

EFI Hardware - Joiner Balancer with Lever arm Part # 811-082 Technical Diagram - Page 1 of 1 Drawing Revision 2 - 16/6/2014



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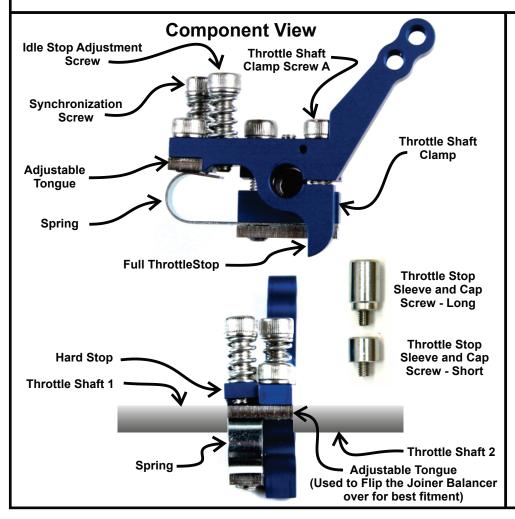


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FEATURES / BENEFITS: This Joiner Balancer allows you to precisely set and synchronize throttle shafts using a single adjustment screw to ensure even airflow at idle and during partial and full throttle conditions. The Joiner Balancer changes the synchronization relationship between 2 adjacent throttle shafts and allows you to set the base idle speed of the engine. An added benefit, is that you can flip over the Adjustable Tongue if you wish to have the Synchronisation Screw on the other Throttle Shaft. This part is an upgrade for our original Joiner Balancers (811-080 and 811-081).



Fitting Instructions

NOTE: The Joiner Balancer must be fitted to a round 8mm or 5/16" throttle shaft.

Do not mount the Joiner Balancer to a "D" sectioned shaft, as the Joiner Balancer will come loose and move on the shaft.

There must be a 1 - 1.5mm gap between the 2 throttle shafts you are about to join using the Joiner Balancer

<u>Before</u> you begin fitting up the Joiner Balancer, determine that the current position of the Adjustable Tongue is the best position, or if flipping it over would afford you better access and linkage geometry, and set it up appropriately.

- Mount one side of the Joiner Balancer on the left throttle shaft, and the other half of the Joiner Balancer on the other throttle shaft while fitting the "tongue" from one side of the Joiner Balancer between the "hard stop" and "spring" on the other side of the Joiner Balancer. During this step, leave the Throttle Shaft Clamping Screws loose enough that the shafts can rotate freely within the throttle shaft clamps during the following steps.

NOTE: Make sure that you fit the side with the balance screw so that the balance screw is accessible once the throttles and Joiner Balancer are mounted on the engine.

- Set both throttle shafts so that the butterflies are at full throttle.
- Rotate the Joiner Balancer so that the Full Throttle Stop is against the Throttle Stop Sleeve.
- Tighten the Throttle Shaft Clamp Screw A so the Joiner Balancer is locked to the shaft.
- Back off the synchronization screw until it is flush with the "hard stop".
- Now, turn the synchronization screw 3 full turns clockwise to a base setting so that you
 can adust the synchronization screw both clockwise and counter-clockwise when you
 are synchronizing your throttles.
- Tighten both sets of clamping screws to secure the Joiner Balancer to both throttle shafts.
- Turn the Idle Stop Adjustment Screw 2 turns so that the butterfly plates are off the bores. Use the Idle Stop Adjustment Screw to set the base airflow for this pair of throttles.
- Once you have the engine running, use a Synchrometer to change the balance between the 2 throttles on either side of the Joiner Balancer.



Checkout This Instructional Video

www.efihardware.com/efi_videos_technical.php#ThrottleStop

