

TILTING CLIMBING WALL

USER MANUAL

1. Introduction

This manual provides operating and safety information for the FrictionWalls Tilting Climbing Wall system. Read this manual before operating the wall.

2. Intended Use

The tilting wall is designed for indoor climbing facilities and shall only be used as intended. Any other use is considered misuse.

3. Safety Information

WARNING

- Never remain within the wall movement area while the wall is adjusting.
- Never climb on the wall while it is moving.
- Keep hands, feet and body parts away from moving components.
- Ensure the landing area is clear before adjusting the wall.
- Children must not operate the system without supervision.
- Stop operation immediately if unusual noises, vibration or unexpected movement occur.

4. System Overview

The system consists of:

- Tilting climbing wall structure
- Linear actuators
- Control cabinet
- ESP32-S3 touch display
- Emergency stop (recommended installation)

5. Pre-Use Inspection

Before each use:

- ☐ Verify that the movement area is clear.
- ☐ Check for visible damage.
- ☐ Check actuator mounting points.
- ☐ Check for unusual noises or loose components.
- ☐ Verify that the control system powers up correctly.

6. Operating Instructions

1. Ensure no climbers are on the wall.
2. Ensure the landing area is clear.
3. Select the desired angle on the display.
4. Monitor wall movement at all times.
5. Stop operation immediately if abnormal behavior is observed.

7. Setting the Wall Operating Range

The wall operating range can be configured using either the pre-programmed standard settings or manual calibration. Manual calibration is described in a separate manual.

1. On the touch display, press and hold one finger in the lower-right corner. This is a hidden button.
2. After a few moments, a service menu will open. Enter code 1234 and press OK.
3. A new menu will open. From this menu, the wall can be controlled manually or the tilt menu can be configured.
4. To configure the tilt menu, press Calibrate.
5. Press Discover so the controller can find the control box. When "1" appears, press OK.
6. Select Standard setup. For manual setup, refer to the separate manual.
7. Select the desired start angle for the wall and press OK.
8. Select the maximum tilt angle and press OK.

The wall has a tilt range from -5° slab to 70° overhang.

8. Emergency Stop

If an emergency occurs:

1. Activate the emergency stop.
2. Prevent further use of the wall.
3. Investigate the cause before returning the wall to service.

9. Daily Inspection Log

Record inspections and any observations before operating the wall.

10. Maintenance

Refer to the Maintenance Manual for lubrication, inspection intervals and service requirements.