / DRAWING 1 OF 1

Assembly stage 2



Match the numbered callouts to the Stage 2 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 2: Assemble the Adjustable Seat

Part references continue from Stage 1. Keep the seat supported during linkage and gas-spring installation.

6. Join the seat frame and connection support

Position main frame 6 beside the Stage 1 side frame. Fit connection support 8 at its shown lower mounts with M10 × 25 screws 84 and washers 72; fit nuts 76 at through-connections as drawn. Align the frames and retain all joints before removing their supports.

7. Fit the seat and backrest linkage

Install bushings 35 and short shafts 30 in their illustrated positions. Fit the four long cranks 42 around backrest assembly 11 and the main frame. Retain the crank ends with protective covers 43, spring washers 73 and M8 × 25 screws 81 where shown.

8. Confirm the long pivot bolts

The seat drawing calls for bolts 86 and washers 72. The supplied list gives a malformed bolt length, so obtain the correct size before assembling that connection. Confirm each shaft and long bolt is retained and the linkage moves without skewing.

9. Fit the gas spring and release mechanism

Support the seat/backrest assembly while attaching gas spring 18 at the depicted mounts with the shown M8 hardware and nuts 75. Fit pull-pin rod 28 and its retaining components as illustrated. Preserve factory gas-spring settings; verify the release mechanism and lock before removing support.

10. Secure the pads and test seat adjustment

Attach back cushion 60 and seat cushion 61 at their illustrated mounts using the indicated M8 screws, spring washers 73 and washers 71. Fit plugs 58 after fastening. Support the seat while checking each adjustment position; it must lock without drift or free movement.

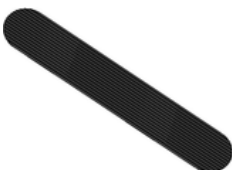
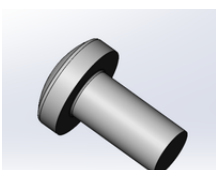
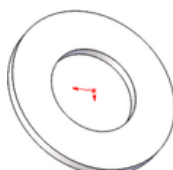
Check before continuing

Frame joints, crank retainers, pads and the seat adjustment lock are secure.

STAGE 3 / PARTS

Identify your components

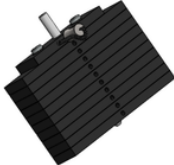
Match each reference and quantity to the drawing for this stage.

REF 1 QTY 1  Small frame assembly	REF 6 QTY 1  Top cover	REF 7 QTY 1  Front guard
REF 8 QTY 1  Rear guard	REF 9 QTY 2  Guide rod fixing sleeve	REF 10 QTY 2  Weight-stack guide rod
REF 11 QTY 1  Hollow screw	REF 19 QTY 12  M5 × 10 screw	REF 21 QTY 8  8 mm washer
REF 24 QTY 8  8 mm spring washer	REF 26 QTY 2  M6 × 25 Socket-head screw	REF 27 QTY 8  M8 × 25 Socket-head screw

STAGE 3 / PARTS

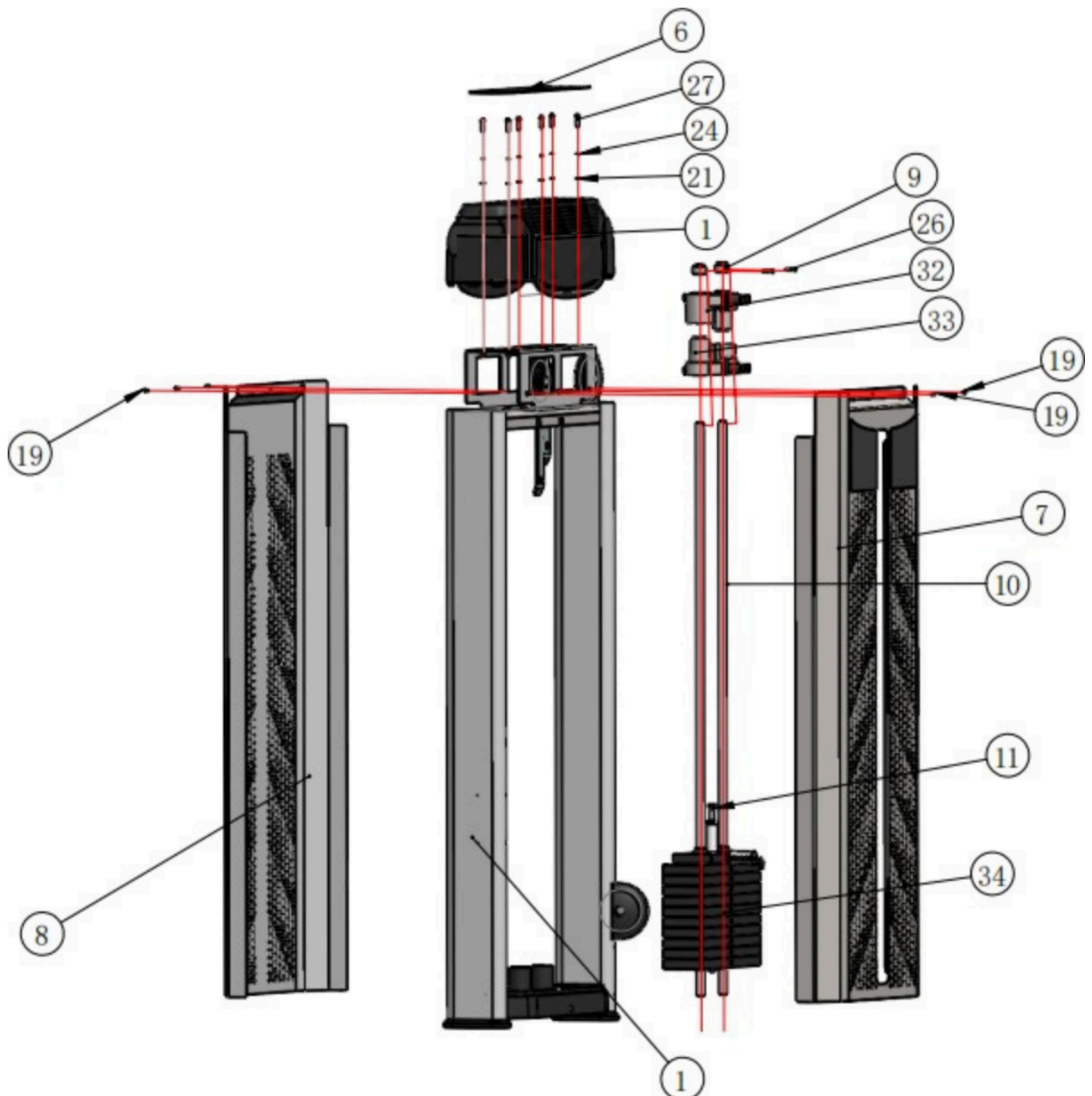
Identify your components

Match each reference and quantity to the drawing for this stage.

REF 32 QTY 1  Secondary counterweight 1	REF 33 QTY 1  Secondary counterweight 2	REF 34 QTY 1  Weight stack assembly
--	--	--

STAGE 3 / DRAWING 1 OF 1

Assembly stage 3



Match the numbered callouts to the Stage 3 parts list. Position the components as shown and use the listed hardware at each connection.

Stage 3: Assemble the Weight Tower

Part numbers restart for Stage 3. Use the tower drawing and its own list; keep the tower supported and the stack resting fully down.

11. Position and secure the tower

Support tower frame 1 beside the assembled exercise frame. Connect the shown frame mounts using the confirmed Stage 1 and Stage 2 hardware. Check that both frames stand level and all structural joints are secure before fitting the stack.

12. Install the stack and guide rods

Keep stack assembly 34 supported at its base. Fit guide rods 10 through the stack in the orientation shown, preserving plate order and selector access. Seat the lower rod ends in their intended mounts. The drawing omits detailed lower retention and plate-loading instructions; confirm these if the stack arrives dismantled.

13. Fit the upper guide components

Fit secondary weights 33 and 32 in the illustrated order above the main stack. Position fixing sleeves 9 at the rod ends and secure them with M6 × 25 screws 26. Check that the rods remain parallel and all retaining components are fitted. Preserve factory-adjusted mechanisms.

14. Secure the top assembly

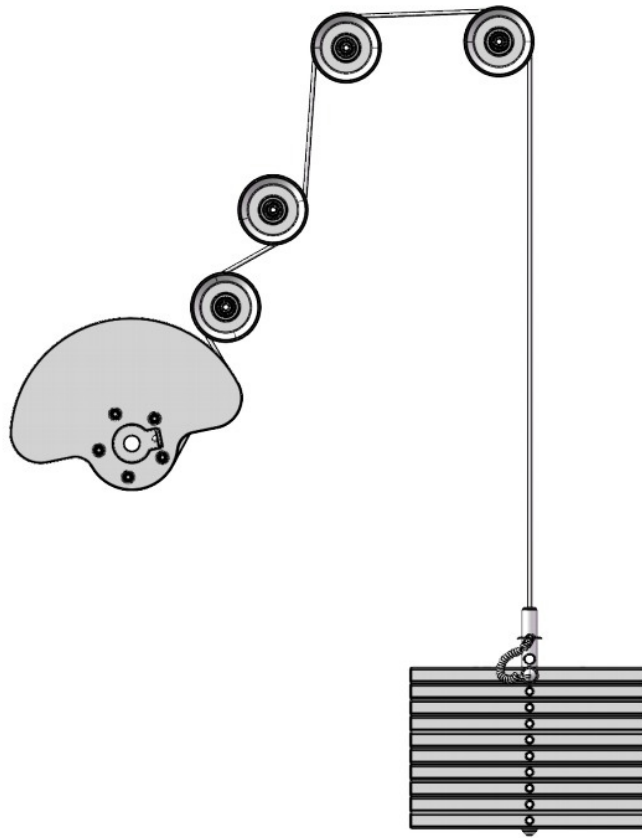
Use M8 × 25 screws 27, spring washers 24 and washers 21 at the illustrated upper mounting points. Fit top cover 6 as shown. Keep front guard 7 and rear guard 8 accessible until the cable route and stack connection have been checked.

Check before continuing

Stack guides and top assembly are secure. Guard fitting follows the cable inspection.

STAGE 4 / DRAWING 1 OF 1

Assembly stage 4



Trace the cable using this schematic and the following step-by-step instructions. Confirm all cable terminations and adjustments before applying tension.

Stage 4: Route, Guard and Test

Use the Stage 4 cable diagram together with the assembled machine. Cable routing must be verified before installing the access guards.

15. Trace the cable path

Trace the cable from the stack over the two upper pulleys, through the two intermediate redirects and onto the cam shown. Match the cam wrap and its termination to the assembled reversing mechanism. Keep the stack fully down and the moving mechanism supported. Preserve any factory routing. The drawing does not specify cable length, complete terminations or adjustment limits; obtain these details for any loose or disconnected cable before tensioning.

16. Check the stack connection and pulleys

Verify the cable connection at the stack and hollow screw 11 against the supplied assembly. Confirm every termination and locking device is secure. Check each pulley axle and retainer; the cable must sit inside every groove without crossing or rubbing the frame. Do not use an unconfirmed cable attachment.

17. Fit the guards and complete fastening

After routing inspection, secure front guard 7 and rear guard 8 using M5 × 10 screws 19 at the illustrated points. Check all frame, pad, guide and pulley connections. Confirm the required fastener torque and any floor-fixing requirement with Build A Gym before use.

18. Test at the lowest resistance

Check both exercise-mode locks and all seat and roller adjustments. Test leg-extension and leg-curl movement separately while keeping clear of the linkage. Select the lowest available stack load. Move slowly through a controlled range; the stack must lift smoothly and settle fully without slack, binding or guard contact. Stop if any attachment shifts or a cable leaves its groove.

Check before continuing

All movement, adjustment and cable checks must pass before the machine is available for exercise.

FINAL CHECK

Ready for the first use?

☐ **Frame and hardware**

Confirm that the frame is stable, all required hardware is installed and all connections are secure.

☐ **Adjustments and safeties**

Check that adjustment pins, locking mechanisms and any safety stops engage fully. Verify that pads and handles are secure.

☐ **Moving parts**

Carefully check the full range of movement. Confirm that moving assemblies clear the frame and guards without binding.

☐ **Product-specific inspection**

Check the cable path, guide retention, pads and every adjustment lock.
The stack must lift and return fully, with all guards and connections secure.

☐ **Keep the equipment ready**

Inspect before every use. Wipe contact surfaces dry after use. Have a qualified technician address damaged parts, unusual movement or noise before further exercise.

Need help with assembly?

Contact Build A Gym with your product name, assembly stage, part reference and a clear photo of the issue.

(512) 591-8553 • buildagym.com