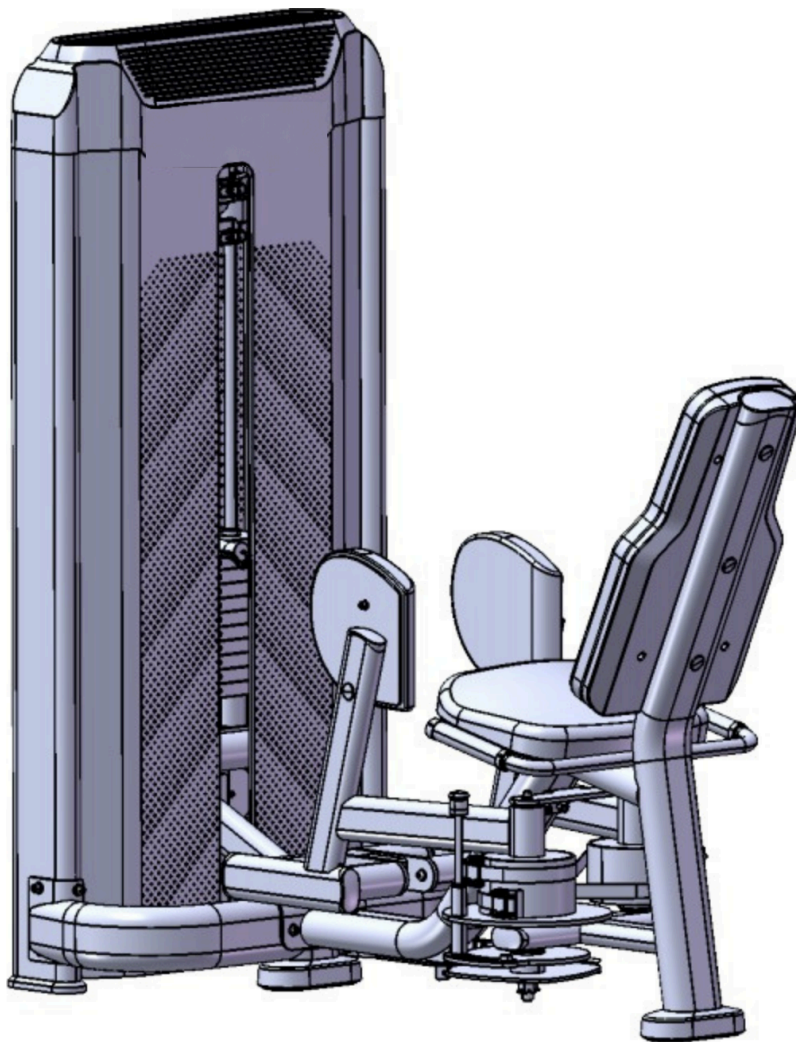


FRACTAL SERIES

Hip Abduction

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.

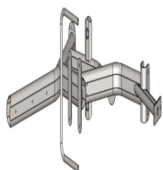
STAGE 1 / PARTS

Identify your components

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

REF 1

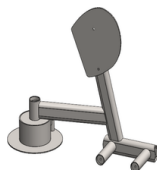
QTY 1



Main frame assembly

REF 3

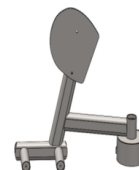
QTY 1



Arm assembly

REF 4

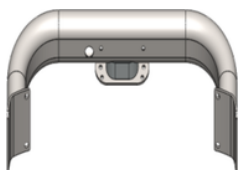
QTY 1



Arm assembly

REF 6

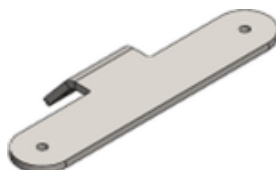
QTY 1



Bending support assembly

REF 9

QTY 1



Axis fixing plate

REF 13

QTY 1



Arm shaft

REF 15

QTY 1



Arm shaft

REF 20

QTY 1



Cushion

REF 21

QTY 1



Leg pad

REF 23

QTY 1



Back cushion

REF 35

QTY 5



25 round hole plug

REF 39

QTY 1



Large gasket

STAGE 1 / PARTS

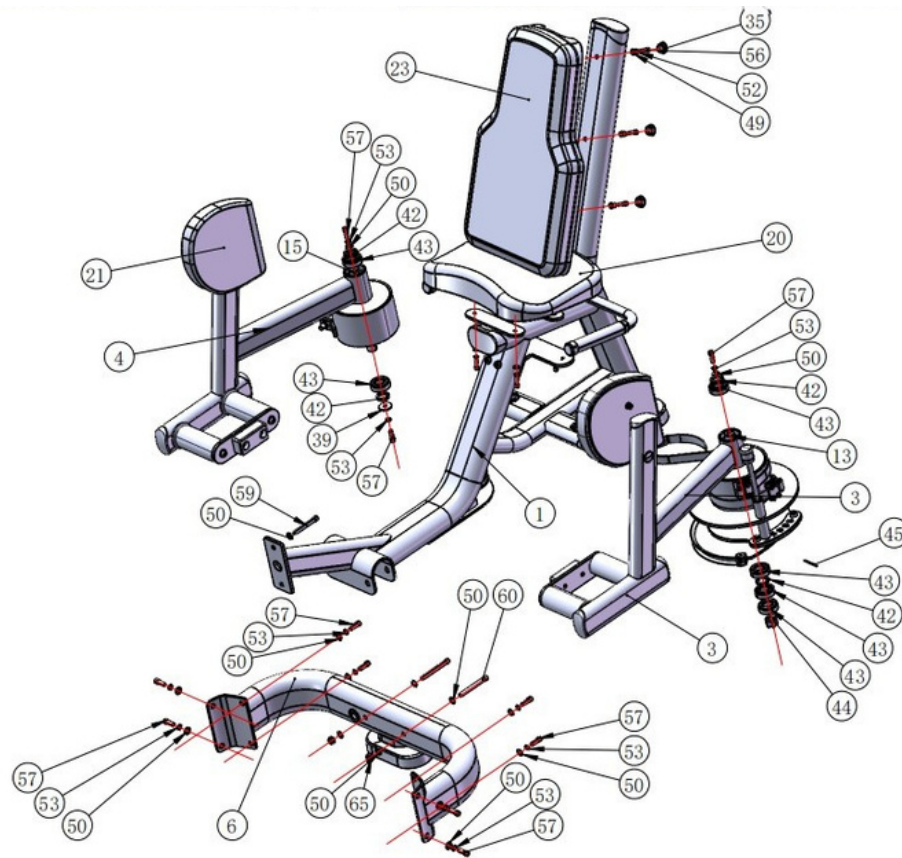
Identify your components

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

REF 42 QTY 4  Spacer	REF 43 QTY 6  Deep groove ball bearing	REF 44 QTY 4  Slotted Hex Nut
REF 45 QTY 1  Cotter pin	REF 49 QTY 11  Grommet	REF 50 QTY 35  Grommet
REF 52 QTY 11  Spring washer	REF 53 QTY 16  Spring washer	REF 56 QTY 11  Socket head cap screw
REF 57 QTY 11  Socket head cap screw	REF 59 QTY 2  Socket head cap screw	REF 65 QTY 10  Nut

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 Abduction Frame

The Stage 1 hardware list omits several sizes and uses inconsistent part descriptions. Match the illustrated parts to the supplied kit; obtain the missing hardware dimensions before fastening.

1. Position the seat frame and curved support

Stand and brace main frame 1. Fit bending support 6 at the illustrated front/lower mount and align its tower connection plate. Use screws 57 with spring washers 53 and washers 50 at the indicated plate joints. The drawing also calls out screw 60, which is absent from this list: confirm it before completing that connection.

2. Install the left arm and shaft

Support arm 4 at its illustrated pivot and fit shaft 15 with bearings 43 and spacers 42 in the shown order. Fit the indicated washers 50, spring washers 53 and screws 57 at the top, and washer 39 with the shown retainer at the bottom. Check every bearing and spacer is correctly seated.

3. Install the opposite arm and retainers

Support arm 3 and shaft 13 at the opposite pivot, preserving the cam/drive arrangement shown. Fit bearings 43 and spacers 42 in their depicted sequence. Secure the lower shaft with slotted nut 44 and cotter pin 45 as shown; confirm the specified retention adjustment before locking the nut.

4. Fit the seat, back and leg pads

Secure cushion 20, back cushion 23 and leg-pad components 21 at their illustrated mounts. Use screw 56 with spring washer 52 and washer 49 where shown. Several fasteners have no dimensions in the list; confirm the correct supplied hardware and the complete pad quantity before installing.

5. Check adjustment and linked arm movement

Check the arm-start adjustment and shaft-fixing arrangement, including plate 9 where supplied. Fit plugs 35 after fastening. Move the supported arms carefully to verify clearance and coordinated motion; preserve factory drive settings. Confirm any unshown drive attachment before connecting the cable.

Check before continuing

Both arm shafts are retained, pads and frame joints are secure, and the adjustment mechanism locks.

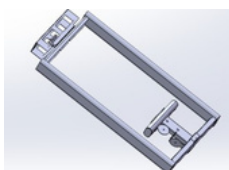
STAGE 2 / PARTS

Identify your components

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

REF 1

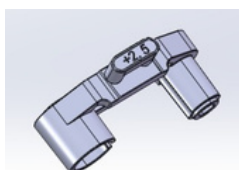
QTY 1



Small frame assembly

REF 2

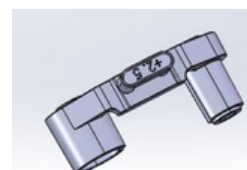
QTY 1



Secondary Reconfiguration

REF 3

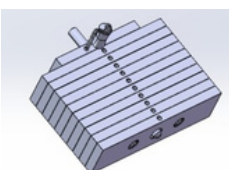
QTY 1



Secondary Reconfiguration

REF 4

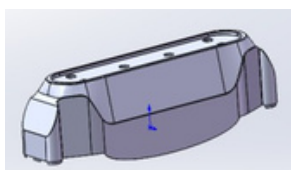
QTY 1



Weight stack assembly

REF 5

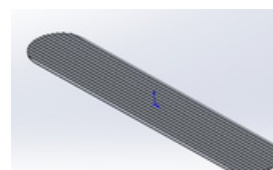
QTY 1



Big top cover

REF 9

QTY 1



Top cover

REF 10

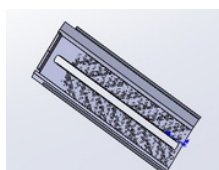
QTY 2



Weighted buffer pad

REF 11

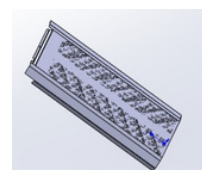
QTY 1



Front guard plate

REF 12

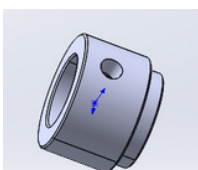
QTY 1



Rear guard

REF 13

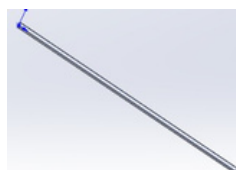
QTY 2



Guide rod fixing sleeve

REF 14

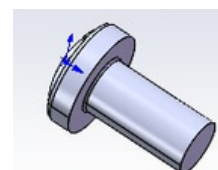
QTY 2



Weight-stack guide rod

REF 22

QTY 12



Cross groove pan head bolt

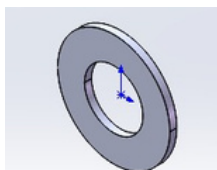
STAGE 2 / PARTS

Identify your components

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

REF 24

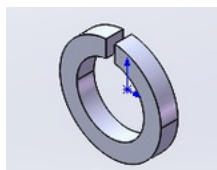
QTY 8



8 mm washer

REF 26

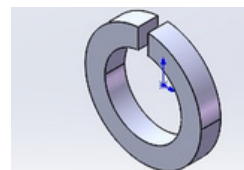
QTY 12



5 mm spring washer

REF 27

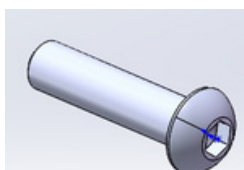
QTY 8



8 mm spring washer

REF 29

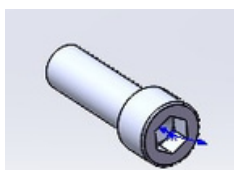
QTY 2



M6 × 25 Socket-head bolt

REF 30

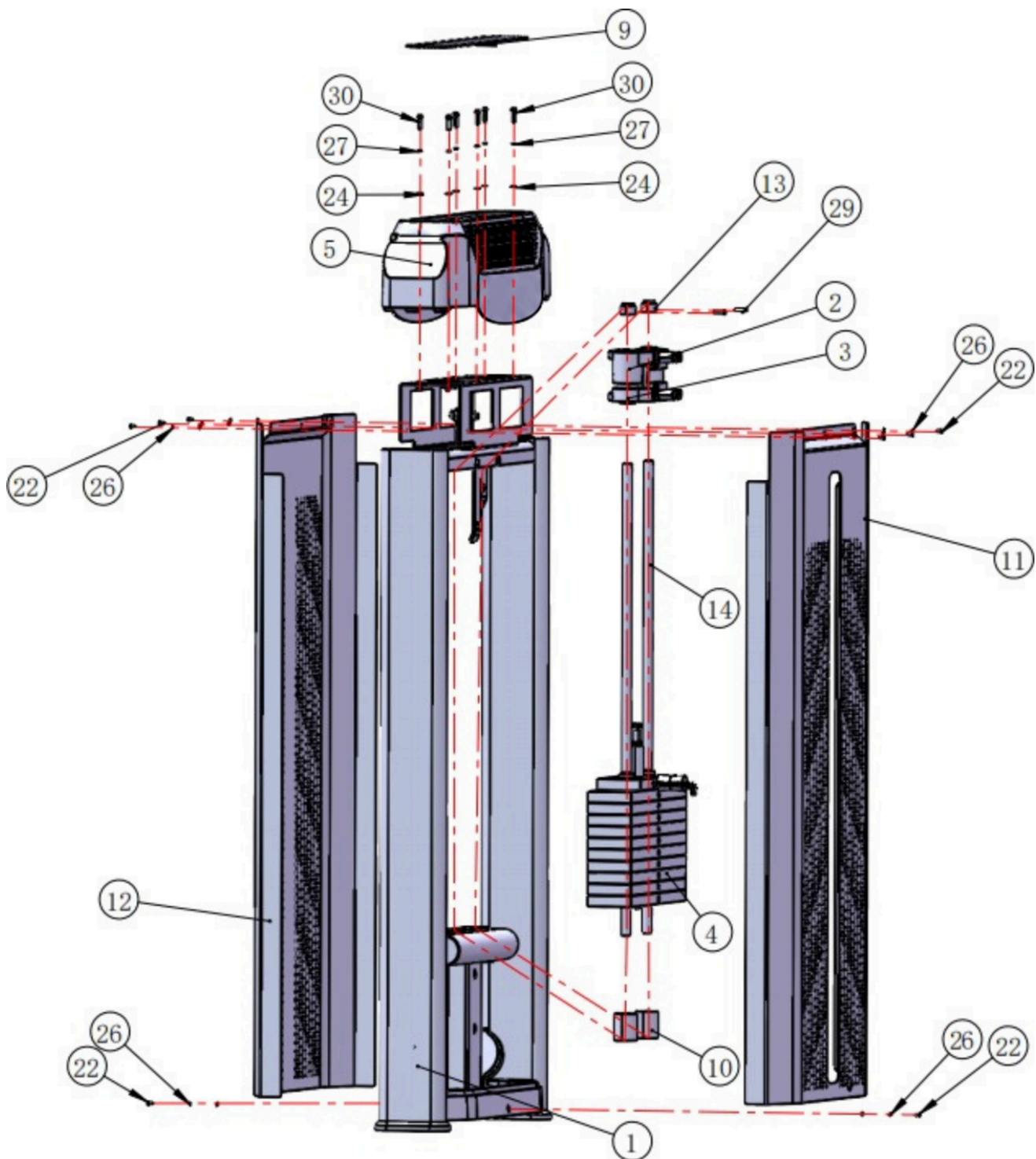
QTY 8



M8 × 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 Hip-Machine Tower

These references belong to the Stage 2 hip-machine tower list. They differ from Stage 1.

6. Connect the tower and exercise frame

Stand and brace tower frame 1 beside the exercise frame in the orientation shown. Join its mounting points to the Stage 1 frame supports using the confirmed Stage 1 hardware. Align both frames on a level floor and secure all structural joints.

7. Fit guide rods, buffers and stack

Position buffer pads 10 at the lower guide-rod mounts. Fit guide rods 14 through stack assembly 4 and seat them at the lower mounts shown. Keep the stack supported at its base, preserve plate order and face the selector toward the guard opening. Confirm the lower retention and plate-loading procedure if supplied dismantled.

8. Fit secondary weights and upper retainers

Fit secondary weights 3 and 2 above the main stack in the depicted order. Position fixing sleeves 13 at the guide ends and retain them with M6 × 25 bolts 29. Keep the rods parallel and verify that all retainers are fitted before removing temporary support.

9. Install the upper cover assembly

Secure big top cover 5 at the shown mounting points with M8 × 25 bolts 30, spring washers 27 and washers 24. Fit top cover 9. Keep front guard 11 and rear guard 12 accessible for the cable inspection in Stage 3.

Check before continuing

Tower joints and guide ends are secure, the stack rests on its buffers and all plate-selector components are 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, down through the lower redirects and across the base to the hip-arm cam. Verify the cam wrap and the connection to the linked arms. 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 attachment and its locking hardware against the supplied assembly. The source does not detail the termination: confirm it before tensioning. Check every pulley axle and retainer; the cable must remain inside each groove without crossing, twisting or rubbing the frame.

12. Fit the guards and complete fastening

After cable inspection, secure front guard 11 and rear guard 12 at the shown upper and lower points with screws 22 and 5 mm spring washers 26. Confirm the unspecified screw 22 dimensions against the kit. Check all frame, pad, pivot and guide connections, and confirm torque and floor-fixing requirements before use.

13. Test at the lowest resistance

Check the starting-position lock and both leg pads. Operate the arms slowly outward and back, confirming coordinated movement without uneven drag. 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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