Wiring

M2M's MN / MQ Series
Cellular Communicators
to

DSC Power832 / PC5010

and
Programming the Alarm Panel

CONTENT

**M2M SERVICES**

CAUTION:
- **It is advised that an experienced alarm installer programs the panel as further programming may be required to ensure proper performance and use of the full functionality.**
- **Do not route any wiring over circuit board.**
- **Full panel testing, and signal confirmation, must be completed by the installer.**

Wiring MN01, MN02 and MiNi communicator series for events reporting and remote control via keybus*:
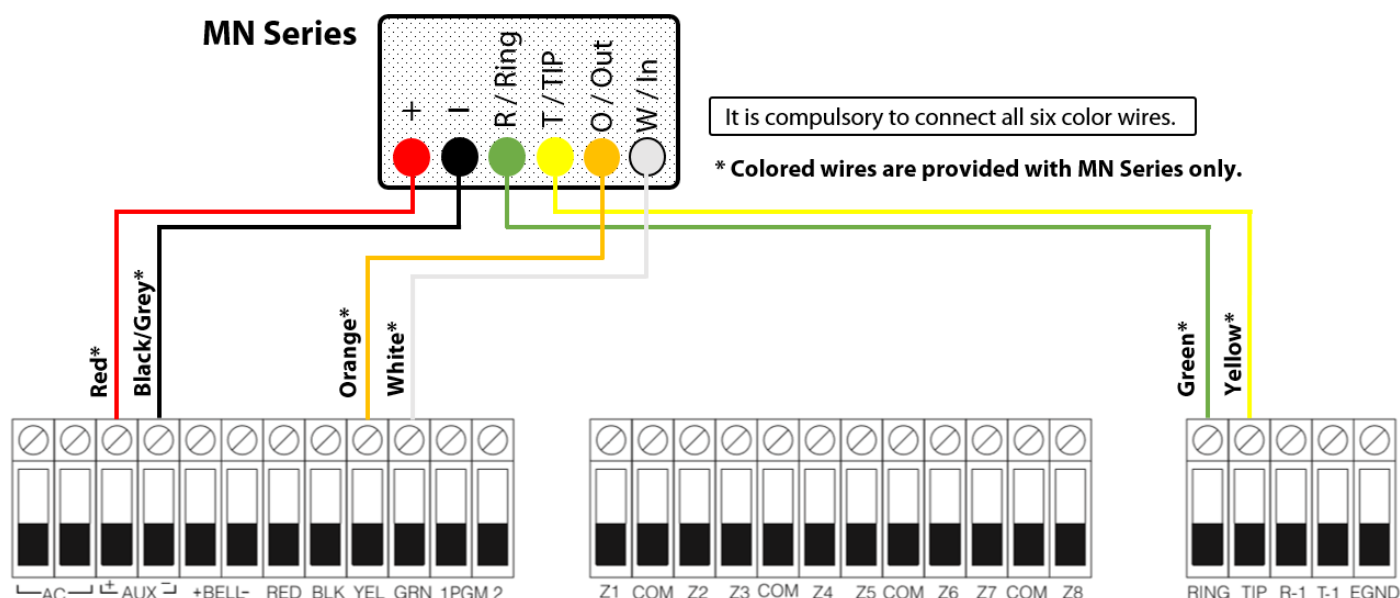
*Remote control via the keybus allows you to arm/disarm or arm in stay multiple partitions, bypass zones and get the status of the zones

Wiring MQ03 communicator series for events reporting and remote control via keybus*:
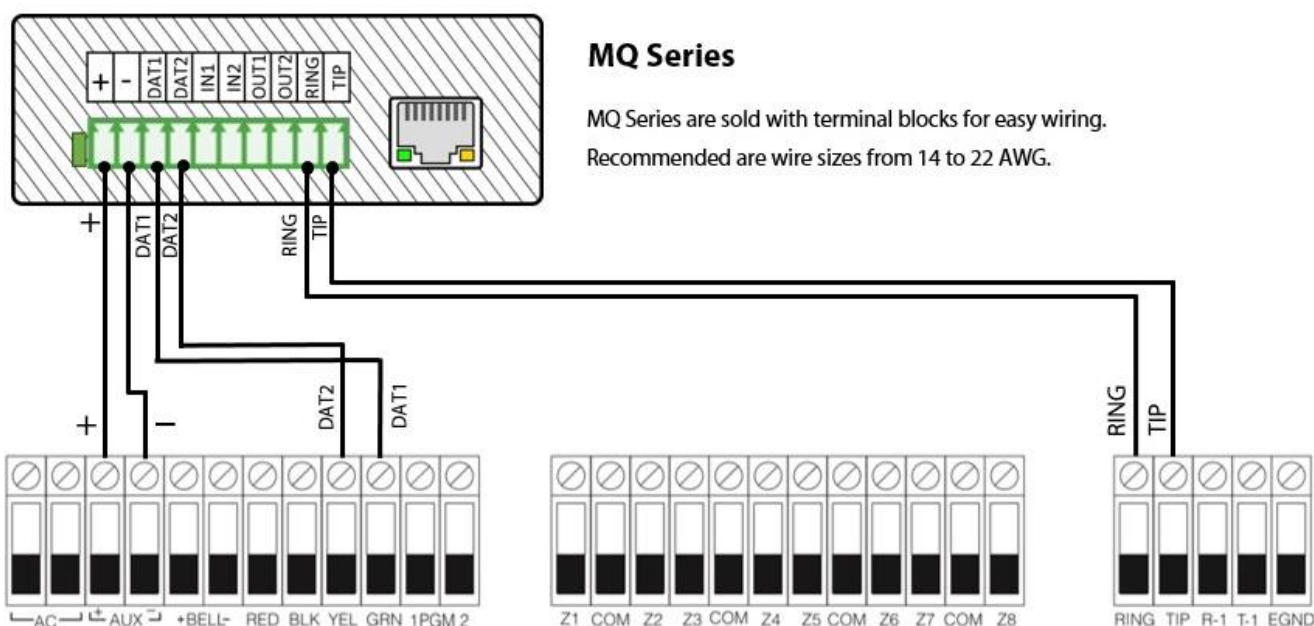
*Remote control via the keybus allows you to arm/disarm or arm in stay multiple partitions, bypass zones and get the status of the zones

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Programming the dialer of the alarm panel

We recommend SIA, as all event codes are programmed automatically.

Enable SIA reporting:

LED indication on Keypad	Keypad Entry	Action Description
Ready: Steady Green	*8 + Inst. Code	To enter in Programming mode.
Armed: Steady Red System: Blinking Yellow	301	To enter "Change phone number menu" for 1st number (302 or 303 for 2nd or 3rd)
Ready: Steady Green Zone 1: Steady Red	123456#	Enter actual or non-existing number (any number will do, 123456 is an example).
Armed: Steady Red System: Blinking Yellow	310	To enter "Change account number menu"
Ready: Steady Green Zone 1: Steady Red	1111	Enter 4-digit account number to receive the events from (1111 is an example). If you want to enter partition 2 account number – type 311 followed by 1112 (whatever number, you want to see) otherwise leave empty.
Armed: Steady Red System: Blinking Yellow	360	To enter "Communicator format"
Ready: Steady Green System: Blinking Yellow	04#	Press 04 for SIA and # to save (if there are two partitions enter 0404).
Armed: Steady Red System: Blinking Yellow	#	Exit Programming mode.

If, for some reason, you need Contact ID, proceed with the programming, as follows:

Enable Contact ID reporting:

LED indication on Keypad	Keypad Entry	Action Description
Ready: Steady Green	*8 + Inst. Code	To enter in Programming mode.
Armed: Steady Red System: Blinking Yellow	301	To enter "Change phone number menu" for 1st number (302 or 303 for 2nd or 3rd)
Ready: Steady Green Zone 1: Steady Red	123456#	Enter actual or non-existing number (any number will do, 123456 is an example).
Armed: Steady Red System: Blinking Yellow	310	To enter "Change account number menu"
Ready: Steady Green Zone 1: Steady Red	1111	Enter 4-digit account number to receive the events from (1111 is an example). If you want to enter partition 2 account number – type 311 followed by 1112# (whatever number you want to see) otherwise leave empty.
Armed: Steady Red System: Blinking Yellow	360	To enter "Communicator format"
Ready: Steady Green System: Blinking Yellow	03#	Press 03 for Contact ID and # to save (if there are two partitions enter 0303)
Armed: Steady Red System: Blinking Yellow	320	To enter "Alarm reporting code for zones 1 through 8"
Ready: Steady Green System: Blinking Yellow	3131313131313131	Enter a Contact ID code for each zone. If you have less than 8 zones, just press # after the last one. If you have more than 8 zones repeat the same for the rest of them (321 is for 9-16, 322 for 17-24, 323 for 25-32).
Armed: Steady Red System: Blinking Yellow	324	To enter "Restore" report codes for zones 1 through 8.
Ready: Steady Green System: Blinking Yellow	3131313131313131	Enter a Contact ID code for each zone, the same as the one entered in the previous step "Alarm reporting". If you have more than 8 zones repeat the same for the rest of them (325 is for 9-16, 326 for 17-24, 327 for 25-32).
Armed: Steady Red System: Blinking Yellow	339	To enable "Arm" report codes for zones 1 through 8.

Ready: Steady Green System: Blinking Yellow	*1*2*1*2*1*2*1*2*1* 2*1*2*1*2*1*2	Enter a Contact ID code for each zone (A2 is the Contact ID code for "ARM"). if you have less than 8 zones, just press # after the last one. If you have more than 8 zones repeat the same for the rest of them (340 is for 9-16, 341 for 17-24, 342 for 25-32).
Armed: Steady Red System: Blinking Yellow	344	To enter "Disarm" report codes for zones 1 through 8.
Ready: Steady Green System: Blinking Yellow	*1*2*1*2*1*2*1*2*1* 2*1*2*1*2*1*2	Enter a Contact ID code for each zone, the same as the one entered in the previous step "Arm". If you have more than 8 zones repeat the same for the rest of them (345 is for 9-16, 346 for 17-24, 347 for 25-32).
Armed: Steady Red System: Blinking Yellow	380	To enter "First communicator option code".
Ready: Steady Green System: Blinking Yellow	1#	To activate "Communications enabled" until LED on Zone 1 is lit. Make sure that all other LED's are off -> press the respective number until only Zone 1 is lit Red and the others are dim.
Armed: Steady Red System: Blinking Yellow	361	To enter "Partition 1 or 2 Alarms and Restores" (361 – partition 1, 362 – partition 2).
Ready: Steady Green System: Blinking Yellow	1#	To activate "1st Telephone Number" until LED on Zone 1 is lit.
Armed: Steady Red System: Blinking Yellow	363	To enter "Partition 1 or 2 Tampers and Restores" (363 – partition 1, 364 – partition 2).
Ready: Steady Green System: Blinking Yellow	1#	To activate "1st Telephone Number" until LED on Zone 1 is lit.
Armed: Steady Red System: Blinking Yellow	365	To enter "Partition 1 or 2 Tampers and Restores" (365 – partition 1, 366 – partition 2). **NOTE – some stations require this to be disabled.**
Additional reporting options:		
Armed: Steady Red System: Blinking Yellow	329	Priority Alarm & Restores Keypad panic key zone programming.
Ready: Steady Green System: Blinking Yellow	1*1*, *11*, 2*1 #	Fire = 1A, Medical = AA, Panic = 2A (*1 is equivalent to A)
Armed: Steady Red System: Blinking Yellow	343	Closing Duress and master code section
Ready: Steady Green System: Blinking Yellow	*11#	AA
Armed: Steady Red System: Blinking Yellow	348	Duress and master code section
Ready: Steady Green System: Blinking Yellow	*11#	AA
Armed: Steady Red System: Blinking Yellow	349	Maintenance codes alarm. See page 9.
Armed: Steady Red System: Blinking Yellow	350	Maintenance codes restore. See page 9.
Armed: Steady Red System: Blinking Yellow	352	Test Transmission reporting code
Ready: Steady Green System: Blinking Yellow	*1*2#	AB
Armed: Steady Red System: Blinking Yellow	367	Maintenance & restore alarms on
Ready: Steady Green System: Blinking Yellow	1#	Toggle menu
Armed: Steady Red System: Blinking Yellow	368	Test Transmissions on

Ready: Steady Green System: Blinking Yellow	1#	Toggle menu
Armed: Steady Red System: Blinking Yellow	378	Test transmission time - 24hr time **NOTE: Not valid for panel with revision 06MA**
Armed: Steady Red System: Blinking Yellow	#	Exit Programming mode.

References: Binary Programming
To program A thru F into programming slots, press the "*" key. The READY light will
flash. While flashing, the button
1 = A, 2 = B, 3 = C, 4 = D, 5 = E, 6 = F
Press "*" again and the keys revert back to normal.

See full Contact ID reporting codes on page 9 of this manual.

Configuring the Keybus Functionality

Power OFF and power ON the communicator, wait for ~20 sec., and enter and exit programming mode on the panel to initiate synchronization with the panel.
**OR**
Log in the RControl App and press Sync with Panel and follow the instructions in the App.

NOTE: If panel programming is changed after the initial synchronization you need to:

Go to RControl App Settings >> Remote Arming/Disarming >> Press Sync and follow the instructions in the App

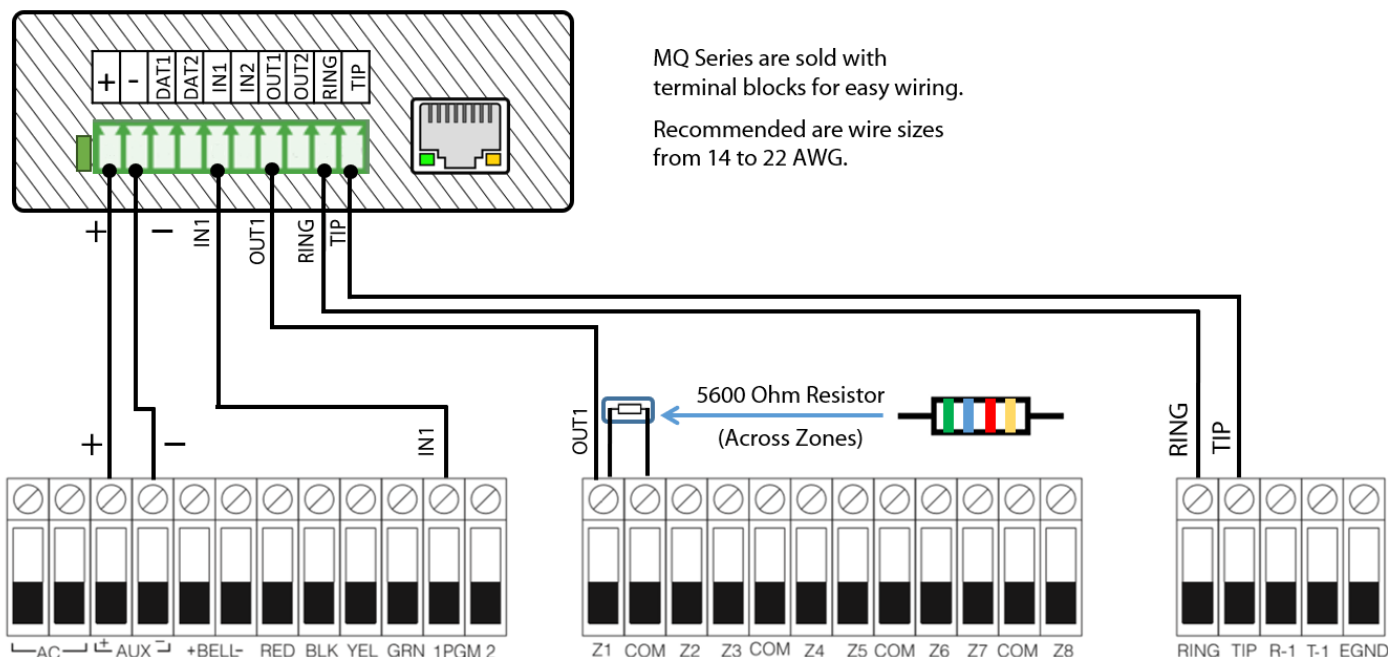**NOTE:** DO NOT operate the keypad during the sync process

Wiring MN01, MN02 and MiNi communicator series for remote control via keyswitch* zone:
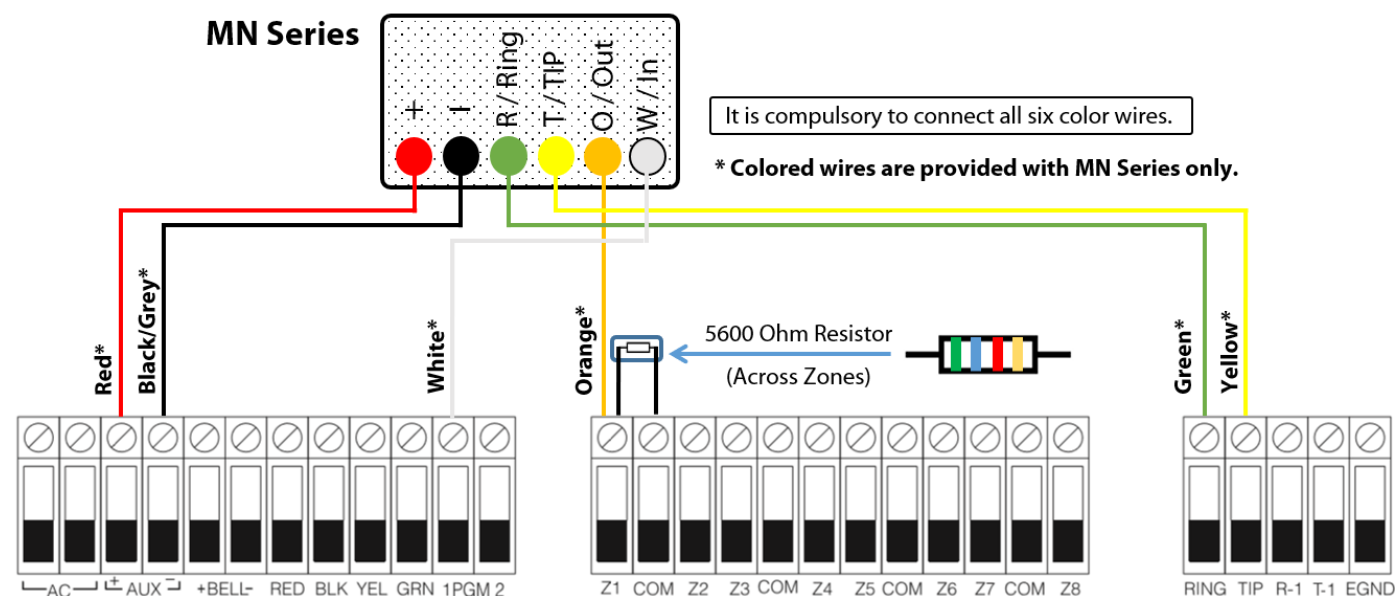
*The optional keyswitch configuration can be used for M2M communicators that do not support keybus functionality.
You do not need to configure this option if your device supports remote control via the keybus.*

Wiring MQ03 communicator series for remote control via keyswitch* zone:

MQ Series

MQ Series are sold with terminal blocks for easy wiring.

Recommended are wire sizes from 14 to 22 AWG.

5600 Ohm Resistor (Across Zones)

The optional keyswitch configuration can be used for M2M communicators that do not support keybus functionality.
You do not need to configure this option if your device supports remote control via the keybus.

Optional Keyswitch zone and status PGM panel programming

LED indication on Keypad	Keypad Entry	Action Description
Ready: Steady Green	*8 + Inst. Code	To enter in Programming mode.
Armed: Steady Red System: Blinking Yellow	202	To enter Partition zone assignments.
Ready: Steady Green System: Blinking Yellow	1#	Turn ON (the corresponding LED will be lit) only the zones that you intend to use – the rest must be OFF (LEDs are dim) – in our case LEDs 2-7 will be OFF.
Armed: Steady Red System: Blinking Yellow	001	To program Zone 1.
Ready: Steady Green System: Blinking Yellow	22#	Enter 22 to program zone Type Keyswitch.
Armed: Steady Red System: Blinking Yellow	013	To program EOL zones.
Ready: Steady Green System: Blinking Yellow	1#	1 must be OFF to set the zones to end-of-line wiring configuration.
Armed: Steady Red System: Blinking Yellow	009	To program Output 1.
Ready: Steady Green System: Blinking Yellow	05#	Enter 05 to program output Armed Status.
Armed: Steady Red System: Blinking Yellow	#	Exit Programming mode.

Initial pairing procedure for Remote Arming/Disarming via Keyswitch:
- Enable Open/Close reporting (at least during the initial pairing procedure).
- Log in the RControl App and press Sync with Panel
- Ask the end user to enter a Remote PIN code of his/her choice.

- Disarm (or Arm) from the keypad within 2 minutes to complete the pairing.

Switching from Keyswitch to Keybus remote control

✓ Wire the device to the panel according to the wiring diagram for keybus remote control.
✓ Press the Sync with Panel button in the Settings menu of the RControl mobile app.

The device will apply the new configuration automatically.

NOTE: When switching the wiring of the device, make sure that the device is not powered on.

NOTE: When synchronizing or disabling and enabling the Arming/Disarming feature from the mobile application, make sure:
- the device is powered up and connected to the cellular network.
- the panel is not in programming menu/mode.

After enabling the Arming/Disarming feature it may take up to 1 minute for the device to apply the new configuration.

Contact ID

A P P E N D I X A

The Partition ID Codes must be 4 digits. All reporting codes must be 2 digits.

The following is a list of Contact ID reporting codes. The first digit (in parentheses) will automatically be sent by the control. The last two digits are programmed to indicate specific information about the signal.

For example, if zone 1 is an entry/exit point, the alarm reporting code could be programmed as [34]. The central station would receive the following:

*BURG - ENTRY/EXIT - 1

In the above example, the "1" indicates which zone went into alarm.

> **!** *Do not program the following reporting codes:* **Opening After Alarm, Recent Closing** *and* **Event Buffer 75% Full.**

> **!** *When using a 2-wire smoke and Contact ID, the zone number will be identified as 99.*

Event Codes (as per ADEMCO):

Medical Alarms
(1)AA Medical
(1)A1 Pendant Transmitter
(1)A2 Fail to Report In

Fire Alarms
(1)1A Fire Alarm
(1)11 Smoke
(1)12 Combustion
(1)13 Water Flow
(1)14 Heat
(1)15 Pull Station
(1)16 Duct
(1)17 Flame
(1)18 Near Alarm

Panic Alarms
(1)2A Panic
(1)21 Duress
(1)22 Silent
(1)23 Audible

Burglar Alarms
(1)3A Burglary
(1)31 Perimeter
(1)32 Interior
(1)33 24 Hour
(1)34 Entry / Exit
(1)35 Day / Night
(1)36 Outdoor
(1)37 Tamper
(1)38 Near Alarm

General Alarms
(1)4A General Alarm
(1)43 Exp. module failure
(1)44 Sensor tamper
(1)45 Module Tamper

24 Hour Non-Burglary
(1)5A 24 Hour non-Burg
(1)52 Refrigeration
(1)53 Loss of Heat
(1)54 Water Leakage
(1)55 Foil Break
(1)56 Day Trouble
(1)57 Low bottled Gas level
(1)58 High Temp
(1)59 Low Temp
(1)61 Loss of Air Flow

Fire Supervisory
(2)AA 24 Hour non-Burg
(2)A1 Low Water Pressure
(2)A2 Low CO2
(2)A3 Gate Valve Sensor
(2)A4 Low water level
(2)A5 Pump activated
(2)A6 Pump failure

System Troubles
(3)AA System Trouble
(3)A1 AC Loss
(3)A2 Low System Battery
(3)A3 RAM checksum bad*
(3)A4 ROM checksum bad*
(3)A5 System Reset*
(3)A6 Panel prog. changed*
(3)A7 Self-test failure
(3)A8 System Shutdown
(3)A9 Battery Test Failure
(3)1A Ground Fault

Sounder / Relay Troubles
(3)2A Sounder / Relay
(3)21 Bell 1
(3)22 Bell 2
(3)23 Alarm Relay
(3)24 Trouble Relay
(3)25 Reversing

System Peripheral Troubles
(3)3A System Peripheral
(3)31 Polling Loop Open
(3)32 Polling Loop Short
(3)33 Exp. Module Failure
(3)34 Repeater Failure
(3)35 Local Printer Paper Out
(3)36 Local Printer Failure

Communication Troubles
(3)5A Communication
(3)51 Telco 1 Fault
(3)52 Telco 2 Fault
(3)53 Lng-Rnge Rad. xmttr. fault
(3)54 Fail to Communicate
(3)55 Loss of radio super.
(3)56 Loss of central polling

Protection Loop Troubles
(3)7A Protection Loop
(3)71 Protection Loop open
(3)72 Protection Loop short
(3)73 Fire Trouble

Sensor Troubles
(3)8A Sensor Trouble
(3)81 Loss of super. RF
(3)82 Loss of super. RPM
(3)83 Sensor Tamper
(3)84 RF xmitter low batter

Open / Close
(4)AA Open / Close
(4)A1 O / C by User
(4)A2 Group O / C
(4)A3 Automatic O / C
(4)A4 Late to O / C
(4)A5 Deferred O / C
(4)A6 Cancel
(4)A7 Remote Arm / Disarm
(4)A8 Quick Arm
(4)A9 Keyswitch O / C

Remote Access
(4)11 Callback request made*
(4)12 Successful Download zaccess*
(4)13 Unsuccessful access*
(4)14 System Shutdown
(4)15 Dialer Shutdown

Access Control
(4)21 Access denied
(4)22 Access report by user

System Disables
(5)AA-(5)1A

Sounder / Relay Disables
(5)2A Sounder / Relay disable
(5)21 Bell 1 disable
(5)22 Bell 2 disable
(5)23 Alarm relay disable
(5)24 Trouble relay disable
(5)25 Reversing relay disable

System Peripheral Disables
(5)3A-54A

Communication Disables
(5)51 Dialer disabled
(5)52 Radio xmitter disabled

Bypasses
(5)7A Zone bypass
(5)71 Fire bypass
(5)72 24 Hour zone bypass
(5)73 Burg bypass
(5)74 Group bypass

Test / Misc.
(6)A1 Manual Trigger Test*
(6)A2 Periodic Test report*
(6)A3 Periodic RF xmission*
(6)A4 Fire test*
(6)A5 Status report to follow*
(6)A6 Listen-in to follow
(6)A7 Walk test mode

* Restore not applicable