"AB" & "ABRL" Series Balancer

SERVICE MANUAL

AERO-MOTIVE™

IMPORTANT SAFETY INFORMATION

Please read this manual carefully and follow its instructions. Improper use or failure to follow these instructions could result in serious injury, death or property damage. Operators should be instructed in the safe and proper use and maintenance of this product. Keep this manual for future reference.

The following safety precautions call attention to potentially dangerous conditions.

A	DANGER:	Immediate hazards which WILL result in severe personal injury or death.
A	WARNING:	Hazards or unsafe practices which COULD result in severe personal injury or death.

A CAUTION: Hazards or unsafe practices which COULD result in *minor* personal injury or product or property damage.

INSTALLATION

WARNING: Main support device must have break strength exceeding 6 times weight of load. Hazards or unsafe practices COULD result in severe personal injury or death.

CAUTION: Hazards or unsafe practices COULD result in *minor* personal injury or product or property damage.

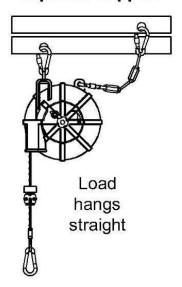
MAIN SUPPORT

Install the main support device directly over work area. (See illustration). If balancer needs to be pulled from side to side a swinging jib and/or moving trolley may be required. Attach balancer to main support with tool clip.

NOTE: Mounting balancer incorrectly, with cable pulling against guide, can cause premature cable wear and cable to jam inside balancer.

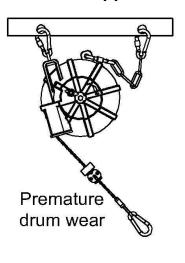
CORRECT

Balancer directly over work area Secondary support attached to separate support



WRONG

Balancer not directly over work area Secondary support attached to same support



SECONDARY SUPPORT CHAIN

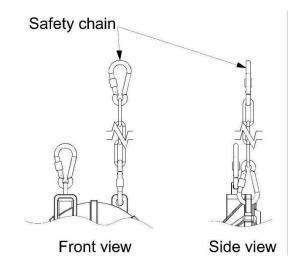


DANGER:

A secondary safety chain is to be attached to all balancers mounted overhead to prevent balancer from falling. Immediate hazards WILL result in severe personal injury or death.

A Safety Chain is provided with the balancer. All balancers mounted over head must have a secondary support chain to protect personnel in case of structure or mounting component failure.

Attach the single end of support chain to the secondary support point. Chain should be as short as possible allowing balancer to drop no more than 6 to 12 inches if primary connection is released. (See Illustration)



ADJUSTMENT



CAUTION:

Do not pull cable down to tool clip. Raise tool to clip. Hazards or unsafe practices COULD result in *minor* personal injury or product or property damage.

ATTACHING OR REPLACING TOOL

Ensure that the entire cable is within, retracted, in the balancer housing before adding, removing or changing tools. Not doing so, can result in serious injury.

TOOL ATTACHMENT

Lift complete tool (including any hose, cable, fittings and attachments) up to clip. After tool is attached, make sure the retaining latch on the clip is back to the closed position and engage the thread coupling over the retaining latch.



Threaded clip open



Threaded clip closed

SPRING TENSION ADJUSTMENT

A

CAUTION:

Do NOT over-tension balancer main spring. This will reduce cable travel and spring life. Hazards or unsafe practices COULD result in *minor* personal injury or product or property damage.

NOTE: Cable may also not pull out due to side pulling as shown in Main Support section.

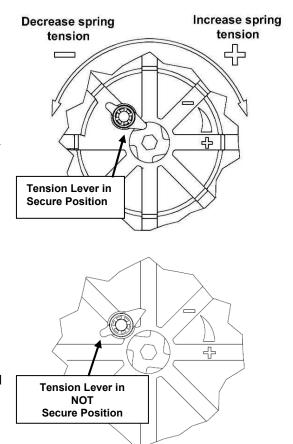
Observe following before making spring tension adjustments:

- Tool and all accessories are attached to clip.
- All balancers come from factory pre-set at **lowest** tension.
- Tool will lower if its weight exceeds the tension adjustment of balancer mainspring.

To increase spring tension, use 8mm Allen T Handle onto center shaft and turn clockwise in "+" direction as shown on the case while holding the tension lever up away from the center shaft. Place tension lever back into slot on center shaft in order to secure the tension. Not doing so, can result in serious injury. Once the Tension Lever is secured, release the tension on the Allen T Handle. Repeat process until desired tension is achieved. Failure to follow this step correctly can result in serious injury from the tool falling.

To decrease spring tension, use 8mm Allan T Handle onto center shaft and turn shaft slightly towards the clockwise direction "+ " in order to move the Tension Lever up and away from center shaft. Turn center shaft in counter-clockwise direction "- " as shown on the case while holding the tension lever up away from the shaft. Place tension lever back into slot on center shaft in order to secure the tension. Not doing so, can result in serious injury. Once the Tension Lever is secured, release the tension on the Allen T Handle. Repeat process until desired tension is achieved.

Once you have completed an adjustment, move the load to maximum travel distance, top to bottom, in order for the spring to adjust and provide optimal balancing performance.





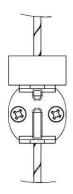
CAUTION: Reducing cable tension below balancer minimum rating or releasing cable with no load attached may cause cable to jam inside unit.



CAUTION: Releasing the Allan Hex tool at any time, without securing the Tension Lever, may cause serious injuries.

CABLE STOP ADJUSTMENT

Adjusting cable stop is not recommended due to reduction in active travel distance, and difficulty. If additional cable extension is required, extension cable assemblies are offered as an accessory item. Special cables can be offered with specific overhang or unique adjustments. Contact factory.

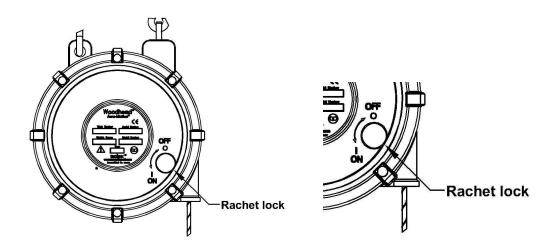


RATCHET LOCK (not automatic safety lock)

ABXRL models come with an "ON/OFF" Ratchet Lock feature.

To engage the Ratchet Lock feature, turn the knob counter-clockwise to the "ON" position as indicated on the case. The ratchet lock can engage in increments travel distance. To engage, pull cable down to desired height, and slowly allow it to retract. If it doesn't catch, repeat this step until the ratchet engages. The clicking noise is an indication that the ratchet is likely to engage. To disengage, pull cable down a couple of inches and lock will release.

To disable the Ratchet Lock feature, turn the knob clockwise to the "OFF" position as indicated on the case. Pull the cable outward in order to ensure that the Ratchet Lock feature has been disabled.



SERVICE



CAUTION:

Do not disassemble balancer. Do not adjust mainspring tension until tool and attachments are suspended from balancer. Hazards or unsafe practices COULD result in *minor* personal injury or product or property damage.

TOOL REPLACEMENT

When replacing tool and attachments, make sure cable is fully retracted.

MAINTENANCE INSPECTION

The balancer is designed to be maintenance free. Periodically check cable, tool clip, swivel, and hanger for wear. Replace balancer once you see any worn parts immediately. The balancer is lifetime lubricated at the factory. No additional lubrication is required. The balancer is not serviceable.