TELEFIRE

FIRE & GAS DETECTORS LTD.

PROG-4000

ANALOG ADDRESSABLE DETECTOR AND ACCESSORY PROGRAMMER

Technical Manual

General

The PROG-4000 programmer is a tool for programming and testing all of Telefire's analog addressable devices such as detectors, call-points, input cards, output cards, remote power-supplies, etc.

Each addressable device connected to the ADR-3000 system can be programmed to a single 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 (uses two consecutive addresses)

- ADR-818 (uses eight consecutive addresses)

- ADR-823 (uses three consecutive addresses)

- ADR-828 (uses eight 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 cards. An add-on conventional base is used with the programming cord to program TIP-224A Analog Addressable Horns.

The PROG-4000 operates from a mains power source of 230 Vac (110 Vac optional).

Programming Instructions

a. Connect the PROG-4000 to the main outlet.

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

```
* TELEFIRE LTD PROGRAMMER *    VER-2.3
Connect detector and press #
```

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

The following message will appear on the display:

```
ADDRESS = _ _ _ VALUE =_ _ _
1_address 2_test 3_ manchester *_reset
```

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:

Address Programming

Pressing 1 on the keyboard will activate the following screen:

```
ENTER NUMBER _ _ _ and press #
 *_ reset
```

Enter the new address between 1-127 and press the # key.

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

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

Test

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

```
        TEST_VALUE=_ _ _ TEST OK!
"HEAT DETECTOR TYPE" *end_test
```

The test is performed automatically and the result is displayed – TEST OK, or ERROR. The detector's type will appear on the lower row.

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

Communication Protocol

Pressing 3 on the keyboard changes the communication protocol of the detector. This option is for compatibility with previous models of the detectors.

If you erroneously changed the communication protocol the display will show

```
ADDRESS = _ _ _ VALUE =_ _ _   TROUBLE  0.0mS
1_address 2_test 3_asynchronous *_reset
```

Press 3 again to change it back to asynchronous and verify that the display read:

```
ADDRESS = _ _ _ VALUE =_ _ _              0.0mS
1_address 2_test 3_manchester   *_reset
```

Verify that the LED is blinking, thereby showing proper communication with the programmer.

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

Programming and Verifying Interface Analog Addressable Modules

a. The following analog addressable cards 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 card:

• ADR-805	• ADR-828
• ADR-810	• ADR-833
• ADR-812	• ADR-34A
• ADR-820	• ADR-9090P
• ADR-818	• TPB-800A
• ADR-823	• LI-3000

b. All cards are programmed by following the same procedure as for detectors.

c. Testing these cards will return the analog value, depending on the card condition, as described on the following table:

Status	Value	ADR-810/ 812*/818	ADR-820	ADR-823**	ADR-828
OK	80	•	•	•	•
Alarm	50	•		•	
Trouble – fuse_24V	78	•	•	•	
Trouble – 24 Vdc Voltage	77	•	•	•	•
Trouble – End-of-Line open	76	•	•	•	
Trouble – End-of-Line short	75	•	•	•	

Note:

*   ADR-812 tests only IDC A

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

Status	Value	TPB-800	ADR-805	ADR-34A	ADR-9090P
OK	80	•	•	•	•
Alarm	50	•	•		
Trouble – fuse_24V	78			•	•
Trouble – 24 Vdc Voltage	77			•	•
Trouble – End-of-Line open	76		•		
Trouble – End-of-Line short	75				
Trouble – battery disconnected	63			•	•
Trouble – low battery	62			•	•
Trouble – battery fuse	59			•	•

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	37	•
Extinguishing Inhibit short	36	•
Trouble – 24 Vdc Voltage	29	•

•	Valid
	Not valid

Specification

Size..34 * 31 * 11 cm (1'1½" * 1' * 4½")

Weight ....2.5 Kg (5¼ pounds)

Operating Voltage...................................230 Vac (110 Vac optional)

Operating Temperature Range...............0°C – +60°C (32°F – 140°F)

Specifications are subject to change without prior notice.