

Jattus TIG Perfect 2.0

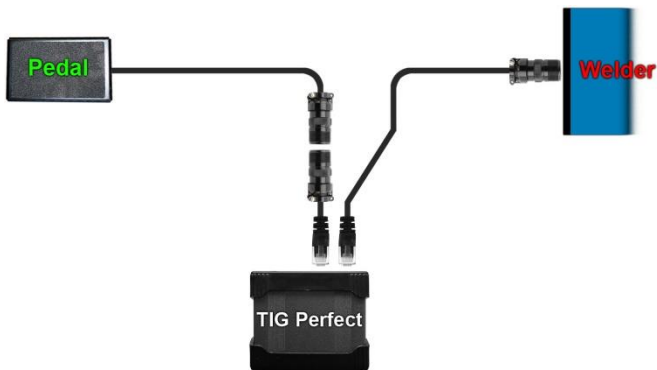
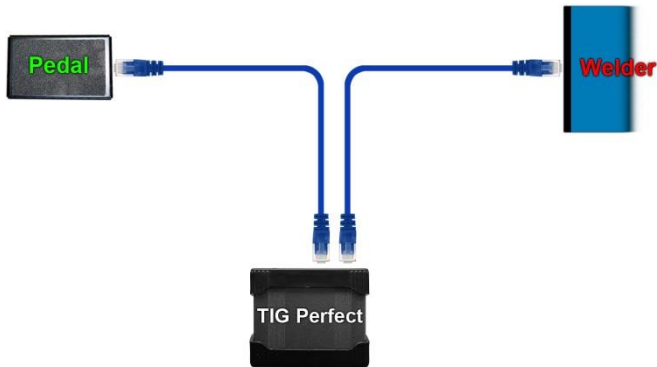
Quick Start Guide

Contents:

- Jattus TIG Perfect 2.0
- 15V Power Adapter
- Quick Start Guide
- Cable Set (single RJ45 or adapter set)
- (optional) Mounting Brackets/Flanges

Setup:

1. Plug your TIG welder pedal into the port labeled 'Pedal' in the back of TIG Perfect. Depending on your welder, you will use one of the plug & play adapter cables here.
2. Plug supplied RJ45 cable into 'Welder' port in the back of the unit and plug other end of cable into the pedal port of your TIG welder. Also depending on your welder, you will use one of the supplied plug & play adapter cables here instead



Function:

- Power on TIG Perfect by flipping the power button on the back of the device. If TIG Perfect is powered off, your welder will operate as if TIG Perfect is not connected.
- Details of each setting:
 1. **Wave Type:** Square, Triangle, Sawtooth, and Sine. The selection knob can point to anywhere within the bounds of the setting to select that wave type.
 2. **Frequency:** The speed of the pulsed waveform. This is represented in the number of pulses per second. E.g. '2' Hz is 2 pulses per second (with each pulse being 0.5 seconds in duration in this example). The range is from 0.5 Hz to 40.0 Hz.
 3. **Duty Cycle %:** This is the duty cycle for the high peak of the amp wave. In other words, the amount the waveform is high versus low. E.g. 30= 30% full amps, 70% background amps (defined by the "Amp %" value) repeated by the selected "Frequency" value. The range of values is from 5% to 100%. NOTE: Triangle, Sawtooth, and Sine inherently start off at a max of 50% duty cycle. You can set the Duty Cycle higher, but it will be capped at 50.
 4. **Amp Drop %:** This is the background amperage, which is a percentage of the amps indicated on the welder (based off the pedal input). E.g. welder is set to 150 amps; amp percent setting of 50% equals 75 amps (with pedal fully pressed down). If the pedal is pressed down half-way, the amperage would be half of that, or 37.5 amps. The range of values is from 5% to 100%. NOTE: Setting the amp drop to 100% will cause no amperage drop so the waveform will be high 100% of the time, basically causing no pulse. This will allow you to use "Crater" and "Post Flow" without having to pulse if you don't want to.
 5. **Crater:** This slowly ramps down the amperage which can help prevent craters from forming when you end a weld. The range is between 0 and 20 seconds. Setting it to 20 seconds will slowly ramp the amperage down over a 20 second time period. If you want to use the crater setting without pulse, just set "Amp Drop %" to 100 to disable pulse.
 6. **Post Flow:** Keeps the shielding gas running for additional time after a weld is complete. The range is 0 to 20 seconds, and this time is in addition to what your welder is currently doing for post flow time. It's common for welder operators to tap their foot on the pedal momentarily to extend the time the welder keeps the gas flowing after a weld is complete. The TIG Perfect will automatically do this for you, and will allow for a precise post flow time, as well as added consistency. If you want to use this post flow setting without pulse, just set "Amp Drop %" to 100 to disable pulse.
- There are 2 flashing LEDs on the front of the device labeled "H" for "High" and "L" for "Low" (indicating the high part of the waveform, and the low part of the waveform). The reason behind two LED's instead of just one; small waveform changes are hard to see with the naked eye. Having the 2nd blue LED gives you a better idea of how the pulsed waveform is going to perform based off the selected settings. In general, the more red you see the hotter the weld will be, and the more blue you see the cooler the weld will be.

Tips:

- General settings to get you started: square wave, 1.3 Hz, 30% duty cycle, 30% amp drop.
- Triangle and sawtooth waveforms work well when welding aluminum sheet metal.
- Setting “Amp Drop” to 100 will disable any pulsing. This is useful if you want to use the “Crater” or “Post Flow” settings without using pulse.
- You can use pulse when welding with both DC and AC.
- The mounting brackets are configurable by removing one of the protective rubber boots – this allows you to slide out the brackets, either leaving them out completely, or re-installing them upside down for an under mount setup.

Pulse Benefits:

- The same weld penetration can be obtained with less power and less heat. The more heat used, the more your material will warp from the welding process. This is especially important for welding sheet metal.
- Welders have a working duty cycle rating based on the relationship between amperage used versus time needed to wait for welder to be usable again. The less power you use, the less time the machine needs to cool down, and the more productive a user can be.
- Pulse features allow the user to more easily create a uniform and reliable weld.
- A pulsed weld is visually appealing, and gives the appearance of a perfect weld that was created by a machine.
- The user can go back over ugly welds that were previously made to make them look nicer.

For more detailed information on pulsed welding, settings, and how to use them:

- Visit **Jattus.com**
- Click on the “**Resources**” tab
- Click on “**What Is Pulse Welding? And What Do You Use It For?**”

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