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A field-intervention study was carried out in 106 households in Sweden. Without informing the householders, a retrofitted heat pump controller was twice disabled for 1 week at a time over a 4-week period during the heating season, using a single-blind cross-over design with two pseudorandomly selected groups of householders, each experiencing different conditions at any given time. Thermal comfort was assessed by observing the total number of times that householders made adjustments to their set point temperature under each condition. A within-household, repeated-measures analysis was performed to determine whether this indicator was positively or negatively affected when the secondary controller was disabled so the heat pump system operated as designed. While over 80% of households showed no effect, among those that did respond to the imposed changes, a Wilcoxon matched-pairs signed-ranks test indicates that disabling the retrofitted controller had a negative effect on thermal comfort (P