

PROG-4000

Analog Addressable Detector and Accessory Programmer

Technical Manual



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Note

The terms “**Trouble**” as used in NFPA 72 guideline and UL standards and “**Fault**” as used in EN 54 standards are used interchangeably throughout this manual.

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Note

Do not install, operate, and maintain this PROG-4000 before fully reading this manual.

1 Introduction

The PROG-4000 Analog Addressable Detector and Accessory Programmer is a tool for programming and testing all of Telefire's analog addressable devices such as detectors, manual fire alarm call-points, input modules, output modules, auxiliary power-supplies, ADR-833 extinguishing control units, etc.

Each addressable device connected to the ADR-3000 system can be programmed to an address in the range of 1 to 127. This address will be stored in the device's permanent memory and can be changed only with the PROG-4000 programmer.

Some input and output modules use more than one address. For these modules the programmer will store the first of several consecutive addresses. These modules are:

- ADR-812 Two-Channel Input Module (uses 1 or 2 consecutive addresses)
- ADR-818 Eight-Channel Input Module (uses 8 consecutive addresses)
- ADR-823 Three-Channel Input/Output Module (uses 1, 2, or 3 consecutive addresses, dependant on jumper setting)
- ADR-828 Eight-Channel Output Module (uses 8 consecutive addresses)

In addition to programming device addresses, the PROG-4000 serves as a testing unit for all addressable devices. These tests include verification of features and conditions of the tested device such as normal operation, alarm, various trouble conditions, etc.

The PROG-4000 includes an alphanumeric display, keyboard, analog detector base and a connector with programming cord to program addressable modules. An add-on conventional base is used with the programming cord to program TIP-224A Analog, and an adaptor to use with the newer detectors is also supplied.

The PROG-4000 operates from a mains power source of 230Vac.

2 Compatibility

The PROG-4000 is compatible with the following devices:

2.1 Detectors, Call Points, and Sounders

- TFO-480A Analog Addressable Photoelectric Smoke Detector
- TFH-280A Analog Addressable Rate of Rise & Fixed Temperature Heat Detector
- TPH-482A Analog Addressable Multisensor Photoelectric / Heat Detector
- TFO-440A Analog Addressable Photoelectric Smoke Detector Head (Green)
- TFH-220A Analog Addressable Rate of Rise & Fixed Temperature Heat Detector
- TPH-442A Analog Addressable Multisensor Photoelectric / Heat Detector
- TPB-800ASR Analog Addressable Manual Fire Alarm Call Point
- TPB-800ASY Analog Addressable Manual Extinguishing Call Point
- TPB-800ASM Analog Addressable Manual Fire Alarm Call Point – Outdoor
- TIP-224AE Analog Addressable Alarm Notification Sounder

2.2 Input / Output Modules and Other Devices

- ADR-805 Flow Switch Interface Module
- ADR-812 Two-Channel Input Module
- ADR-818 Eight-Channel Input Module
- ADR-823 Three-Channel Input/Output Module

- ADR-828 Eight-Channel Output Module
- ADR-833 Extinguishing Control Unit
- LI-3000 Line Isolation Module
- TPS-34A Analog Addressable Auxiliary Power Supply

3 Programming Instructions

Connect the PROG-4000 to the mains outlet.

Activate the programmer with the ON/OFF switch. The following message will be displayed:

```
* TELEFIRE LTD PROGRAMMER *   VER-3.2
Connect detector and press #
```

Insert the detector that is to be programmed or verified into the programming base, or connect an addressable interface module to the programming cord and press #. The detector's LED will start flashing indicating communication between the device and the programmer.

The following message will be displayed on the LCD:

```
ADDRESS = ___ VALUE =___      *_Back
1_Address 2_Test 3_Menu 4_Alarm 5_IncAdd
```

The detector's address and the analog value of the sensing element can be observed on the first row. Menu items will be displayed on the second row.

3.1 Address Programming

Pressing **1** on the keyboard will activate the following screen:

```
enter number ___ and press #
*_Back
```

Enter the new address in the range of 1 – 127 and press the # key.

One, two or three - digit address numbers can be entered without a leading 0.

The previous screen will be displayed indicating the new address value.

3.2 Test

Pressing **2** on the keyboard will test the device. The following screen will be displayed:

```
Test value=61   Test OK!
Photoelectric detector   * end_test
```

The test is performed automatically and the result is displayed – **Test OK**, or **Error**. The detector's type will be displayed on the lower row.

During the test the output value of the sensing element will be displayed on the upper row of the LCD.

3.3 Menu

This option is reserved for future use.

3.4 Alarm Mode

Pressing **4** on the keyboard turns the device under test from normal operation to alarm. The LED will latch on when the device is in alarm mode.

```
Address=11  value=91  Alarm  *_Back
1_Address 2_Test 3_Menu 4_Alarm 5_IncAdd
```

Press **4** again to return the device to normal operation. Make sure that the LED is flashing, thereby signaling proper operation.

```
Address=11  value=91  *_Back
1_Address 2_Test 3_Menu 4_Alarm 5_IncAdd
```

4 Programming and Verifying Analog Addressable I/O Modules

1. The following analog addressable modules can be programmed and tested by using the programming cord connected between the "CARD PROG" connector on the PROG-4000 and the "PROGRAM" 4-pin connector mounted on each module:

- ADR-805
- ADR-812
- ADR-818
- ADR-823
- ADR-828
- ADR-833
- LI-3000
- TPB-800ASR and TPB-800ASY
- TPS-34A

The following modules are no longer in production, however they are still supported by the PROG-4000:

- ADR-810
- ADR-820
- ADR-9090P

2. All modules are programmed by following the same procedure as for detectors.
3. Testing these modules will return an analog value that depends on the module's status. Please see the following tables for a detailed Detector and Accessory Programmer of status codes:

Status	Value	ADR-810 ADR-812 ¹ ADR-818	ADR-820	ADR-823 ²	ADR-828
OK	80	✓	✓	✓	✓
Alarm	50	✓		✓	
Trouble – Fuse_24V	78	✓	✓	✓	
Trouble – 24Vdc voltage	77	✓	✓	✓	✓

¹ ADR-812 tests only IDC A

² ADR-823 tests only the first address (NAC A)

Status	Value	ADR-810 ADR-812 ¹ ADR-818	ADR-820	ADR-823 ²	ADR-828
Trouble – IDC EoL Open	76	✓	✓	✓	
Trouble – IDC EoL Short	75	✓	✓	✓	

Table 1 I/O Modules

Status	Value	TPB-800ASR TPB-800ASY	ADR-805	TPS-34A ADR-9090P
OK	80	✓	✓	✓
Alarm	50	✓	✓	
Trouble – Fuse_24V	78			✓
Trouble – 24Vdc voltage	77			✓
Trouble – IDC EoL Open	76		✓	
Trouble – IDC EoL Short	75		✓	
Trouble – Battery Disconnected	63			✓
Trouble – Low Battery	62			✓
Trouble – Battery Fuse	59			✓

Table 2 Push-buttons, ADR-805, and auxiliary power supplies

Status	Value	ADR-833
OK	80	✓
Extinguishing Out Open	47	✓
Extinguishing Out Short	46	✓
Horn Out Open	45	✓
Horn Out Short	44	✓
Evacuate Out Open	43	✓
Evacuate Out Short	42	✓
Pushbutton Open	41	✓
Pushbutton Short	40	✓
Pressure Switch Open	39	✓
Pressure Switch Short	38	✓
Extinguishing Inhibit Open	38	✓
Extinguishing Inhibit Short	36	✓
Trouble – 24Vdc voltage	29	✓

Table 3 ADR-833 Extinguishing Control Unit

5 Specification

Dimensions 340 / 340 / 110 mm
 Weight 2,750 gr.
 Input Voltage..... 230Vac

All values are nominal. Specifications are subject to change without prior notice