

TROUBLESHOOTING GUIDE



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INTRODUCTION

About This Guide

This guide was created to assist DMP Technical Service Technicians help DMP dealers troubleshoot and fix any problems they may have with DMP equipment. We now offer this guide to DMP dealers and technicians.

Any text in this guide within a paragraph or step that is CAPATILIZED indicates keypad display text.

Example: **ENTER CODE:-**

The Art of Troubleshooting

Any technician will tell you that troubleshooting a system is “more art than science”, and it’s easy to overlook the obvious. Whatever your problem is, the cause is usually something simple.

Perhaps something was overlooked in programming, or maybe something is physically incorrect, such as a panel-jumper placed in the wrong position or an unplugged transformer.

When you’re troubleshooting at an installation site or on a service-call, your job is to get the equipment working properly as quickly and as efficiently as possible. Time is **always** a factor.

When working with ANY manufacturer’s equipment, the key to troubleshooting is to know what questions to ask first.

For example, let’s say you have a ‘dead’ keypad. It has no display and does not respond when keys are pressed.

What’s the first thing to check?

- ① DC voltage at the keypad harness? (Is the keypad getting power?)
- ② DC output on panel terminals 7 & 10? (Is the panel supplying power?)
- ③ Wire connections at panel terminals 7 & 10? (Is keypad connected to the panel correctly?)
- ④ AC input on panel terminals 1 & 2? (Is the panel getting AC power?)

These are all correct troubleshooting steps for a ‘dead’ keypad. But the order in which these steps are taken can change, depending on the layout of your system.

If the keypad is in the same room as the panel, it may be easier to check terminals 7 & 10 for DC output first. If the keypad is 1000’ away, you may save yourself a trip back to the panel by checking the keypad’s wire harness for proper DC voltage. It just depends.

TROUBLESHOOTING TOOLS

Digital Multimeter

A multi-meter is definitely a must-have tool when troubleshooting an electronic device, such as an alarm panel.

An inexpensive, basic digital multi-meter that can measure AC voltage, DC voltage, Ohms (Ω) and continuity is really all you need for basic troubleshooting.

Also, always **try to keep a spare battery** for your multi-meter. When your meter's battery is low, the meter may not give an accurate reading.

DMP Tech App

The Tech APP (Automated Panel Programming) is an innovative mobile tool that allows alarm industry technicians (you) to add, edit, and view customers, systems, and app users directly from this app. You have the ability to quickly adjust system programming directly from the app, as well as access full programming and reporting options. Programming can then be pushed to a system, allowing you to remotely program customer's systems. To use the Tech APP, you must have a valid account username and password given to you by a Dealer Admin administrator.

System Analytics

- Current, Worst, and Best Cell Signal
- Retries-Cellular
- Retries-Network
- AC Voltage
- Battery Voltage
- Each value is an average of data from the last two minutes. Tap Refresh to have the panel send updated data. As long as a system has been online for more than 24 hours, system analytics will show the most recent statistics for cell signal, retries, and voltage.

Tech Tools Support Center

- Installation Guide Tap this card to view the specific system's installation guide.
- Programming Guide Tap this card to view the specific system's programming guide.
- Troubleshooting Tools Tap this card to view troubleshooting tools for door access, keypad messages, cellular diagnostics, and network diagnostics.
- DMP Guides Tap this card to view all of DMP's product guides on the DMP.com/Guides web page.
- Email Pics Tap this card to take a picture of an installation to send to someone who can help you.
- Contact Technical Support Tap this card to contact DMP's technical support. This screen also provides you with some system information.

BUILT-IN TOOLS

Onboard Diagnostics

Select DMP Command Processors™ have several built-in Diagnostic features that are accessible from any system keypad and can assist technicians when troubleshooting a system.

These Diagnostic functions allow you to test the communication integrity of the LX-Bus™, identify individual zones, and also display the present electrical state of any zone. The Diagnostics menu options include:

PANEL DIAGNOSTICS MENU

XR Series

Test LX-Bus	Communication Status
Zone Finder	Cellular Signal
Zone State	Activate Cell ¹
LX-Bus Status	PC Programming
MAC Address	Test Z-Wave
Serial Number	Wi-Fi Signal
Loader Version	
Current Flash	

XT Series

Cellular Status
Cellular Signal
Activate Cell ¹
Email Status
Panel Settings
Test Z-Wave
Wi-Fi Signal

TECH NOTE: ¹Only needed for 263C and 265C Cell Modems

Accessing the DIAGNOSTICS Menu

- ① Reset the panel using the RESET jumper unless it has been less than 30 minutes since:
 - a) You were in Programming
 - b) You were in the Diagnostics menu or
 - c) You powered up the panel.
- ② Enter 2313 + CMD. (It's easy to remember the number '2313' because it spells DIAG on the keypad.)
- ③ The keypad displays DIAGNOSTICS . Press the CMD key to move forward through the Diagnostics menu.

THINGS TO KNOW

DMP Feature Codes

All XR series panels use a numeric to access certain features. Some of these features include on-board programmer menu, diagnostic menu and the walk-test function.

To make them easy to remember, these codes have a word-equivalent that can be spelled out using the keys on the keypad:

DMP FEATURE CODE MENU ITEMS

<u>DMP Feature</u>	<u>Code</u>	<u>Spells</u>
Programmer Menu	6653	P-R-O-G
Diagnostics Menu	2313	D-I-A-G
Walk Test Menu	8144	W-A-L-K
Keypad Options	3577	I-N-S-T
Communication Test Menu	984	

Common Voltages

These operating voltages are the same across the entire product-line:

- AC input (terminals 1 and 2) – 17.3 VAC
- Charging circuit output (terminals 3 and 4) – 13.9 VDC
- Aux. power output (terminals 7 and 10) – 13.8 VDC
- Panel data receive output YELLOW (terminals 8 and 10) – approx. 4.5 VDC
- Panel data transmit output GREEN (terminals 9 and 10) – approx. – 3.5 VDC

OPERATIONAL PARAMETERS FOR PANEL ZONES 1 – 8*

<u>Zone Condition</u>	<u>Resistance on Zone</u>	<u>Voltage on + Terminal</u>
OPEN	More than 1300 Ohms	Above 2.0 VDC
NORMAL	600 – 1300 Ohms	1.2 – 2.0 VDC
SHORT	Less than 600 Ohms	Below 1.2 VDC

TECH NOTE: Zones 1 – 9 for DMP on XT series Panels.

Maximum Auxiliary Power Outputs

All DMP panels provide 12 VDC of auxiliary power for system accessories, such as keypads, zone expanders, supervision modules and intrusion detectors.

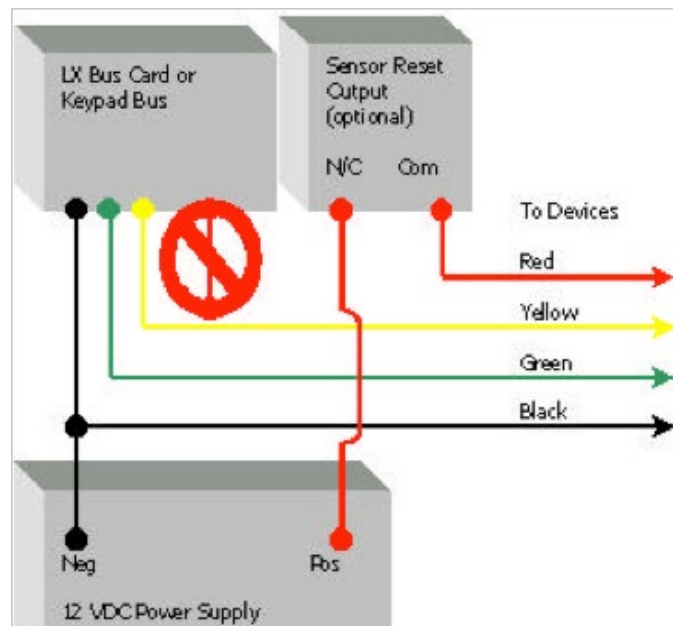
XR150, XR550: 1500 mA (1.5 A)

XT30, XT50: 500 mA (.5 A)

Each device consumes a portion of the panel's available auxiliary power. When the auxiliary power demand is too great, the panel shuts down the auxiliary power circuit. That means that anything powered by the panel, is now dead. To take some of the load off of the panel, an auxiliary power supply can be used.

Wiring an Auxiliary Power Supply

To take some of the load off of the panel, an auxiliary power supply can be used to power some or all of the devices on the keypad bus or LX-Bus™. The diagram below illustrates how this can be accomplished.



The Sensor Reset Output can be used to reset 2-wire smoke detectors (wired to Model 715 zone expanders) by dropping power to the bus for five seconds when a Sensor Reset is performed.

If that isn't necessary, then the positive voltage may go directly from the power supply to the devices on the bus.

TECH NOTE: ALWAYS BE SURE THAT THE NEGATIVE SIDE OF THE AUXILIARY POWER SUPPLY IS CONNECTED TO THE BLACK WIRE OF THE KEYPAD OR LX-BUS!

Resistor Values

DMP panels use resistors of different values to control different system voltages, such as zone voltages and bell supervision voltages. Resistor values used with DMP equipment-

1,000 Ohm	Panel zones 1-8, 711 & 714 zone expanders, DMP keypad zones
3,300 Ohm	Panel zones 9 & 10, all Model 715 zone expanders
10,000 Ohm	866 & 867 Bell Supervision
470k Ohm	1103 & 1114 Wireless Transmitters
2M Ohm	1115 with External Water Probe

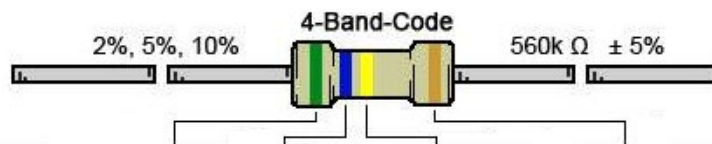
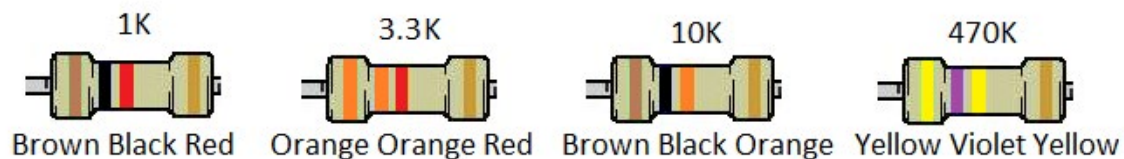
How to Determine Resistor Value

Resistor values can be determined by the color code on the resistor. With the Gold or Silver band positioned to the right, look at the other color-bands from left to right.

The first color-band on the left determines the first number of the resistor's value and the second color-band determines the second number of the resistor's value.

The third color-band tells us how many zeros to put behind the first two numbers.

The last band (either Gold or Silver) represents the resistor's tolerance, meaning that the actual resistance can vary above or below the value indicated by the color code.



COLOR	1 ST BAND	2 ND BAND	MULTIPLIER	TOLERANCE
Black	0	0	1Ω	
Brown	1	1	10Ω	± 1% (F)
Red	2	2	100Ω	± 2% (G)
Orange	3	3	1KΩ	
Yellow	4	4	10KΩ	
Green	5	5	100KΩ	± 0.5% (D)
Blue	6	6	1MΩ	± 0.25% (C)
Violet	7	7	10MΩ	± 0.10% (B)
Grey	8	8		± 0.05%
White	9	9		
Gold			0.1Ω	± 5% (J)
Silver			0.01Ω	± 10% (K)

NOTE: The resistor shown above has: Brown (= 1), Black (= 0), Red (= 2) and Gold(+/- 5%). So this resistor has a value of 1,000 Ohms.

Output Information

- › Dry Contact Relays DMP Part #305
- › Single pole, Double throw
- › Rated at 1 Amp @ 30 VDC resistive
- › May be activated by any of the following:
 - Zone condition (open/short) Output schedule Manually from User Menu
 - Communication Fail Armed Area annunciation Fire Alarm/Fire Trouble
 - Other system conditions

Annunciator Outputs

Available on XT30/50, XR150/550, CellComLTE-V, iComSL and Output Expander Model 716.

- › Switch to GROUND when activated
- › DO NOT provide voltage
- › 50mA resistive
- › Activated by same conditions as Model 305 Dry Contact Relay and Voltage outputs

<u>Panel</u>	<u>Output Number</u>
XR150/550	3-6
XT30/50	1-4

Addressing Devices

Setting Address on 7000 series keypads

- ➊ Press and hold the CMD and Back Arrow keys until SET BRIGHTNESS appears on display
- ➋ Enter 3577 (I-N-S-T) + CMD
- ➌ Press key under KPD OPT (Keypad Options)
- ➍ Keypad displays CURRENT KEYPAD ADDRESS: xx (xx = address 01-16)
- ➎ Press any top row Select key
- ➏ Enter desired address. (Do not enter leading zeroes.) Press CMD to scroll to next option.
- ➐ KEYPAD MODE: SUP UNSUP To choose Supervised or Unsupervised operation, press select key under SUP or UNSUP. Press CMD

- ⑧ **DEFAULT KEYPAD MSG** Enter message to be displayed on top row of display. Press COMMAND
- ⑨ **ARM PANIC KEYS: PN EM FI** Press select keys below each to enable. When enabled, each will appear as *PN *EM *FI. (report as Zones: PN=19,EM=29, FI=39) Press CMD
- ⑩ **ACTIVATE ZONE 2 BYPASS: NO** - Used w/ 7073 and 7873 keypads for Soft Shunt function. Press CMD
- ⑪ **RELOCK ON ZONE 2 CHANGE: NO** - Used with above keypads for relocking a door when the zone returns to a normal state.
- ⑫ **ACTIVATE ZONE 3 REX: NO** - Also used with above keypads for REX function. Press COMMAND
- ⑬ **NO OF USER CODE DIGITS: 5** - Select YES for Home/Away or other systems that require 4 digit codes. Press CMD
- ⑭ **ALL? NO YES DELAY: 2** - This option is for use in an Area Mode system. When arming, ALL? YES NO is displayed on the keypad. When NO or YES is not selected before this delay (1 to 9 seconds) expires, the keypad automatically selects YES. Enter zero to disable this feature. Press the CMD key.
- ⑮ **CARD OPTIONS DMP** - Sets the card format used by the reader in the keypad.
- ⑯ **REQUIRE SITE CODE: NO** - Determines if an access credential's site code will be read.
- ⑰ **NO COMM WITH PNL OFF** - Defines the state of the door if the keypad loses communication with the panel.
- ⑱ **SYSTEM OPTIONS: AREA** - (Graphic touchscreen keypads only) Set to the same system type that is set in System Options in the panel's programming menu for proper shield operation.
- ⑲ **DEALER LOGO ADD DELETE** - (Graphic touchscreen keypads only) Load or update the logo displayed on the main screen.
- ⑳ **DEALER INFO ADD DELETE** - (Graphic touchscreen keypads only) Load or update the contact information stored in the keypad.
- ㉑ **KPD OPT KPD DIAG STOP** - Press select key under STOP

Troubleshooting the 866 Style W Notification Module

The 866 uses the panel's bell circuit to switch power from an external power source to sirens and other notification devices. It also supervises the connection to the external power source.

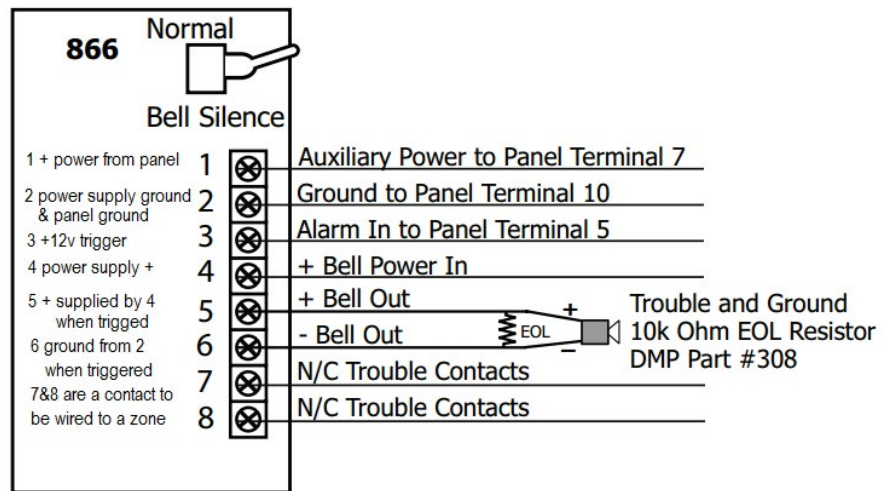
The most important thing to know with the 866 is which wires connect to the panel versus which wires connect to the power source.

HOW THE 866 WORKS

1&2 power the 866 module.

The positive trigger on terminal 3 tells 2&4 to send voltage to 5&6.

That's it. Really.



HERE'S HOW TO TROUBLESHOOT AN 866 IN 5 MINUTES INSTEAD OF 50:

- ① Metering 1&2 should show +12v (or +24v if using a 24v power supply)
 - If no voltage between 1&2 make sure the ground and power are coming from the same source (panel or power supply).
- ② Metering 2&3 should show approximately 0-1.2v when normal.
- ③ Metering 2&3 should show +12v when tripped.
 - If using Horn Strobes steady voltage on terminal 3 is required.
 - If they say the 866 should be tripping they MUST have +12v on 2&3 to be triggering it.
- ④ Metering 2&4 should show +12v (or +24v).
 - If power is coming from the panel bell you will have 0-1.2v until the bell trips.
 - If no voltage on 2&4 you won't have any power to power the bell output. make sure the ground and power are coming from the same panel or power supply.
- ⑤ Metering 5&6 should show negative volts while the 866 is normal (-6v or -12v) then +12v (or +24v) when triggered.
 - If the bell isn't tripping strap out 5&6 with a 10k and meter terminals 5&6 while tripped.
 - If you are experiencing a delay when sounding make sure the bell silence switch is normal and a 10k resistor is installed on terminals 5&6.
- ⑥ Metering 7&8 for continuity should show continuity while normal. If there is no 10k resistor on 5&6 this contact will show open. Remember, this is a contact, not a zone.
 - If the Normally Closed contact on 7&8 is open make sure the silence switch is normal and that there is a 10k on 5&6.

CLEARING SYSTEM MESSAGES

Regardless of the panel model, here are some common system messages that may display on the keypad. A brief description of what the message means and some basic troubleshooting tips are listed under each system message heading...

Phone Line 1 Trouble

PHONE LINE 1 or 2 TRBL means that the panel detects a problem with the telephone line. Because of hardware differences between DMP residential models and DMP commercial models, PHONE LINE 1 or 2 TRBL can mean a couple of things.

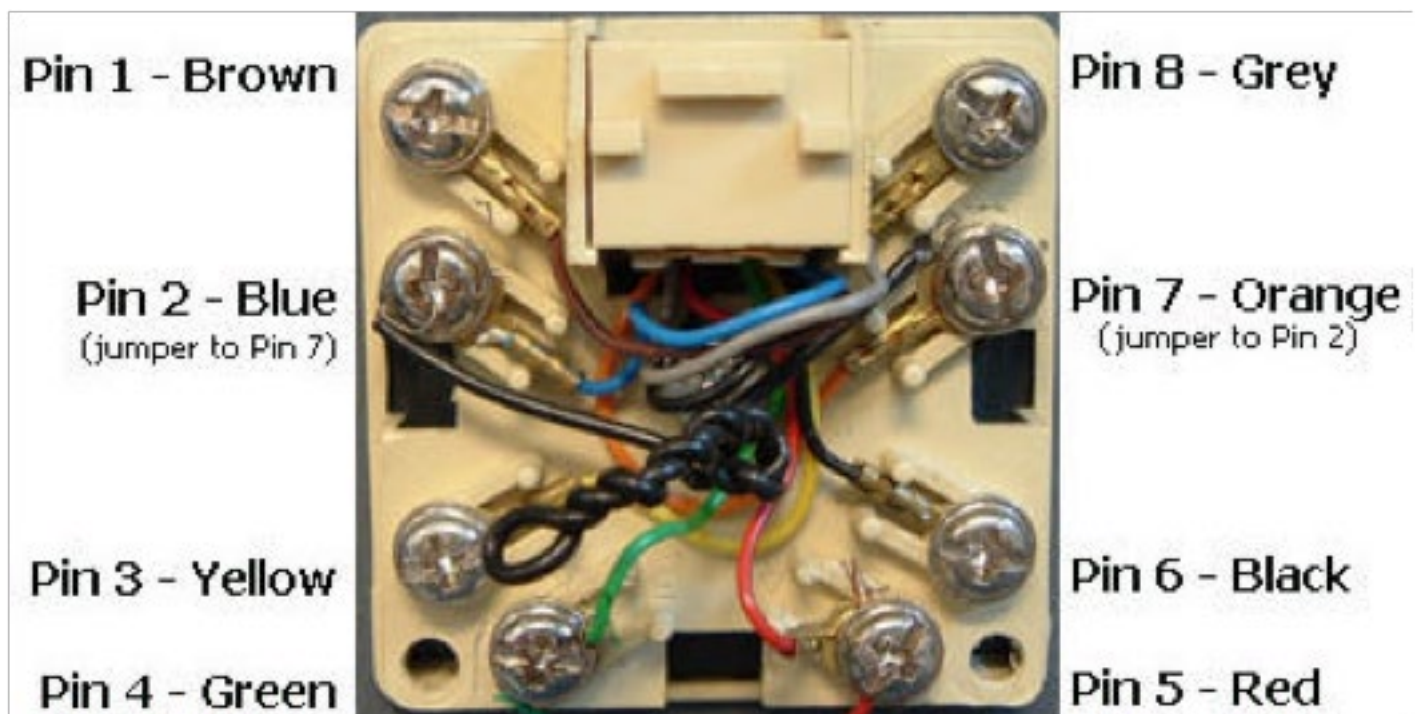
Phone Line 1 Trouble XT30 and XT50 panels

RJ supervision for DMP XT30/XT50 panels is achieved by placing a jumper wire across pins 2 & 7 of the RJ-31X.

Then, connect the RJ SUP header to an available zone named PHONE LINE 1 on the panel. When the telephone cable is removed, the keypad displays zone trouble and produces a steady tone.

To correct this condition:

- Make sure the jumper wire is installed across pins 2 & 7 of the RJ-31X.
- Check the RJ cable for continuity. There may be a broken wire. If so, replace the RJ cable with DMP Model 356-2.
- Make sure that RJ-31X pin-out is correct. RJ-31X pin-out



Phone Line 1 Trouble- XR150, XR550 Panels

XR series panels monitor telephone line voltage. When the voltage falls below 3 VDC, the panel generates a PHONE LINE 1 TRBL.

If you are using a Model 893-A Dual Phone Line Module-

Model 893-A modules monitor telephone line voltage. When the voltage falls below 3 VDC, the panel generates a PHONE LINE 1 or 2 TRBL. Here are some things to check:

Check phone line voltage

- Set multi-meter to DC voltage and reset the panel using the RESET header
- With the panel still connected to the RJ-31X, place meter-leads on pins 4 & 5. If properly wired for line seizure, this should be your incoming dial tone.
- Check voltage. When the panel is ON-HOOK (not dialing) this voltage should read somewhere between 45 and 55 VDC.
- Make the panel go OFF-HOOK (an easy way to do this is to remove and replace the TAMPER jumper) and read the phone line voltage again.

NOTE: If the phone line voltage drops below 3 VDC, the problem lies with the phone line. If it does not drop below 3 VDC, try BYPASSING THE 893A. To do this:

- Place a jumper wire across pins 2 & 7 of the RJ-31.
- Disconnect the short RJ cable (between panel J3 and 893A) from the panel.
- Unplug RJ cable from 893A's MAIN (Remove BACKUP for PH LINE 2 TRBL), plug into panel's dialer connection.
- Wait up to TWO minutes for PH LINE TRBL to clear

Does PH LINE TRBL clear?

- YES - Replace 893A Module. BE SURE TO POWER DOWN THE PANEL FIRST!
- NO - Enter PROGRAMMING and Initialize EVENTS. This should clear the display. Wait at least TWO minutes after Initializing EVENTS to make sure that the PH LINE TRBL does not return.

TECH NOTE: Initializing EVENTS erases ALL EVENTS in the Event Buffer.

4-Wire Bus Trouble

When the keypad displays 4-WIRE BUS TRBL it means that the panel has a problem communicating with the keypad bus devices. 4-WIRE BUS TRBL is not an indication of LX-Bus issues. More specifically, when the panel polls the keypad bus devices, they aren't able to respond.

4-WIRE BUS TRBL only displays for the following reasons:

① All keypad bus devices set to Unsupervised

- Make sure at least one keypad bus device is set as Supervised.

② Multiple keypad bus devices set to same Supervised address

- Make sure that all keypad bus devices are addressed correctly (ALL devices sharing an address* MUST be set as Unsupervised)

③ Low voltage or no voltage on the panel's Yellow (receive) wire (terminal 8)

- Check data voltage (DC) across terminals 8 & 10 AT the panel and AT the device. If the voltage is low or open, remove the wires from terminals 7 - 10 and earth ground and check voltage again.
- If still low or open, reset the panel using the J16 jumper and check the voltage again. If voltage is still low or open, remove ALL wiring (except AC power) and check again. This last step is taken to make sure that transient voltage isn't being fed into the panel from the field wiring.

TECH NOTE: Multiple UNSUPERVISED devices may share the same address, as long as:

1) ALL devices using the address are set for UNSUPERVISED operation,

2) None of the devices using the address are being used for zone expansion

3) There is sufficient auxiliary power available to operate the devices. Auxiliary power maybe provided by the panel or an auxiliary power supply or both.

Transmit Fail

When the keypad displays TRANSMIT FAIL it means that the panel made 10 attempts to communicate with the receiver, but was unsuccessful.

After the ten attempts have failed, the panel tries once every hour to send a TRANSMIT FAIL message to the receiver.

The keypad only displays TRANSMIT FAIL when a user disarms the system or when an unsuccessful SYSTEM TEST has been initiated from the User Menu.

WHAT TO DO

① Arm the system. Let the Exit Delay timer count all the way down. Disarm the system.

- If communication to the receiver has been restored (i.e.- the panel successfully communicated the TRANSMIT FAIL or any other signal), this should clear the display.

② Try to send a test-signal.

XR SERIES PANELS

To test cellular or network communication:

① Enter the diagnostics menu (DIAG) and press command until COMM STATUS displays.

② Press any select key and enter the number of the path to be tested.

To test phone line communication:

- ① Enter the User Menu
- ② Press the Command key until the display reads SYSTEM TEST?
- ③ Press any Select key. Watch the keypad display. When it shows ATTEMPT NO: 1, the panel dials the 1st Phone Number programmed in RECEIVER 1 PROG of Communication.
- ④ When the panel successfully communicates to the receiver, the keypad display changes to TRANSMIT OKAY. The panel attempts to send this test-signal up to 10 times.

XT SERIES PANELS, ICOM, CELLCOM

To test cellular communication

- ① Enter the diagnostics menu (DIAG) and press command until CELL STATUS displays.
- ② Press any select key to start the test.

To test a network connection:

- ① Enter 984 + CMD and select NET.

To test phone line communication:

- ① Enter the User Menu; press the Command key until the display reads SYSTEM TEST?
- ② Press any Select key. Watch the keypad display. When it shows ATTEMPT NO: 1, the panel dials the 1st Phone Number programmed in RECEIVER 1 PROG of Communication.
- ③ When the panel successfully communicates to the receiver, the keypad display changes to TRANSMIT OKAY. The panel attempts to send this test-signal up to 10 times.
 - Verify the phone numbers by calling them from a butt-set at the RJ-31 connected to the panel's dialer connection. Does a receiver answer? Are you sure it isn't a fax machine?
 - If NO- find the correct phone number and program it into the panel.
 - If YES- verify with central station that it is the correct receiver for the panel's programmed communication format
 - DD = DMP SCS-1R or SCS-VR receiver.
 - NET = DMP SCS-1R or SCS-VR receiver.
 - CID = Any receiver that accepts Ademco Contact ID format
 - CELL = DMP SCS-1R or SCS-VR receiver.

- ④ Are the phone numbers in communication entered correctly?
 - Make sure that the panel is dialing the correct phone number.
 - Make sure that the panel doesn't need to dial a '9' or other digit to get an outside line.
 - Be sure to include any pauses the panel needs...
 - Enter a 'P' before the phone number for a three-second pause in the dialing sequence
 - Enter a 'D' to make the panel wait for dial tone before dialing
- ⑤ Is panel wired for proper line seizure?
 - If phone line is shared with house-phones, fax machine or other equipment, proper line seizure is a MUST. If the panel does not have line seizure and someone or something else is using the phone line, the panel can't use the line.

Transmit Trouble

When the keypad displays TRANSMIT TRBL it means that the panel had to make at least three attempts to communicate to the receiver. The way to clear Transmit Trouble is to get the panel to communicate on the first or second attempt.

XR SERIES PANELS:

- ① To test cellular or network communication, enter the diagnostics menu (DIAG) and press command until COMM STATUS displays. Press any select key and enter the number of the path to be tested.
- ② To test phone line communication, enter the User Menu; press the Command key until the display reads SYSTEM TEST?
- ③ Press any Select key. Watch the keypad display. When it shows ATTEMPT NO: 1, the panel dials the 1st Phone Number programmed in RECEIVER 1 PROG of Communication. When the panel successfully communicates to the receiver, the keypad display changes to [TRANSMIT OKAY]. The panel attempts to send this test-signal up to 10 times.

XT SERIES PANELS, ICOM, CELLCOM:

- ① To test cellular communication, enter the diagnostics menu (DIAG) and press command until CELL STATUS displays. Press any select key to start the test.
- ② To test a network connection, enter 984 + CMD and select NET.
- ③ To test phone line communication, enter the User Menu; press the Command key until the display reads SYSTEM TEST?
- ④ Press any Select key. Watch the keypad display. When it shows ATTEMPT NO: 1, the panel dials the 1st Phone Number programmed in RECEIVER 1 PROG of Communication. When the panel successfully communicates to the receiver, the keypad display changes to [TRANSMIT OKAY]. The panel attempts to send this test-signal up to 10 times.

If the panel is NOT communicating to the receiver within two attempts:

- ① Check RJ-31X wiring for proper line seizure.
 - If phone line is shared with house-phones, fax machine or other equipment, proper line seizure is a MUST. If the panel does not have line seizure and someone or something else is using the phone line, the panel can't use the line.
- ② Use a butt-set connected to the panel's RJ-31X to call the receiver phone number programmed in COMMUNICATION > RECEIVER 1 PROG. Is it a working phone number? If not, program the panel with the correct phone number.
- ③ Send another System Test to the receiver to verify that the communication is taking place within two attempts.

System Trouble

- ① Low or no (open) voltage on the Green wire of the keypad bus.
- ② Reset jumper shorting both pins of the RESET header.
- ③ Processor failure

System Busy

SYSTEM BUSY can mean that the panel is busy with other communication. Try to Reset the panel. If the display does not clear, SYSTEM BUSY can also mean that the panel's micro-processor is 'locked-up'.

A few things to check:

- Make sure the RESET header is not shorted
- Make sure Green wire (terminal 9) is not shorted to Ground or any other wire.

If that doesn't clear the display, try this:

- ① Check DC voltage across terminals 8 & 10. Check DC voltage across terminals 9 & 10.
 - If both measure at 5 VDC, reset the panel and check the voltages again.
- ② If both voltages still measure at 5 VDC, remove panel ground and remove all wiring from terminals 7, 8, 9 & 10.
- ③ Reset the panel. Check data voltages.
 - If both voltages still measure at 5 VDC, replace the panel.
 - If voltages are correct now, begin replacing terminal 7, 8 9 & 10 wiring.
 - BE SURE TO CHECK DATA VOLTAGES AFTER EACH WIRE IS REPLACED.

- By checking the voltages in this manner, you should be able to see when the voltage problem occurs. When it does, the wire you just replaced is most likely to be the cause of the problem.

NON-POLLED ADDRESS

When the keypad displays [NON POLLED ADDR] it means that this keypad SEES the panel polling OTHER devices on the keypad bus, but the DEVICE SETUP programming in the panel has this address set to NONE.

To correct this condition:

If only one keypad is connected to the system and the address is set to something other than ADDRESS 1, this is almost sure to be the problem.

- ➊ Set the keypad's address to 1 and exit Installer Options. You should be up and running now.

If there are multiple devices on the keypad bus:

- ➊ Check the keypad's address in the Installer Options. Is it correct?
 - If not, change it. Exit Installer Options. Does the keypad work now? If not...
- ➋ Enter PROGramming from a keypad that IS working correctly- check DEVICE SETUP programming
 - Be sure that the address is set to STD (set to FIRE for Model 630F keypads) and exit PROGramming. Now go check the keypad in question. It should work correctly now.

Battery Trouble

In a normal condition, the panel tests the backup battery every 3 minutes by performing a load-test on the battery. This test lasts for 5 seconds. If the battery voltage falls below 11.9 VDC during this test, the panel generates a BATTERY -TRBL. This signal is also sent to the central station. In the trouble condition, panel re-tests the battery every 2 minutes. When the battery's DC voltage rises to 12.6 VDC, the BATTERY -TRBL clears from the display and the restoral is sent to the central station.

If the battery has been replaced and the trouble condition is still present, try getting into and out of Programming. This re-starts the 3-minute load-test timer. This usually will clear the BATTERY -TRBL. If not, try these steps:

- ➊ Remove the AC wiring from terminals 1 & 2, so that only the battery powers the panel.
- ➋ Set your meter to DC voltage and place the leads on terminals 3 & 4. Is the voltage above 11.9 VDC?
 - NO - Then the panel sees the new battery in a trouble condition. You can wait for the new battery to charge to 12.6 VDC OR you can check the charging circuit...
 - YES - Replace AC wiring on terminals 1 & 2, remove battery leads from the battery. Check DC voltage on terminals 3 & 4. You should see about 13.8 VDC (14.2 VDC max.) when the battery is disconnected.

If you see less than 13.8 VDC, the panel's charging circuit may be damaged, in which case the panel will have to be repaired. Any time the battery voltage falls below 10.2 VDC, the panel disconnects the battery. This is to prevent deep-discharge damage to the battery.

Tamper Trouble

TAMPER -TRBL displays when the enclosure is opened or removed or the TAMPER header goes open, resulting in a signal transmission to the central monitoring station.

- If this occurs when one or more areas are armed, a tamper ALARM message is sent.
- If this occurs when all areas are disarmed, a tamper TROUBLE message is sent. The tamper header is for use with an optional DMP Model 306 Tamper Harness. The harness connects to one or more tamper switches mounted inside the panel enclosure to detect unauthorized opening or removal of the enclosure.

To clear TAMPER -TRBL from the display:

- ① When the Model 306 Tamper Harness is not installed, a jumper should be placed on both pins of the tamper header.
- ② When the Model 306 IS installed- place a jumper on J4. Does the display clear?
 - YES - Close the tamper switch(es) and check the Model 306 for continuity. If harness or switches are bad, replace the Model 306.
 - NO - Enter Programming and Initialize EVENTS. Exit Programming. The trouble should now be cleared from the display.

TECH NOTE: Initializing EVENTS erases ALL EVENTS in the Event Buffer.

Wireless Trouble

When WIRELESS -TRBL displays, it means that the panel has a House Code programmed in System Options and has either lost communication with the 1100 Series Wireless Receiver, or the tamper switches on the receiver are not fully depressed.

To troubleshoot the cause on an XR panel, the X-BUS option in diagnostics will display the receiver's firmware version if the panel can communicate with it. Is the receiver firmware and date code displayed on the keypad?

- YES - The panel is able to communicate with the receiver. Check the tampers on the receiver by pressing the switches by hand.
- NO - The panel cannot reach the receiver. Verify the receiver is connected to the panel correctly. On XR panels, use the X-BUS header. Check data bus voltages. If there is an open or short on the line, bring the receiver back to the panel and connect it using a short wiring harness and verify the WIRELESS -TRBL message has cleared.

XT panels do not have the ability to test communication with the wireless receiver from the keypad. Voltage at the panel and the receiver can test the connection between the two. Wireless receivers connect to the keypad bus terminals (7-10) on the panel.

COMMON KEYPAD MESSAGES

	<u>Meaning</u>	<u>Possible Solution</u>
INVALID AREA	The user is not assigned a profile with access to the door.	Change the user access areas if access to the area is needed.
INVALID CODE	The user code you entered is not recognized by the system.	Check the user code and try again.
INVALID PROFILE	A user is not assigned a profile with access to that function.	Check the user profile settings.
INVALID TIME	A user is not assigned a profile with access to that schedule.	See Schedules and User Codes.
ENTER 2ND CODE	The area attempting to disarm/access is a Two Man Area.	A second and different user code must be entered.
CLOSING TIME	The schedule has expired but the area is not armed.	Users still on the premise should arm the system/extend the schedule to a later time.
LATE TO CLOSE	The system was not armed at its scheduled closing time.	Users still on the premise should arm the system/extend the schedule to a later time.
FAILED TO EXIT	A user assigned anti-passback has attempted to re-enter an area they did not exit properly.	They must exit through the proper door. Or your system administrator should select the Forgive option in the user codes menu.
AC TROUBLE	The system AC is low or missing.	Check that all AC connections are good.
BATTERY TROUBLE	The system battery is either low or missing.	Check that the battery connections are good and the battery is still good.
PHONE LINE 1 TROUBLE	There is trouble with the phone line supervision.	Plug in the phone line.
SYSTEM TROUBLE /SERVICE REQUIRED	There is a problem with component(s) in your system.	Remove the RESET jumper from the panel. Is there a short/open condition on the green data wire to the keypad? Are all keypad/expansions on the bus good?
SYSTEM BUSY	The system is performing another task with a higher priority.	Wait for the system to complete the task. Make sure the RESET jumper is not on the panel. If it displays for a long time, the processor could be locked up.
4 WIRE BUS TROUBLE	There is not a supervised device on the bus.	Program a device to be supervised. Make sure all wires are connected. Program a device to a unique address.
TRANSMIT FAIL	The panel has attempted to communicate with the central station 10 times unsuccessfully.	Verify communication type, account number, & phone number. Is the telephone line connected and working properly?
NON-POLLED ADDRESS	The device wasn't set to DOOR, KEYPAD, or FIRE in Device Setup.	Program the device as DOOR, KEYPAD, or FIRE in Device Setup.
ENTER CODE	Lockout code is programmed.	Enter the lockout code.
WIRELESS TROUBLE	The panel is unable to communicate with the wireless receiver. or The receiver's tamper may be faulted.	Verify the receiver is properly connected to the panel, the correct House Code is programmed in System Options and check the tampers.

COMMON TROUBLESHOOTING

Most DMP panels, regardless of model, operate pretty much the same way. That means that many of the troubleshooting steps taken to resolve an issue are the same, no matter which panel you happen to be servicing.

This chapter explains what to do when:

- › Can't Get Into Local Programming
- › The Panel Won't Arm
- › Display Doesn't Clear After an Alarm
- › Can't Silence the Bells or Sirens
- › Zones Don't Trip
- › Can't Disarm

Usually, these problems have something to do with the system's Programming or the authority of the User Code you are using to operate the system.

Can't Get into Local Programming

To correct this condition:

- 1 Reset the panel using the RESET header.
- 2 Enter 6-6-5-3 (PROG) + COMMAND.
- 3 After entering 6-6-5-3 (PROG), does the keypad display a message?

TECH NOTE: Entering COMMAND after 6-6-5-3 is pressed is not needed on XT series panels or an XR series panel that is in the HOME/AWAY or ALL/PERIMETER mode.

- › **YES:** There is a lockout code programmed into panel.
 - ENTER CODE: Enter the Lockout Code + CMD. Keypad displays PROGRAMMER.
 - ACCESS DENIED: Panels display this if an invalid Lockout Code is entered.
 - RESET PANEL: Panel must be reset using J16.
 - SYSTEM BUSY: Panel processor is locked. RESET header is still shorted. Remove jumper. If RESET header is not shorted, put jumper on momentarily and remove.
 - Other: remove panel Ground and keypad bus wiring, reset panel and check data voltages directly on the terminals. If both voltages measure 5 VDC, replace panel.
- › **NO:** How many Keypads and/or expanders are there on the keypad bus?
 - 2+: Some of the keypad or expander addresses are probably set the same. Address the keypads and expanders, and then try to get into programming.
 - 1: If still having problems, remove all keypads except #1 and try again.

Panel Won't Arm

When attempting to arm the system, the keypad immediately returns to the Time Display and nothing arms. Here's what to check:

- ① Are there areas in programming? If no there are no areas programmed, the panel has nothing to arm.
 - Enter Programming and check AREA INFORMATION programming.
 - Areas must be assigned a name to become active.
- ② Does the User Code have authority to Arm/Disarm the areas?
 - Assign areas to code and/or check Profile (XR series only) for Arm/Disarm authority.
 - To assign areas to other User Codes in the system, YOUR CODE MUST HAVE AUTHORITY FOR THE AREAS YOU ARE TRYING TO ASSIGN. If not, you must Initialize codes and use the default code 99 + CMD to assign the areas to the User Codes.
- ③ What Arming Type is the panel using? Most DMP panels offer three different types of arming. Each mode provides a slightly different area configuration.
 - ALL/PERIMETER - Provides TWO, PRE-DEFINED AREAS of protection. Select PERIM to arm only the zones assigned to the Perimeter area. Select ALL to arm all zones assigned to the Perimeter AND Interior areas.
 - Area 1 = PERIMETER - Typically contains exterior door and window contacts and glass-break detectors.
 - Area 2 = INTERIOR - Typically contains interior door contacts and motion detectors.
 - HOME/SLEEP/AWAY - Similar to the Perimeter/All, but provides THREE PRE-DEFINED AREAS of protection. Select HOME to arm zones assigned to the Perimeter area. Select SLEEP to arm zones assigned to the Perimeter AND Interior areas. Select AWAY to arm zones assigned to ALL three areas: Perimeter, Interior and Bedrooms.
 - Area 1 = PERIMETER - Same as All/Perimeter.
 - Area 2 = INTERIOR - Same as All/Perimeter.
 - Area 3 = BEDROOMS - Similar to the Interior area, but may be independently DISARMED from the Perimeter and Interior areas.
 - At arming, the keypad displays HOME AWAY. When zones are assigned to the BEDROOMS area, the keypad displays HOME SLEEP AWAY at arming.
- ④ If the keypad does not respond to any key presses, check keypad bus devices for duplicate addresses
- ⑤ If the keypad never displays the arming prompt, check Menu Display programming. Is keypad address 'turned on' in Menu Display for Arm/Disarm?

HOW AN AREA SYSTEM WORKS

Allows you to define ALL of the areas of the system. Each Area of the system may be assigned a name consisting of up to sixteen alpha-numeric characters. Each Area may also be operated independently of the other areas of the system, have its own Armed Output and may follow its own set of Schedules. If you tell the system to arm and nothing happens make sure you have programmed areas in the panel programming

TECH NOTE: At arming, the keypad displays ARM DISARM. Press the Select key beneath ARM.

- ① When you arm the system, the keypad displays ALL? NO YES or ENTER CODE:-, depending on how the Closing Code option is set.
- ② Enter your User Code, if necessary. Select YES to arm all areas. If a Closing Code is required, select YES arms all of the areas that are assigned to the User Code or Profile.
- ③ Select NO and the keypad displays each area's name (top line of LCD display) and the area number, followed by YES and NO options.

See your Programming Guide for details about the number of Areas available on your system.

Different arming types require different methods of arming AND panels may also be programmed to require or to not require a Closing Code. Depending on how the Closing Code option is programmed (YES or NO) determines the system's arming process. See the Arming Procedure chart for more detail:

HOW TO ARM AND DISARM A PANEL

	<u>Arming Type</u>	<u>How to Arm</u>	<u>How to Disarm</u>
<u>Closing Code On</u>	All/Perimeter	Enter code. Select ALL or PERIMETER.	Enter code.
	Home/Sleep/Away	Enter code. Select HOME, SLEEP, or AWAY.	Enter code.
	Area	Press command until ARM/DISARM displays. Enter Code when prompted.	Press command until ARM/DISARM displays.
<u>Closing Code Off</u>	All/Perimeter	Press command until ALL/PERIMETER displays.	Enter code.
	Home/Sleep/Away	Press command until HOME/SLEEP/AWAY displays.	Enter code.
	Area	Press command until ARM/DISARM displays.	Press command until ARM/DISARM displays.

TECH NOTE: The Closing Code option is programmed in SYSTEM OPTIONS on XT series panels.

Display Doesn't Clear After an Alarm

- ① Is the keypad showing a system trouble or a zone alarm?

HOW TO CLEAR THE DISPLAY

<u>Message Type</u>	<u>Displays for</u>	<u>Clears When</u>
System Troubles	Steady	When trouble restores
Fire Alarm	None	Sensor Reset is performed.
Burglary Alarm	1 Second	At disarm or after 10 min.
Supervisory Alarm	Steady	Sensor Reset is performed.
Panic Alarm	None	When zone restores.
Emergency Alarm	None	When zone restores.
Auxiliary 1 and 2 Alarm	None	When zone restores.

- ② Has the panel been disarmed?

- Alarm memory doesn't clear until the Area that the zone is assigned to has been armed and disarmed.
 - Disarm the appropriate area(s).
- Systems set to ALL/PERIMETER or HOME/AWAY
 - Enter a valid User Code that has Arm/Disarm authority
- Systems set as an AREA SYSTEM:
 - Press the COMMAND key until the displays reads ARM DISARM. Select DISARM.
 - The keypad displays ENTER CODE:- . Enter a valid User Code that has Arm/Disarm authority.
 - The keypad displays ALL? NO YES. Select YES to disarm ALL areas assigned to the User Code. Select NO to individually display each area that the User Code can disarm. Choose YES for each area you wish to disarm.

Can't Silence Bell/Siren

- ① Does the User Code being entered have authority for Alarm Silence?

- Check User Code authorities in User Menu.
- XT Series: All user code levels have Alarm Silence permissions.
- XR Series: Check Profile assigned to User Code for Alarm Silence authority.

- ② Is the User Code being entered during its assigned Schedule?

- Check User Code authorities in User Menu.
- XR Series: Check Profile assigned to User Code for Schedule assignment.
- Check Time Display on keypad. If system time is incorrect, adjust it in the User Menu.
- Check Schedule times in the User Menu. Are they correct?

③ Does the Bell/Siren activate through Fire Alarm Output?

- When the Fire Bell Output activates, a Sensor Reset is required.
- Make sure that User Code has authority to perform a Sensor Reset.

Panel is Armed, Zones Do Not Trip

① Are zones programmed in ZONE INFORMATION?

- Use the ZONE STATE option in the Diagnostics Menu. Enter the zone number + COMMAND. Display shows name and electrical state of zone. If the display shows [* UNUSED *- NORML], then the zone is not programmed or the zone expander may be incorrectly addressed.

② Is the area that the zone is assigned to armed?

- Make sure that the area is armed. Trip the zone again.
- Make sure that your User Code has Arm/Disarm authority for the area being armed.
- Check System Options to see if Occupied Premise is enabled.

③ Are you tripping the correct zone?

- On XR panels, use the ZONE FINDER option in the Diagnostics menu. At the [FAULT ZONE] display, trip the zone. What zone number appears on the keypad display?
- On XT and XTLplus, type in the zone number CMD to check the zone status
- Check the zone programming in ZONE INFORMATION.

Can't Disarm

① Does the User Code being entered have authority for Arm/Disarm?

- Check User Code authorities in User Menu.
- XT Series: Check areas assigned to user code.
- XR Series: Check Profile assigned to User Code for Arm/Disarm authority.

Door Access Troubleshooting

The following are things that display on the keypad when denied access to an area:

- | | |
|------------------|--|
| ▸ INVALID CODE | No match with codes in panel. |
| ▸ INVALID AREA | No match between profile and device access areas. |
| ▸ INVALID LEVEL | Door Access set to No, or Profiles set to 0. |
| ▸ INVALID TIME | Access attempt outside of time assigned to profile. |
| ▸ ARMED AREA | No permission to disarm access area. |
| ▸ INACTIVE USER | User is set to inactive in User Codes. |
| ▸ FAILED TO EXIT | User has not access egress area assigned to this door. |

Troubleshooting Using the Transmitter Survey LED

If a transmitter is unable to reliably communicate a message to the receiver, or is reported as missing, the Survey LED can be used to help diagnose the issue. If the missing transmitter cannot be explained by obvious reasons such as a damaged transmitter, failed battery, or changes in building construction; then the Survey LED should be used.

Repeat the following sequence 5 times and write down the LED operation for each tamper switch action.

- 1 Press and hold the tamper switch
- 2 Observe the LED until it turns off for at least 5 seconds • Release the tamper switch
- 3 Observe the LED until it turns off for at least 5 seconds

SURVEY LED OBSERVED RESULTS		
	When LED is Pressed	Meaning
Turns On	On then off 8 to 10 times	System is working properly.
	On for 1+ seconds 3 to 9 times	Transmitter/receiver needs to be relocated
	On for 1+ seconds all 10 times	Receiver is not turned on/is not operating Transmitter isn't programmed into the receiver Transmitter or receiver needs to be relocated
Flashes	Flashes with a single tamper press 3 to 10 times	Transmitter/receiver needs to be relocated
Doesn't Turn on	LED never turns on	Transmitter battery is dead
		Tamper switch pressed/released too quickly
		Broken tamper switch/other part of transmitter
Stays On	Dim	Transmitter battery is almost dead
		Transmitter is broken

General Wireless Troubleshooting

If ALL wireless devices do not operate, refer to the following checklist:

- Verify equipment model numbers.
- Verify the House Code (1-50) is programmed in System Options.
- Verify the 4-wire connector from the receiver PANEL header is connected to the XT30/XT50 panel terminals 7, 8, 9, and 10.
- Verify what zone numbers are assigned as wireless zones. Check the address settings of other devices on the keypad bus to ensure no duplicate addresses have been used.
- Verify the 1100D LEDs are operating as listed in 1100D LED Operation on the previous page.
- Verify transmitters have batteries correctly inserted.

XR150/550 DIAGNOSTICS MENU

TEST LX-BUS

The first Diagnostic function displayed is: TEST LX-BUS . This Diagnostics function allows you to test the panel's ability to communicate with zone and output expanders as well as access control modules connected to the LX-Bus™.

- 1 To continue, press any Select key. The keypad displays: LX-BUS Enter the LX-Bus Number (1-5). Refer to the following table to determine the correct bus number.

LX-BUS NUMBERS

<u>LX-Bus</u>	<u>Bus Number</u>
LX500	1
LX600	2
LX700	3
LX800	4
LX900	5

- 2 You've just told the panel which LX-Bus you want to test. The keypad now displays ADDRESS . To test address '00' on the selected LX-Bus™, simply press COMMAND. To test only a particular device, enter the 2-digit LX-Bus device address and press COMMAND.

▸ **TECH NOTE:** Enter the address of the device you are testing. Do not enter a specific zone number. Refer to the example at the end of the following 'How it Works' section for more information.

- 3 During the test, TESTING . . . STOP displays on the keypad. At any time, you can press the Select key below STOP to end the test. During the test, the panel records the number of responses from the device. If all polls are received back by the panel correctly, the keypad displays [0/65535 FAIL] (read this as "zero failures out of 65535 polling attempts") when STOP is selected.

- 4 Press the Back Arrow key to enter a new device address or press COMMAND to exit TEST LX-BUS.

How TEST LX-BUS Works

When the panel polls the addressed LX-Bus device, the device is recognized as a multi-zone device. The panel does not poll the remaining zones on the device.

The expander internally polls the remaining zones and transmits any status changes to the panel. This greatly reduces the amount of time it takes the panel to poll all LX-Bus devices.

TECH NOTE: At the [TESTING . . . STOP] display, the longer you wait before you select STOP, the more polling attempts the panel is able to make. The number used above (65535) is the highest possible number of polling attempts.

If one or more polling attempts fail, the keypad displays [* * * * */65535 FAIL] with the * representing the number of failed polling attempts.

A display of 65535/65535 FAIL indicates a problem with the device or its LX-Bus wiring, such as a bad or broken wire, a wire harness not properly connected, or excessive noise or distance.

It can also mean that a zone number was entered that did not match a device address.

Example: You have a four-zone expander on LX-Bus #1 that is address 00.

The first zone on the expander is Zone 500. When you try to make the panel poll address 01, the panel isn't looking for address 00. The result is 65535/65535 FAIL.

ZONE FINDER

The second Diagnostic function is the Zone Finder. This works even if the zone is not programmed.

- ① Press COMMAND to display [ZONE FINDER]. This function allows you to identify individual zones on devices connected to the LX-Bus of an interface card, the panel, or any zones on the keypad data bus.
- ② To use ZONE FINDER, press any Select key. The display changes to [FAULT ZONE].
- ③ The next zone on the system that changes from a normal state to an OPEN or SHORT state is displayed as [ZONE NO: * * *]. This remains in the display until another zone changes state.
- ④ To continue, press the Back Arrow key.

ZONE STATE

This Diagnostics function allows you to enter any zone number and check its current electrical state (Normal, Open, or Shorted).

- 1 At the [ZONE STATE] display, press any Select key.
- 2 The display changes to [ZONE NUMBER:-].
- 3 Enter in the zone number you want to check and press COMMAND. The panel displays the zone name (first ten characters only) and the current electrical state of the zone as NORML (normal), OPEN, or SHORT.

Example: [FRONT DOORNORML]. When the state of the zone changes, the display also changes to reflect the change.

The ZONE STATE feature is a much better way to troubleshoot zone problems than the Zone Status function in the User Menu because the ZONE STATE display remains until you exit back into the Diagnostics menu.

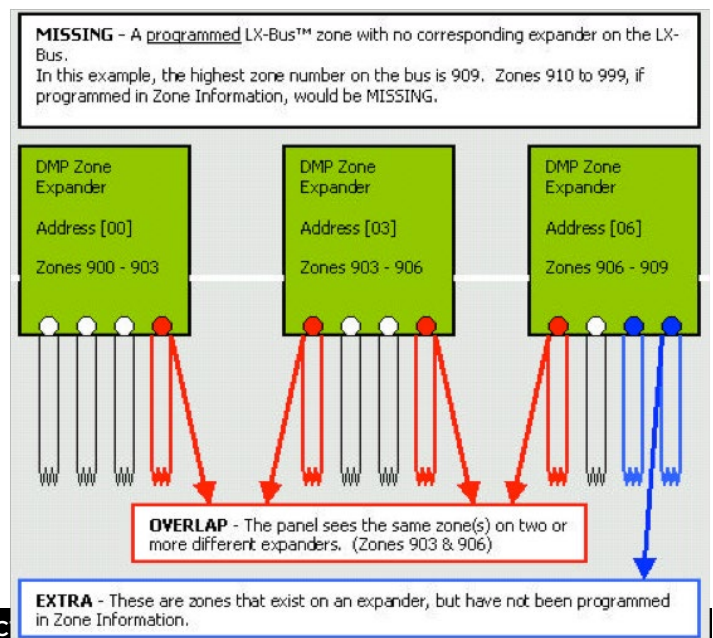
ZONE PARAMETERS PANEL ZONES 1-8 & MODEL 711, 712 & 714 EXPANDER ZONES

<u>Zone Condition</u>	<u>Resistance On Zone</u>	<u>Voltage On + Terminal</u>
OPEN	More than 1300 Ohms	Over 2.0 VDC
NORMAL	600 - 1300 Ohms	1.2 - 2.0 VDC
Short	Less than 600 Ohms	Under 1.2 VDC

LX-BUS STATUS

The fourth Diagnostic function is the LX-BUS STATUS. This function allows the panel to poll all devices connected to the LX-Bus of an interface card and check for any OVERLAP, MISSING or EXTRA addresses.

- 1 At the [LX-BUS STATUS] display, press any Select key.
- 2 The display changes to [OVLP MIS EXT]. Press the Select key below the status you wish to check. See the illustration below for more detail.



X-BUS

Press any select key to display the firmware version of a connected 1100 Series Wireless Receiver. This is useful in testing communication between the panel and the wireless receiver.

An 1100X or 1100XH Wireless Receiver must be connected to the X-Bus header, and a house code other than zero must be set in System Options for the panel to display this information.

MAC ADDRESS

Every node on a network has a MAC address. Think of the MAC address as a 'hard-coded' serial number for a piece of network equipment.

Computers, routers, network printers and the panel all have a unique MAC address, which is used for hardware identification.

Press any Select key to view the MAC (Media Access Control) address for the panel's built-in network communicator.

TECH NOTE: THE MAC ADDRESS IS NOT THE SAME AS AN IP ADDRESS! IP addresses are used for network communication. MAC addresses are used for hardware identification.

SERIAL NUMBER

Press any Select key to view the network communicator's manufacturing serial number.

The Serial Number is not a 'hard-coded' number like the MAC address. It's just a number on a sticker under the J6 header on the panel.

Reference this serial number to find network communicator date-of-manufacture, hardware version, etc.

MAC address and Serial No. Pic

LOADER VERSION

This display is for factory use only. Press any select key or area to display the factory Loader Version. Press the COMMAND key to view the next option.

This is not the panel's current firmware version.

CURRENT FLASH

The panel has TWO flash-updateable ROM chips. The processor uses only one at a time.

When you flash-update a panel, you are actually updating the UNUSED flash ROM. When the panel restores itself after an update, it begins to use the newly updated flash ROM.

Press any Select key at the CURRENT FLASH display. The keypad displays FLASH ONE or FLASH TWO to indicate which physical flash-chip the processor is using now.

COMM STATUS

Press any Select key at the COMM STATUS display. The keypad will display a prompt to enter the path number. Enter the number of a communication path to test individual components of cellular or network communication.

CELL SIGNAL

Press any Select key to view the signal strength of the connected cellular modem.

ACTIVATE CELL

This is an option only if the panel has a 263C or 265C cellular modem. Press any Select key, and select YES when prompted to start activation. Panels with current firmware will attempt an activation automatically when the panel is powered up or restarted.

This is a separate step from submitting an activation request to SecureCom, and should be performed after the initial activation is successful.

PC PROGRAMMING

This allows the user to Remote Program the panel using a 399 cable attached to LX5150 or XR550.

Press any Select key, and the keypad will display PROGRAMMING

Test Z-Wave

Use this option to test panel communication with Z-Wave devices. Displays results as the number of successful tests over the number of total tests.

Wi-Fi Signal

Press any select key to view the SSID (Network Name) and the current signal strength.

STOP

Press any Select key at the STOP display to exit the Diagnostics menu.

CELL DIAGNOSTICS

SUCCESSFUL DISPLAY	FAILURE DISPLAY	SOLUTION
MODEM OPERATING	NO MODEM FOUND	Verify firmware supports module. Power Down then Reseat Cell module and try again.
IDENTIFIED	NO SIM CARD	Verify orientation of SIM if SIM based. Update panel firmware if CDMA unit.
TOWER DETECTED	NO TOWER	Check cell signal in DIAG. Check antenna connection. Add cable extension or relocate antenna.
REGISTERED	NOT REGISTERED	Verify Cell module is active with Securecom Wireless. Check Cell Signal in Diagnostics.
CONNECTED	CONNECT ERROR	Verify APN type is correct. DMP: SECURECOM400 Rogers: NMRX.CA.APN T-Mobile: GRID.T-MOBILE.COM
ACTVATED	NOT ACTIVATED	Onsite Activation has not been done succefully. Go to Diagnostics and run Activate Cell.
COMM PATH GOOD	NO ACK RECEIVED <i>(select for solution)</i>	Verify receiver IP & that ports are open for inbound/outbound traffic. Verify UDP is open at central station. Send signal test to DMP Tech Support at 209.248.148.51 port 2001.

NETWORK DIAGNOSTICS

SUCCESSFUL DISPLAY	FAILURE DISPLAY	SOLUTION
LINK OK	LINK ERROR	Panel is not on the network. Verify cable is connected. Check cable and network hardware.
DHCP OK	DHCP ERROR	Verify DHCP server is receiving the panel's request for an IP address.
GATEWAY FOUND	NO GATEWAY	Panel cannot reach gateway IP address. Verify gateway IP address/ports are open between panel & gateway.
DEST FOUND	NO DESTINATION	Verify receiver IP address and that ports are open for inbound/outbound traffic.
COMM PATH GOOD	NOT CONNECTED or NO ACK RECEIVED <i>(select for solution)</i>	Send a test signal to DMP Tech Support at 209.248.148.51 port 2001.

HELPFUL LINKS

[DMP.com/dealerdirect/techfaq/](https://dmp.com/dealerdirect/techfaq/)

[DMP.com/guides](https://dmp.com/guides)

[DMP.com/dmphelp](https://dmp.com/dmphelp)

[DMP.com/techtrainingvideos](https://dmp.com/techtrainingvideos)