

OPERATION MANUAL

Version 01/02



Dialer Blocker for operation with an **Analog Modem**

Order Nr. 95 49 99



Important! Read in any case!

In order to maintain the perfect shipping conditions and to ensure safe operation please observe the contents of this operation manual closely. In case of damages caused by non-observance of this operation manual all guarantee claims will expire. We will further not be held liable for any consequential damages.

Table of Contents

	Page
1. Introduction.....	3
2. Intended Use.....	3
3. Safety and Maintenance Notes.....	4
4. General Product Description.....	5
4.1 Installation.....	5
4.2 Telefax Operation.....	5
5. Principle of Operation.....	6
6. Connections.....	6
6.1 Dialer Blocker.....	6
6.2 Power Supply.....	7
7. Putting into Operation.....	7
8. Operation.....	8
8.1 Line Monitoring.....	8
8.2 Erase Phone Numbers (ERASE Mode).....	9
8.3 Program Phone Numbers (SET Mode).....	10
8.3.1 Programming by Telephone.....	11

8.3.2 Programming by Modem.....	11
9. Care, Maintenance and Disposal.....	12
10. Debugging.....	13
11. Specifications.....	14
12. Distribution.....	14

1. Introduction

Dear Customer,

We want to thank you for purchasing this Dialer Blocker for operation with an analog modem.

With this device you have acquired a product built using up to date techniques. Its operation is straight forward and easily understood. Nevertheless please read this operation manual carefully to gain optimum benefits of all its features.

For questions please contact our Technical Service under Telephone 0180 / 5 31 21 17 Monday through Friday from 8:00 a.m. to 6:00 p.m.

2. Intended Use

The intended use of this Dialer Blocker is the monitoring of dialling processes performed by PC via analog modem into the public telephone system. If there are dialling sequences not explicitly authorised by the user the dialling process will be terminated and made recognisable by optic and acoustic signal.

The Dialer Blocker is particularly useful to suppress dialling processes performed by so called „Diallers“. These are small programs

illicitly transferred onto the home computer by indecent web page providers while using the World Wide Web which establish and operate unnoticed connections to rather expensive phone numbers. There are also Diallers that divert Internet connections through expensive service phone numbers. In this case the user will be charged higher prices for visiting the Internet than the usual Internet provider tariffs. In many cases those high charges will go unnoticed. The suppression of such unnoticed, unwanted and expensive telephone connections will within a short time period redeem the initial cost of the Dialer Blocker.

Any other use of the product but the intended is not authorised.

The design of the device corresponds to the European and national requirements with regard to Electro Magnetic Compatibility (EMC). The device carries the CE sign, conformity has been proven^{*)}. All relevant commentaries and documents are deposited with the manufacturer.

3. Safety and Maintenance Notes

- The device must be operated by exclusive use of the provided 6 VDC power line adapter. Never attempt to operate the unit on any other voltage or energy source.
- The Dialer Blocker may not be operated in any room prone to high humidity (e. g. bathroom). Furthermore it may not be exposed to precipitation, spray water or continuous direct solar irradiation.
- The device is authorised for operation in enclosed dry rooms only. It must not be used outdoors.
- In case of any doubts with regard to function, safety or connection of the device please contact an official expert.
- Please avoid strong mechanical stress to the device.
- Do not expose the device to strong vibration.

^{*)} Verification performed to following rules: CE Test, LVD examination to EN 90950/41003 for telephones

- The device is not a toy. Please keep out of children's reach.
- Cleaning of the device with a soft, lightly damp cloth only. Do not use abrasives or solvents.
- Any other use than the intended may lead to damage of the device. Furthermore all guarantee claims will expire.
- The device must not be opened, altered or modified. Here too the guarantee will expire.

4. General Product Description

The system allows the programming of up to 8 telephone numbers at 16 digits each. Telephone lines can only be connected to those telephone numbers programmed and stored in memory. There will be no connection if any number other than stored is dialled.

Programming of numbers can be performed by modem or manually by telephone.

4.1 Installation

The Dialer Blocker is connected between the Telekom jack (TAE-N) and the analog modem. Operation in a telephone installation e. g. ISDN system with analog outputs is also possible. The connecting cable to the modem is firmly attached to the Dialer Blocker.

4.2 Telefax Operation

The Dialer Blocker is not suited for telefax operation to any random subscriber. Telefax lines too can only be connected to those numbers programmed and stored in memory. In case a telefax should be sent from the computer to any number not stored the Dialer Blocker must be disconnected and the normal telephone connection must be used.

The telefax reception from any random sender however is not affected by the Dialer Blocker.

5. Principle of Operation

The Dialer Blocker monitors all dialling processes on the telephone line and decides whether or not the dialled number is authorised, i.e. whether or not it has been previously programmed.

The DTMF Receiver converts the dialling signals and forwards the result to the Controller. Every digit dialled is immediately compared by the controller to the programmed numbers stored in EEPROM. All stored numbers will remain in memory even in case of a power failure.

If any invalid number is detected during dialling the dialling process will be terminated.

The operating modes "Program Phone Numbers" and "Erase Phone Numbers" can be selected by use of the Input Key.

The red and green LED's serve as an optical status display. The buzzer will sound in case an invalid number has been dialled.

Power is provided to the Dialer Blocker by means of an AC/DC power line adapter.

6. Connections

6.1 Dialer Blocker

Disconnect Western connector of the telephone cable from modem and connect to Dialer Blocker. Install connection from Dialer Blocker to modem. The necessary connection cable is firmly attached to the Dialer Blocker.

6.2 Power Supply

The Dialer Blocker must be powered solely from the AC/DC power line adapter (6 VAC/200 mA, + center) included with shipment.

Plug the power line adapter into a regular power line outlet and connect the round plug of the DC cable to the appropriate socket provided on the Dialer Blocker.

No mains supply

- Modem operation: All telephone numbers blocked, no connection possible.
- Possible causes :
 - AC/DC adapter unplugged.
 - Mains power failure. Operation of notebook possible, though no data transmission.
 - AC/DC power adapter faulty.
 - DC cable not connected.

With mains supply

- All functions available:
 - Line monitoring.
 - Phone number programming.
 - Phone number erasing.

7. Putting into Operation

After making connections (see Section 6. Connections above) the Dialer Blocker is operable. Since there are yet no phone numbers stored however there are no telephone connections possible. This status is signalled by rapid flashing of the green LED. For the intended use of the Dialer Blocker at least one phone number must be programmed and stored.

Line Monitoring as well as Phone Number Erasing and Phone Number Programming are explicitly described in the following section 8. Operation.

8. Operation

Operation of the Dialer Blocker is performed manually by means of the Input Key. The various states are indicated by two light emitting diodes (red, green) and a buzzer¹⁾. By pressing the key and releasing it after a certain period of time the various operation modes can be selected. The operation mode "Program Phone Numbers" allows the setting of up to 8 phone numbers at maximum 16 digits each. The programmed numbers will remain in storage even in case of a power failure. In operation mode "Erase Phone Numbers" all stored numbers can be erased to be subsequently newly programmed.

8.1 Line Monitoring

Dialling processes over the telephone are recognised but not verified, otherwise every telephone number would have to be programmed in advance. The Dialer Blocker recognises the modem occupying the line and checks the function of the relay contacts prior to every dialling process. If any false function is detected it is indicated by the red LED and a buzzer signal.

In original state there are no numbers programmed and the green LED is flashing rapidly (appr. 4 times per second). No line connection is possible.

¹⁾ In section 8. Operation at the end of every description of the various processes the states of the LED and buzzer monitoring signals are once again shown in table form.

If there is at least one number programmed the green LED will light with short interruptions every 2 seconds. This signal indicates that the system is operable.

During the dialling process the green LED will light constantly. Each dialled digit will in sequence immediately be compared to the programmed numbers. If any valid number is dialled the green LED will flash slowly (appr. once per second) until the line connection is terminated.

If the digit dialled does not correspond to the ones programmed the line is immediately disconnected. In this case the red LED will be flashing and the buzzer will sound. This state can only be terminated by pressing the key.

Monitoring Signals: Line Monitoring

State	LED green	LED red	Buzzer
Basic state, no phone number programmed	flashes rapidly	off	off
Basic state, phone numbers programmed	flashes slowly	off	off
Establish connection	on	off	off
Valid number dialled	flashes normal	off	off
Invalid number dialled	off	flashes normal	pulsed

Selftest

State	LED green	LED red	Buzzer
Relay defective	off	on	pulsed

8.2 Phone Number Erasing (ERASE Mode)

In shipping conditions the Dialer Blocker will normally not have any phone numbers stored in memory. It is however recommended for safety reasons to perform a phone number erasing prior to first programming to ensure an entirely empty memory.

The erasing of phone numbers will in any case delete all stored phone numbers at the same time. To do this please follow the steps below:

1. Press and hold input key in excess of 10 seconds. There will be a short buzzer signal after 2 seconds as well as after 10 seconds. Release the key after the 10 second signal.
2. The red LED flashes normal.
3. Press key momentarily. The red LED will switch off. All stored phone numbers are being erased.
4. There will be an automatic change over to the operation mode "Line Monitoring". Since there is no number in memory any longer the green LED will flash rapidly.

Monitoring Signals: Phone Number Erasing

State	LED green	LED red	Buzzer
Wait for acknowledgement of phone number erasing	off	flashes normal	off

8.3 Phone Number Programming (SET Mode)

Up to 8 telephone numbers at maximum 16 digits each can be programmed and stored in memory. The attempt to program any further number will be indicated by rapid flashing of the red LED for 10 seconds. The Dialer Blocker will then return to the normal operation mode. In order to program any new numbers all previously programmed and stored numbers will have to be erased.

Important Note:

The telephone numbers can be programmed manually by telephone or by modem. The programming processes are however different and will be described in the following:

8.3.1 Programming by Telephone

1. Press and hold input key in excess of 2 seconds. The green LED will light up. After 2 seconds there will be a short buzzer signal. Release key now. The green LED will switch off.
2. Enter complete phone number.
3. Press key momentarily.
4. The green LED will light up shortly.
5. Repeat entering the complete phone number.
6. Press key momentarily.
7. Both phone numbers entered are being compared. In case of compliance the phone number is stored in memory. The green LED will light to indicate successful programming. After 10 seconds the operation mode "Phone Number Programming" will be left automatically. By pressing the key there will be an immediate change over to the operation mode "Line Monitoring", i. e. the 10 second waiting time can this way be shortened.
8. If the numbers entered are not identical the red LED will flash rapidly until the key is pressed. No phone number will be stored in memory. The Dialer Blocker will automatically return to the operation mode "Line Monitoring".
9. If the programming process has not been completed there will be an automatic change over to the operation mode "Line Monitoring" after 20 seconds.
10. If connected to a Private Branch Exchange (PBX) it may be necessary to add a prefix (e. g. „0“) to the number dialled in order to firstly gain access to the public telephone system. If this is the case the user will have to keep this in mind when programming the desired telephone numbers.

8.3.2 Programming by Modem

If programming of phone numbers is performed by modem the number will be transmitted only once and there will also be no verification.

1. Press and hold input key in excess of 2 seconds. The green LED will light up. After 2 seconds there will be a short buzzer signal. Release key now. The green LED will switch off.
2. Start the dialling process of the desired phone number by use of the modem.
3. The green LED will light up for 10 seconds. The phone number has been stored.
4. Automatic change over to operation mode „Line Monitoring“.
5. Select „Clear Connection“ on your computer monitor.

Monitoring Signals: Phone Number Programming

State	LED green	LED red	Buzzer
Press key to change operation mode	on	off	off
No free number	off	flashes rapidly	off
Enter phone number	off	off	off
Valid number, being stored	flashes	off	off
Invalid number	off	flashes rapidly	off

9. Care, Maintenance and Disposal

Besides providing the appropriate voltage by means of the included power line adapter and the intended use of the product as a device for cutting off unwanted dialling processes into the public telephone system the Dialer Blocker does not require any special care or maintenance.

A Dialer Blocker that highly unexpected has become unusable must be disposed of observing all relevant legal regulations.

10. Debugging

If all regulations in this operation manual are observed correctly there should be no unexpected malfunctions. If nevertheless problems do have occurred there may be the following reasons:

No connection to the Internet possible.

- Green LED does switch off shortly every 2 seconds => Internet overloaded; try again later.
- Green LED does switch off shortly every 2 seconds => Wrong phone number programmed; repeat programming.
- Green LED flashes rapidly => No phone number connected; program phone number.
- Red LED flashes and buzzer sounds => Inadmissible dialling attempt detected; press key.
- No LED lighting => Check power supply.

Connection to the Internet possible, but red LED flashing and buzzer, sounding with every connection attempt => Dialer Blocker defective, safety no longer guaranteed.

If the latter is the case, please do not attempt to make any own repairs. Please return the device to your point of purchase and have it checked by a qualified technician. Opening or improper handling of the unit will invalidate any guarantee.

11. Specifications

Operating voltage	: 6 VDC from included power line adapter
Connections	.
Modem	: Fixed connection cable 1 m
TAE-N Telephone socket	: Standard telephone cable with Western connector
Dimensions (L x W x D)	: 75 x 45 x 23 mm
Operating temperature	: 0°C to 45°C

12. Distribution

Ordering and Shipping through
CONRAD Electronic GmbH
Klaus-Conrad-Straße 2
D-92530 Wernberg-Köblitz