Automatic Telephone Dialer Specifications
RACO Guard-It Model GI-4 Autodialer

Introduction

The RACO Guard-It Model GI-4 Autodialer monitors four input alarm channels and also internally monitors its AC power. The four input channels can be configured as digital (dry contract) or analog input. The Guard-It includes digitally recorded programming support messages, station identification message, power failure alarm message, and four default alarm messages. Application specific, user recorded messages may be digitally recorded to replace the default station identification message and four default alarm messages.

Automatic Telephone Dialer Specifications

1.0 General

The automatic dialer shall be a self-contained, solid state device. The dialer shall continuously monitor the presence of main power and the status of four independent alarm input channels, which may be programmed for N.O. or N.C. dry-contact (or logic levels) inputs or for 4-20 ma analog inputs.

Each of the four input channels shall be programmable to alarm on any of the following: OPEN circuit, CLOSED circuit, or analog HIGH and/or LOW alarm set points. Alarms shall be capable of independently being programmatically turned OFF.

On AC power failure (for dialer with backup battery option) and/or on violation of alarm criteria for any of the four alarm inputs, the dialer shall go into alarm status and begin alarm dialing and alarm notification. Dialing shall continue until the alarm(s) is(are) acknowledged.

Unless alarm notification is by pager, notification shall be by playback of high resolution digitally recorded alarm voice messages. Each alarm shall cause the playback of its specific custom message. Analog alarm messages shall include the percent-of-full-scale of the analog inputs.

Alarm acknowledgement shall be accomplished by pressing the 9-button on the telephone touch pad or by using the switch on the dialer front panel. Call-back alarm acknowledgement capability shall be available in the event that alarm notification is by numeric pager.

The dialer shall re-alarm and resume alarm dialing after a programmable period of time has elapsed after an alarm(s) has been acknowledged but the fault(s) causing the alarm(s) not remedied.

The dialer shall respond to inquiry calls from any telephone and shall provide a status report of alarm input point status (OPEN, CLOSED, or analog PERCENT) and main power status. The report shall include alarm status for each point (normal, alarm, and alarm acknowledged but fault not remedied). A warning message shall be provided if no phone numbers have been programmed for alarm notification or if the switch on the dialer front panel is set to DISARMED rather than READY.

1.1 Phone Link

The dialer shall be FCC approved. It shall operate on a standard dial-up rotary pulse or touch tone telephone line and shall be capable of calling from one to eight phone numbers, each up to 60 digits in length. Dedicated or lease phone lines shall not be required.

The following telephone interface features shall be included:

a. 60 digit phone numbers --- for all 8 phone numbers.
b. Telephone line fault detection --- tests phone line at regular programmed intervals and flashes LED on dialer front panel upon failure.
c. Automatic selection of pulse versus tone dialing --- tests for capability upon power up without user intervention and maybe overridden for non-standard PBX systems.
d. Call progress monitoring (CPM) --- detects busy and ringing signals; waits until phone is answer to annunciate voice alarm; abandons call if line is busy or no answer and quickly tries next number.
e. Numeric pager support --- allows pause characters and pager system terminator characters such as # or *.
f. PBX support --- ignores non-standard dialing tones and allows pause characters to allow waiting for outside line.

1.2 Programming Parameters and Other Features

Dialer shall be programmed using a standard touch tone telephone handset that shall be connected to the dialers through the RJ11 programming port. After programming, the programming telephone shall be disconnected and removed from the dialer. Pre-programmed speech shall provide entry guidance and confirmation of programmable features. Coded programming using function codes shall provide direct access to specific programmable items.

The following parameters/features shall be available. When software based, parameters shall be alterable from their default values through the local programming telephone handset:

a. Messages --- voice alarm messages for each alarm channel and for dialer station identification shall be digitally recorded at high resolution. Permanently stored factory recorded messages shall be included as default alarm messages and default station identification so as to allow the dialer to be fully functional even with no user recorded messages. Permanent messages to support user programming shall be provided.
b. Alarm Trip Delay --- each alarm channel response time shall be individually programmable from 0.1 to 999.9 seconds. Default shall be 2.0 seconds. Main power loss response time shall be fixed at 5 minutes.
c. Delay Between Alarm Dial Outs --- shall be programmable from 0.1 to 99.9 minutes. Default shall be 2.0 minutes.
d. Alarm Reset Time --- shall be programmable from 0.1 to 99.9 hours. Default shall be 1.0 hour.
e. Incoming Ring Response (dialer answer) Delay --- shall be programmable from 1 to 20 rings. Default shall be 1 ring.
f. Alarm Message Repetitions --- shall be fixed at 5 repetitions.
g. Station Identification --- see “a. Messages” above.
h. Input Alarm Criteria --- each dry-contact alarm input channel shall be independently programmable for non-alarm OPEN or CLOSED circuit. Alarm will occur when dry contacts transition from non-alarm state.
i. Built-In Microphone --- shall monitor background sounds at site whenever user is in phone contract with dialer.
j. Local Alarm Output --- transistor output for TTL or relay drive500 MA, 24 VDC max) activated during unacknowledged alarm.
k. Arming of System --- front panel shall have an OFF/ARMED/DISARMED switch.
l. Phone Dialing Mode --- shall be programmable for automatic, pulse, or touch tone. Default shall be automatic mode.
m. Phone Numbers --- up to eight phone number shall be programmable. Each phone number shall be up to 60 characters long. Pauses, *, and # characters shall be supported for numeric pager communications.
n. Metal Enclosure --- shall be NEMA-12 and shall be capable of surface or flush mount. Enclosure shall have LED lights indicating main power failure, DISARMED status,

phone line fault, phone off hook, alarm input line status (Normal, Fault with alarm trip delay not timed out, Unacknowledged Alarm, and Acknowledged Alarm).

1.3 Power, Operational Backup Battery, and User Program Storage

Main power for the dialer shall be either 10-14 VDC or 105-135 VAC. The latter requires the GAC option.

Backup power to allow dialer operation should main power be lost shall be by an internal 6 V, 4 AH gel cell rechargeable battery and precision voltage controlled charger, option GBB. A trickle charger shall not be supplied. Battery backup shall be 20 hours.

User program storage shall be by an internal lithium battery rated for 10 years from date of shipment. Dialer operating system and default voice messages shall be stored in non-volatile memory.

1.4 Surge protection

Unit shall have solid state surge protection on phone, power, and signal lines. Surge protection modules shall be replaceable at the RACO Factory.

1.5 Warranty, Repairs, Technical Support

The unit shall be covered by a Two (2) Year Warranty covering parts and labor performed at the Factory.

RACO Factory repairs shall be available. No-cost loaners shall be available prior to shipping defective dialers to the Factory.

RACO Factory technical support shall be provided to assist in programming, diagnosis, and product information. Support shall be by:

a. Toll Free 800 Number --- during RACO's normal working day to permit users to talk directly with technical service personnel.
b. www.racoman.com --- all literature, manuals, and support access available online.

1.6 UL Standard

Complies with UL Standards 1459, 1950.

1.7 Special Options

The following options shall be available on specific order:

a. Cellular wireless telephone communications.
b. NEMA-4X (sealed) enclosure.