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BRITON DOOR CLOSERS - IMPORTANT NOTES ON ADJUSTMENT – GENERAL & SPECIFIC

Summary –

Most Briton door closers have at least three regulating (hydraulic) valves; some feature a separate spring power adjustment, allowing the closer to be set to a specific power level. Certain cam action closer mechanisms are equipped with a 'delay action' feature and include an additional 4th valve.

It is generally essential to understand that having the correct spring power setting or template position enables the door to close properly within the frame. If fitted, you can adjust the spring power with an Allen key. When on-board spring power adjustment is not available, you must ensure that the template position of the closer mechanism and arm is correct. The next step is to fine-tune the hydraulic settings, which control the speeds during opening (back-check setting) and closing (main speed and latch action). Increasing the closing speed (while ignoring power adjustment) will not resolve potential issues related to closing.

Final adjustment (upon installation) takes time to complete, but with a little patience, it will produce a solution that closes the door correctly and quietly every time. You will never need to return to the door closer.

The recommended closing time given by a properly adjusted door closer is between

5 to 7 seconds from 90° open to fully closed.

Detailed Adjustment Routine (Using the Briton 2130B as an example) -

Install the closer following the template, ensuring the closer arm has the correct pre-load (see the installation instructions). Make adjustments below (in this order) as necessary:

Spring Power Adjustment: Located at the end of the spring tube and accessible with a 5/32 Allen key, this adjustment controls the spring's force, which is needed to close the door. Turning clockwise increases the closing force, making the door harder to open; turning anticlockwise reduces the force, making the door easier to open.

Closers are intended to control doors in calm conditions. In situations where air pressure differences exist (such as at stairwells and hospital theatre doors) and where doors open into relatively small spaces, you should consider combining several options. These include increasing spring power, installing closers at the minimum angle template setting, and adding ventilation either on or immediately adjacent to doors.



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Note 1 - Parallel arm applications should be avoided when maximum power and control are needed.

Note 2 - No amount of adjustment or repositioning of closers will generate the necessary power to counteract strong winds at perimeter doors. You must wait for the winds to subside before expecting a mechanical overhead closer to operate correctly. Similarly, opening windows and doors in connected areas throughout a building will influence a closer's performance. This is unavoidable.

For outward-opening perimeter doors in exposed conditions, always install a door closer with a Cush-N-Stop arm and set the back check valve (see below) to protect doors and frames. Here is a link to our sister website [Relcross Door Controls](#).

The **Back Check Valve** (valve #1 - see the instructions) controls the back check force with a 3/32 Allen key. Use the back-check feature to protect the door, frame, and closing mechanism. The back check slows the door during opening; it prevents the door from swinging open too forcefully or being blown open by the wind. To make the back check more responsive, turn the valve clockwise to increase the force. Turning it anti-clockwise reduces it. Remember, the back check is not intended to fully stop the door. Always use a wall-mounted or floor-mounted stop.

The **Main Speed Valve** (valve #2 – see the instructions) controls the initial closing speed of the door using a 3/32 Allen key. This measurement extends from the door's fully open position to 15° from fully closed, at which point the latch action (see below) engages. Turning the valve clockwise will slow the door's closing, while turning it anti-clockwise will speed it up.

The **Latch Speed Valve** (valve #3 – see the instructions) controls the latching action of the door (using a 3/32 Allen key) during the last 15° of closing. Turning the valve clockwise will slow the door's closing speed, allowing it to close quietly into the frame without slamming. Turning the valve anti-clockwise will speed up the door, providing extra momentum when needed – such as to overcome a stubborn latch or a tightly fitting seal.

The **Delay Action Valve** (valve #4 – 2700 series cam action closers only) controls the delay time. A properly adjusted delay-action closer will significantly slow the door's closing. Turning the delay action valve clockwise will extend the closing time to a maximum of approximately 50 seconds. Turning the valve anti-clockwise will reduce this delay. There will be no noticeable delay if the valve is fully open. Please note, the delay position is determined by the installation configuration.



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Important –

Correctly specified Briton door closers—i.e., those installed on doors (in calm conditions) where size and weight parameters do not exceed recommended maximums—will be capable of closing doors safely and in a controlled manner if adjusted properly. If the closer's spring is not strong enough to close the door, do not attempt to 'over adjust' the speed control valves (valves #2 & #3 above) to fix the issue. Valves that are backed out to the end of their thread can be dangerously near 'popping' their seal during an opening or closing movement. Hydraulic fluid may gush from the mechanism, and the closer could become a write-off. Warranty does not cover door closers that are incorrectly specified or adjusted.

Where there remains any doubt over suitability and/or correct adjustment methods, please contact Door Hardware Online. We will be pleased to assist wherever possible.