

HOCHIKI HCA-4D/120V

HOCHIKI HCA-4D/120V Instruction Manual

6.5 Amp 4 Zone Conventional Fire Alarm Control Panel 120V with DACT

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the HOCHIKI HCA-4D/120V 6.5 Amp 4 Zone Conventional Fire Alarm Control Panel (FACP) with Digital Alarm Communicator Transmitter (DACT). Please read this manual thoroughly before attempting to install or operate the unit. Retain this manual for future reference.

2. SAFETY INFORMATION

WARNING: Risk of electric shock. Disconnect power before servicing.

Always follow local and national electrical codes and standards during installation. Only qualified personnel should install and service this equipment. Ensure proper grounding. Do not expose the unit to moisture or extreme temperatures. Failure to comply with these safety instructions may result in injury, damage to the equipment, or improper operation of the fire alarm system.

3. PRODUCT OVERVIEW

The HOCHIKI HCA-4D/120V is a conventional fire alarm control panel designed for small to medium-sized applications. It features four initiating device circuits (zones) and a built-in Digital Alarm Communicator Transmitter (DACT) for remote monitoring. The panel operates on a 120V AC power supply and provides 6.5 Amps of power for system operation.



Figure 1: Front view of the HOCHIKI HCA-4D/120V Fire Alarm Control Panel. This image shows the main enclosure with indicator lights and control buttons.

Key Features:

- 4 Conventional Initiating Device Circuits (Zones)
- Built-in Digital Alarm Communicator Transmitter (DACT)
- 6.5 Amp Power Supply
- 120V AC Operation
- Alarm, Trouble, and Supervisory Indicators
- Silence, Reset, and Acknowledge Controls

4. SETUP AND INSTALLATION

4.1 Unpacking and Inspection

1. Carefully unpack the FACP and all components.
2. Inspect for any shipping damage. Report any damage to the carrier immediately.
3. Verify all components listed in the packing slip are present.

4.2 Mounting the Panel

1. Select a clean, dry, and secure location for mounting, away from potential sources of interference or damage.
2. Ensure adequate space for ventilation and access for wiring and servicing.

3. Mount the panel securely to a wall using appropriate fasteners.

4.3 Wiring Connections

All wiring must comply with NFPA 70 (National Electrical Code) and NFPA 72 (National Fire Alarm and Signaling Code), as well as local codes.

1. **Power Connection:** Connect the 120V AC power supply to the designated terminals. Ensure the power source is protected by a dedicated circuit breaker.
2. **Battery Connection:** Connect the standby batteries to the battery terminals, observing correct polarity.
3. **Initiating Device Circuits (Zones):** Connect fire alarm initiating devices (smoke detectors, heat detectors, manual pull stations) to the respective zone terminals. Each zone requires an End-of-Line Resistor (EOLR).
4. **Notification Appliance Circuits (NACs):** Connect audible and visual notification appliances (horns, strobes) to the NAC terminals. Observe polarity and ensure EOLRs are installed.
5. **DACT Connection:** Connect the DACT to a dedicated telephone line for communication with the central monitoring station.
6. **Auxiliary Relays:** If applicable, connect auxiliary devices to the programmable relay outputs.

4.4 Initial Power-Up

1. Before applying power, double-check all wiring connections for correctness and security.
2. Apply AC power to the panel. The AC POWER indicator should illuminate.
3. Connect the standby batteries.
4. The panel will perform a self-test. Any troubles will be indicated.

5. OPERATING INSTRUCTIONS

5.1 Normal Operation

In normal operation, the green AC POWER indicator is illuminated. All other indicators should be off, and the system should be free of trouble conditions.

5.2 Alarm Conditions

When an initiating device activates (e.g., smoke detector detects smoke), the following occurs:

- The ALARM indicator illuminates.
- The specific ZONE ALARM indicator illuminates.
- Notification appliances (horns/strobes) activate.
- The DACT transmits an alarm signal to the central monitoring station.

5.3 Acknowledging an Alarm

Press the **ACKNOWLEDGE** button to silence the panel's internal buzzer and acknowledge the alarm. Notification appliances will continue to operate until silenced.

5.4 Silencing Notification Appliances

Press the **SILENCE** button to turn off the horns and strobes. The ALARM indicator will remain illuminated until the system is reset.

5.5 Resetting the System

After the alarm condition has been cleared and notification appliances are silenced, press the **RESET** button. The panel will attempt to reset all initiating devices and return to normal operation. If the alarm condition persists, the system will re-arm.

5.6 Trouble Conditions

A trouble condition indicates a fault in the system (e.g., open circuit, short circuit, ground fault, low battery). When a trouble occurs:

- The TROUBLE indicator illuminates.
- The specific ZONE TROUBLE or SYSTEM TROUBLE indicator illuminates.
- The panel's internal buzzer activates.

Press the **ACKNOWLEDGE** button to silence the internal buzzer. Investigate and resolve the cause of the trouble. Once the trouble is cleared, the TROUBLE indicator will extinguish automatically.

6. MAINTENANCE

Regular maintenance is crucial for the reliable operation of your fire alarm system. Refer to NFPA 72 for detailed inspection, testing, and maintenance requirements.

6.1 Daily/Weekly Checks

- Verify the AC POWER indicator is illuminated.
- Check for any illuminated trouble indicators.

6.2 Monthly Checks

- Test all initiating devices (smoke detectors, heat detectors, pull stations) for proper operation.
- Test all notification appliances (horns, strobes).
- Test the DACT communication to the central monitoring station.

6.3 Annual Checks

- Perform a comprehensive system test, including all devices and functions.
- Inspect all wiring for damage or loose connections.
- Test standby batteries under load to ensure they can provide adequate power during an AC power failure. Replace batteries every 3-5 years or as recommended by the manufacturer.
- Clean the interior of the panel and detectors as necessary.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Panel in Trouble Condition	Open circuit on a zone or NAC, short circuit, ground fault, low battery, AC power failure.	Check specific trouble indicator. Inspect wiring for breaks or shorts. Test battery voltage. Restore AC power. Consult a qualified technician.

Problem	Possible Cause	Solution
No AC Power Indicator	No AC power, blown fuse, faulty transformer.	Check circuit breaker. Replace fuse. Contact a qualified technician.
DACT Not Communicating	Telephone line issue, DACT programming error, central station issue.	Verify telephone line is active. Check DACT programming. Contact central monitoring station.
False Alarms	Dirty smoke detector, environmental factors (dust, steam), faulty device.	Clean smoke detectors. Identify and eliminate environmental factors. Replace faulty devices.

8. SPECIFICATIONS

- **Model:** HCA-4D/120V
- **Brand:** HOCHIKI
- **Input Voltage:** 120V AC
- **Current Rating:** 6.5 Amps
- **Number of Zones:** 4 Conventional Zones
- **Communicator:** Built-in Digital Alarm Communicator Transmitter (DACT)
- **UPC:** 742779307880
- **Date First Available:** March 4, 2022

9. WARRANTY INFORMATION

HOCHIKI products are manufactured under strict quality control standards. This product is covered by a limited warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary. Please refer to the warranty card included with your product or contact HOCHIKI customer support for detailed warranty information. Keep your proof of purchase for warranty claims.

10. TECHNICAL SUPPORT

For technical assistance, troubleshooting beyond this manual, or service inquiries, please contact your authorized HOCHIKI distributor or HOCHIKI customer support.

HOCHIKI Customer Support:

Website: www.hochiki.com

Phone: Refer to the website for regional contact numbers.

When contacting support, please have your product model number (HCA-4D/120V) and serial number ready.