

## Riello FD01

# Riello FD01 Photoelectric Cell Instruction Manual

Model: FD01 | Brand: Riello

### 1. PRODUCT OVERVIEW

The Riello FD01 Photoelectric Cell is a critical component designed for use in Riello oil burners. Its primary function is to detect the presence of a flame, ensuring safe and efficient operation of the heating system. This cell acts as a sensor, signaling the control unit about the combustion status. It is an essential spare part for maintaining the functionality of compatible Riello burner models.



**Figure 1.1:** Riello FD01 Photoelectric Cell. This image displays the main component with its attached wiring and connector, ready for installation.

## 2. COMPATIBILITY

The Riello FD01 Photoelectric Cell is compatible with a range of Riello burner models. Please verify your burner model number against the list below to ensure proper fit and function. This component is specifically designed to work in conjunction with the MO550 BWG or MO550 MWG control units.

### Compatible Burner Models:

- BGK1-370T1 (only 3737066)
- BGK2-374T1 (only 3737456)
- BGK3-375T1
- RG0.R-367T1
- RG0.1R-368T1
- RG0.1-369T1
- RG0.2R-358T1
- RG1
- 1RK-362T1
- RK1RKD-366T1
- RG2-377T1
- RG2D-380T1
- RG3-393T1
- RG3D-394T1
- RG4D-397T1
- RG4S-396T1
- RG5D-398T1

**Note:** Compatibility is only ensured when used in conjunction with the MO550 BWG or MO550 MWG control unit.

## 3. SETUP AND INSTALLATION

Installation of the Riello FD01 Photoelectric Cell involves working with electrical and fuel systems. For safety and proper function, installation and replacement procedures must be performed by a qualified and certified technician. Incorrect installation can lead to equipment damage, fire, or personal injury.

### 3.1 Replacement Procedure (General Guidelines)

1. **Safety First:** Ensure the burner and heating system are completely powered off and disconnected from the main electricity supply. Close any fuel supply valves.
2. **Access:** Carefully open the burner housing to access the existing photoelectric cell.
3. **Disconnection:** Disconnect the wiring from the old photoelectric cell and carefully remove it from its mounting. Note the orientation and connection points.
4. **Installation:** Insert the new Riello FD01 Photoelectric Cell into the designated slot, ensuring it is securely seated. Connect the wiring according to the burner's electrical diagram.
5. **Reassembly & Testing:** Close the burner housing. Restore power and fuel supply. Perform a functional test of the burner to ensure the new cell is operating correctly and detecting the flame.



**Figure 3.1:** Riello FD01 Photoelectric Cell, side view. This image provides a clearer view of the sensor's body and the integrated mounting features.

### 3.2 Specific Replacement Note for 3007492

If the existing photo resistance with part number 3007492 is found to be defective, it is recommended that the entire control unit be replaced. In such cases, the conversion kit 20146982 (which includes the MO550 BWG control unit and the FD01 photo resistance) is advised for a complete and compatible solution.

## 4. OPERATING INSTRUCTIONS

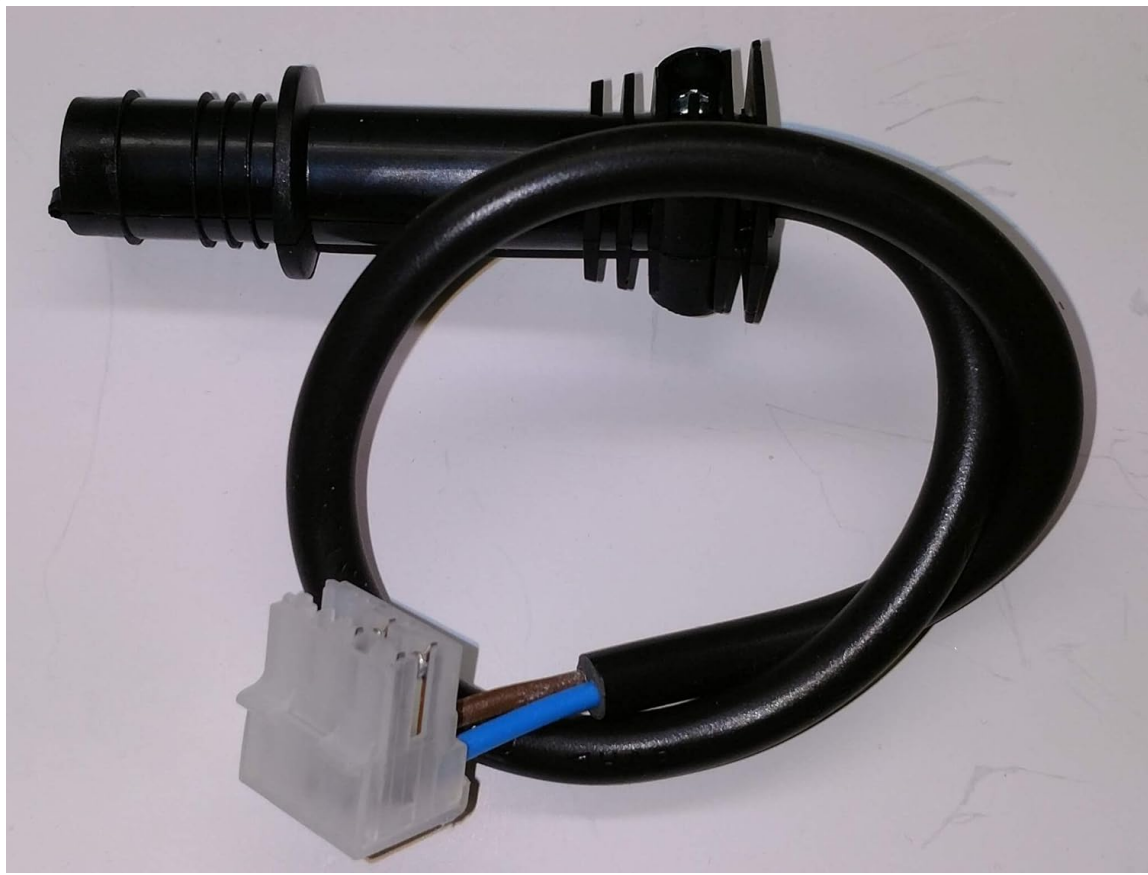
The Riello FD01 Photoelectric Cell operates automatically as part of the burner's control system. It continuously monitors the flame during burner operation. There are no direct user operating controls for this component. Its function is entirely passive, providing feedback to the burner's control unit.

## 5. MAINTENANCE

The Riello FD01 Photoelectric Cell generally requires minimal maintenance. However, as part of routine burner servicing, a qualified technician should inspect the cell for any signs of damage or excessive soot accumulation on its sensing surface. A clean sensing surface is crucial for accurate flame detection.

- **Annual Inspection:** Include the photoelectric cell in the annual inspection and maintenance schedule for your oil burner.
- **Cleaning:** If accessible and deemed necessary by a technician, the sensing element may be gently cleaned to remove any dust or soot that could obstruct flame detection.
- **Replacement:** Replace the cell if it shows signs of wear, damage, or if it is identified as the

cause of burner malfunction during troubleshooting.



**Figure 5.1:** Riello FD01 Photoelectric Cell, connector view. This image highlights the electrical connector, which is crucial for proper wiring during installation.

## 6. TROUBLESHOOTING

If your oil burner is experiencing issues related to flame detection or failure to ignite, the photoelectric cell may be a contributing factor. Always consult a qualified technician for diagnosis and repair.

### 6.1 Common Issues and Solutions

- **Burner Fails to Ignite:** This could indicate a faulty photoelectric cell not detecting a flame, or a dirty cell obstructing the sensor.
- **Burner Locks Out:** If the burner attempts to ignite but then locks out, the photoelectric cell might not be registering a stable flame.
- **Specific Issue: Defective Photo Resistance 3007492:** As noted in the product description, if the photo resistance with part number 3007492 is defective, it is recommended to replace the entire control unit. The conversion kit 20146982 (MO550 BWG + FD01 photo resistance) is suggested for this scenario. This indicates a deeper issue than just the cell itself, requiring a system-level replacement.

**Important:** Do not attempt to repair the photoelectric cell or control unit yourself. Contact a professional heating technician for all diagnostic and repair work.

## 7. SPECIFICATIONS

Brand	Riello
Model	FD01
Part Number (ASIN)	B07H32C3P6
Function	Flame detection for oil burners
Compatibility Note	Requires MO550 BWG or MO550 MWG control unit for full compatibility with listed burner models.
Manufacturer	Riello

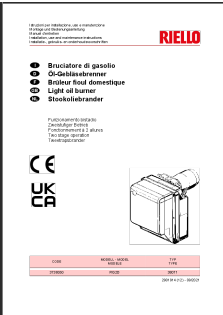
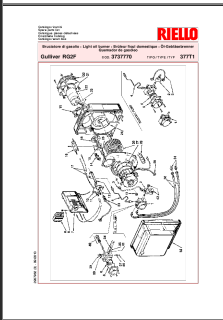
For detailed technical drawings or specific electrical parameters, please refer to the official Riello documentation for your specific burner model or contact Riello customer support.





### 8. WARRANTY AND SUPPORT

Information regarding the warranty for the Riello FD01 Photoelectric Cell is not provided within this instruction manual. For warranty details, technical support, or to locate authorized service centers, please contact your original point of purchase or visit the official Riello website. Always provide your product model and serial number when seeking support.

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Always consult a qualified technician for installation and servicing of heating system components.

### Related Documents - FD01

	<p><a href="#">Riello RG2D Light Oil Burner Installation and Maintenance Manual</a></p> <p>Comprehensive guide for the Riello RG2D light oil burner, covering installation, operation, maintenance, and troubleshooting. Includes technical specifications, diagrams, and safety instructions.</p>
	<p><a href="#">Riello Gulliver RG2F Oil Burner Parts List and Diagram</a></p> <p>Detailed spare parts list and component diagram for the Riello Gulliver RG2F light oil burner (Model 377T1, Code 3737770), including part numbers and English descriptions.</p>

	<p><a href="#">Riello 40 Series Residential Oil Burners F3 &amp; F5 Installation Manual</a></p> <p>This manual provides detailed installation instructions for Riello 40 Series Residential Oil Burners, models F3 and F5. It covers component identification, setup, mounting, electrical connections, nozzle placement, and adjustment procedures. The manual is intended for retrofit applications and includes technical data, specifications, and spare parts lists.</p>
	<p><a href="#">Priročnik za namestitev, uporabo in vzdrževanje gorilnika RIELLO Gulliver RG1NR na plinsko olje</a></p> <p>Ta dokument vsebuje podrobna navodila za namestitev, uporabo, vzdrževanje in odpravljanje napak enostopenjskega gorilnika RIELLO Gulliver RG1NR na plinsko olje, vključno s tehničnimi podatki, varnostnimi predpisi in postopki za odpravljanje težav.</p>
	<p><a href="#">Riello 40 BF Single Stage Operation Oil Burner Installation and Operating Manual</a></p> <p>Comprehensive installation and operating manual for the Riello 40 BF single-stage oil burner, covering technical specifications, installation procedures, wiring diagrams, troubleshooting, and spare parts.</p>
	<p><a href="#">Riello 40 Series F3 &amp; F5 Residential Oil Burner Installation Manual</a></p> <p>Comprehensive installation manual for Riello 40 Series residential oil burners, models F3 and F5. Covers technical data, component identification, setup, mounting, electrical connections, oil line configuration, pump purge, adjustments, and spare parts.</p>