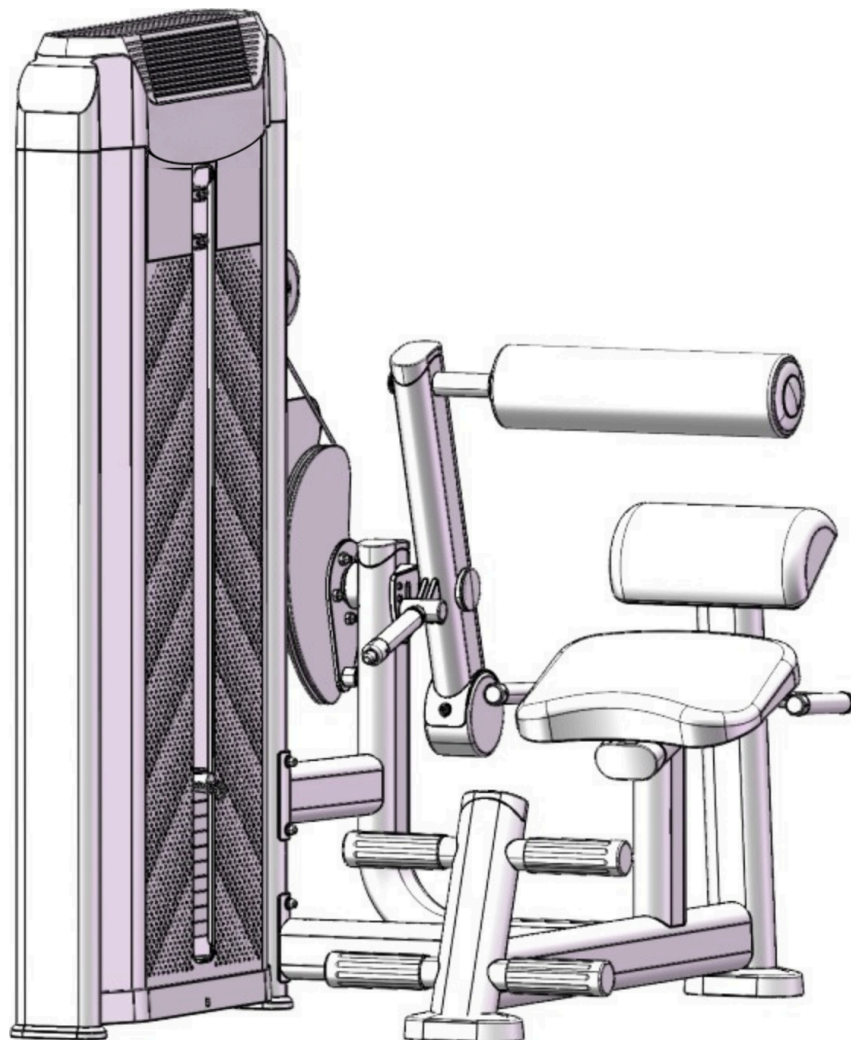


FRACTAL SERIES

Back Extension

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

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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 → Final inspection

Use the PDF bookmarks to jump directly to a stage.

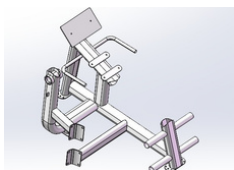
STAGE 1 / PARTS

Identify your components

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

REF 2

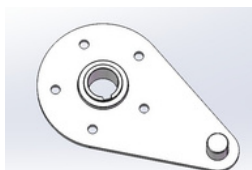
QTY 1



Main frame assembly

REF 3

QTY 1



Rope reel limit assembly

REF 4

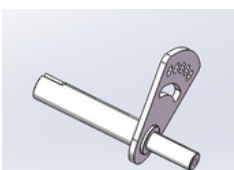
QTY 1



Arm assembly

REF 5

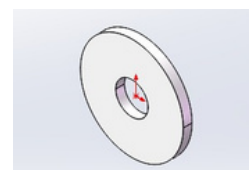
QTY 1



Adjust assembly

REF 11

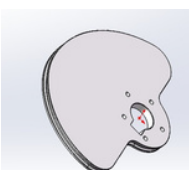
QTY 1



Large washer

REF 13

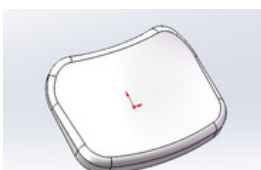
QTY 1



Wire spool

REF 29

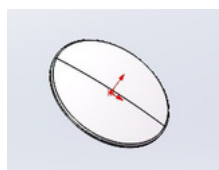
QTY 1



Cushion

REF 30

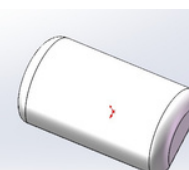
QTY 1



70 end cap

REF 32

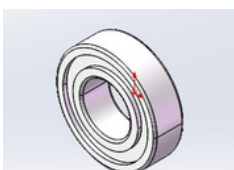
QTY 1



Top chest cushion

REF 33

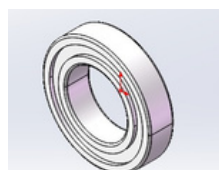
QTY 2



Deep Groove Ball Bearing

REF 34

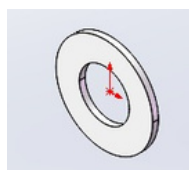
QTY 2



Deep Groove Ball Bearing

REF 35

QTY 22



10 mm washer

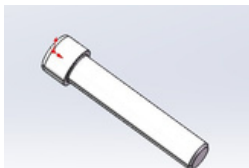
STAGE 1 / PARTS

Identify your components

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

REF 36

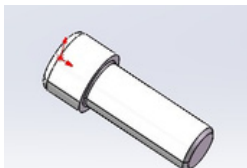
QTY 8



M10 × 50 Socket-head screw

REF 44

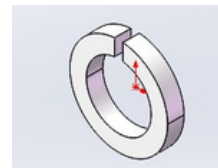
QTY 9



M10 × 25 Socket-head screw

REF 45

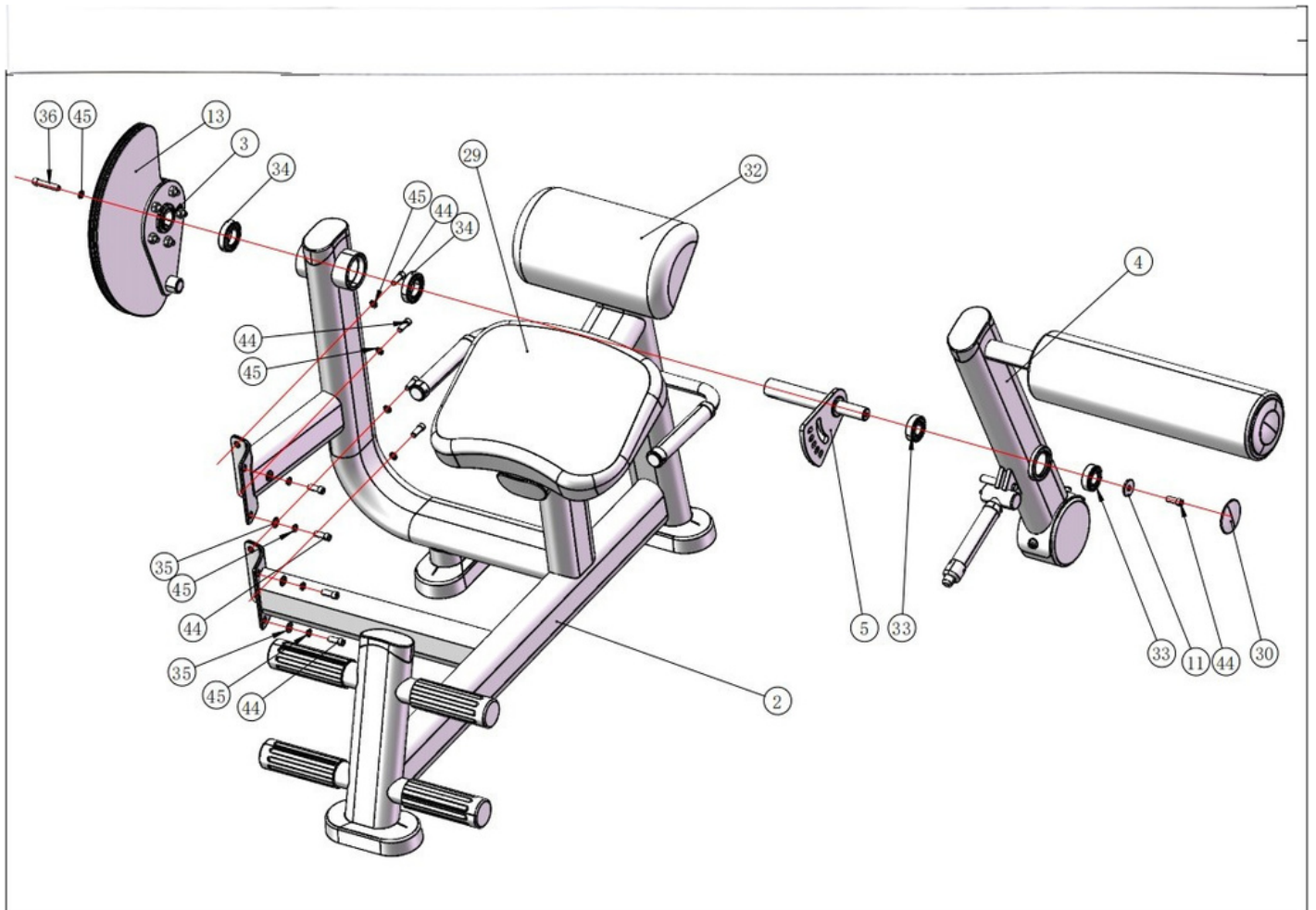
QTY 9



10 mm spring washer

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 Back-Extension Arm

Use Stage 1 references only. Keep the long roller arm supported throughout pivot assembly and keep clear of its swing path.

1. Position the seat frame

Stand and brace main frame 2 with the seat, foot supports and tower-side mounting plates oriented as shown. Check the supplied frame joints and foot supports. Keep the frame independently supported until it is joined to the tower in Stage 2.

2. Fit the adjustment shaft

Fit bearings 34 to the frame pivot in the illustrated positions. Support adjustment assembly 5 while inserting its shaft through the pivot. Orient the adjustment plate toward arm 4 as shown and verify the supplied shaft-retention components before proceeding.

3. Install the arm and roller assembly

Support arm assembly 4 on the adjustment shaft with bearings 33 in the shown order. Fit large washer 11 and M10 × 25 screw 44 at the outer retaining point, then fit end cap 30. Confirm the arm cannot slide off its shaft before removing support.

4. Fit the cam and limit assembly

Position rope-reel limit assembly 3 and wire spool 13 at the opposite end of the pivot in the depicted orientation. Fit M10 × 50 screws 36 and spring washers 45 at the indicated connections. Confirm the cam fasteners and cable attachment are fully retained; preserve the supplied start-position settings.

5. Check pads and adjustment engagement

Secure cushion 29 and support cushion 32 at their illustrated mounts; confirm their pad-fastener details if not already fitted. Check the arm roller, seat handgrips and foot supports. Engage the starting-position pin fully, then verify controlled arm movement with the cable still unloaded.

Check before continuing

The arm, cam, adjustment mechanism and pads are secure before connecting the tower and cable.

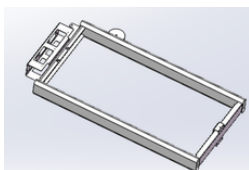
STAGE 2 / PARTS

Identify your components

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

REF 1

QTY 1



Small frame assembly

REF 2

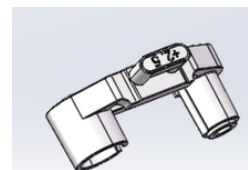
QTY 1



Secondary counterweight

REF 3

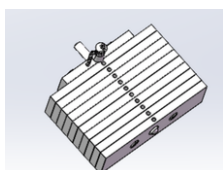
QTY 1



Secondary counterweight

REF 4

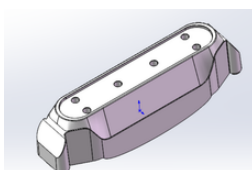
QTY 1



Weight stack assembly

REF 5

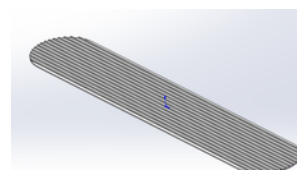
QTY 1



Big top cover

REF 9

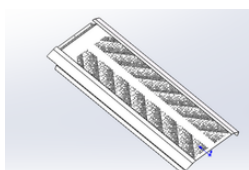
QTY 1



Top cover

REF 11

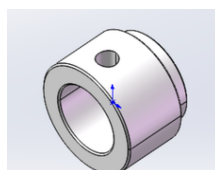
QTY 1



Rear guard plate

REF 12

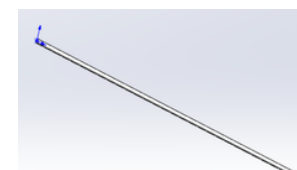
QTY 2



Guide rod fixing sleeve

REF 13

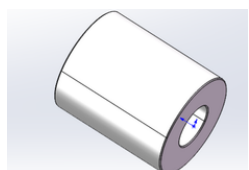
QTY 2



Weight-stack guide rod

REF 19

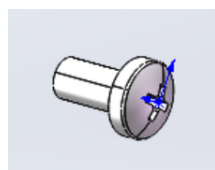
QTY 2



Weighted buffer pad

REF 22

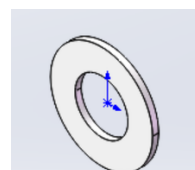
QTY 12



Cross groove pan head screw

REF 23

QTY 8



10 mm washer

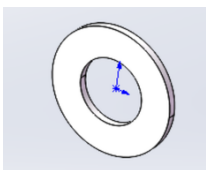
STAGE 2 / PARTS

Identify your components

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

REF 24

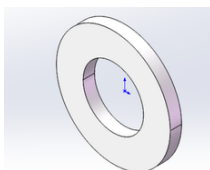
QTY 8



8 mm washer

REF 25

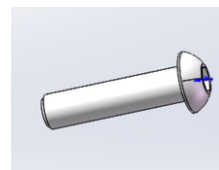
QTY 12



5 mm washer

REF 29

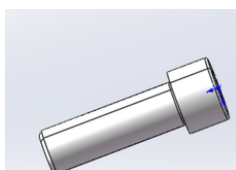
QTY 2



M5 x 25 Socket-head bolt

REF 30

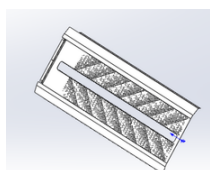
QTY 8



M8 x 25 Socket-head bolt

REF 33

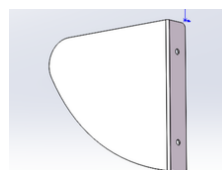
QTY 1



Front guard plate

REF 34

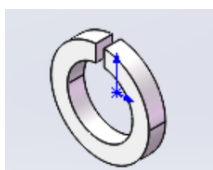
QTY 1



Small protective board

REF 35

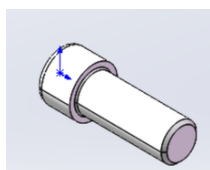
QTY 2



10 mm spring washer

REF 36

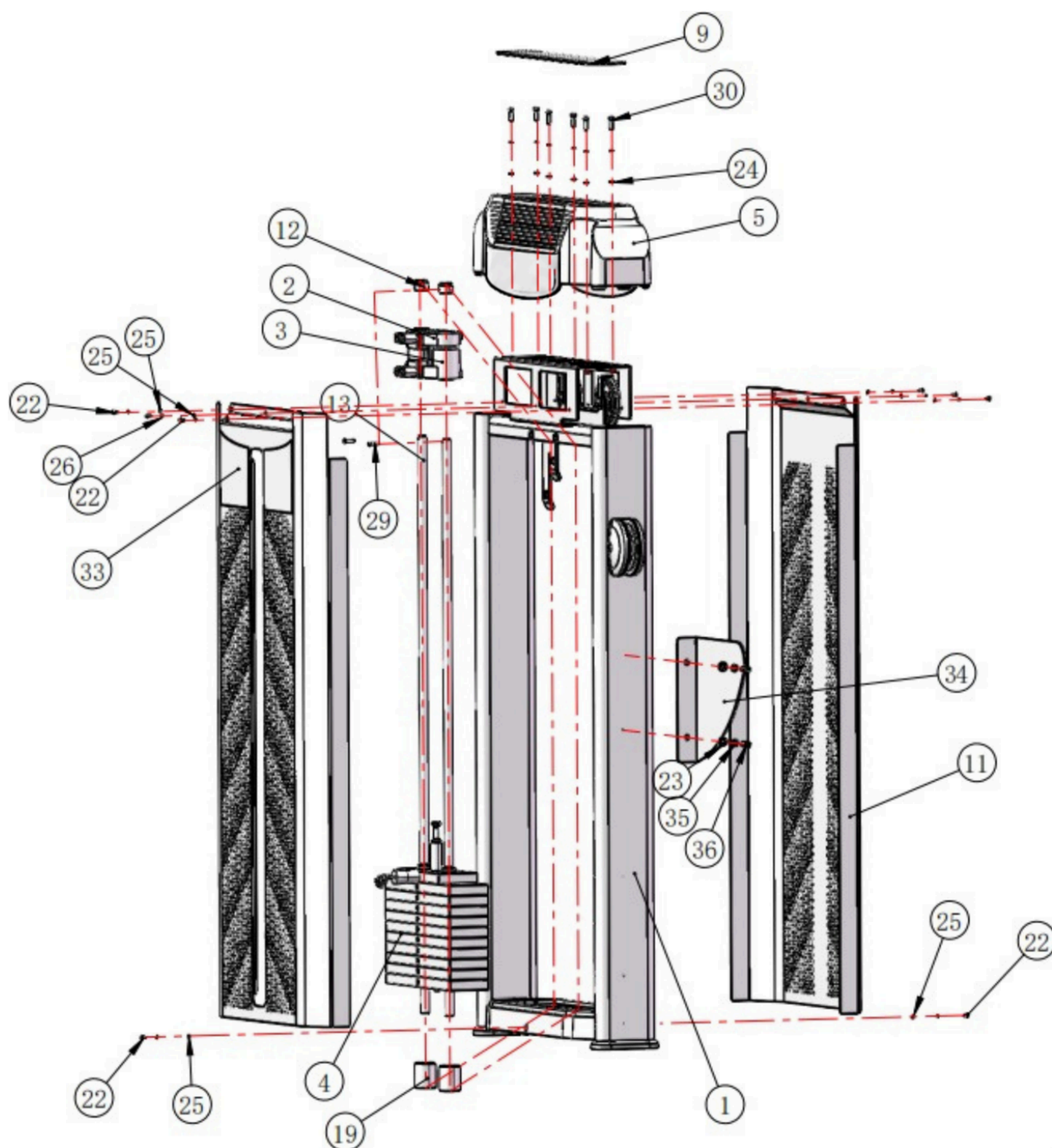
QTY 2



M10 x 25 Socket-head bolt

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 Weight Tower

Part numbers restart for the tower. Use the Stage 2 list when assembling stack and guard components.

6. Join the tower and seat frame

Stand and brace tower frame 1 beside the seat frame. Attach the Stage 1 mounting plates using the illustrated M10 × 25 screws 44, spring washers 45 and washers 35 from Stage 1. Align the frames on a level floor and secure all mounting points.

7. Install buffers, stack and guide rods

Position buffer pads 19 at the lower guide mounts. Fit guide rods 13 through stack assembly 4 and seat their lower ends as shown. Keep the stack supported at its base and preserve plate order and selector orientation. Confirm lower rod retention and plate-loading details if the assembly is supplied dismantled.

8. Retain the guides and fit the top covers

Fit secondary weights 3 and 2 above the stack in the illustrated order. Fit sleeves 12 with the listed M5 × 25 bolts 29; confirm that size against the actual guide sleeves. Secure big top cover 5 with M8 × 25 bolts 30 and washers 24, then fit top cover 9.

9. Fit the small pulley guard

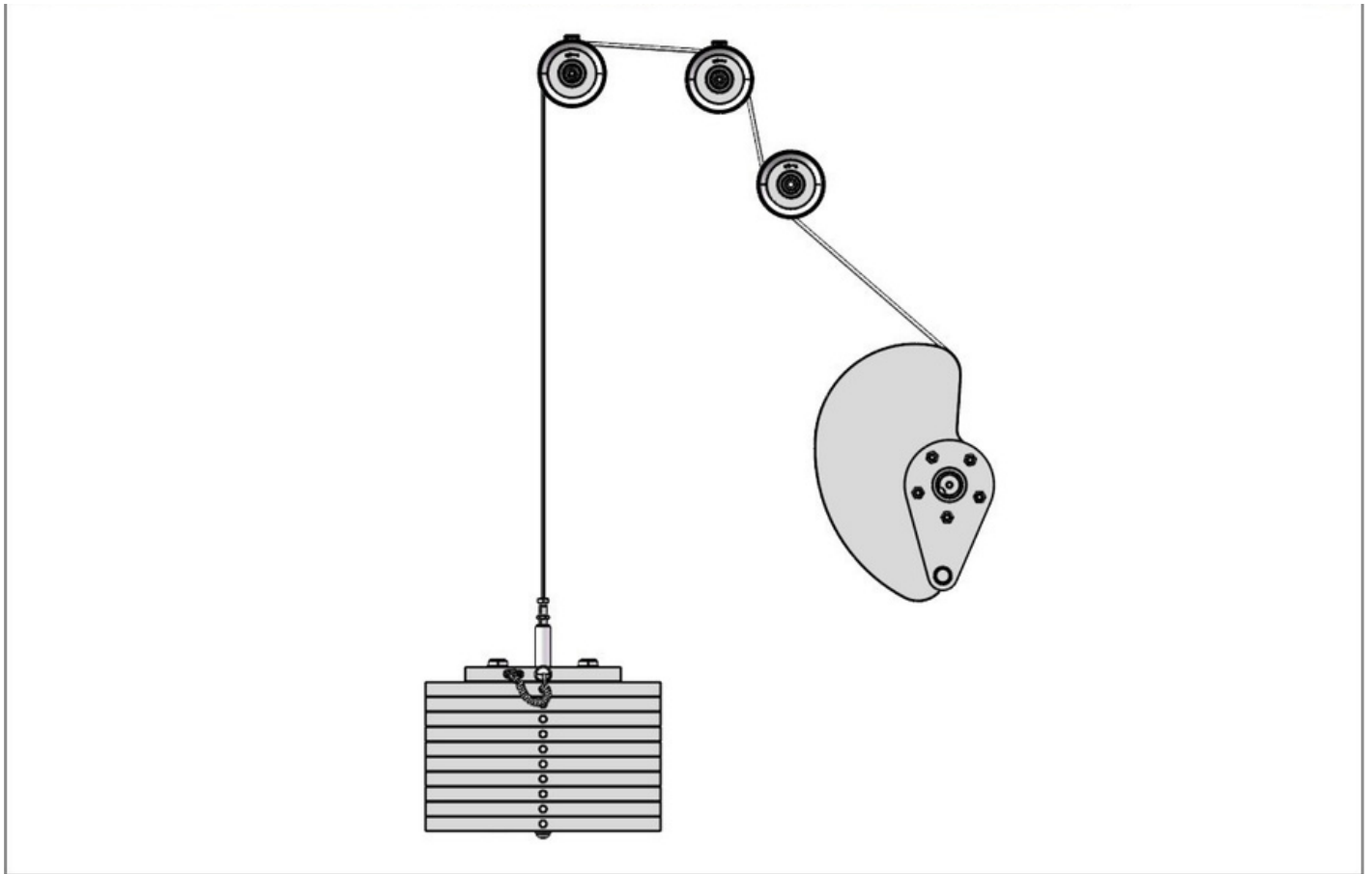
Position protective board 34 at the illustrated side-pulley location. Use M10 × 25 bolts 36, spring washers 35 and washers 23 from Stage 2 at its mounting points. Keep front guard 33 and rear guard 11 accessible until cable routing is verified.

Check before continuing

Both frames are connected, guide ends are retained, and cable-access guards remain accessible.

STAGE 3 / DRAWING 1 OF 1

Assembly stage 3



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

Stage 3: Route, Guard and Test

Use the Stage 3 cable diagram together with the assembled machine. Cable routing must be verified before installing the access guards.

10. Trace the cable path

Trace the cable from the stack over the two upper pulleys and around the additional upper redirect to wire spool 13 from Stage 1. Verify the cam-side cable entry, wrap and termination against the assembled arm. 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.

11. Check the stack connection and pulleys

Verify the cable-to-stack connection and all locking hardware against the supplied assembly. The source does not detail every termination; confirm any loose attachment before tensioning. Check every pulley axle and retainer. The cable must stay inside each groove without rubbing the frame or pulley guard.

12. Fit the guards and complete fastening

After cable inspection, fit front guard 33 and rear guard 11 using screws 22 and washers 25 where shown. The tower drawing also labels component 26, which is absent from the list: confirm it before completing that connection. Check all frame, pad and pivot fasteners, and confirm torque and floor-fixing requirements before use.

13. Test at the lowest resistance

Check the starting-position lock and arm-roller security. Operate the back-extension arm slowly while watching the upper cable path and stack. 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.

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