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APPION CCT14

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Model: CCT14

INTRODUCTION

The Appion CCT14-1/4-inch Core Control Tool is a specialized instrument designed for HVAC/R technicians to safely and efficiently manage refrigerant flow during system servicing. This tool allows for the controlled removal and insertion of Schrader valve cores under pressure, minimizing refrigerant loss and preventing frostbite or refrigerant burns. Its robust construction ensures durability and reliable performance in demanding professional environments.

Please read this manual thoroughly before operating the tool to ensure safe and effective use.

PRODUCT OVERVIEW



Figure 1: Appion CCT14-1/4-inch Core Control Tool. This image shows the compact, brass and black-bodied tool with its 1/4-inch flare fittings and the core depressor mechanism.

The CCT14 tool features a durable brass body with a black anodized aluminum block, designed for a secure grip and long-lasting performance. It incorporates a precise mechanism for engaging and disengaging Schrader valve cores, allowing technicians to perform tasks such as vacuuming, charging, or recovering refrigerant without losing system pressure or exposing themselves to refrigerant.

SAFETY INFORMATION

Always adhere to local and national safety regulations when working with refrigerants and HVAC/R systems. Failure to do so may result in serious injury or property damage.

- Wear appropriate Personal Protective Equipment (PPE), including safety glasses and gloves, when handling refrigerants.
- Ensure the system is depressurized or isolated before attempting to remove or insert valve cores without the tool.
- Do not overtighten connections; hand-tighten plus a quarter turn with a wrench is typically sufficient.
- Verify compatibility of the tool with the system's fittings (1/4-inch flare).
- Avoid direct skin contact with refrigerants, as this can cause severe frostbite.

SETUP

1. **Inspect the Tool:** Before each use, visually inspect the CCT14 for any signs of damage, wear, or debris. Ensure all moving parts operate smoothly.

2. **Prepare the System Port:** Ensure the 1/4-inch service port on the HVAC/R system is clean and free of dirt or moisture.
3. **Connect the Tool:** Thread the CCT14 tool onto the system's 1/4-inch service port. Hand-tighten the connection, then use a wrench to tighten an additional quarter turn to ensure a leak-free seal.
4. **Connect Hoses/Gauges:** Attach your manifold gauges, vacuum pump, or recovery unit hose to the other 1/4-inch flare fitting on the CCT14 tool. Ensure this connection is also hand-tightened and then wrenched a quarter turn.

OPERATING INSTRUCTIONS

The Appion CCT14 allows for the safe removal and insertion of Schrader valve cores while the system is under pressure.

To Remove a Schrader Valve Core:

1. **Ensure Connections:** Verify that the CCT14 is securely attached to the system service port and that your hose/manifold is connected to the tool.
2. **Retract Core Depressor:** Turn the knurled knob on the side of the CCT14 counter-clockwise until the core depressor pin is fully retracted.
3. **Engage Core:** Gently push the knurled knob inwards and turn it clockwise until you feel the depressor pin engage the Schrader valve core. Continue turning clockwise to fully depress the core.
4. **Extract Core:** Once the core is depressed, continue turning the knurled knob clockwise to unscrew and extract the Schrader valve core from the system. The core will be held securely within the tool.
5. **Isolate Core:** Once the core is fully extracted and seated within the tool, close the ball valve on the CCT14 (if equipped, or ensure your manifold valves are closed) to isolate the system pressure from the core removal chamber.
6. **Remove Core:** You can now safely remove the knurled knob assembly with the core attached for inspection or replacement.

To Insert a Schrader Valve Core:

1. **Attach Core:** Securely attach the Schrader valve core to the core depressor pin on the knurled knob assembly.
2. **Insert Assembly:** Insert the knurled knob assembly with the core into the CCT14 tool and turn counter-clockwise to thread it back into place.
3. **Open Isolation:** Open the ball valve on the CCT14 (if equipped) or ensure manifold valves are open to allow system pressure into the core chamber.
4. **Insert Core:** Gently push the knurled knob inwards and turn it counter-clockwise to thread the Schrader valve core back into the system port.
5. **Retract Depressor:** Once the core is fully seated, continue turning the knurled knob counter-clockwise to retract the depressor pin from the core.
6. **Verify Seal:** Check for leaks around the service port connection.

MAINTENANCE

Proper maintenance ensures the longevity and reliable performance of your Appion CCT14 tool.

- **Cleaning:** After each use, wipe down the tool with a clean, dry cloth to remove any refrigerant oil or debris.
- **Lubrication:** Periodically apply a small amount of refrigerant-compatible lubricant to the O-rings and the threads of the core depressor mechanism to ensure smooth operation and prevent wear.
- **Storage:** Store the tool in a clean, dry environment, protected from extreme temperatures and physical damage.

- **O-Ring Replacement:** If leaks are detected or the tool becomes difficult to operate, inspect the internal O-rings. Replace them with genuine Appion replacement O-rings as needed.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Refrigerant Leak at Tool Connection	Loose connection, damaged O-ring, dirty flare fitting.	Tighten connection, inspect and replace O-ring, clean flare fitting.
Difficulty Engaging/Disengaging Core	Lack of lubrication, bent depressor pin, damaged core.	Apply lubricant, inspect depressor pin for damage, replace Schrader core.
Core Not Held Securely	Worn internal mechanism, incorrect engagement.	Ensure full engagement of the core. If issue persists, contact Appion support.

SPECIFICATIONS

- **Model:** CCT14
- **Connection Size:** 1/4-inch Flare
- **Compatibility:** Standard Schrader valve cores
- **Dimensions:** Approximately 4.88 x 2.17 x 1.26 inches (as per package dimensions)
- **Weight:** Approximately 3.84 ounces (as per package dimensions)
- **Manufacturer:** APPION INC.

WARRANTY AND SUPPORT

For warranty information, technical support, or to purchase replacement parts, please contact Appion directly. Refer to the official Appion website or product packaging for the most current contact details.

Appion Official Website: www.appioninc.com

Note: Specific warranty terms and conditions may vary and are subject to change by the manufacturer.

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Example: How do I reset this device or fix this error?

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