

**CELLULAR DIALER + GATE OPENER  
INSTALLATION & SET UP MANUAL  
CD-272**



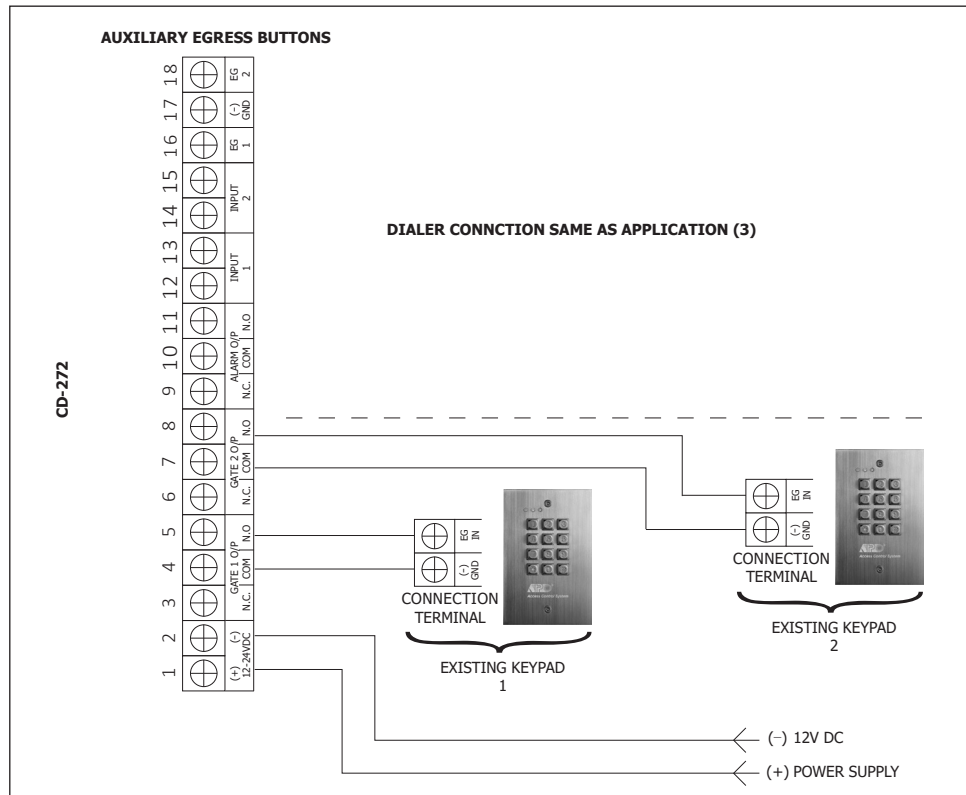
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## YOUR NOTES

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**(5) Dialer + Existing Keypad Actuation --- Another Combined Application(III)**



- Set System Operation Mode to “Dialer + Gate Opener” (it is the default setting).
- This application is mainly for you to up-grade the existing access control keypads to operate with telephone. It utilizes the Gate 1 and Gate 2 N.O. (Normally Open) output relay contacts to trigger the existing keypads through their Egress Button input terminal.
- The system sends text message to the programmed contact telephone numbers for reporting alarm; and controls the door locks directly with telephone.
- Simply connect the N.O. output contact directly in parallel with the Egress Button of your keypad at the egress input terminal (EGIN & (-)GND). It does not affect the features and functions of the existing keypad system but up-grade them for door open with mobile phone or line phone remotely.

**Note:**  
This connection is compatible with most of the access control keypads on the market.

- Connection of Auxiliary Egress Buttons at terminals 16-17-18 is not required while the existing keypads have their own egress buttons already; unless they do not have
- Connection for Keypad 2 is not required if the existing system has only one keypad
- The connection of the Dialer Section is same as like the Application Hints (3)

**INTRODUCTION**

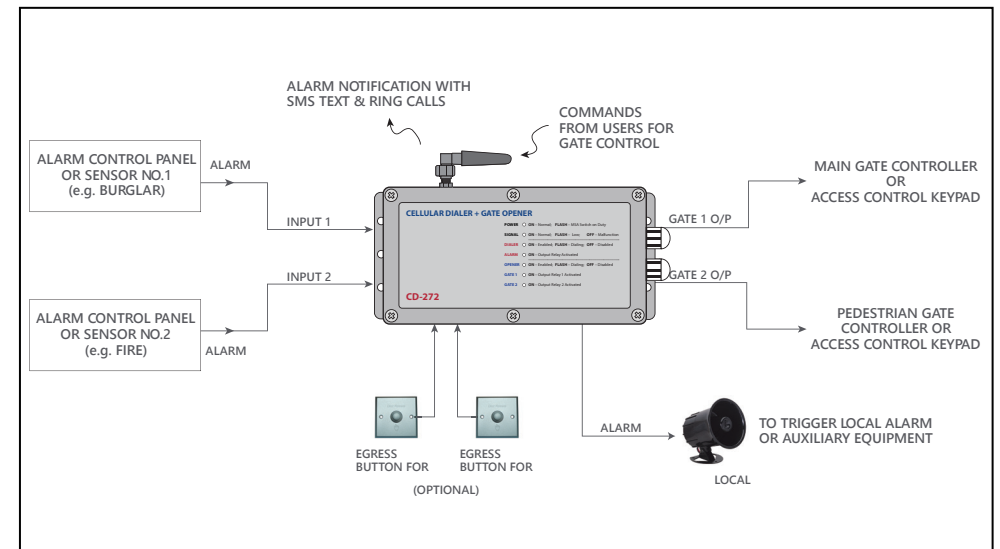
CD-272 is a dual function device that combines Cellular Dialer and Gate Opener in one unit. It is compatible with all our Alarm Control Panels and Access Control Keypads for feature enhancement; which makes a local alarm system to report alarm event to 5 preset telephones and makes keypad to actuate electric door lock via mobile or line telephone. CD-272 is almost compatible with all the alarm control panels & keypads on the market.

CD-272 has two versions for worldwide market. The CD-272E employs a 2G/3G Cellular module with European frequency bands while the CD-272A employs a 3G cellular module with American frequency bands. It will alert the owner and associate users with text message or ring calls to their mobile phone or line phone while alarm occurs.

CD-272 has 3 Operation Modes for owner selection to cope with different application environments.

- 1) Dialer + Gate Opener (default) ----** Both functions are enabled. The system is shared for two functions. Suitable for low access control traffic environment at home or office.
- 2) Dialer Only -----** Dedicates for alarm event reporting; the Gate Opener is disabled.
- 3) Gate Opener Only -----** Dedicate for Gate Opener; the Dialer is disabled.

**APPLICATION**



## FEATURES & SPECIFICATIONS

### Dialer & Gate Opener Common Features

- Master Code for System Feature Programming Authorization
- Master Code, Owner's Contact Phone Number, System Operation Mode and SIM Card Testing Interval Settings are Authorized with **(MSA)** Switch (**M**aster-**S**etting-**A**uthorization)
- Programmable 1-6 Weeks SIM Card Active Testing
- Dialer Performs Signal Strength Testing with SMS Testing Command
- Function and Feature Programming with SMS from Mobile Phone
- Maximum **30 Characters** Including Space SMS Text
- Execute Dialing Immediately for Alarm Notification after Opener Comment Finish While System in Dialer + Opener Mode.

### Dialer Section

- Five Telephone Numbers (1 Owner + 4 Auxiliary) for Receiving Alarm SMS and Ring Call. The Owner Number Also Receives System Status SMS.
- Telephone Number Can be 30 Digits Maximum
- Three Alarm Notification Formats: **1)** SMS + Ring, **2)** SMS Only, or **3)** Ring Only
- Two Isolated Input Terminals for Alarm Event Triggers. e.g. Burglar, Fire or Others
- Input Terminals Independently Selectable for Ring Only to Prevent SIM Card Charges
- Input Terminals Response Time Programmable between 1-10 Seconds to Prevent Arm-Disarm Ring Back Signal or Interference from External Alarm Control Panel
- Programmable Inactive Timer after Dialing Prevents Undesirable Repeat Triggering
- One Alarm Output Relay with NC and NO Output Contacts to Drive External Device

### Gate Opener Section

- Operate with or without Authorization Phone Number
- 1000 Authorization Phone Numbers Maximum to Operate The Gate Opener
- Text to Open for Pedestrian Gate
- Text to Keep Main Gate And Pedestrian Gate Temporarily Open with Super User Code
- Text to Temporarily Stop Operation of The Opener Section During The Time of After Office Hour or Nobody at Home
- Two Relay Outputs for Main Gate (O/P 1) And Pedestrian Gate (O/P 2) Actuation
- Relay Outputs Are Programmable for 2 – 60 Seconds (default 2 sec)
- Two Auxiliary Egress Button for Main Gate and Pedestrian Gate Actuation for Emergency Case

### Specifications

- CD-272E -- 2G/3G Frequency Band for European Networks
- CD-272A -- 3G Frequency Band for American Networks
- Power Supply Voltage: 12-24VDC – 1 Amp Max.
- Operating Current: 50mA (Quiescent); 180mA Max.
- Two Inputs: Isolated Non-Polarity Input 10-24VDC; or Configure for Dry Contact Trigger
- One Alarm Relay Output for Dialer: Form C Relay with NC & NO Dry Contacts
- Two Door/Gate Actuation Relay Outputs: Form C Relays with NC & NO Dry Contacts
- Contact Rating of Output Relays: 5Amp / 30VDC Dry Contacts
- No Land Line Is Required
- Programmed by SMS Text Message
- Operation Temperature: -10 to +40 Degree C
- Indoor Installation
- Dimension: 92(H) X 160/198(W) X 46(D) mm  
Weight: 360g

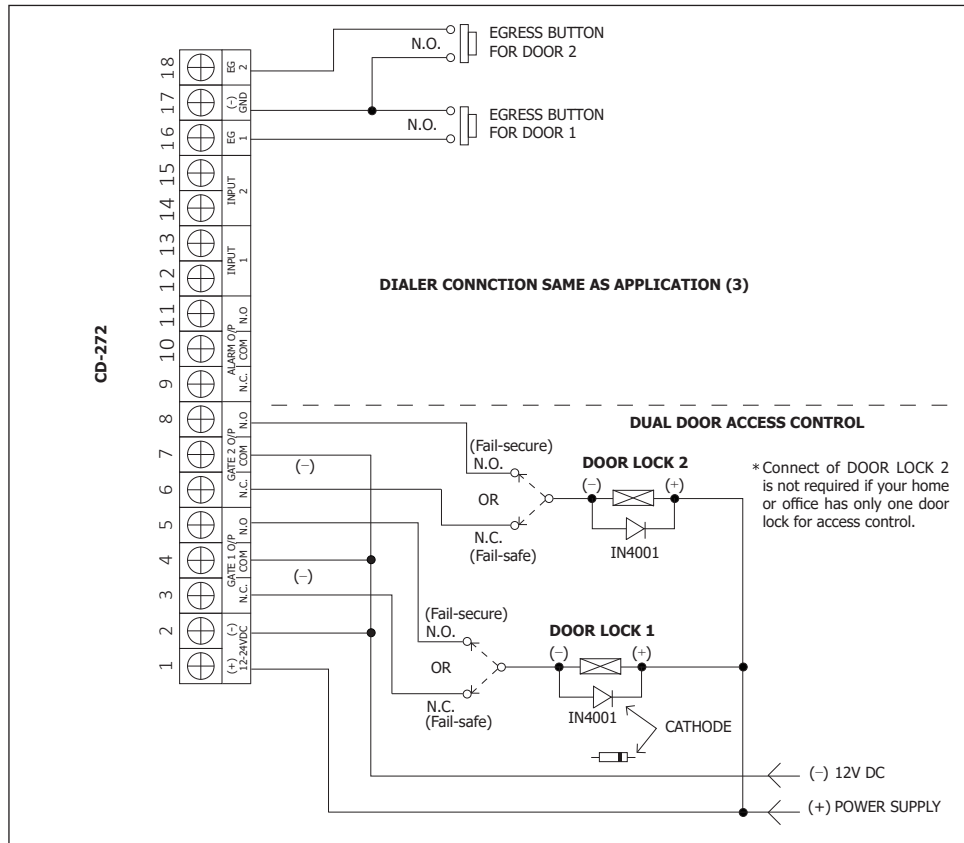
- Use N.O. (Normally Open) relay output contact for Fail-secure electric door lock while N.C. (Normally Closed) relay output contact for Fail-safe electric door lock.

#### Note:

**Fail-secure Electric Lock** --- Normally de-energized; power ON to unlock, power OFF to lock.  
**Fail-safe Electric Lock** --- Normally energized; power ON to lock. Power OFF to Unlock.

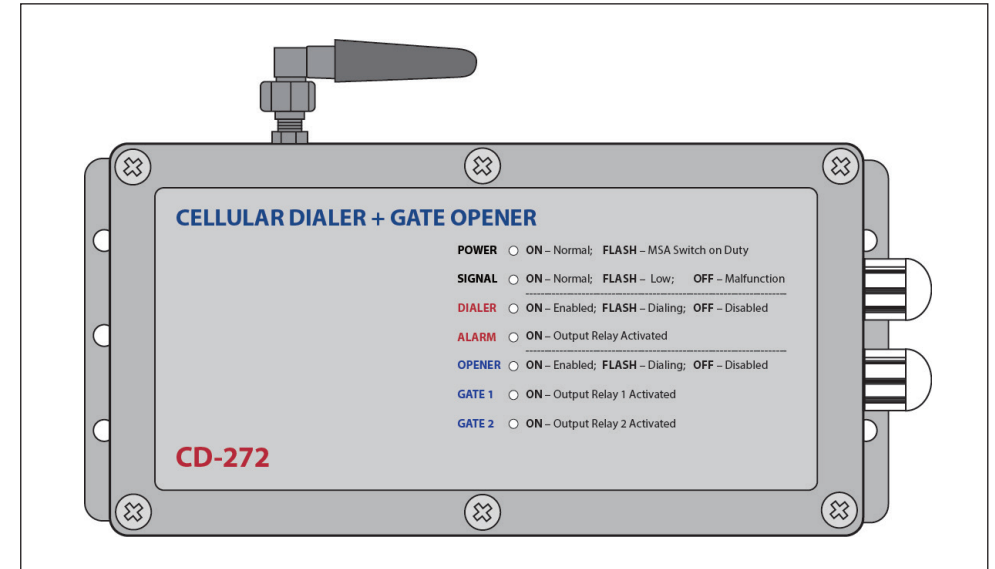
- Connect the IN4004 diode as close as possible across the power input terminals of the electric door lock with correct polarity to absorb the back EMF and electric spikes that may disturb or damage the system

#### (4) Dialer + Direct Drive of Door Locks --- Combined Application (II)



- Set System Operation Mode to “Dialer + Gate Opener” (it is the default setting).
- This application utilizes the Gate 1 and Gate 2 output relays to directly drive two Electric Locks in access control system.
- The system sends text message to the programmed contact telephone numbers for reporting alarm; and controls the door locks directly with telephone.
- The connection of the Dialer Section is same as like the Application Hints (3)
- Connection of the auxiliary Egress Buttons is necessary. Connect Egress Button 1 in parallel with terminals 16 - 17; and Egress Button 2 in parallel with terminal 17 – 18. Terminal 17 is the (-) common ground of the two egress buttons. The two egress buttons are prepared for people to open door lock 1 and door lock 2 from inside premises.
- The connections to Door Lock 2 and Egress Button 2 are not required if your home or office has only one access control door lock.

#### INDICATORS



- **POWER (Red)** : ON -- Power normally applied; FLASH -- MSA Switch in ON position for authorisation settings
- **SIGNAL (Amber)** : ON -- Normal signal strength; FLASH – Signal low; OFF -- Cellular module malfunction
- **DIALER (Blue)** : ON – Enabled; FLASH – Dialing in progress; OFF – Disabled
- **ALARM (Green)** : ON -- Dialer alarm output relay activated
- **GATE OPENER (Blue)** : ON – Enabled; FLASH – Function Paused; OFF -- Disabled
- **GATE 1 (Green)** : ON -- Gate opener output relay 1 activated
- **GATE 2 (Green)** : ON -- Gate opener output relay 2 activated

#### WARNING BEEP

System generates warning beep of **1 beep / 5 seconds** continuously along with **SIGNAL Indicator OFF** in the following situations:

- No SIM card is inserted
- System can not log-on with service network
- Cellular module malfunction
- The 2G-3G selector jumper is not in correct position

## PROGRAMMING

### (A) GETTING STARTED – Required for both Dialer and Gate Opener

#### 1. Place A SIM Card to The System

Before installing the SIM card should have PIN code “0000”, or be free of a PIN code. Otherwise, it does not work in the system. The PIN can be removed by putting the SIM card in a mobile phone and remove it in the security menu.

##### Note:

- Make sure the power is disconnected when you fit the SIM card into the holder.
- Make sure the SIM card has credit to receive text messages and send acknowledgements.

- Open the cover of the enclosure. A SIM card holder can be found on the Cellular module circuit board.
- Insert and push the SIM card into the holder with the clipped corner of the SIM card lines up with the clipped corner of the holder as the label shown.
- The system takes 5-20 seconds to log-on with the service network after power-up.

#### The 2G-3G Selector

- The equipment is compatible with 2G and 3G Cellular modules.
- Factory has put selection jumper on the position that matches with the Cellular module in this equipment. DO NOT change the jumper setting unless required.
- In case of change of a 2G Cellular module to a 3G Cellular module or vice versa is required, please follow the procedures:
  - Power down the equipment
  - Remove the old module and put the new module on the socket
  - Put the jumper to the position that matches with the new module
  - Insert the SIM card to the new module
  - Power up the equipment and wait until it logs-on with the service network

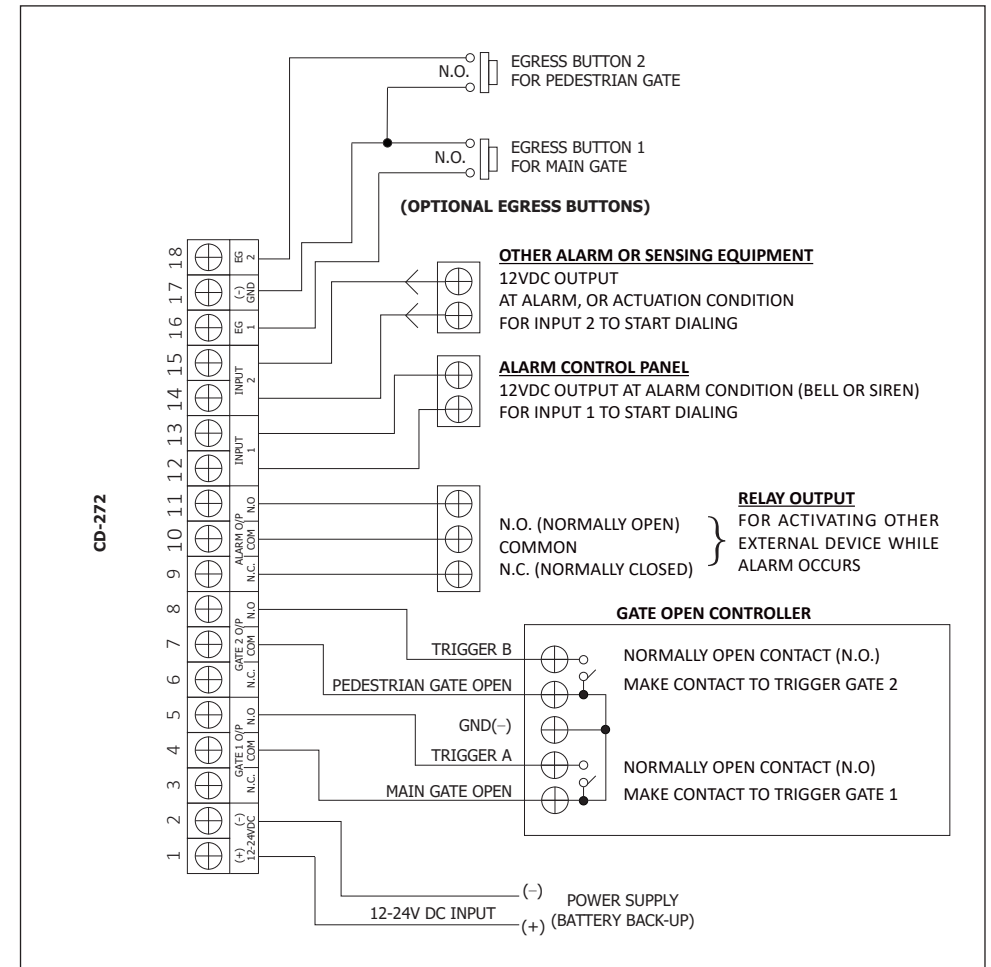
#### 2. Four Settings Require MSA “Master Setting Authorisation” Switch

Four major settings require authorization of using MSA switch to enable.

- Master Code** – An authorization code for programming the features and function
- Owner’s Contact Phone Number** – For receiving the system status information
- System Operation Mode** – Set the desired operation mode for the system
- SIM Card Testing Interval** – Keep proper function of the SIM card & advise owner status

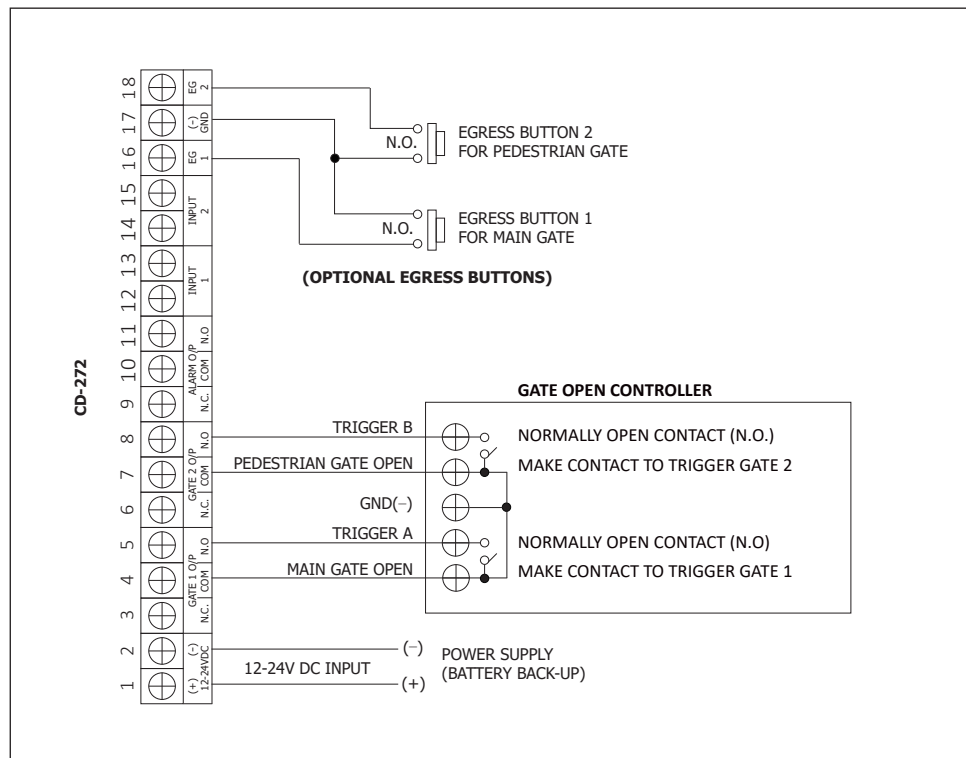
**Note:** The system does **NOT** work properly without the above four major settings.

### (3) Dialer + Gate Opener --- Combined Application (I)



- Set System Operation Mode to “Dialer + Gate Opener” (it is the default setting).
- The Dialer section of the system sends text message to the programmed contact numbers for reporting alarm.
- The Opener section accepts telephone call to open the gates (door).
- See Application Hints (1) & (2) for the connection details.

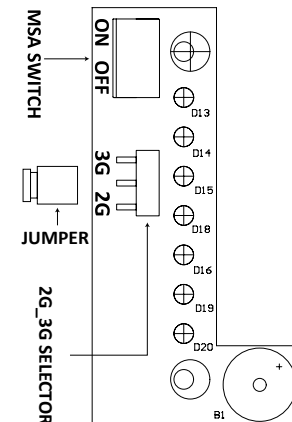
## (2) Gate Opener Mode --- Typical Dual Gate Access Control Application



- Set System Operation Mode to “Gate Opener Only”
- Connect terminals 1 - 2 to a power supply of 12-24VDC with correct polarity. A power supply with back-up battery is recommended.
- Connect terminals 4 – 5, the Gate 1 relay N.O. output to the Main Gate triggering input terminal at the gate controller. Usually it is a momentary N.O. input terminal.
- Connect terminals 7 – 8, the Gate 2 relay N.O. output to the Pedestrian Gate triggering input terminal at the gate controller. Usually it is a momentary N.O. input terminal.
- Connection of the auxiliary Egress Buttons is optional. Connect Egress Button 1 in parallel with terminals 16 - 17; and Egress Button 2 in parallel with terminal 17 – 18. Terminal 17 is the (-) common ground of the two egress buttons. The two egress buttons are prepared for people to open the main gate (gate 1) and the pedestrian gate (gate 2) from inside premises in emergency or while the dialer is out of order (such as no credit on SIM card to send or receive text).  
**Note:** The terminals accept N.O. (Normally Open) Egress Button only.
- No connection for other terminals.

### The “MSA” Switch

- Open the box. The **MSA** switch can be found on the LED indicator circuit board.
- Switch ON the system --- the **Power** indicator **ON**.
- Slide the **MSA** switch from **OFF** to **ON** position --- the **Power** indicator **Flash**.
- The system is ready to receive text commands for the four settings.
- Call the system’s SIM card’s number from owner’s mobile phone (suggested) and send the programming SMS text to the system for the settings.
- Always send setting text at a time and wait for the returned acknowledgement text before sending another new setting text.
- After the four settings are done, slide the **MSA** switch **back to OFF** position to lock the programmed texts in system to prevent external disturbance.



### 2.1 Set A System Master Code – Example:

- Master Code is the authorization code of the system for feature and function programming with SMS message.
- The Master Code is fixed at 4 digits
- Only the person (usually the owner) who holds the Master Code is allowed to program to the system.

MASTER=<XXXX>

<XXXX>= A 4-digit code

e.g. 2233

SMS command text:

MASTER=2233

Acknowledgement text:

MASTER CODE STORED

**Note:** The old master code will be overridden by a newly programmed master code if it was any.

### 2.2 Set Owner’s Contact Phone Number for Alarm Message – Example:

Owner’s contact phone number is major number of the system for the following functions:

- Receive alarm message or ring calls while alarm occurs.
- Receive the SIM active status message after periodic testing.

The contact phone number must be programmed to your system; which can be **30 digits maximum**.

OWNER=<Phone Number>

e.g. Phone Number=12345678

SMS command text:

OWNER=12345678

Acknowledgement text:

OWNER NUMBER STORED

**Note:** The old owner’s contact phone number will be overridden by a newly programmed contact number if it was any.

### 2.3 Set System Operation Mode – Example:

- There are 3 type of Operation Modes available:
  - 1) Dialer + Gate Opener (exit factory setting)
  - 2) Dialer Only
  - 3) Gate Opener Only

**Note:** Operation Mode (1) was set to the system while exit factory. **No setting change** is required if you accept “Dialer + Gate Opener” operation mode.

OPERATIONMODE=<Type of Operation Mode>

SMS command text: **OPERATIONMODE=DIALER+OPENER (Exit Factory Setting)**

**OPERATIONMODE=DIALER**

**OPERATIONMODE=OPENER**

Acknowledgement text: **DIALER+OPENER**  
**DIALER ONLY**  
**OPENER ONLY**

### 2.4 SIM Card Testing Interval -- Example

The testing interval starts to count after the dialer sending out the last SMS message (any message from the dialer). The system will send a SMS message to the Owner’s contact phone number only the SIM card is active after testing.

The **exit factory setting of testing interval is 6 weeks** to monitor the activity of the SIM card. This will then eliminate any issue of the SIM card getting shut down if it is unused for 3 months.

The **testing interval can be set between 1 – 6 weeks**. More frequent testing of the SIM card will cause more charges to it! **No setting change** is required if you accept the Exit Factory setting of 6 weeks.

SIMTEST=<X>

X = 1 – 6 (weeks) ; Exit Factory Setting = 6 Weeks

SMS command SIM card test: **SIMTEST=3 e.g. Change Test Interval to 3 weeks**

Acknowledgement texts: **SIM CARD TEST STORED**

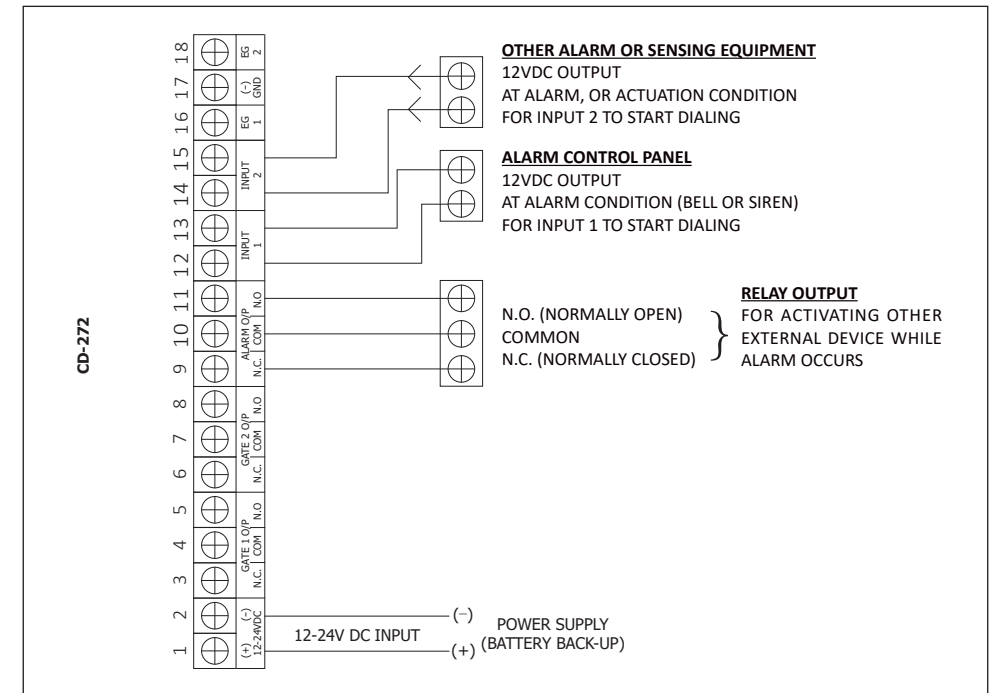
### SIM Card Active Acknowledgement

The system will send SMS message to Owner’s Contact Number confirming SIM card active after testing if it is.

SIM card active acknowledgement text: **SIM ACTIVE**

## APPLICATION HINTS

### (1) Auto-Dialer Mode --- Typical Alarm Application



- Set System Operation Mode to “Dialer Only”
- Connect terminals 1 - 2 to a power supply of 12-24VDC with correct polarity. A power supply with back-up battery is recommended. The power supply of an alarm control panel is usually with back-up battery.
- Connect terminals 12 -13 (Input 1) in parallel with the Bell or Siren output terminals of an alarm control panel that provides DC voltage output at alarm condition to trigger the dialer (input voltage can be 10-24VDC). The input terminals have no (+) (-) polarity discrimination
- Input 2 is a pair of auxiliary input terminals for another alarm or other equipment to trigger the dialer. Connect terminals 14 - 15 in parallel to the linked-up equipment that provides DC voltage output at activation condition (input voltage can be 10-24VDC). The input terminals have no (+) (-) polarity discrimination.
- Terminals 9 - 10 - 11 are relay output contacts of N.C. (Normally Closed) and N.O. (Normally Open). They are prepared for activating other outer equipment while alarm occurs. The contacts are dry contact with power rating of 5Amp / 30VDC
- No connection for other terminals.

#### Remark:

The Auto-Dialer is compatible with most of the alarm control panels on the market with 12-24V output voltage at alarm condition.



**16 – 17 – 18 : EG 1 & EG 2** (Egress Button 1 & Egress Button 2 of *The Gate Opener*)

These are auxiliary facilities of the gate opener. They are prepared for people to open the main gate and the pedestrian gate from inside the premises in emergency or while the dialer is out of order (such as no credit on SIM card to send or receive text).

EG 1 (Terminal 16) controls Output Relay 1 for opening Main Gate  
EG 2 (Terminal 18) controls Output Relay 2 for opening Pedestrian Gate  
Terminal 17 is the (-) common ground of the EG 1 & EG 2.

EG 1 and EG 2 are Normally Open (N.O.) input terminals refer to (-) ground. They are (-) triggered.

- a) Connect Egress Button 1 in parallel with Terminals 16 & 17.
- b) Connect Egress Button 2 in parallel with Terminals 18 & 17.
- c) Terminal 17 is the (-) common grounding point of the system.

**Note:** Connection of Egress Buttons is optional.

**(B) OPERATION SETTINGS FOR DIALER SECTION – Require Master Code Authorization**

Please send setting text at a time and wait for the returned Acknowledgement text before you try to send another setting text.

**3. Set or Change The Back-up Contact Phone Numbers for Alarm Message**

Apart from the owner’s contact phone number, there are four back-up contact numbers are available for receiving alarm message or ring calls while alarm occurs. The back-up contact numbers can be changed or erased any time with SMS command text if required.

**Contact numbers can be 30 digits maximum.**

**3.1 Set or Change Dialer Contact Numbers – Example:** e.g 1st Number=12345678  
Taking 2233 as <Master Code> for example: e.g 2nd Number=22345678

<MASTER CODE>DTEL1=<Phone Number>

SMS command text to set 1st contact number: 2233DTEL1=12345678  
SMS command text to set 2nd contact number: 2233DTEL2=22345678  
SMS command text to set 3rd ---- 4th Nos.: similar for DTEL3 ---- DTEL4

Acknowledgement text: DTEL NUMBER 1 STORED  
DTEL NUMBER 2 STORED  
similar for DTEL3 ---- DTEL4

**Note: 1)** The old contact number will be overridden by a newly programmed contact number in the same location.

**2)** In case a **foreign number** needs to be entered start with **00** followed by **country code** and **area code**.

e.g. Germany (49), Hamburg (40), Tel No. (12345678).

**Example:** 2233DTEL1=00494012345678

**3.2 Erase Dialer Contact Numbers – Example:**

Erase a contact number:

<MASTER CODE>ERASEDTEL1

SMS command text to erase 1ST contact number: 2233ERASEDTEL1  
SMS command text to erase other numbers: Similar for other numbers

Acknowledgement text: DTEL NUMBER 1 ERASED  
Similar for other numbers

#### 4. Alarm Notification Text from Triggering of INPUT 1 & INPUT 2

You may use Input 1 and Input 2 for two systems working with the dialer (e.g. Burglar Alarm, Fire Alarm or Other Outer Devices). A unique user defined alarm texts can be programmed into the two Inputs of the Dialer for sending them to the contact telephones as alarm notification. The text allows maximum **30 characters** including space.

The following are the **default texts** programmed:

Triggered Input 1 TEXT1: **ALARM 1**

Triggered Input 2 TEXT2: **ALARM 2**

##### 4.1 User Defined Alarm Notification Text – Example:

Program the user defined text for Input 1 and Input 2.

<MASTER CODE>TEXT1=<User Defined Text>

SMS command text 1: **2233TEXT1=BURGLAR ALARM**

SMS command text 2: **2233TEXT2=FIRE ALARM**

Acknowledgement texts: **TEXT1 STORED**

**TEXT2 STORED**

#### 5. Types of Alarm Notifications from Triggering of INPUT 1 or INPUT 2

There are 3 types of alarm notifications that can be selected independently by the owner for **Input 1** and **Input 2** to report alarm event to the contact numbers.

##### Note: Priority of Alarm Notification:

- The system will send alarm notification for the **Input** (Input 1 or Input 2) that is triggered first. During the alarm reporting cycle is still in operation, the system does not accept another alarm triggering from the same or the other Input until the operation cycle is completed.
- After the first alarm reporting has completed, the system will accept new triggering from **Input 1** or **Input 2**.
- The system will send alarm notification for **Input 1 only** in the case that both inputs are triggered simultaneously.

##### Type Names

##### 1) SMS+RING CALL (default for both Input 1 & Input 2)

Default setting of both Input 1 and Input 2, the system sends out SMS message followed by a Ring Call to increase the chance of getting attention of the contacted person. The Ring Call will stop after 6 rings to prevent call charges being made to the SIM card.

Re-program to other type is usually not required if **SMS+RING CALL** suits for you.

##### 2) SMS ONLY

The system sends out SMS message only but no ring call to prevent noise disturbance.

##### 3) RING CALL ONLY

The system sends out Ring Call only for line telephones without SMS capability; or mobile phone preventing SMS charges to SIM card. The Ring Call will stop automatically after 6 rings.

#### 12 – 13 ; 14 – 15 : INPUT 1 ; INPUT 2 (Input 1 & Input 2 of *The Dialer*)

These are the two inputs for connecting with the external equipments to trigger the Dialer to send SMS message and/or Ring Call to the contact numbers to report alarm events. Such as Burglar alarm, Fire alarm or others etc..

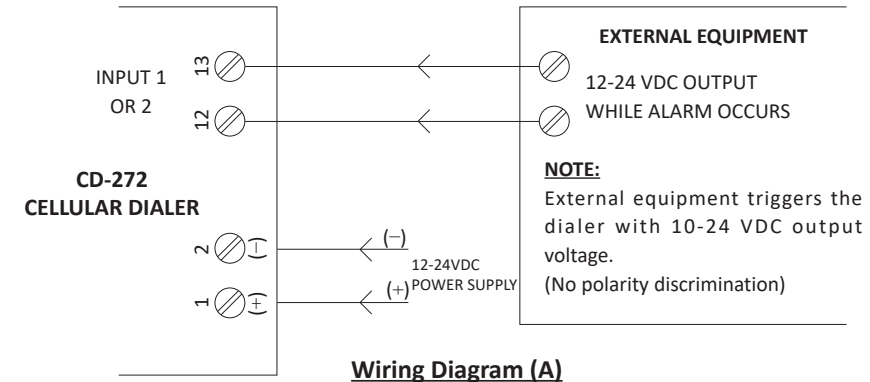
The two inputs are user programmable independently for the desired alarm formats:

- 1) Alarm Notification Text (**Default: ALARM 1, ALARM 2**) -- See setting option (4) for the details
- 2) Type of Alarm Notifications (**Default: SMS + Ring Call**) -- See setting option (5) for the details
- 3) Response Time (**Default: 4 seconds**) -- See setting option (7) for the details
- 4) Inactive Time after Trigger (**Default: 0 minute**) -- (See setting option (8) for the details)

##### Remark:

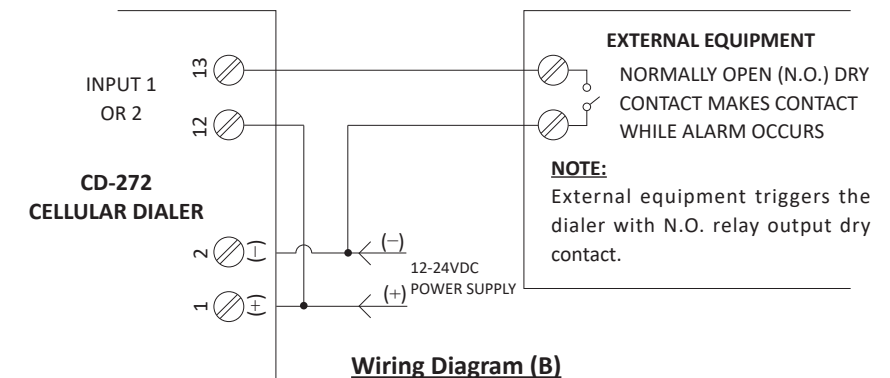
##### a) Triggered with DC Voltage

The input 1 and input 2 are isolated inputs. They are activated with an input voltage of 10-24VDC with no polarity discrimination. They are compatible with any equipment that provides a triggering voltage with the programmed response time.

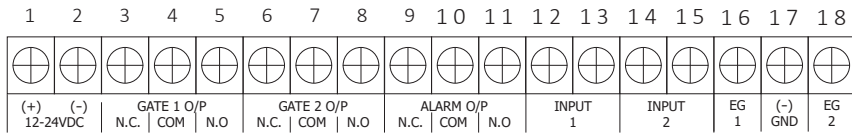


##### b) Triggered with N.O. Dry Contact

In the case of the external equipment only available with N.O. (Normally Open) dry contacts (the output contact carries no voltage), the inputs can be configured as like the Wiring Diagram (B) to be compatible with it.



## THE CONNECTION TERMINALS



### **1 – 2 : 12-24V DC** (Power Input Terminals of *The Whole System*)

Connect to a 12-24VDC power supply with correct polarity as indicated. Terminal 1 is (+) and terminal 2 is (-) that is also the common grounding point of the system.

### **3 – 4 – 5 : GATE O/P 1** (Output Relay 1 of *The Gate Opener*)

Gate output relay 1 is prepared for controlling the **Main Gate** (or door). It is controlled by mobile or line telephone dialing the SIM card number. It is a Form C relay with dry contacts of 5Amp/ 30VDC maximum rating. Terminal 3 is the NC contact, Terminal 5 is the NO contact and Terminal 4 is the common point of the two contacts. The operation time is programmable between 1-30 seconds. **(Default = 2 seconds).**

### **6 – 7 – 8 : GATE O/P 2** (Output Relay 2 of *The Gate Opener*)

Gate output relay 2 is prepared for controlling the Pedestrian Gate (or door). It is controlled by SMS text #PED# from mobile phone. It is a Form C relay with dry contacts of 5Amp/ 30VDC maximum rating. Terminal 6 is the NC contact, Terminal 8 is the NO contact and Terminal 7 is the common point of the two contacts. The operation time is programmable between 1-30 seconds. **(Default = 2 seconds).**

### **9 – 10 – 11 : ALARM O/P** (Alarm Output Relay of *The Dialer*)

Alarm output relay is prepared for activating an external device while alarm occurs; such as an electronics siren. It is a Form C relay with dry contacts of 5Amp/ 30VDC maximum rating. Terminal 9 is the NC contact, Terminal 11 is the NO contact and Terminal 10 is the common point of the two contacts. The relay starts to activate 10 seconds after the dialer finish all dialing and its operation time is programmable between 1-5 minutes. **(Default = 1 minute)**

### **5.1 Alarm Notification Type Selection for INPUT 1 & INPUT 2 – Example:**

The notification will be sent to the five contact numbers with the type selected for **Input 1** and **input 2**.

<MASTER CODE>CALL 1=<Type Name>

SMS command call 1: **2233CALL1=SMS+RING CALL**  
 SMS command call 2: **2233CALL2=RING CALL ONLY**

Acknowledgement texts: **CALL1 TYPE STORED**  
**CALL2 TYPE STORED**

### **6. Repeat Dialing of Alarm Notification**

In order to emphasize the urgency of alarm, the dialer can be programmed for repeat dialing to ensure that the notification reaches the contact numbers and getting attention. Repeat dialing starts **5 minutes** after the first dialing cycle finish.

The dialer dials only once to each contact number. No repeat dialing in default setting.

#### **6.1 Repeat Dialing Setting for Alarm Notification – Example:**

<X> : 0 (Dial once, NO repeat) -- **Default**

1 (Repeat dialing once)

<MASTER CODE>REPEAT=<X>

SMS command repeat dialing: **2233REPEAT=1** e.g. **Repeat Dialing after 5 minutes**

Acknowledgement texts: **REPEAT DIALING STORED**

#### **Note:**

1) Manner of Repeat dialing on Alarm Notifications:

##### **a) SMS+Ring Call**

Dialer sends out SMS and Ring Call at the first dialing. It is Ring Call only and no SMS message at repeat dialing.

##### **b) SMS Only**

There is no repeat dialing at SMS alarm notification mode even repeat dialing notification was set.

##### **c) Ring Call Only**

Dialer sends Ring Calls for both of the first and repeat dialings.

2) Dialing of alarm notification occupies the dialer for the job; which will refuse the call-ins from the Gate Opener users during dialing. Obviously, repeat dialing will further occupy more time. It is not recommended to set system with repeat dialing for system in **DIALER + OPENER** mode but **DIALER** mode only.

## 7. Response Time for INPUT 1 & INPUT 2 to Make Alarm Triggering

The response time of the two inputs is programmable between 1 to 10 seconds (represented by two digits 01 to 10) independently for them to easily interface with different types of external equipments; such as alarm control panel.

**Default setting is 4 seconds;** which prevents most of the interference causing false triggering; such as the ring back signals from alarm control panel during arm-disarm controls.

4 seconds suits most applications, re-program the response time is usually not necessary.

### 7.1 Response Time Setting for Input 1 & Input 2 – Example:

The Input requires a voltage of 10-24VDC with duration of not less than the programmed time to trigger. Longer the time has better noise immunity to the inputs.

<XX> : 01 – 10 (seconds) ; **Default = 04** (4 seconds) for both input 1 & 2

<MASTER CODE>RESPTIME1=<XX>

SMS command response 1: **2233RESPTIME1=02** e.g. **Change Response Time to 2 sec.**

SMS command response 2: **2233RESPTIME2=03** e.g. **Change Response Time to 3 sec.**

Acknowledgement texts: **RESPONSE TIME1 STORED**  
**RESPONSE TIME2 STORED**

## 8. Inactive Time for INPUT 1 & INPUT 2 after Triggering

The inactive time of the two inputs is programmable between 0 to 60 Minutes (represented by two digits 00 to 60) independently. It is for some of the connected external equipments that require time to stabilize after each triggering.

During the Inactive period, the inputs are disable and do not accept repeat triggering.

**Default setting is 0 minute.** The two inputs work normally after each trigger.

Re-program the inactive time is usually not required in most applications.

### 8.1 Inactive Time Setting for Input 1 & Input 2 – Example:

Set inactive time to Dialer if you have found that the external equipment connected still sends unstable output signals to the dialer after the first trigger; e.g. A water level detector at critical water level etc.

<XX> : 00 – 60 (minutes) ; **Default = 00** (No Inactive) for both input 1 & 2

<MASTER CODE>INACTIVETIME1=<XX>

SMS command inactive 1: **2233INACTIVETIME1=01** e.g **Change Inactive Time to 1 minutes**

SMS command inactive 2: **2233INACTIVETIME2=01**

Acknowledgement texts: **INACTIVE TIME1 STORED**  
**INACTIVE TIME2 STORED**

II) GATE OPENER SECTION		SETTING	SMS COMMAND TEXT	ACKNOWLEDGEMENT TEXT	RANGE	DEFAULT VALUE
11.1.1	Set or Change Authorization Phone Numbers	<Master Code>GTTEL000=<Phone Number> ***** <Master Code>GTTEL999=<Phone Number>		GTTEL000 STORED ***** GTTEL999 STORED	30 Digits Maximum 000-999, Authorization Phone Numbers	Empty
11.1.2	Erase Authorization Phone Numbers One by One	<Master Code>ERASEGTTEL000 ***** <Master Code>ERASEGTTEL999		GTTEL000 ERASED ***** GTTEL999 ERASED	000-999 1000 Authorization Phone Numbers	----
11.1.3	Erase Authorization Phone Numbers in All or Partially	<Master Code>ERASEGTTEL000-999 (all) <Master Code>ERASEGTTEL000-020 (partial) - Example		GTTEL GROUP ERASED	Any Group Numbers in 000-999	----
12.1	Enable / Disable of Authorization User Phone Number List	<Master Code>USER LIST=ENABLE <Master Code>USER LIST=DISABLE		USER LIST ENABLED USER LIST DISABLED	Enable / Disable	Enabled
13.1	Activation Time for OUTPUT 1 & OUTPUT 2	<Master Code>TIMEOP1=<XX> <Master Code>TIMEOP2=<XX>		RELAY 1 TIME STORED RELAY 2 TIME STORED	01-60 Seconds	02 (2 Seconds) for both OUTPUT 1 & OUTPUT 2
14.1	Super User Code for Special Functions	<Master Code>SUPER=<XXXX>		SUPER CODE STORED	4-Digit Fixed	Empty
15	Reset of Gate Opener	<Master Code>RESET=OPENER		OPENER RESET		All Opener Settings Back to Default Values
<b>(III) OPERATION --- General Users</b>						
	<b>FUNCTION</b>	<b>SMS COMMAND TEXT</b>	<b>ACKNOWLEDGEMENT TEXT</b>	<b>RANGE</b>	<b>RESULT</b>	
1	Text to Test The Signal Strength	#SIGNAL#	SIGNAL=15 (Example)	0-30 Score	Less than 12 Will Be Unreliable	
2	Text to Open The Main Gate (Door 1)	a) SIM Card Number ; b) #MAIN#			Main Gate Open	
3	Text to Open The Pedestrian Gate (Door 2)	#PED#			Pedestrian Gate Open	
<b>(IV) OPERATION --- Super Users (The Users Hold The Super User Code)</b>						
	<b>FUNCTION</b>	<b>SMS COMMAND TEXT</b>	<b>ACKNOWLEDGEMENT TEXT</b>	<b>RESULT</b>		
4	Text to Keep Main Gate (or Door) Open / Resume	Text to Open: <Super User Code>MAIN Text Again to Resume: <Super User Code>MAIN	MAIN GATE OPEN MAIN GATE RESUME	Main Gate Keeps Open Main Gate Operation Resumed		
5	Text to Keep Pedestrian Gate (or Door) Open / Resume	Text to Open: <Super User Code>PED Text Again to Resume: <Super User Code>PED	PED GATE OPEN PED GATE RESUME	Pedestrian Gate Keeps Open Pedestrian Gate Operation Resumed		
6	Text to Stop / Resume Operation of Gate Opener Section	Text to Stop: <Super User Code>OPENER Text Again to Resume: <Super User Code>OPENER	OPENER STOP OPENER RESUME	Opener Operation Stopped Opener Operation Resumed		

## I) DIALER SECTION ----- (NOTE: Setting 2.1, 2.2, 2.3 &amp; 2.4 require "MCS" jumper to enable)

SETTING	SMS COMMAND TEXT	ACKNOWLEDGEMENT TEXT	RANGE	DEFAULT VALUE
2.1 System Master Code	MASTER=<XXXX>	MASTER CODE STORED	4-Digit Fixed	Empty
2.2 Owner's Contact Phone Number	OWNER=<Phone Number>	OWNER NUMBER STORED	30 Digits Maximum	Empty
2.3 System Operation Modes	OPERATIONMODE=<Type of Operation> (3 Type of Modes for Owner Selection)	DIALER+OPENER DIALER ONLY OPENER ONLY	a) DIALER+OPENER b) DIALER c) OPENER	Exit Factory Setting DIALER+OPENER
2.4 SIM Card Testing Interval	SIMTEST=<X>	SIM CARD TEST STORED	1-6 Weeks	6 Weeks
SIM Card Active Acknowledgement		SIM ACTIVE		
3.1 Set or Change Dialer's Contact Numbers	<Master Code>DTELL=<Phone Number> ----- <Master Code>DTEL4=<Phone Number>	DTEL NUMBER 1 STORED ----- DTEL NUMBER 4 STORED	30 Digits Maximum 1-4, Total 4 Contact Phone Numbers	Empty
3.2 Erase Dialer's Contact Numbers	<Master Code>ERASEDTELL ----- <Master Code>ERASEDTEL4	DTEL NUMBER 1 ERASED ----- DTEL NUMBER 4 ERASED	1-4 Total 4 Contact Phone Numbers	----- -----
4.1 Alarm Notification Text from Triggering INPUT 1 & INPUT 2	<Master Code>TEXT1=<User Defined Text> <Master Code>TEXT2=<User Defined Text>	TEXT1 STORED TEXT1 STORED	30 Characters Maximum	ALARM 1 ALARM 2
5.1 Alarm Notification Type for INPUT 1 & INPUT 2	<Master Code>CALL1=<Type Name> <Master Code>CALL2=<Type Name> (3 Types for Owner Selection)	CALL 1 TYPE STORED CALL 2 TYPE STORED	a) SMS+RING CALL b) SMS ONLY c) RING CALL ONLY	SMS+Ring Call for both INPUT 1 and INPUT 2
6.1 Repeat Dialing of Alarm Notification	<Master Code>REPEAT=<X>	REPEAT DIALING STORED	0 - Dial Once 1 - Repeat Dialing	0 (Dial Once, NO Repeat)
7.1 Response Time for INPUT 1 & INPUT 2	<Master Code>RESPTIME1=<XX> <Master Code>RESPTIME2=<XX>	RESPONSE TIME1 STORED RESPONSE TIME2 STORED	01-10 Seconds 01-10 Seconds	04 (4 Seconds) 04 (4 Seconds)
8.1 Inactive Time for INPUT 1 & INPUT 2 after Triggering	<Master Code>INACTIVETIME1=<XX> <Master Code>INACTIVETIME2=<XX>	INACTIVE TIME1 STORED INACTIVE TIME2 STORED	00-60 Minutes 00-60 Minutes	00 (No Inactive Time)
9.1 Operation Time for Alarm Output Relay	<Master Code>ALARMTIME=<X>	ALARM TIME STORED	1-5 Minutes	1 Minute
10 Reset of Alarm Dialer	<Master Code>RESET=DIALER	DIALER RESET		All Dialer Settings Back to Default Values

**9. Operation Time for Alarm Output Relay**

One output relay with NC and NO dry contacts for driving external device, it starts to activate 10 seconds after finish of the first round dialing (in case the dialer has been programmed with repeat dialing). The active time of the relay is **programmable between 1 to 5 minutes (default = 1 minute)** and reset automatically after the programmed time reaches.

**9.1 Operation Time Setting for Alarm Output Relay – Example:**

Alarm Time <X> : 1 – 5 (minutes) ; Default = 1 minute (Auto-reset)

<MASTER CODE>ALARMTIME=<X>

SMS command alarm time: **2233ALARMTIME=2**

e.g. Change Alarm time to 2 minutes

Acknowledgement texts: **ALARM TIME STORED**

**10. Reset of Alarm Dialer**

Reset the Dialer to its default settings. All programmed settings in the Dialer will be cleared **except the System Master Code, Owner's Contact Phone Number, System Operation Mode and SIM Card Testing Interval** that governed by the MSA Switch (Master-Setting-Authorization Switch).

SMS command reset dialer test: **2233RESET=DIALER**

Acknowledgement texts: **DIALER RESET**

**Note:** The reset command is for Alarm Dialer section only. It **Does Not** affect the Gate Opener.

## (C) OPERATION SETTINGS FOR GATE OPENER – Require Master Code Authorization

### 11. Set-up The Authorization Phone Numbers for The Gate Opener

The gate opener can be operated **with** or **without** authorization phone number:

- To operate the gate opener **without** authorization phone number, it does not have number of user limit. The only requirement is the person who knows the opener's SIM card number.
- To operate the gate opener **with** authorization phone number, it limits to **1000 users** (1000 authorized user phone numbers).
- The authorization phone numbers can be 30 digits maximum.

#### 11.1 Set-up An Authorization Phone Number Call List – Example:

Taking **2233** as **<Master Code>** for example:

**<XXX> = 000 – 999** (the phone number locations)

**<MASTER CODE>GTEL<XXX>=<Phone Number>** e.g. **Phone Number = 12345678**

SMS command text to set 1st phone number: **2233GTEL000=12345678**

SMS command text to set 2nd --- 1000th phone Nos.: similar for GTEL001 ---- GTEL999

Acknowledgement text: **GTEL000 STORED**  
similar for GTEL001---- GTEL990

**Note:** The old contact number will be overridden by a newly programmed phone number in the same **<XXX>** location.

#### Remark:

- More the Authorization Phone Numbers and longer the digit of the numbers are stored; the system will take longer the searching time to confirm a number for gate opening.
- The phone number at Location 000 (the first Location) takes the shortest time in number searching while the number at Location 999 (the last Location) takes the longest time.
- For Example:  
500 16-digit Authorization Phone Numbers are stored in Locations 000 – 499. The searching time for the 1st phone number (at Location 000) is around 2.1mS while the 500th (at Location 499) is 1 second.
- Please always put the phone numbers into the front locations.

## 6. Text to Stop Operation of The Gate Opener Section

In some situation, stop the operation may be required for security purpose, such as while no body at home or after office hours. The text operates the function in Start / Stop toggle mode.

**<Super User Code>OPENER**

Text to stop operation: **1234OPENER** (Opener operation stopped)

Acknowledgement texts: **OPENER STOP**

Text again to resume: **1234OPENER** (Opener resumes normal operation)

Acknowledgement texts: **OPENER RESUME**

## (E) OPERATIONS FOR SUPER USERS

Operations (4), (5) & (6) require Super User Code authorization. The programmed super user code **1234** used here is for examples.

### Important Note for Operations (4) and (5)

- These two functions may **NOT** be suitable to operate with gate controller for keeping the gate open temporarily. Please consult your gate controller supplier.
- The door or gate is un-locked while the function is enabled.
- **Do not** forget to stop this function after use because the door is un-locked.
- This feature is **good for all the "Fail-safe electric locks"**. Such as magnetic lock, electric drop bolt, NC type electric strike etc.
- **"Fail-secure electric lock"** requires power to keep it in un-locked condition. It takes high current all the time while the function comes into effect and ***may cause damage*** to it. This function is not recommended for Fail-secure electric lock.

### 4. Text to Keep Main Gate Open – (super user code required)

In some situations, the main gate may be required to keep open temporarily for a period of time. Send the text again to resume normal operation. The text operates the function in Start / Stop toggle mode.

**<Super User Code>MAIN**

Text to open: **1234MAIN** (Main gate keeps open started)

Acknowledgement texts: **MAIN GATE OPEN**

Text again to resume: **1234MAIN** (Main gate resumes normal operation)

Acknowledgement texts: **MAIN GATE RESUME**

### 5. Text to Keep Pedestrian Gate Open – (super user code required)

In some situations, the pedestrian gate may be required to keep open for a period of time. Send the text again to resume normal operation. The text operates the function in Start / Stop toggle mode.

**<Super User Code>PED**

Text to open: **1234PED** (Pedestrian gate keeps in open mode started)

Acknowledgement texts: **PED GATE OPEN**

Text again to resume: **1234PED** (Pedestrian gate resumes normal operation)

Acknowledgement texts: **PED GATE RESUME**

### 11.2 Erase An Authorization Phone Number from The Call List – Example:

Erase an authorization phone number:

**<XXX> = 000 – 999** (the phone number locations)

**<MASTER CODE>ERASEGTEL<XXX>**

SMS command text to erase 1st phone number:

**2233ERASEGTEL000**

SMS command text to erase other numbers:

Similar for other numbers

Acknowledgement text:

**GTEL000 ERASED**

### 11.3 Erase Authorization Phone Numbers in All or Partially from The Call List – Example:

The authorization phone numbers can be erased in group of all or partially:

**<XXX-XXX> = 000–999** (the group range of phone number locations)

**<MASTER CODE>ERASEGTEL<XXX-XXX>**

SMS command text to erase all phone numbers:

**2233ERASEGTEL000-999**

SMS command text to erase phone numbers 000-020:

**2233ERASEGTEL000-020**

SMS command text to erase other group numbers:

Similar for other group numbers

Acknowledgement text:

**GTEL GROUP ERASED**

## 12. Enable / Disable The Authorization Phone Number Call List

The gate opener can be selected to operate with or without the programmed authorization phone numbers in the list.

**Enable (default)** --- Only the phone numbers in the user list are enabled. Maximum 1000 authorization numbers

**Disable** --- The list is disabled. Unlimited Users, no authorization number is required

**Note:** Enable or Disable of call list can be changed anytime you like. The stored authorization numbers will not be lost in the changeovers.

### 12.1 Enable / Disable The Authorization User Phone Number List – Example

**<MASTER CODE>USER LIST=<Enable / Disable>**

SMS command for enable:

**2233USER LIST=ENABLE**

SMS command for disable:

**2233USER LIST=DISABLE**

Acknowledgement texts:

**USER LIST ENABLED**

**USER LIST DISABLED**

### 13. Timer for Output Relay 1 & Output Relay 2

The gate opener consists of two Form C output relays with NC & NO output contacts. Their activation time is programmable independently between 1 – 60 seconds

Output Relay 1 – To operate the Main Gate

Output Relay 2 – To operate the Pedestrian Gate

#### 13.1 Set Activation Time for Output 1 & Output 2 – Example:

<XX> = 01 – 60 (seconds) ; Default=02 (2 seconds for output 1 & output 2)

<MASTER CODE>TIMEOP1=<XX>

<MASTER CODE>TIMEOP2=<XX>

SMS command for output 1, time=2 seconds      **2233TIMEOP1=02**

SMS command for output 2, time=5 seconds:      **2233TIMEOP2=05**

Acknowledgement texts:                      **RELAY 1 TIME STORED**  
                                                         **RELAY 2 TIME STORED**

### 14. Create A Super User Code for The Special Functions of Gate Opener

Some special functions of the Gate Opener require Super User Code to start and stop. Only the person who knows the code can perform the following functions:

- 1) Keep the main gate temporarily open
- 2) Keep the pedestrian gate temporarily open
- 3) Temporarily stop the operation of the gate opener

#### 14.1 Create A Super User Code for The Special Functions – Example:

<XXXX> = A 4-digit super code

<MASTER CODE>SUPER=<XXXX>

SMS command text for super user code: **2233SUPER=1234** (for example)

Acknowledgement texts:                      **SUPER CODE STORED**

### 15. Reset The Gate Opener

Reset the Gate Opener to its default settings. All the programmed settings in the Gate Opener will be cleared **except:**

- a) System Master Code
- b) Owner's Contact Phone Number
- c) System Operation Mode
- d) SIM Card Testing Interval

SMS command reset dialer test:      **2233RESET=OPENER**

Acknowledgement texts:                      **OPENER RESET**

**Note:** The reset command is for Gate Opener only. It **Does Not** affect the settings of the Alarm Dialer.

## OPERATION

### (D) OPERATIONS FOR GENERAL USERS

Operation (1), (2) & (3) are prepared for the general users to operate the basic functions of the system. User just simply send in the text to execute the functions.

#### 1. Test The Signal Strength – (General Users)

When setting up the system it is important to know at installation position the signal strength for reliable operation. To test the signal strength by sending a text command:

Text to test:                      **#SIGNAL#**

The dialer will send back a signal strength score between 0-30. For reliable operation, the score should be at least 12.

Acknowledgement texts:      **SIGNAL=15 (example)**

#### 2. Open The Main Gate – (General Users)

The Main Gate (Gate 1) is controlled by the Output Relay 1.

a) Dial the **SIM Card Number** directly to the dialer.  
Enjoy free SIM card charge to sender's mobile phone and gate opener.

b) Text to open main gate:      **#MAIN#**  
Text to open will raise SMS charge to sender's mobile phone and may also the gate opener depending on the telecom company.

**Note:**

**#MAIN#** is a useful auxiliary SMS command to operate Output relay 1 while the dialer is occupied for alarm reporting and can not receive the call-in to open the main gate instantly. The dialer will receive the SMS command to open the main gate after finishing the job of alarm reporting.

#### 3. Open The Pedestrian Gate – (General User)

The Pedestrian Gate (Gate 2) is controlled by the Output Relay 2.

Text to open pedestrian gate:              **#PED#**

The pedestrian gate can only be opened with SMS command **#PED#**.  
Text to open will raise SMS charge to sender's mobile phone and may also the gate opener depending on the telecom company.