

# Orion Welders – mPulse Getting Started



Follow these steps before welding. These are also great troubleshooting steps to follow if you feel like your welds are not consistent or not looking the way you think they should.

## STEP 1: Check the Gas Pressure

- Gas is at 8 – 12 psi



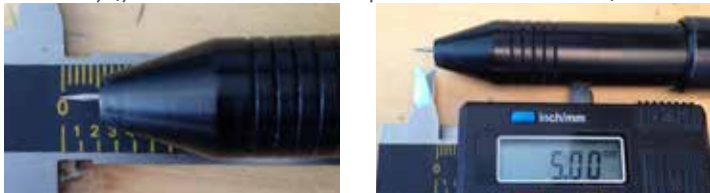
## STEP 2: Shape the Electrode

- Hold the dremel in one hand (close to the body for support) and the electrode in the other hand.
- Place the electrode on the diamond disk at a 45 degree angle and spin it to sharpen.
- Make sure the striations in the electrode are horizontal.



## STEP 3: Verify Electrode Length

- The electrode should stick out of the Stylus Cone 4 – 6 mm (1/8 – 1/4"). Make sure the Stylus Cone is pushed in all the way (you will feel it click into place and bottom-out).



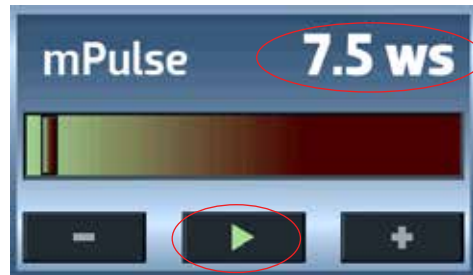
## STEP 4: Verify the Darkening Lens Setup

- Darkening Lens cable is securely connected to the welder.
- Electrode is centered in your field of view and in focus.
- Electrode is at a height where you can rest your hands on the baseplate and lift your work piece up with your fingers.



## STEP 5: Welder Settings and when to use the Reset Button

- Before beginning any weld, double check the energy level.
- Verify Energy and that the play button is showing before beginning a weld. \*Settings on p.2



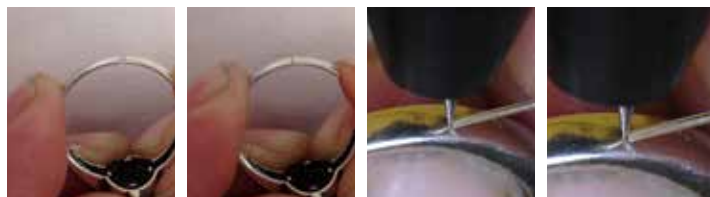
## STEP 6: How to Touch the Electrode to the Work piece

- Clip the alligator clip to the workpiece.
- Rest your hands on the table under the darkening lens.
- Position the work piece so that it is right under the electrode then look through the lens.
- Lightly lift your fingers up and touch the work piece to the electrode (the electrode will retract after it is touched).
- Hold the work piece steady after touching the electrode – if you pull the work piece away after touching the electrode, it will not weld. If you follow the electrode with the work piece while it is retracting, the electrode will stick to the work piece.



## STEP 7: How to Set up the Work pieces for Welding.


- When closing a jump ring, or welding two pieces together; make sure the two sides are pushed together and flush before welding.
- When adding material, touch the wire to the work piece at a 45-degree angle then enter the electrode in at a 90-degree angle. Touch the electrode between the work piece and the wire.





### Remember:


1. When in doubt, start with your energy lower then work your way up.
2. The image to the right is an example of what a blunt electrode should look like:





General Settings – 26 AWG wire/chain/jump ring			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	10 ws	Butt weld with 90 degree electrode angle 
24k Gold	Sharp	7.5 ws	
Silver	Sharp	10 ws	
Platinum	Sharp	10 ws	
Stainless Steel	Sharp	7.5 ws	
Palladium	Sharp	7.5 ws	
Titanium	Sharp	10 ws	
Brass	Sharp	10 ws	


General Settings – Earring Post			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	10 ws	T joint with 45 degree electrode angle 
24k Gold	Sharp	10 ws	
Silver	Sharp	12.5 ws	
Platinum	Sharp	12.5 ws	
Stainless Steel	Sharp	7.5 ws	
Palladium	Sharp	7.5 ws	
Titanium	Sharp	12.5 ws	
Brass	Sharp	10 ws	


General Settings – 0.5mm thick Ring			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	12.5 ws	Butt weld with 90 degree electrode angle 
24k Gold	Sharp	10 ws	
Silver	Sharp	17.5 ws	
Platinum	Sharp	15 ws	
Stainless Steel	Sharp	15 ws	
Palladium	Sharp	15 ws	
Titanium	Sharp	15 ws	
Brass	Sharp	15 ws	

General Settings – 1mm thick Ring			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	22.5 ws	Butt weld with 90 degree electrode angle 
24k Gold	Sharp	20 ws	
Silver	Semi Blunt	30 ws	
Platinum	Sharp	25 ws	
Stainless Steel	Sharp	22.5 ws	
Palladium	Sharp	20 ws	
Titanium	Sharp	25 ws	
Brass	Sharp	25 ws	

General Settings – 2mm thick Ring			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	30 ws	Butt weld with 90 degree electrode angle 
24k Gold	Sharp	30 ws	
Silver	Blunt	30 ws	
Platinum	Sharp	30 ws	
Stainless Steel	Sharp	30 ws	
Palladium	Sharp	30 ws	
Titanium	Sharp	30 ws	
Brass	Sharp	30 ws	

General Settings – Add Material (30 AWG laser wire)			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	12.5 ws	Wire at 45 degree angle. Electrode touching work piece next to wire. 
24k Gold	Sharp	12.5 ws	
Silver	Sharp	15 ws	
Platinum	Sharp	15 ws	
Stainless Steel	Sharp	10 ws	
Palladium	Sharp	10 ws	
Titanium	Sharp	15 ws	
Brass	Sharp	12.5 ws	

General Settings – Add Material (24 AWG wire)			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	17.5 ws	Wire at 45 degree angle. Electrode touching work piece next to wire. 
24k Gold	Sharp	15 ws	
Silver	Sharp	20 ws	
Platinum	Sharp	20 ws	
Stainless Steel	Sharp	15 ws	
Palladium	Sharp	15 ws	
Titanium	Sharp	20 ws	
Brass	Sharp	17.5 ws	

General Settings – Retip Prong (26 AWG wire)			
Metal	Tip Shape	Energy	Notes
14k Gold	Sharp	10 ws	Butt weld with 90 degree electrode angle 
24k Gold	Sharp	7.5 ws	
Silver	Sharp	10 ws	
Platinum	Sharp	10 ws	
Stainless Steel	Sharp	7.5 ws	
Palladium	Sharp	7.5 ws	
Titanium	Sharp	10 ws	
Brass	Sharp	10 ws	

The above method will allow the user to attach the wire to the prong tip. If the user desires to add metal to the tip without the wire staying attached, use a 30 AWG wire and position the electrode and 30 AWG wire as seen in the picture to the right. This method will allow the user to add a little bit of metal at a time, covering the top of the prong with every weld.

Wire at 45 degree angle. Electrode touching work piece next to wire.



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