

# EntraGuard Gold Quick Reference

This Quick Reference is designed for the experienced installer as a quick reference while installing to ensure all connections are made properly.

The Quick Reference is designed as a checklist of sorts where you may check off as each installation procedure is completed. Additional information is given for those who need to be reminded of what is performed during that part of the installation. For detailed information on installing the EntraGuard Gold Telephone Entry Controller, see the [EntraGuard Gold Quick Start Guide](#) (P/N 01801-001).

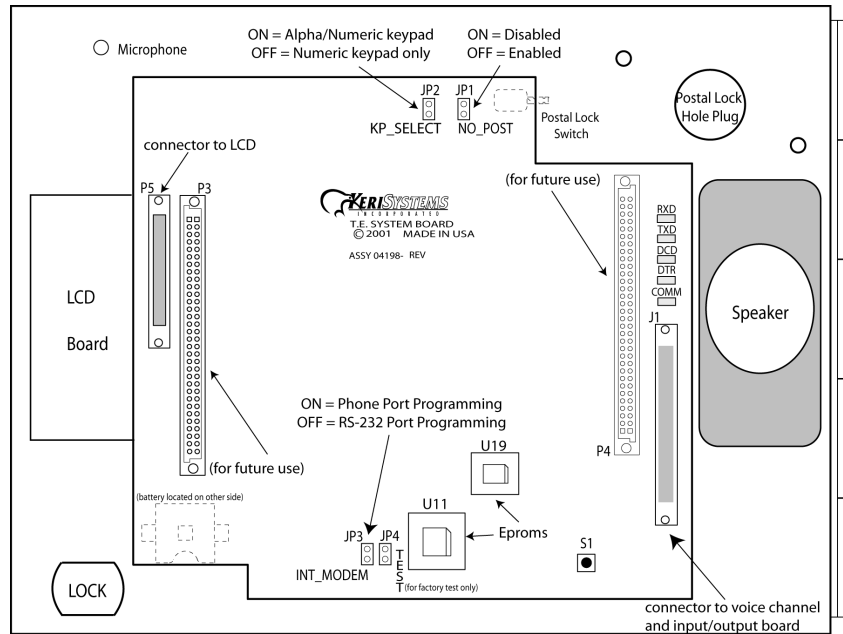


Figure 1: EntraGuard Gold - Main Board

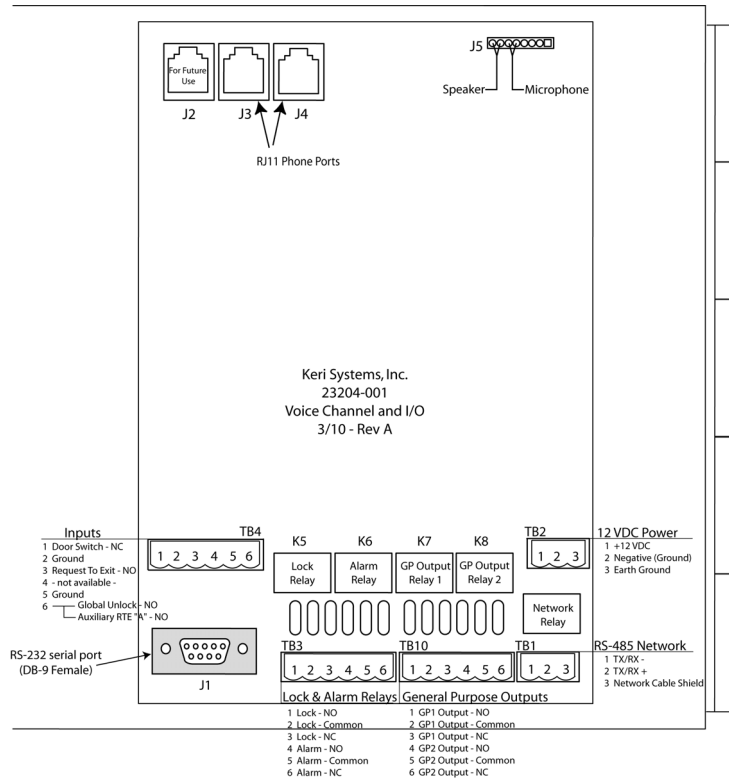


Figure 2: EntraGuard Gold - Voice Channel and I/O Board

## 1.0 Specifications

### Current Draw

- maximum current draw 750 mA for a controller

*NOTE: If an electronic locking device (such as a magnetic lock, a door strike, or similar device) is to be driven by the same power supply as the EntraGuard Gold controller, please ensure the power supply provides enough current to drive every device connected to that supply plus an adequate safety margin. AC power cannot be used.*

*NOTE: Isolation of power supplies may be required with high transient situations.*

### Users Allowed

- 750 tenants maximum

### Event Storage Capacity

- 3,640 events

### Keypad

- Alpha Numeric Radiant
- Standard Mechanical

*NOTE: When installing the Alpha Numeric Radiant keypad, careful consideration should be given to each location's ambient lighting. The Radiant keypad may not appear bright enough in direct sunlight. For locations that will be in prolonged direct sunlight, use the Standard Mechanical keypad.*

## 2.0 Cable Requirements

### RS-232 Serial Cable

- four conductor, shielded, stranded, AWG 24 wire (Belden 9534 or a larger gauge)
- 50 foot maximum length (per RS-232 industry specification - greater lengths are not recommended)

### RS-485 Network Cable

- one twisted, shielded pair of conductors, stranded, AWG 24 wire (Belden 9501 or a larger gauge)
- 4,000 foot total network length (per RS-485 industry specification)
- extended network configurations are possible – refer to the [Network Wiring](#) Application Note (P/N 01824-002) for extended network configurations of up to 5,000 feet per star line and 16,000 feet total network length

### Telephone

- 1 pair copper phone line with RJ11 connection

*NOTE: EntraGuard Gold is not to be used with a Centrex, PBX, or digital phone line. Only use a Plain Old Telephone Service (POTS) analog phone line.*

### Input Power

- two conductor, stranded, AWG 18 wire (Belden 8461 or a larger gauge)

*NOTE: On long power cable runs, the cable resistance causes a drop in voltage at the end of the cable run. Be sure your power supply does provide 12 VDC at the end of the cable run.*

### Earth Ground

- Single conductor, AWG 18 wire (or a larger gauge) - Ground wire is green, with or without yellow tracer.

### Input and Output Connections

- two conductor, stranded, AWG 22 (or a larger gauge)

*NOTE: The Lock Output relay may require a heavier gauge of wire depending upon the current demands of the lock and the length of the lock wiring run.*

*NOTE: If plenum cable is required, please reference the Belden plenum equivalent to the cables listed above.*

## 3.0 EntraGuard Gold: Before Turning Power ON

- Verify 12 VDC is supplied to the controller.
  1. Verify the power supply is the correct voltage by first setting the tester to AC and checking the voltage the power supply. If it reads over 1 volt AC, then you will need to use a different power supply (preferably linear).
  2. Set the DVM to a DC volt scale capable of reading 12 VDC.
  3. Turn the power supply ON.
  4. Place the Red DVM lead on the power supply's terminal block output - Pin 1. Place the Black DVM lead on the power supply's terminal block output - Pin 2. Check the DVM reading. It should read between +12 VDC to +14 VDC.
  5. If the DVM does not read between +12 VDC to +14 VDC, verify the power supply is of the correct voltage (see step 1 above), verify the cable length does not exceed 200 feet, and verify the cable gauge is AWG 18. This problem must be corrected before power can be supplied to the controller.
  6. Turn the power supply OFF.
  7. Connect the power supply's terminal block output to the TB-2 connector on the EntraGuard Gold Voice Channel and I/O board.
  8. The controller is now ready to be powered ON.

*NOTE: On long power cable runs, keep in mind the resistance in the cable itself causes a drop in voltage at the end of the run. The power supply must be able to account for this voltage drop.*

- Verify all wiring connections are secure and are made to the correct Terminal Block pins.
- Verify a good earth ground has been connected to TB-2, pin 3.
- If the controller is not using a door contact switch, verify a door switch input jumper is connected between TB-4, pins 1 and 2.
- Verify transient suppression has been installed on all electrical devices connected to a controller's outputs.
- Verify the JP3 INT\_MODEM jumper is properly set for communication between the master controller and host computer.
  - Jumper should be ON JP3 for use of the RJ11 phone port
  - Jumper should be OFF JP3 for use of the RS-232 port (either direct connect or with a modem)

## 3.1 Recommended Power Supplies

Manufacturer	Description	Model Number	Keri Systems Part Number
ESD	12 Volt – 2 Amp	LP-2	KPS-5
ESD	12 Volt – 10 Amp	LP-10	KPS-11
Golden Pacific	12 Volt – 1.2 Amp	PD-1212AR	KPS-7

#### 4.0 Powering the controller for the first time:

- Power on the controller.
  1. Make sure the controller's power is off.
  2. Hold the S1 button down and turn the controller's power on. The controller will beep once, indicating the controller's firmware is ready for programming.
  3. Release the S1 button. The LCD on the front panel will display the Reset Menu (see Figure 3). From this menu you may perform different tasks such as set the controller's address, clear the controllers' memory, set the microphone gain, and check diagnostics.

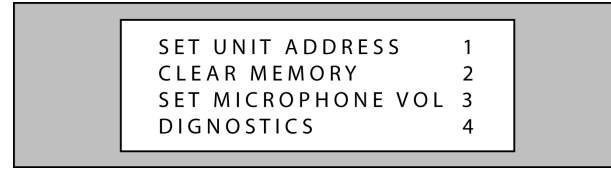


Figure 3: Reset Menu

- Set the controller's address.
  1. From the Reset Menu, select number 1 on the controller keypad. The LCD will display the Set Unit Address Menu (see Figure 4) showing the current default address of the controller. If this is a master unit, it must be set to address 1. If it is a slave unit (an EntraGuard Gold controller may only be slave to another EntraGuard Gold unit), the address may be set to any number from 2-128.
  2. To change the address of the controller, enter the new address on the keypad then select \*.
  3. If you have changed the address from the default address, the controller's RAM will be automatically reset. If the address has remained the same, you will need to manually reset the controller's RAM.

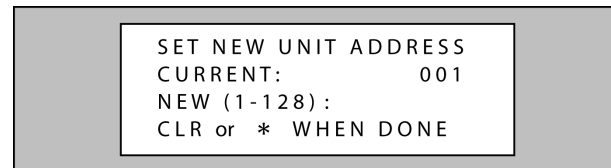


Figure 4: Set Unit Address Menu

- Reset the controller's RAM.
  1. From the Reset Menu, select number 2 on the controller keypad. The LCD will display the Clear Memory Menu (see Figure 5).
  2. Select number 1 on the keypad to reset the RAM, or number 2 to cancel clear memory command and return to the Reset Menu.

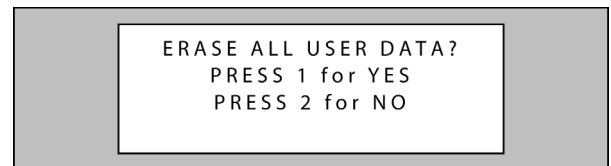


Figure 5: Clear Memory Menu

- Update the access control network.
  1. Once you have set the address and reset the controller's RAM, a total update must be performed on the system from the Doors program.
  2. In the Doors program, click on the Update Net button. Make sure the Total Update Network is set to Update and click on the Start button.
  3. Once the update is completed, the EntraGuard controller's LCD will display the default message.

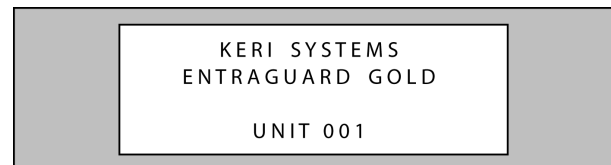


Figure 6: LCD Default Message

#### 5.0 Input Connections

##### 5.1 Normally Closed Input Device - Door Status Switch

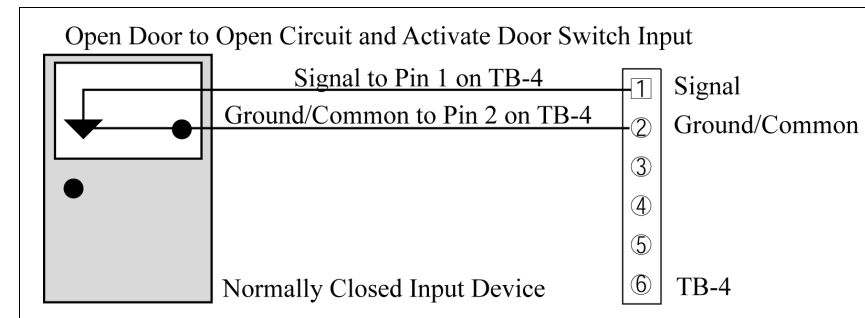


Figure 7: Door Status Switch Input Device

##### 5.2 Normally Open Input Device - Request To Exit (RTE)

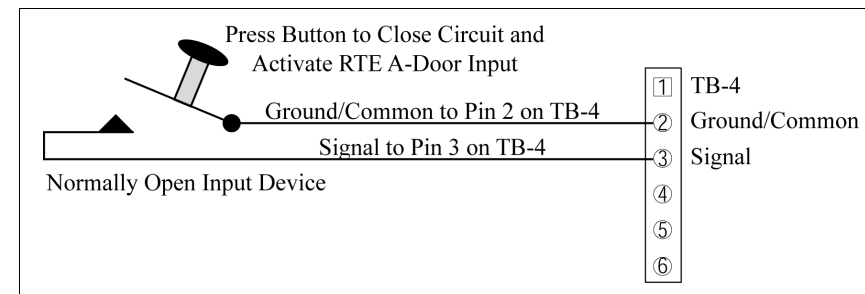


Figure 8: Request To Exit Input Device

##### 5.3 Normally Open Input Device - Auxiliary Request To Exit A-Door

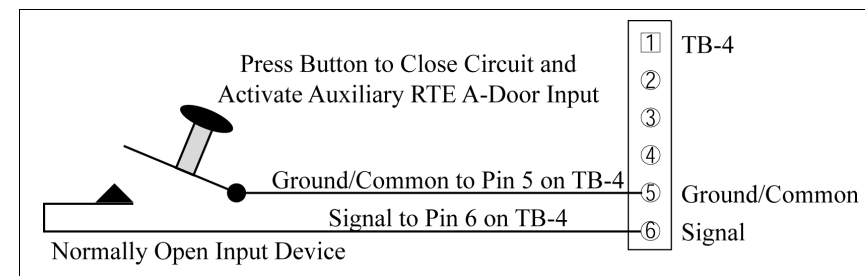


Figure 9: Auxiliary Request To Exit A-Door Input Device

##### 5.4 Normally Open Input Device - Global Unlock

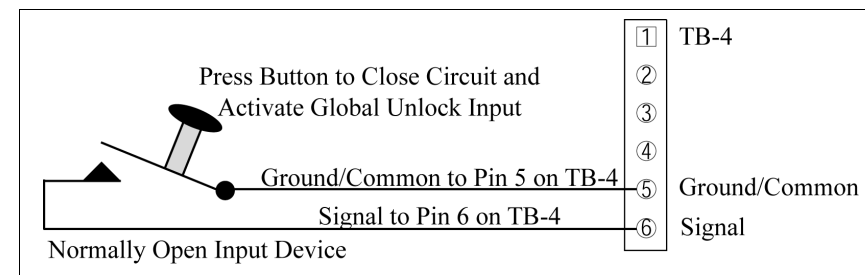


Figure 10: Global Unlock Input Device

#### 6.0 Output Connections

##### 6.1 Lock Relay – Fail-Safe

In the event of a power failure at a door set up with a fail-safe lock relay, the door will automatically unlock allowing people to exit through that door.

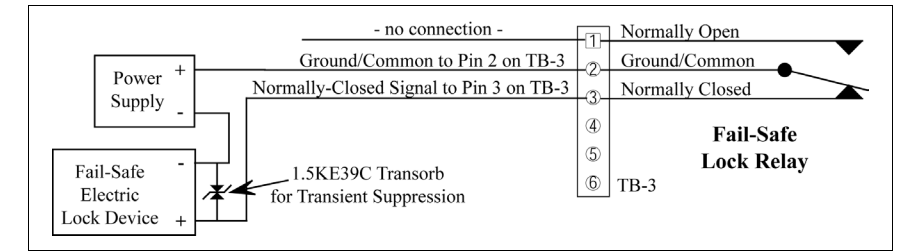


Figure 11: Fail-Safe Lock Relay

##### 6.2 Lock Relay – Fail-Secure

In the event of a power failure at a door set up with a fail-secure lock relay, the door will automatically lock and not allow entrance, but will continue to allow people to exit through that door.

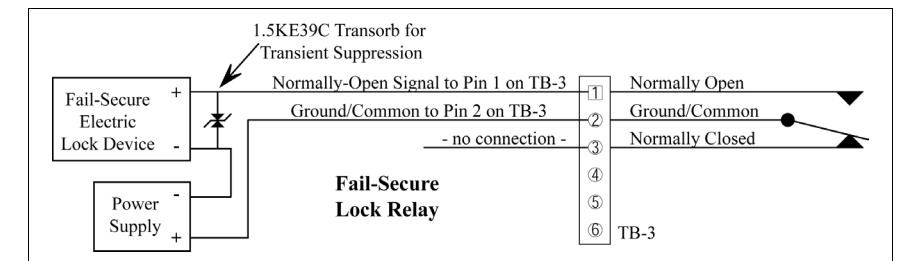


Figure 12: Fail-Secure Lock Relay

##### 6.3 Alarm Out

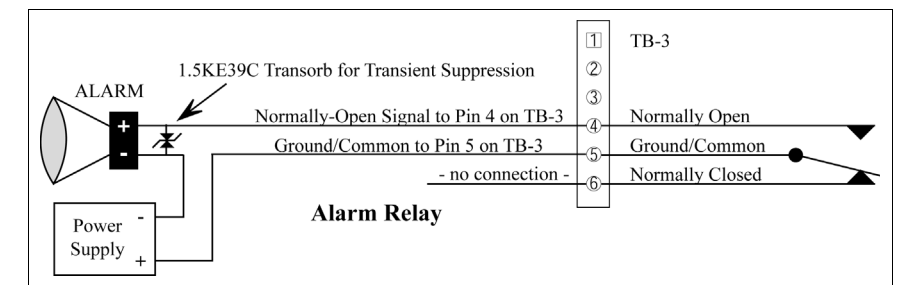


Figure 13: Alarm Out Relay

**NOTE:** If you are using the RS-232 port and a modem for communication between the master controller and host computer, see the *EntraGuard Gold Quick Start Guide (P/N 01801-001)* for instructions on how to install an external modem.

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