

## Murray MP120AFC

# Murray MP120AFC 20-Amp 1 Pole 120-Volt Combination Type Arc Fault Circuit Interrupter User Manual

Model: MP120AFC

## 1. INTRODUCTION

This manual provides essential information for the safe installation, operation, and maintenance of the Murray MP120AFC 20-Amp 1 Pole 120-Volt Combination Type Arc Fault Circuit Interrupter (AFCI). Please read this manual thoroughly before installation or use to ensure proper function and safety. This device is designed to detect and mitigate the effects of arc faults, which can be a cause of electrical fires.

## 2. SAFETY INFORMATION

### **WARNING: Risk of Electric Shock or Fire**

- Installation and servicing must be performed by qualified electrical personnel only.
- Always turn off power at the main service panel before working on electrical circuits or installing this device.
- Use appropriate personal protective equipment (PPE).
- Ensure all wiring connections are secure and meet local and national electrical codes.
- Do not use this device if it appears damaged.

## 3. PRODUCT OVERVIEW

The Murray MP120AFC is a single-pole, 20-Amp, 120-Volt Combination Type Arc Fault Circuit Interrupter designed for use in Murray load centers or meter combinations. It provides protection against both parallel and series arc faults, as well as overcurrent protection. The breaker features a test button for verifying proper operation.





**MURRAY**

TYPE MP-HAT 40°C

ARC  
FAULT

GND

HACR  
SWD

Circuit Breaker  
Combination Type  
AFCI

AFCI



Interrupting Rating  
22kA 120V~  
Max. RMS Sym.  
50/60 Hz

**TEST**

10707150001

Wire: 60/75°C 25 lb-in  
AWG: CU #14-8 / AL #12-8





**Figure 1:** Illustrative image of a Murray Arc Fault Circuit Interrupter. Note: This image displays a 15-Amp version for visual reference; the product covered by this manual is a 20-Amp model (MP120AFC). The image shows the main body of the circuit breaker, including the toggle switch, the blue 'TEST' button, and various labels indicating specifications like 'MURRAY', 'ARC FAULT', 'AFCI', 'Interrupting Rating 22kA 120V~', and wiring instructions. A coiled white pigtail wire is visible at the bottom.

## 4. SETUP AND INSTALLATION

Follow these steps for proper installation:

1. **Power Disconnection:** Turn off the main power to the electrical panel at the service entrance. Verify power is off using a voltage tester.
2. **Identify Slot:** Locate an available slot in the Murray load center.
3. **Connect Pigtail:** Connect the white pigtail wire from the AFCI to the neutral bar in the load center. Ensure a secure connection.
4. **Install Breaker:** Hook the rear of the breaker onto the bus bar stab and firmly push the front of the breaker down until it is fully seated in the panel.
5. **Connect Circuit Wire:** Connect the circuit's hot (black) wire to the terminal screw on the AFCI. Tighten the screw to the torque specified on the breaker label (e.g., 25 lb-in for 60/75°C wire, AWG CU #14-8 / AL #12-8).
6. **Connect Circuit Neutral:** Connect the circuit's neutral (white) wire to the designated terminal on the AFCI, not the neutral bar.
7. **Restore Power:** Once all connections are secure and verified, close the panel cover and restore power at the main service entrance.

## 5. OPERATING INSTRUCTIONS

The AFCI operates automatically to protect against arc faults and overcurrents. It has a toggle switch for manual operation and a test button.

### 5.1 Turning On/Off

- To turn the circuit ON, push the toggle switch firmly to the 'ON' position.
- To turn the circuit OFF, push the toggle switch firmly to the 'OFF' position.

### 5.2 Testing the AFCI

It is recommended to test the AFCI monthly to ensure proper operation.

1. Ensure the circuit breaker is in the 'ON' position.
2. Press the 'TEST' button (typically blue) located on the front of the breaker.
3. The breaker should immediately trip to the 'TRIPPED' (center) position. This indicates the AFCI is functioning correctly.
4. To reset the breaker, push the toggle switch firmly to the 'OFF' position, then back to the 'ON' position.
5. If the breaker does not trip when the 'TEST' button is pressed, or if it does not reset, contact a qualified electrician for inspection and replacement if necessary.

## 6. MAINTENANCE

The Murray MP120AFC is designed for maintenance-free operation. Regular testing as described in Section 5.2 is the primary maintenance requirement. Keep the area around the electrical panel clean and free from obstructions. Do not attempt to open or repair the circuit breaker.

## 7. TROUBLESHOOTING


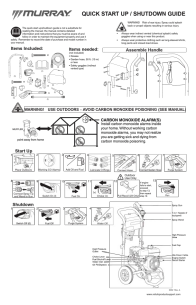
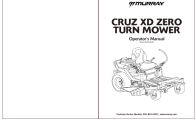



Problem	Possible Cause	Solution
Breaker trips frequently	Arc fault detected, Overload, Short circuit, Ground fault	Unplug appliances from the circuit. If it still trips, contact a qualified electrician to inspect wiring for arc faults, overloads, or short circuits.
Breaker does not reset	Persistent fault, Internal breaker failure	Ensure all loads are disconnected. If it still won't reset, contact a qualified electrician.
Test button does not trip breaker	AFCI malfunction	The AFCI may be faulty. Contact a qualified electrician for replacement.

## 8. SPECIFICATIONS

- **Brand:** Murray
- **Model:** MP120AFC
- **Current Rating:** 20 Amps
- **Voltage:** 120 Volts
- **Number of Poles:** 1
- **Circuit Breaker Type:** Combination Type AFCI (Arc Fault Circuit Interrupter)
- **Mounting Type:** Plug-In Mount
- **Interrupting Rating:** 22kA
- **Frequency:** 50/60 Hz
- **Wire Compatibility:** CU #14-8 / AL #12-8
- **Torque Rating:** 25 lb-in (for wire terminals)
- **Dimensions:** Approximately 1 x 4 x 3 inches
- **Weight:** Approximately 1.6 ounces
- **Certifications:** UL Listed

## 9. WARRANTY AND SUPPORT

Specific warranty details for the Murray MP120AFC are typically provided at the point of purchase or on the product packaging. For warranty claims or technical support, please contact Murray customer service or refer to the official Murray website. Always ensure that any servicing or inspection is carried out by a qualified professional.

	<p><a href="#">Murray MT100 Lawn Tractor Operator's Manual: Safety, Operation, and Maintenance Guide</a></p> <p>Comprehensive operator's manual for the Murray MT100 Lawn Tractor (Model MYT4213500). Covers assembly, safe operation, routine maintenance, troubleshooting, and warranty information. Essential guide for owners.</p>
	<p><a href="#">Murray Pressure Washer Quick Start Up and Shutdown Guide</a></p> <p>A comprehensive guide for the quick start up and shutdown procedures of a Murray pressure washer, including safety precautions and assembly instructions.</p>
	<p><a href="#">Murray CRUZ XD Zero Turn Mower Operator's Manual</a></p> <p>Comprehensive operator's manual for the Murray CRUZ XD Zero Turn Mower (Model #MYZ5022000), covering assembly, safety, operation, maintenance, and troubleshooting for optimal performance.</p>
	<p><a href="#">Murray 18V/36V Lithium-Ion Cordless Lawnmower Assembly &amp; Owner's Manual</a></p> <p>Assembly and Owner's Manual for the Murray 18V/36V Lithium-Ion Cordless Lawnmower, including models IQ18WM44 and IQ18WM37. This guide provides essential operational and assembly information for your Murray lawnmower.</p>
	<p><a href="#">MT200 Lawn Tractor Operator's Manual - Murray MYT4219000</a></p> <p>Comprehensive operator's manual for the Murray MT200 Lawn Tractor (Model MYT4219000), covering assembly, operation, safety, maintenance, troubleshooting, and specifications. Learn how to safely operate and maintain your lawn tractor.</p>
	<p><a href="#">Murray LE320E Electric Lawn Mower User Manual and Warranty</a></p> <p>This document is the user manual and warranty card for the Murray LE320E electric lawn mower. It provides detailed technical specifications, safety instructions, assembly, operation, maintenance, and troubleshooting information for the product.</p>