



[Manuals.plus](#) /

› [CK Worldwide](#) /

› CK Worldwide CKL825H CK80 Air Cooled TIG Torch Kit User Manual

CK Worldwide CKL825H

CK Worldwide CKL825H CK80 Air Cooled TIG Torch Kit User Manual

Model: CKL825H

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your CK Worldwide CKL825H CK80 Air Cooled TIG Torch Kit. Please read this manual thoroughly before operating the equipment to ensure proper setup, operation, and maintenance. Retain this manual for future reference.

2. SAFETY INFORMATION

Welding and cutting processes can be hazardous. It is crucial to follow all safety precautions to prevent injury or damage. Always refer to your welding machine's manual for additional safety guidelines.

2.1 General Safety Precautions

- **Electric Shock Can Kill:** Ensure proper grounding. Do not touch live electrical parts. Wear dry insulating gloves and protective clothing.
- **Fumes and Gases Can Be Hazardous:** Keep your head out of the fumes. Use ventilation or exhaust to remove fumes from the breathing zone.
- **Arc Rays Can Burn Eyes and Skin:** Wear a welding helmet with a proper shade filter. Wear appropriate eye protection with side shields. Protect other personnel in the area with non-reflective screens or barriers.
- **Fire and Explosion Hazard:** Remove all flammables from the welding area. Have a fire extinguisher readily available.
- **Hot Parts Can Cause Severe Burns:** Allow equipment to cool before handling. Wear insulated gloves.
- **Noise Can Damage Hearing:** Wear ear protection if noise levels are high.
- **Read and Understand:** Always read and understand the manufacturer's instructions for all equipment and consumables.

2.2 Proposition 65 Warning

This product can expose you to chemicals including lead, which is known to the State of California to cause cancer

and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

3. PRODUCT OVERVIEW

The CK Worldwide CKL825H is an 80A air-cooled TIG torch kit designed for precision welding applications. It features an "Extra Length" series design with a 4-1/2" long neck, providing enhanced reach and maneuverability in confined spaces. This torch is part of the Master Series line, offering robust performance and durability.



Figure 3.1: Representative image of the CK Worldwide CKL825H CK80 Air Cooled TIG Torch Kit. This image shows the torch body with its long neck design and the ceramic nozzle, illustrating the overall form factor of the product.

3.1 Key Features

- CK80 Extra Length Series design.
- 4-1/2" long neck for extended reach.
- 80 Amp air-cooled capacity.
- Durable construction for reliable performance.
- Designed for TIG welding applications.

4. SETUP INSTRUCTIONS

Proper setup is crucial for safe and effective operation. Ensure all connections are secure and correct before beginning any welding task.

1. **Connect to Welding Machine:** Attach the power cable from the torch to the appropriate TIG output terminal on your welding machine. Ensure a secure, tight connection.
2. **Gas Connection:** Connect the gas hose from the torch to the inert gas regulator on your shielding gas cylinder (typically Argon). Ensure all gas connections are leak-free.
3. **Ground Clamp:** Connect the work clamp (ground clamp) from your welding machine to the workpiece or welding table, ensuring good electrical contact.
4. **Install Consumables:**
 - Insert the collet and collet body into the torch head.
 - Insert the tungsten electrode through the collet body and collet.
 - Thread the back cap onto the torch body, tightening it to secure the tungsten.
 - Install the ceramic nozzle (cup) onto the torch head.
5. **Power On:** Turn on your welding machine and gas supply. Set the gas flow rate according to your welding parameters (typically 10-20 CFH for Argon).

5. OPERATING INSTRUCTIONS

This section outlines the basic steps for operating your TIG torch. Always wear appropriate Personal Protective Equipment (PPE) before starting any welding operation.

1. **Prepare Workpiece:** Clean the workpiece thoroughly to remove any contaminants such as oil, rust, or paint.
2. **Set Welding Parameters:** Adjust the amperage, gas post-flow, and other settings on your welding machine according to the material thickness and type of weld.
3. **Initiate Arc:**
 - For High-Frequency (HF) start machines: Position the tungsten electrode close to the workpiece (2-3mm) and press the torch trigger or foot pedal to initiate the arc.
 - For Lift-Arc machines: Gently touch the tungsten to the workpiece, then lift it slightly to initiate the arc.
4. **Maintain Arc and Puddle:** Once the arc is established, maintain a consistent arc length and angle. Create a molten puddle and add filler rod as needed.
5. **Terminate Arc:** Slowly release the torch trigger or foot pedal to gradually reduce amperage and terminate the arc. Allow the shielding gas to flow for the set post-flow time to protect the cooling weld puddle and tungsten.
6. **Inspect Weld:** After the weld has cooled, inspect it for quality and consistency.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your TIG torch.

- **Tungsten Electrode:** Sharpen or replace the tungsten electrode as needed. A dull or contaminated tungsten can lead to poor arc stability and weld quality.
- **Nozzle (Cup):** Inspect the ceramic nozzle for cracks or damage. Replace if necessary. A damaged nozzle can compromise gas shielding.
- **Collet and Collet Body:** Periodically inspect and clean the collet and collet body. Replace if they show signs

of wear or deformation, which can lead to poor electrical contact or tungsten slippage.

- **Cables and Hoses:** Check all cables and hoses for cuts, abrasions, or leaks. Repair or replace damaged components immediately.
- **General Cleaning:** Keep the torch body clean and free from spatter. Use a soft cloth to wipe down the torch.

7. TROUBLESHOOTING

This section provides solutions to common issues encountered during TIG welding with your torch.

Problem	Possible Cause	Solution
Poor Arc Start / Unstable Arc	Dull or contaminated tungsten; incorrect gas flow; poor ground connection; incorrect machine settings.	Sharpen/replace tungsten; check gas flow and connections; ensure good ground; verify machine settings.
Porous Weld / Contamination	Insufficient gas shielding; gas leaks; contaminated workpiece; incorrect gas type; damaged nozzle.	Increase gas flow; check for gas leaks; clean workpiece; use correct shielding gas; replace nozzle.
Tungsten Contamination / Melting	Tungsten touching puddle; insufficient post-flow gas; excessive amperage; incorrect tungsten size.	Maintain arc gap; increase post-flow time; reduce amperage; use larger tungsten for higher amps.
Torch Overheating	Exceeding duty cycle; insufficient air cooling; prolonged high amperage use.	Allow torch to cool; reduce amperage or welding time; ensure proper ventilation around torch.

8. SPECIFICATIONS

Technical specifications for the CK Worldwide CKL825H CK80 Air Cooled TIG Torch Kit.

- **Model:** CKL825H
- **Series:** CK80 Extra Length Series
- **Torch Type:** Air Cooled TIG Torch
- **Amperage Capacity:** 80 Amps
- **Neck Length:** 4-1/2 inches
- **Cable Length:** 25 feet
- **Item Weight:** 8 Pounds
- **UPC:** 720340002662
- **ASIN:** B00JV8OZAS
- **Manufacturer:** CK Worldwide

9. WARRANTY AND SUPPORT

For warranty information or technical support regarding your CK Worldwide TIG Torch, please contact CK Worldwide directly. Refer to their official website or product packaging for the most current contact details and warranty terms.

Manufacturer: CK Worldwide

Website: www.ckworldwide.com

