Miller-Exclusive Technology

Dynamic Dig™ on Trailblazer® Welder/Generators

Trailblazer engine driven welder/generators are now equipped with Dynamic Dig Arc Control. This feature can be found on all Trailblazer models (Gas, Diesel, and LP) which are outfitted with the new controller interface (i.e. any model with a USB port).

What it is

Dynamic Dig for Trailblazers is a method of controlling how fast the arc responds to short-circuits. This can be tailored to different applications, positions, and rods – allowing more flexibility to customize how crisp or soft the arc is based on the welder's needs.

How it works

Operators can change the effects that Dynamic Dig has on the arc by simply changing the Dig setting with the Arc Control knob on the front panel. If the operator does not want to use the Dynamic Dig feature, they should leave the setting as programmed from the factory as these work great for most applications.

When adjusted, the end user should begin to see changes in the performance of the arc depending the Dig setting.

Dig Adjustment

[Left: Soft 1-25 **Center:** ★ **Right:** Stiff 1-25]

Soft 1-25 Settings:

In this range, the current ramp rate will decrease as the setting is moved from 0 to soft 25. The slower the response (ramp rate), the softer the arc will feel, reducing the chances of spatter and causing the overall weld to appear flatter. These settings are generally applicable in cases where the end user is welding in the flat position, does not need a lot of arc force, and wants to let the bead flow outward. When root pass welding with an open or wide gap, soft settings can be beneficial.

Stiff 1-25 Settings:

In this range, the current ramp rate will increase as the setting is moved from 0 to stiff 25. As the arc response (ramp rate) is increased, the arc pressure will increase resulting in more drive and a faster freezing puddle. Applications for this type of welding would typically be out-of-position welding and situations where the end user wants to carry a larger puddle. When root pass welding with a narrow or closed gap, stiff settings can be beneficial.