

PH FITNESS

V-Frame Cable Crossover USER MANUAL & ASSEMBLY GUIDE



Your gym. Your performance. Your pace.

Model
V Frame Cable Crossover

Document
User Manual

Version
1.0 — 2026

1. Safety Instructions

Read all safety instructions before assembling or using this equipment. Keep this manual for future reference. Failure to follow these instructions may result in serious injury or death.

⚠ WARNING: Assembly requires a minimum of 2 persons. The machine is heavy and unstable until fully assembled. Never attempt solo assembly.

⚠ WARNING: Inspect all cables, pulleys and fasteners before EVERY use. Do not use the machine if any cable shows signs of fraying, kinking or wear.

General Safety

- Ensure all bolts are tightened to specification before each session.
- Keep children and pets away from the machine at all times.
- Wear appropriate athletic footwear during all exercises.
- Maintain at least 200 cm of clear space around the machine during use.
- Never train to failure without a partner present.
- Consult a physician before starting any new training programme.
- Do not use damaged, frayed or kinked cables — replace immediately.
- Do not modify any component of the machine.

Cable & Pulley Safety

- Always confirm the pulley carriage locking knob is fully engaged before loading weight.
- Inspect carabiner attachment points before each use.
- Never release a loaded cable handle without maintaining control of the cable.
- If the cable jumps off a pulley, fully unload the stack before re-routing.

Installation Requirements

- Floor must be level, structurally sound and capable of bearing the machine weight.
- Rubber gym flooring or matting is strongly recommended.
- Ensure adequate lighting in the training area.

2. Product Overview

The PH Fitness V-Frame Cable Crossover is a professional-grade cable training station built for home gyms, personal training studios and semi-commercial environments. The unique V-frame design allows corner placement, maximising floor space without compromising training versatility.

Key Features at a Glance

Frame Design	Compact V-frame — fits in a corner, minimal footprint
Weight Stacks	2 × 80 kg, fully independent — unilateral training ready
Expandable	Integrated pinload adapter for progressive overload beyond 80 kg
Pulley System	Dual adjustable cable system — full column height range
Pulley Type	180° rotating aviation-grade pulleys — smooth & silent
Exercise Count	80+ variations covering all major muscle groups
Pull-Up Bar	Integrated straight + arch pull-up bars
Frame Material	Heavy-gauge professional steel, reinforced welds
Dimensions	160 cm W × 117 cm D × 210 cm H
Warranty	2 years — Dutch-language support available

3. Technical Specifications

Frame & Structure

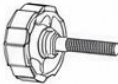
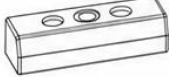
Model	P504
Type	V-Frame Cable Crossover Station
Width	160 cm
Depth	117 cm
Height	210 cm
Frame	Heavy-gauge steel
Weld Type	Reinforced industrial welds
Finish	Powder-coated matte black
Floor Anchoring	4× adjustable levelling feet

Cable & Weight System

Weight Stacks	2 × 80 kg (160 kg total)
Stack Type	Independent — each side operates separately
Expandable	Yes — integrated pinload adapter
Cable Type	High-tensile steel wire rope
Pulley System	Dual adjustable cable system
Pulley Rotation	180° rotating on carriage
Height Positions	Multiple positions — full column length
Selector	Weight selector pin (pin-load system)

4. Parts Identification

Before starting assembly, unpack all components onto a clean protected surface and verify each item against the diagrams and table below. Contact PH Fitness immediately if any part is missing or damaged.

1. 	2. 	3. 	4. 
5. 	6. 	7. 	8. 
9. 	10. 	11. 	12. 
13. 	14. 	15. 	16. 
17. 	18. 	19. 	20. 
21. 	22. 	23. 	24. 
25. 	26. 	27.  M10*45	28.  M10*70
29.  M10*110	30.  M8*35	31.  M8*20	32. 
33. 	34. 	35. 	36. 
37. 	38. 	39. 	40.  Ø10
41.  M10	42. 	43. 	

5. Assembly Instructions

⚠ WARNING: MINIMUM 2 PERSONS REQUIRED. Do not fully tighten any bolt until all parts of each step are in position. Estimated time: 60–90 minutes.

i NOTE: Tools required: 10 mm & 8 mm spanners, Allen key set (included), rubber mallet, spirit level, measuring tape.

Pre-Assembly Checklist

- Choose final location — corner placement maximises floor space.
- Lay protective gym matting in the area. Check floor is level.
- Ensure 200 cm clearance on all open sides.
- Lay all parts out and match against the parts grid.
- Sort fasteners by size into separate containers.

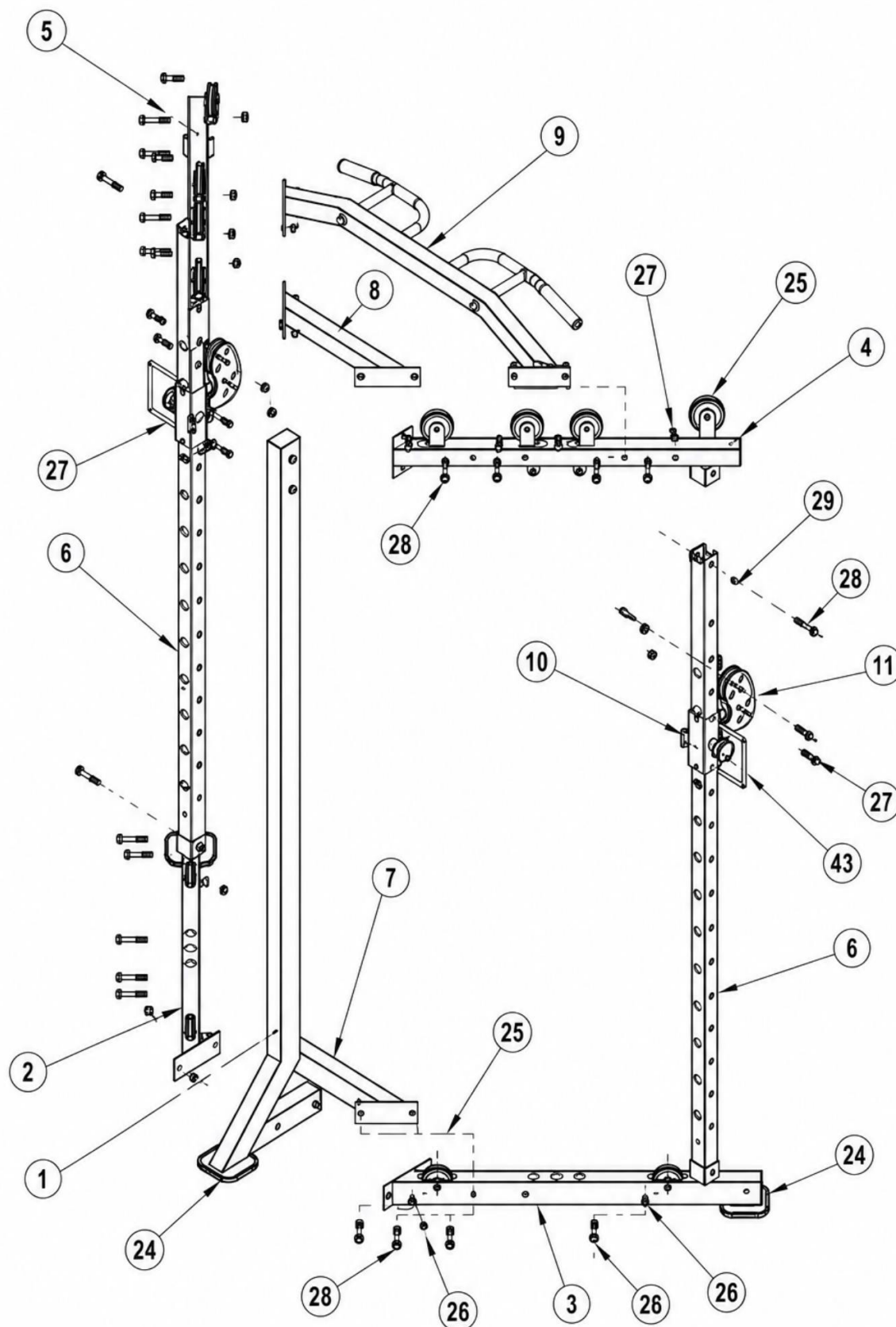
Troubleshooting

Problem	Likely Cause	Solution
Cable feels jerky / uneven	Cable off pulley groove	Unload stack, re-seat cable in all pulley grooves
Pulley carriage slips down	Locking knob not fully tightened	Turn knob clockwise with firm force until it stops
Cable grinding noise	Pulley wheel dry or debris in groove	Clean pulley, apply dry silicone lubricant
Frame wobbles / rocks	Levelling feet not adjusted	Adjust all 4 feet until all contact floor firmly
Selector pin won't insert	Weight stack not at rest position	Fully lower stack before inserting pin
Weight stack lifts unevenly	Cable routing incorrect	Check routing matches Fig. 8 on both sides
Pull-up bar creaks	Bolts have loosened with use	Re-tighten M10×45 bolts (#27) to 25 Nm
Cable too short at low position	Carriage set too low for movement	Raise carriage one position and retest
Carriage won't slide freely	Column rail dirty or dry	Wipe rail and apply dry silicone lubricant
Weight plates clatter loudly	Guide rods need lubrication	Apply light machine oil to guide rods

1

Assemble the Main Frame Structure

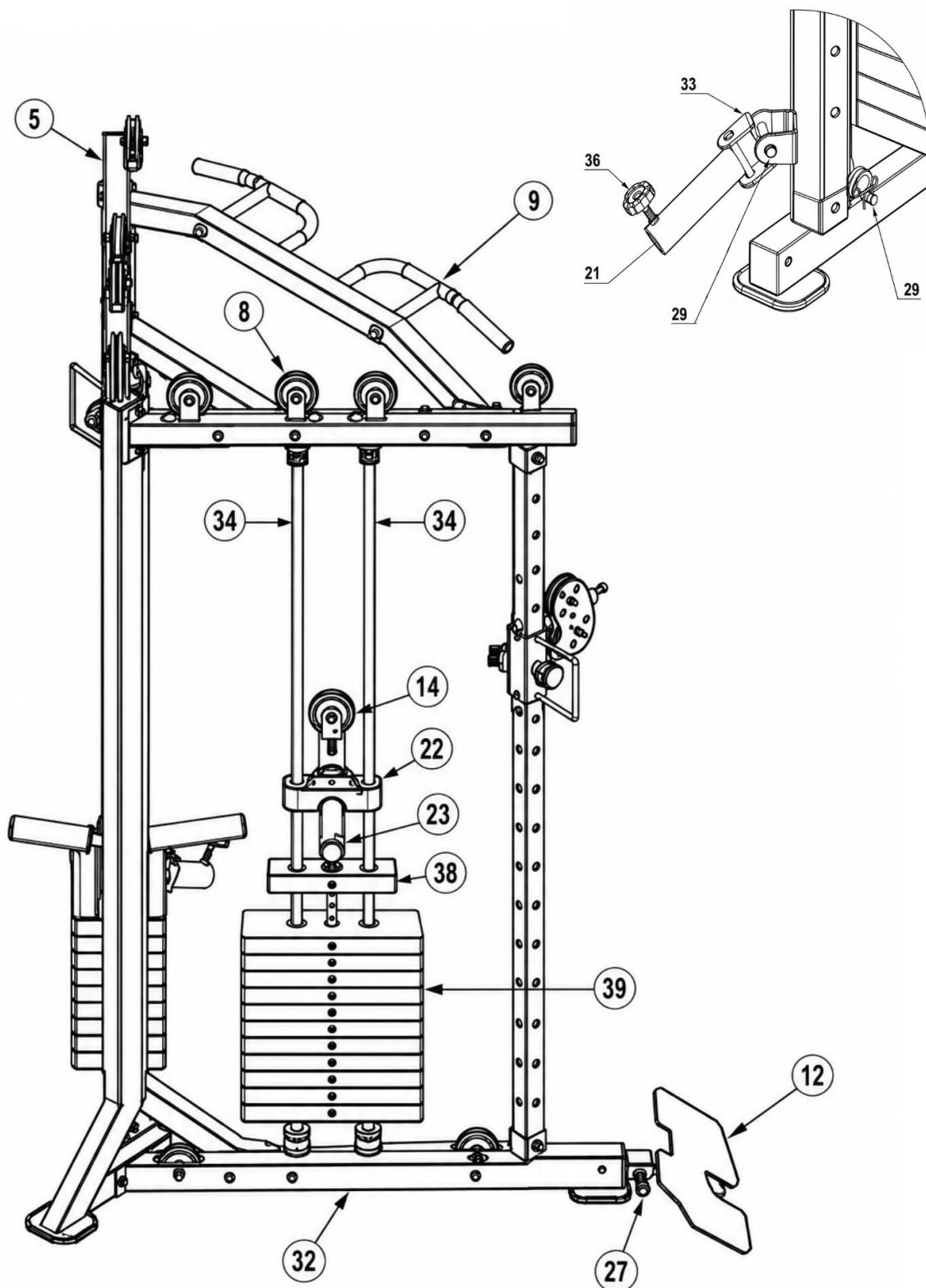
Attach the left and right upright frames to the base supports. Install the front and rear crossmembers, then secure the multi-grip pull-up frame at the top. Mount the adjustment assemblies and pulley brackets onto both uprights. Leave all hardware slightly loose until the entire frame is aligned, then fully tighten all connections..



2

Install the Weight Stack and Accessories

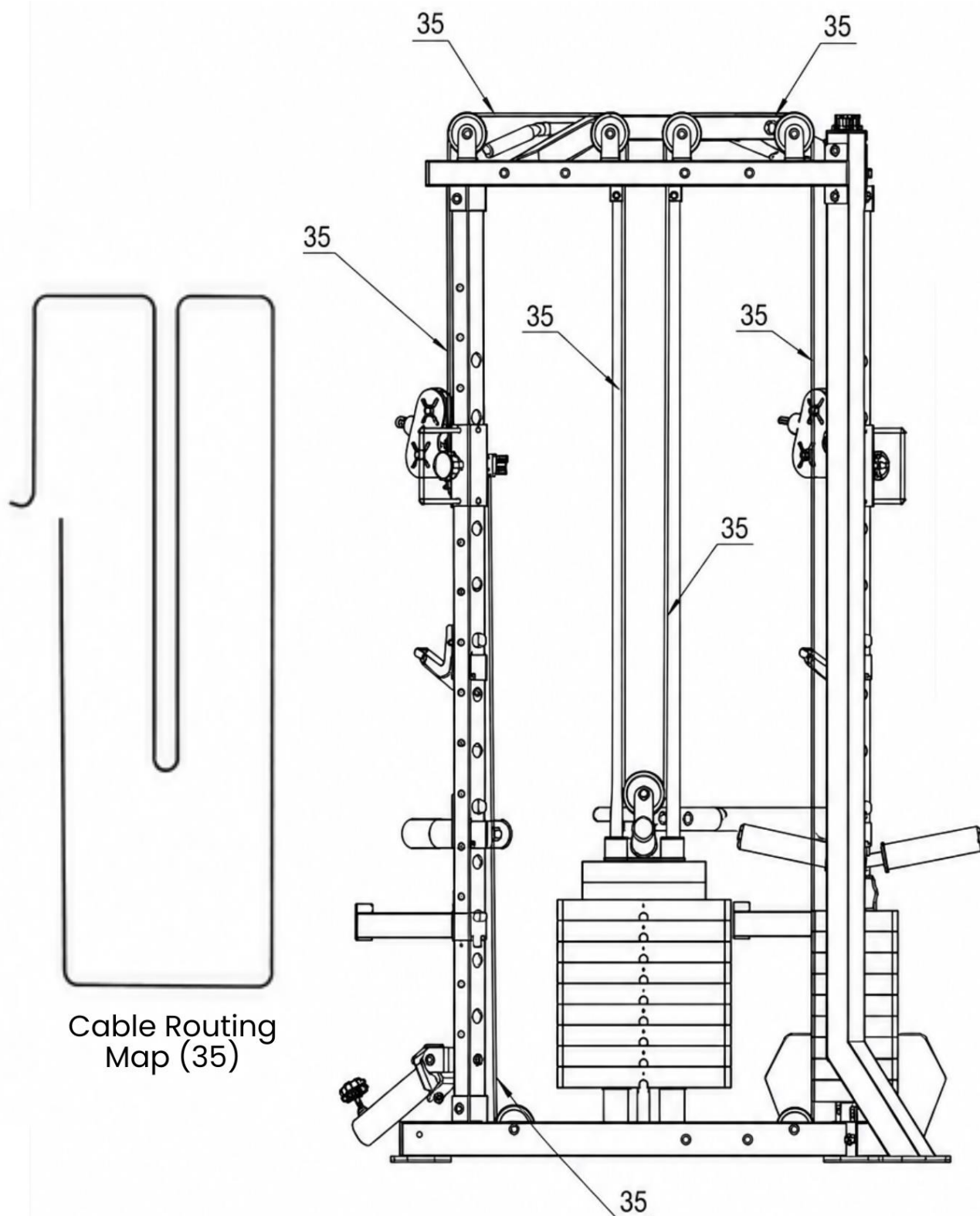
Insert the guide rods and slide the weight stack plates into position. Install the selector rod and top plate assembly, then attach the pulley carriage and adjustment components. Mount the footplate and remaining accessories as shown. Verify that the weight stack travels smoothly along the guide rods before proceeding.



3

Cable Routing

Route the cable through all upper, lower, and side pulleys following the cable path shown in the diagram. Ensure the cable sits correctly in every pulley groove and is free from twists. Secure both cable ends and check that the pulley system operates smoothly through the full range of motion before use.



6. Exercise Guide (80+ Exercises)

The V-Frame Cable Crossover supports 80+ exercise variations. Always warm up and use controlled movements throughout. Set pulley height to match the exercise angle before loading.

Chest

Exercise	Cable Setting	Primary Muscles
Cable Chest Fly	HIGH (cross-body)	Pectorals (major/minor)
Cable Chest Press	MID	Pectorals, Triceps, Anterior delt
Incline Cable Press	LOW	Upper pectorals, Triceps
Decline Cable Fly	HIGH	Lower pectorals
Single Arm Crossover	HIGH	Pectorals, Serratus anterior
Landmine Chest Press	BASE — use base anchor	Chest, Shoulders, Triceps

Back

Exercise	Cable Setting	Primary Muscles
Lat Pulldown	HIGH — lat bar	Latissimus dorsi, Biceps, Rear delt
Seated Cable Row	LOW — curl bar	Rhomboids, Trapezius, Rear delt
Face Pull	HIGH — rope	Rear delts, Rotator cuff, Traps
Straight Arm Pulldown	HIGH	Latissimus dorsi, Teres major
Single Arm Row	LOW	Latissimus dorsi, Rhomboids
Landmine Meadows Row	BASE anchor	Lats, Rhomboids, Erector spinae

Shoulders

Exercise	Cable Setting	Primary Muscles
Cable Lateral Raise	LOW	Lateral deltoids
Front Raise	LOW	Anterior deltoids
Rear Delt Fly	HIGH (cross-body)	Posterior deltoids, Rhomboids
Shoulder Press (Cable)	MID-LOW	Anterior & medial delts, Triceps
Upright Row	LOW	Medial delts, Upper trapezius
Shrugs	LOW	Upper trapezius, Levator scapulae

Biceps & Triceps

Exercise	Cable Setting	Primary Muscles
Cable Bicep Curl	LOW	Biceps brachii, Brachialis
Preacher Curl	LOW — with foot pad	Biceps brachii (short head)
Low Pulley Curl	LOW	Biceps brachii, Brachioradialis
Concentration Curl	LOW	Biceps brachii
Tricep Pushdown	HIGH	Triceps brachii (all 3 heads)
Overhead Cable Extension	HIGH (behind head)	Triceps brachii (long head)
Tricep Kickbacks	MID	Triceps brachii
Dips (bodyweight)	Pull-up bar	Triceps, Chest, Anterior delt

Core & Functional

Exercise	Cable Setting	Primary Muscles
Woodchopper (High→Low)	HIGH	Obliques, Core, Shoulders
Pallof Press	MID	Transverse abdominis, Obliques
Cable Crunch	HIGH — kneel	Rectus abdominis, Obliques
Oblique Twist	MID	External/internal obliques
Landmine Russian Twist	BASE anchor	Obliques, Rectus abdominis
Anti-Rotation Press	MID	Core stabilisers, Obliques

Legs & Glutes

Exercise	Cable Setting	Primary Muscles
Cable Squats	LOW	Quadriceps, Glutes, Hamstrings
Bulgarian Split Squat	LOW	Quadriceps, Glutes
Cable Glute Kickbacks	LOW	Gluteus maximus
Hip Abduction	LOW — ankle strap	Gluteus medius & minimus
Landmine Deadlift	BASE anchor	Hamstrings, Glutes, Erector spinae
Landmine Reverse Lunge	BASE anchor	Quadriceps, Glutes, Hamstrings

Bodyweight & Pull-Up Bar

Exercise	Cable Setting	Primary Muscles
Pull-Ups Wide Grip	Pull-up bar	Latissimus dorsi, Biceps
Chin-Ups	Pull-up bar	Biceps, Latissimus dorsi
Neutral Grip Pull-Ups	Arch pull-up bar	Lats, Brachialis, Biceps
Hanging Leg Raise	Pull-up bar	Rectus abdominis, Hip flexors
Hanging Knee Raise	Pull-up bar	Lower abdominals, Hip flexors
Suspension Rows	Pull-up bar + straps	Rhomboids, Rear delts, Biceps
Isometric Cable Holds	Any position	Full body stabilisers

7. Maintenance Schedule

i NOTE: Regular maintenance ensures safe operation and extends machine lifespan. Complete the monthly checklist and log any issues immediately.

Frequency	Component	Action	Criteria
Before use	Cables	Visual inspection for fraying, kinking or wear	Replace if ANY damage found
Before use	Selector pin	Confirm pin fully seated through plate	Must exit fully other side
Before use	Pulley carriage	Confirm locking knob firmly locked	Zero movement when tugged
Before use	Carabiners	Check gate closes and locks fully	Gate spring intact
Weekly	All bolts	Check for looseness by hand — tighten M10 to 25Nm	No movement on frame
Weekly	Pulley wheels	Spin by hand — must be smooth and silent	No grinding or sticking
Monthly	Full frame	Inspect for cracks, bends or weld separation	Take out of service if found
Monthly	Column rails	Wipe and apply dry silicone lubricant	Carriage slides freely
Monthly	Cable guide chnl	Wipe dust and debris — apply dry silicone	No catch points
Monthly	Weight stacks	Verify plates stack cleanly, no cracking	Pin free through all positions
Monthly	Levelling feet	Check all 4 feet contact floor — re-level if needed	Zero frame wobble
6-Monthly	Cable integrity	Check full cable length under good lighting	Replace at 1st sign of wear
Annually	All fasteners	Full re-torque of all M10/M8 bolts	M10: 25Nm M8: 12Nm

Cable Replacement

⚠ WARNING: Never use a cable that shows ANY sign of fraying, kinking or rust. A snapped cable under load is extremely dangerous.

- Fully unload both stacks (remove selector pins).
- Detach carabiner from pulley carriage attachment point.
- Follow cable routing diagram in reverse to remove old cable.
- Thread new cable following exactly.
- Re-attach carabiner and test with minimum weight before resuming training.
- Order replacement cables from us or any trusted seller.

8. Warranty & Contact

2-Year Warranty

The PH Fitness V Frame Cable Crossover is covered by a 2-year manufacturer warranty from the date of original purchase, covering structural frame defects, mechanical component defects, and factory assembly defects.

Warranty Exclusions

- Damage from improper assembly or use outside this manual
- Exceeding stated limits: 300 kg barbell / 80 kg per cable stack
- Normal wear items: cables, rubber feet, arm pads, seat cushion
- Cosmetic damage from misuse or environmental exposure
- Damage from unauthorised modifications

Requesting Assistance

Before contacting support, do NOT attempt any repairs. Have the following information ready:

- Your name, address, and telephone number
- Model name: V Frame Cable Crossover
- Tax receipt or purchase invoice (if under warranty)
- Clear description and photograph of the problem

Making a Warranty Claim

- Retain your original proof of purchase — required for all warranty claims.
- Photograph the defect clearly from multiple angles.
- Contact PH Fitness customer support via the website or email.
- Provide model (V Frame Cable Crossover), date of purchase, and description of defect.
- PH Fitness will advise on repair, replacement, or return procedure within 5 business days.

PH FITNESS

Website: phfitness.nl

Mail: support@phfitness.nl

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