

# Hydrocarbon Charging Kit 61001 Quick Start Guide



## Safety & Warning Information

Most governments and legal authorities require that HVAC technicians be trained and certified in the safe and proper operation of HVAC tools, such as this kit. This kit is designed for use with R-290 and R-600a, which are classified as A3 flammable refrigerants and servicing these types of systems may require additional certifications and/or training. Consult your government and legal authority to comply fully with all requirements. Proper training is the most important element of using this kit safely.



- Read the entire Quick Start Guide before using the kit.
- Always wear eye and skin protection when working with refrigerants. Escaping refrigerant vapors will present a freezing danger. Do not direct refrigerant vapors venting from hoses towards the skin.
- Do not overload the scale. The maximum capacity is 13.22 lb (6 kg).

## Kit Contents and Key Features

- Compact charging scale provides 0.05 g (0.01 oz) resolution for accurate charging
- Bottle stand offers stability for liquid charging with inverted refrigerant bottles
- Single valve manifold with 0.08" (2mm) ID x 24" REFFLEX® hoses
- Bottle valve for 7/16" threaded bottles
- Bottle adapter for 1" threaded bottles
- 90° quick-coupler fitting for compatibility with piercing and other right-angle bottle valves
- Line tap valve for system connection to 1/4", 5/16" or 3/8" process lines
- Vice grip pinch-off tool for crimping process tube after service is completed
- Safety placard provides visual warning of flammability risk during service
- Rugged case to protect the equipment when not in use
- One-year warranty (except gaskets and hoses)
- MADE IN USA



## Specifications

### Overall Kit:

Compatible Refrigerants: R-290 and R-600a  
System Connections: 1/4", 5/16", 3/8" OD Tubing  
Operating Temperature: 0 to 130°F (-18 to 55°C)  
Operating Pressure: -14.7 to 101 psi (-1 to 7 bar)  
Bottle Compatibility: Valve and adapter work with most 7/16"-28 and 1"-20 threaded bottle connections. The 19201 90° Quick Coupler allows for connection of piercing-type and other right-angle bottle valves.

### Hose Volume & Critical Charge Applications:

For critical charge applications, it is important to limit the internal volume of the charging equipment and minimize its influence on the system charge. A standard 1/4" service hose at 12" in length can hold around 3.4 grams of liquid R-290 refrigerant. The 2mm ID x 24" REFFLEX® hoses included in this kit hold less than 1 gram of liquid R-290 refrigerant.

### Charging Scale:

Units of Measure: Grams (g), Pounds (lb), Pounds & Ounces (lb/oz), Ounces (oz), Milliliters (ml)  
Accuracy: 0.1%  
Resolution: 0.01 ounces (0.05 grams)  
Capacity: 13.22 lb (6 kg)  
Overload Protection: Yes  
Power: (3) AAA Batteries (included)  
Battery Life: 50+ hours  
Auto-Off Timer: 2 minutes after last reading change

### Single Valve Manifold:

Pressure Range: -14.7 to 101 psi (-1 to 7 bar)  
Refrigerants: R-290 & R-600a (saturation temps in °F and °C)  
Hose length: 24" (610 mm)

## Operating Instructions

The following guide provides general kit use instructions. Please refer to the OEM service manual for recommended service procedures.

- Place the safety placard in the work area and follow the OEM recommended safety measures prior to beginning service.
- Follow the included instructions for attachment of the line tap valve to the system low-side or high-side process port. NOTE: In most cases, charging should be started on the high-side of the system, but if adding refrigerant to a system that has already been charged, or if the system compressor is needed to pull in the remaining charge, the low-side may be used.
- Attach the flow control valve on the manifold hose to the line tap valve. If using the manifold and hose set for evacuation prior to charging, close the ball valve at the pump connection when the evacuation is complete to maintain the vacuum level in the manifold and hoses.
- Determine the bottle valve configuration needed for the refrigerant bottle being used. Most 7/16" threaded self-sealing bottles can be connected directly to the bottle valve. For 1" threaded self-sealing bottles, attach the bottle adapter to the bottle valve. For piercing-style and other right-angle bottle valves, the 19201 right angle quick coupler can be used in place of the included bottle valve.
- Once the proper bottle valve has been determined, attach the assembly to the bottle and then attach the opposite end to the quick coupler on the top of the bottle stand.
- Place the digital scale on a flat surface and power it on. Make sure the desired units are selected. To change the scale units, press the "UNIT" button. With the bottle connected, place the bottle stand on the scale.
- Attach the ball valve end of the manifold to the 1/4" male flare outlet on the side of the bottle stand and purge any air from the plumbing. Tare the scale by pressing the "TARE" button.
- Open the bottle valve, ball valve, manifold valve, and flow control valve to begin charging the system.
- Monitor the weight change on the scale and the system low-side pressure on the manifold gauge (if completing the charge into the low-side of the system) while following the OEM recommendations to complete the system charge. Close the valves when charging is complete.
- Use the vice grip pinch-off tool to crimp the process line on the system-side of the line tap valve.
- Remove the refrigerant bottle from the bottle valve and disconnect the manifold from the line tap valve. Safely purge any residual refrigerant from the kit components.
- Follow the OEM recommended procedure for removing the line tap valve and sealing the system prior to removing the vice grip pinch-off tool.

## Replacement Parts

| UPC#  | Description   |
|-------|---|
| 61001 | Hydrocarbon Charging Kit                                    |
| UPC#  | Replacement Parts   |
| 19201 | 90° Quick Coupler (for Right-Angle Bottle Valves)           |
| 40349 | Low-Side Manifold R-600a/290                                |
| 49188 | 3-1/8" Blue Compound, bar/psi, R-600a/290 Gauge (°F/°C)     |
| 61002 | HC Kit Bottle Stand   |
| 61003 | HC Kit Scale  |
| 61004 | HC Kit Manifold Assembly (Manifold, Hoses, Connectors)      |
| 61005 | HC Kit Hose (Single 0.08"/2mm x 24" Yellow Hose)            |
| 61008 | HC Kit Bottle Valve (for 7/16" Threaded Bottle Connections) |
| 61009 | HC Kit Bottle Adapter (for 1" Threaded Bottle Connections)  |
| 61010 | Line Tap Valve  |
| 61013 | Propane Safety Placard                                      |
| 60661 | Vice Grip Pinch-Off Tool                                    |

