

Ergotron Neo-Flex™ HD Wall Mount

Ergotron® Product Bulletin – Supplemental Weight Capacity Information



The Neo-Flex HD Wall Mount products have been engineered to accommodate medium size VESA compliant LCD displays/TV's weighing up to 22.6 kg (50 lbs). These products have been designed to support up to 4 times (4x) their maximum published weight capacity in accordance with the UL 1678 standard for wall mounted products. This product bulletin addresses additional weight capacity load testing that was performed on these products.

Specifically, testing was performed to look at the impact of loading these products beyond our published designed weight specifications of 22.6 kg (50 lbs), as well as the impact on weight capacity when adding a second 9" extension (p/n 45-189-194) to the Swing Arm (45-194-194). While the results show that the pivot and swing arm products are capable of supporting 31.7 kg (70 lbs) with a 3x safety factor, we continue to rate the products at 22.6 kg (50 lbs) because a 4x safety factor is required to be in compliance with UL 1678. Furthermore, using two extensions, the product can support 22.2 kg (49 lbs) with a 3x safety factor, but is rated by Ergotron to 16.3 kg (36 lbs).

Test Samples & Assumptions

Testing was performed on a sample size of ten (10) production units of the Neo-Flex HD Wall Mount Swing Arm. All testing was based on a display monitor thickness of 10.2 cm (4") and an assumed center of gravity of 6.1 cm (2.4") which extends from the VESA attachment. In addition, this testing only took into account static loading conditions and not dynamic loading effects.

Weight Loading Beyond 22.6 kg (50 lbs)

The sample testing results showed that both the Pivot (45-195-194) and Swing Arm (45-194-194) products were within the design specification of 22.6 kg (50 lbs) [the maximum weight capacity we publish for these products] when loaded under 4x conditions in accordance with UL 1678.

For weight loads beyond 22.6 kg (50 lbs) however, the product will no longer comply with the 4x requirement as defined by UL 1678 (see chart below). For example, both the Swing Arm and Pivot product will support a static operational load of 31.7 kg (70 lbs), but under these conditions the safety factor drops to 3x and is no longer compliant with UL 1678.

Standard Swing Arm (45-194-194) and Pivot (45-195-195) products

Safety factor	Max Safe Load with 6.1 cm or less CG monitor
4x (per UL 1678)	22.6 kg (50 lbs) [published spec]
3.75x	25.3 kg (56 lbs)
3.5x	27.2 kg (60 lbs)
3.25x	29.4 kg (65 lbs)
3.0x	31.7 kg (70 lbs)

Again, it is important to note that the above results are based on static loading conditions only, using a particular set of sample units tested under a certain set of assumptions (i.e. monitor thickness of 10.2 cm (4") and a center of gravity of 6.1 cm (2.4"). Variations in any of these areas will likely result in changes that would differ from the above data.

Although this test data suggests that these products can support displays/TV's greater than 22.6 kg (50 lbs), it is Ergotron's position that we will continue to only publish weight capacity numbers for these products that are in compliance with the UL 1678 standard (i.e. fully capable of supporting 4x safety factor). Based on a loading condition that would compromise the 4x safety factor rating for these products (i.e. loads greater than 22.6 kg), it is up to the end user to evaluate their specific application in order to determine what is an acceptable safety factor for their application.

45-194-194 Swing Arm with additional extension

As part of this sample product testing, we also looked at the impact on weight capacity when a second extension is added the Swing Arm product (45-194-194). Again, under the same center of gravity assumptions the 45-194-194 when used with an additional extension would be able to support a maximum display/TV weight of 16.3 kg (36 lbs) while still complying with the UL 1678 standard (see chart below).

Swing Arm (45-194-194) with additional extension (45-189-194)

Safety factor	Max Safe Load with 6.1 cm or less CG monitor
4x (per UL 1678)	16.3 kg (36 lbs)
3.75x	17.7 kg (39 lbs)
3.5x	19 kg (42 lbs)
3.25x	20.4 kg (45 lbs)
3.0x	22.2 kg (49 lbs)

As in the previous section, the above results are based on static loading conditions only, using a particular set of sample units tested under a certain set of assumptions (i.e. monitor thickness of 10.2 cm and a center of gravity of 6.1 cm). Variations in any of these areas would likely result in changes that would differ from the above data.

To be in compliance with UL 1678, based on the above results Ergotron's position is that if using an additional extension with the Swing Arm the maximum display/TV weight should not exceed 16.3 kg (36 lbs). Based on a loading condition that would compromise the 4x safety factor rating for these products (i.e. loads greater than 16.3 kg), it is up to the end user to evaluate their specific application in order to determine what is an acceptable safety factor for their application.

For questions related to this bulletin or the Neo-Flex HD Wall Mount products please contact the undersigned directly.

Regards,

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