How to Measure Escalator Handrails

How to measure the exact length you need

1. For best results, use a fine-tip marker or crayon to mark the handrail. Tape or other wide marking devices could cause your measurements to be inaccurate.

2. Place two marks on the straight section of handrail, one near the top and one near the bottom (see START and STOP points on illustration). Carefully measure and record the distance A-B between the two marks. (On an UP unit, the START mark will be at the top, and the measurements will be made down the handrail; for DOWN units, the START mark will be at the bottom and measurements will be made up the handrail.)

3. After you record the distance A-B, set the escalator in motion until mark “B” reaches the vicinity of point A. Stop the escalator. Measure from point B a distance along the handrail equal to the distance A-B; make a new mark “C” at the end of this distance. Distance B-C should be the same as distance A-B.

4. Repeat Step #2 until START mark “A” reappears. Measure the distance between your last new mark and START mark “A”; this is distance D-A in the illustration.

5. Add the value for D-A to the sum of your other measurements; the new sum represents the total measured length of the handrail.

6. To determine total operating length (length to order), subtract, as necessary, the length of handrail taken up by the take-up adjustment as your handrail stretched with age.

Suggestions:
- Keep your measurements accurate by measuring only on the straight section of handrail. Measurements around bends or curves are likely to be distorted, and your final determination will almost certainly be incorrect. Before ordering the replacement handrail, inspect the take-up mechanism to ensure that proper adjustment is available after handrail installation.
- Escalator shown is in the illustration in an UP unit; the START measure mark (A) is at the top. After measurement A-B is taken, and the escalator is set in motion, point A will disappear into the escalator balustrade and point B will move toward the top. Distance B-C is the second measurement, equal to A-B. On a DOWN unit, START mark A will be at the bottom and it will disappear when the escalator is set in motion.

Summary: Multiply initial measurement (A-B) by number of full measurement (X), then add additional partial distance (n-A). D-A in the example.

Illustration Example:
Total Handrail Length = 88’9” + take-up adjustment
[(3 x 25’) + (1 x 13’9”) + take-up adjustment]

L = (X) x (A-B) + (n-A)
L = measured length of handrail
X = number of full measurements
A-B = initial measurement
n-A = final partial measurement

IMPORTANT NOTE:
Be sure to include the take-up adjustment in your measurements to determine final ordered length.

NOTE: Adams cannot assume responsibility for errors in handrail length if your measurements were made by any method other than the one shown above. We urge all of our customers to use this method to guarantee accurate measurements, and to help us meet your requirements correctly the first time.

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