

Generic Bank Branch System Information

Before installing any equipment, complete the following section.

Account Number _____
 Address _____
 Phone Number _____
 DHCP _____
 Control Panel IP Address _____
 Gateway Address _____
 Subnet Mask _____
 Programming Port _____
 Installation Date _____
 Installer Name _____

1. System Components—Lev. A (KIT-XXX-XR550BRANCH)

The system package includes the following components:

- One 352P-G101 Extra Large Enclosure w/Mounting Plate:
 - Two 100 VA Transformers
- One XR550DEPCB with built-in 128 bit Encryption
- One 505-12PCB Power Supply
- One 861 Auxiliary Power Distribution and Bus Module
- Three 714-16PCB Zone Expanders
- One 263LTE-V Cellular Communicator with Cable
- One 381-12 SMA Extension Cable (12')
- One 386 Antenna Mount Bracket
- One 352S Large Enclosure for 80 Hour Standby Batteries
- One 7070 32-Character LCD Keypad
- One additional 7070 Keypad (optional)
- One 1100XH High Power Wireless Receiver
- Ten 1142 Two-button Holdup Transmitters
- One 431 Output Harness
- Two 305 Plug-in Output Relay
- Four 307-S Tamper Switches
- Four 306 Tamper Harnesses
- One 357-10 Black Cat 5e Cable (10')
- One AC Power Cord with Right Angle Plug (12')
- One PSD100 Vault Audio Detector
- Six 366 12 VDC 18Ah Batteries
- Two 318EXT Battery Harness Extensions
- Three 318 Dual Battery Harnesses
- Five 318R Dual Battery Harnesses with Ring Terminals
- Three 572 Annunciator Plates with LED
- One SX360Z Optex Extra Long Range 360 Motion Detector
- Two CX-702 Optex Dual Motion Detectors (70' x 70' or 80' x 6')
- One 330 Programming Cable
- Conduit Accessories

2. Reference Information

⚡ Caution: Remove all transformer and battery power from the panel before installing or connecting any modules, cards, or wires.

System Grounding

The XR550 Series panel Terminal 4 can be connected to earth ground using 14 gauge or larger wire. Connect to a cold water pipe, ground rod, or building ground when available. Connection to an electrical ground or conduit can also be used. Gas pipes or sprinkler pipes should not be used. A ground connection is not required to provide normal system operation.

System Wiring

All wiring must be in accordance with NEC, ANSI, and NFPA 70. Use non-shielded 22 AWG wire for short wire runs from the panel. Use non-shielded 18 AWG wire for longer wire runs from the panel. Refer to the LX-Bus/Keypad Bus Wiring Note (LT-2031). It is recommended that strain reliefs be used in all locations where wires exit an enclosure and conduit is not used.

DMP recommends using 18 or 22-gauge unshielded wire for all keypad circuits. Do not use twisted pair or shielded wire for Keypad Bus data circuits. To maintain auxiliary power when using 22-gauge wire, do not exceed 500 feet. When using 18-gauge wire, do not exceed 1,000 feet. For longer runs, install an additional power supply or repeater.

Ensure all connections from the panel enclosure to the battery enclosure and from the power supply enclosure to the battery enclosure are in 3/4" conduit. DMP recommends using strain reliefs in all locations where wires exit an enclosure and conduit is not used.

Reference Documents

Refer to the documents listed below as needed.

- XR150/XR550 Series Installation Guide (LT-1233)
- XR150/XR550 Series Programming Guide (LT-1232)
- 7000 Series Keypad Installation Guide (LT-0883)
- 263LTE Installation Guide (LT-1592)
- 1100XH Wireless Receiver Installation Guide (LT-0970)
- 861 Power Distribution Installation Guide (LT-0795)
- 714-8/714-16 Installation Guide (LT-0401)
- 505-12 Installation Guide (LT-0453)
- 1142 Series Two-Button Transmitter Installation Guide (LT-0700)
- Any documentation included with the system components

Current Draw

Combined current draw from XR550 Auxiliary (Terminal 7), Smoke (Terminal 11), X-Bus, and LX-Bus must not exceed 625 mA in order to support 80 hours of standby operation. Ensure the total current draw of optional devices does not exceed the 625 mA of power supplied by the panel. A separate power supply is needed to support devices beyond 625 mA.

3. Mount the Enclosures

Prior to mounting and as needed, open any enclosure knockouts. Mount the 352P-G Extra Large Enclosure with the pre-mounted panel in a secure, dry place to protect the components from damage. It is not necessary to remove the pre-mounted components when installing the enclosure. Make sure all wiring in the XR550DE Enclosure is routed neatly and securely to keep the wiring off the panel and power supplies.

Mount the 352S Battery enclosure adjacent and to the right of the XR550 panel enclosure in a secure, dry place to protect the batteries from damage due to tampering or the elements. Use the two supplied 3/4" X 2" conduit pieces to connect the panel and battery enclosures through the side knockouts as shown in Figure 1.

4. Install the 305 Relays and 431 Harness

Install the two 305 Plug-in Output Relays into XR550 Output 1 and Output 2. The relays only operate when installed with the coil end down. Check the panel wiring diagram in this guide as needed. Carefully align the relay pins and press the relay into the socket. Plug the 431 Output Harness into panel Out1 Out2 Header between Output 1 and Output 2. The 431 output harness is not connected to any devices during this installation. For more information, refer to Figure 1.

5. Install the 714-16PCB Expanders

Note: For detailed mounting location information, refer to Figure 1.

1. Mount the 714-16PCB beneath the panel in the panel enclosure.
2. Set the KPD LX on the zone expander to LX. Set the rotary switches to 0, 0 to enable LX Bus zones 500 through 515 and connect the 714-16 to the XR550 LX500 header.
3. Connect additional 714-16 Zone Expanders as needed.

Install any additional zone expanders connected to the XR550 enclosure with a conduit nipple whenever possible. They may also be mounted in the field as required to replace an existing zone expander.

Set the KPD LX jumper on the optional zone expander to LX. Set the rotary switches to 1, 6 to enable LX-Bus zones 516 through 531. If more than one zone expander is installed, refer to the 714-16 Installation Guide (LT-0401) and set subsequent rotary switches as needed. For more information, refer to Figure 1.

6. Mount the Model 307-S Tamper Switches

Use 22 AWG wire as needed to wire the tamper switches. Attach the Model 307 Tamper Switch in the lower right side of the panel enclosure with the button protruding past the enclosure edge. Connect the 307 Tamper Switches to XR550 panel TAMPER header with the included 306 harnesses.

7. Mount the 1100XH Wireless Receiver

Choose an optimal location to mount the receiver. Ensure the 1100XH is centrally located between the 1100 Series transmitters used in the installation. Be sure to mount the receiver away from large metal objects and equipment enclosures because it may impair the receiver's performance. Do not mount above T-Bar ceilings. Do not use shielded wire between the panel and receiver. The 1100XH can be mounted up to 500 ft (150 m) from the panel using 22 AWG or 1000 ft (300 m) using 18 AWG.

1. Remove the cover from the plastic housing.
2. Secure the receiver to the surface, ensuring the wall tamper switch makes proper contact with the wall.
3. Connect the PANEL header on the 1100XH to the XR150/XR550 panel XBUS header.

8. Install the 263LTE-V Cellular Communicator

⚡ Caution: Before installing the 263LTE-V, ensure power to the panel is disconnected. Failure to do so may result in equipment damage.

For installation details, refer to Figure 1.

1. Record the device SIM for programming later.
2. Insert the included standoff into the XR550 Series panel standoff hole.
3. Secure the 263LTE-V on the 12-pin Cell Module connector.
4. Align the 263LTE-V standoff hole with the standoff already placed in the panel and snap it into place.

9. Connect the 263LTE-V Antenna

1. Remove one of the available 1/2" knockouts from the top of the enclosure. If no knockouts are available, drill a 1/2" hole through the top of the enclosure. The antenna must be mounted vertically.
2. Connect the 381-2 coax cable to the 263LTE SMA connector.
3. Place one washer on the 381-2 SMA connector and push the threaded end through an open enclosure knockout.
4. Place the second washer on the threaded end extending through the knockout and thread a nut onto the connector.
5. Attach the 381-12 SMA Extension Cable to the SMA connector on the top of the panel enclosure.
6. Mount the 386 Antenna Mount Bracket where instructed by the customer.
7. Run the 381-12 cable to the bracket. Place one washer on the 381-2 SMA connector and push the threaded end through the bracket.
8. Place a washer on the threaded end extending through the bracket and thread a nut onto the connector.
9. Attach the 383 Antenna to the SMA connector on top of the 386 bracket.

10. Connect the Ethernet Cable

Using the Cat 5e network cable (357-10), plug one end into the XR550 panel Ethernet connector. Run the other end through a strain relief and plug the network cable into the customer-supplied network connector.

11. Connecting the 861 Power Distribution and Bus Module

For wiring details, refer to Figure 1.

1. Mount the 861 to the left of the XR550 in the panel enclosure as shown in Figure 1 with the three included plastic standoffs and Phillips head screws.
2. Using the 4-wire harness cable, connect the programming header of the XR550 to the BUS-A on the 861.
3. Connect a wire from the 861 BLK GND IN terminal to panel Terminal 10.
4. Connect another wire from the 861 BLK GND IN to 505-12 DC negative.
5. Connect a wire from the 861 RED PWR IN terminal to 505-12 DC positive.
6. Use the 861 RED POWER OUT and BLACK GROUND OUT terminals to provide power for all output devices (motions, seismic, ATMs).

12. Install the 7070 Keypads

Use the included wiring harness to connect the DMP 7070 Keypads to the 861. Observe wire colors when connecting and do not use shielded wire. You can install a maximum of 16 addressable supervised devices on the keypad bus. Connect each keypad to the 861 BUS-A header. For more information, refer to Figure 1.

13. Wire the Zones

Zones 1-10 are located directly on the XR550 panel. Wire the zones as required. Zones 1 through 8 use 1K Ohm EOL resistors and Zones 9 and 10 use 3.3K EOL resistors.

Keypad Bus expansion zones are numbered in groups of four corresponding to the address. Example: address 1 is zones 11-14 and address 16 is zones 161-164. There are a maximum of 64 zones possible on the Keypad Bus. All keypad zones terminate with a 1k Ohm EOL resistor.

When using the LX500 header, 100 zones numbered 500 - 599 are available.

Panel Zone #	Device Type
1	Reserved
2	Reserved
3	Reserved
4	Reserved
5	Power Supply Low Battery
6	Power Supply AC Fail
7	Unused
8	Unused
9	Reserved
10	Reserved

Table 1: Zone Wiring

14. Connect the Motion Detectors

Connect each motion detector power to the pre-wired 861 Auxiliary Power Distribution and Bus Module. Wire the motion detectors as NC (Normally Closed). When activated, the motion detectors open the circuit. Refer to the 861 Detail drawing on the wiring diagram and the Zone Layout table for zone information.

15. Connect the 572 Panic LEDs

Connect the Red Panic LED wires to Terminal 5 (Bell). Connect the White 572 Panic LED wires in parallel to XR550 Terminal 6 (GND). Install a 1k Ohm EOL resistor across the red and white wires of the last 572 Panic LED. Refer to Figure 1.

16. Install 1142 Holdup Transmitters

Before mounting the 1142, confirm communication with the panel using the survey LED. For more information, refer to the 1142 Installation Guide (LT-0700).

1. Insert a small flat-head screwdriver into the access slot on either end of the 1142 housing and gently turn the screwdriver to separate the two parts.
2. Place the base with the LED cutout toward the front edge of the counter and use the two supplied Phillips head screws to mount the base.
3. Align the top housing and LED with the base cut-out and snap the two halves together.

17. Wire the Batteries

DMP requires each battery be separated by a PTC in the battery harness wiring to protect each battery from a reversal or short within the circuit. For wiring details, refer to Figure 1.

 **Caution:** Observe polarity when connecting batteries. Wire all batteries in parallel. Ensure all battery harness connectors are fully inserted to prevent shorting.

Wire Batteries to the Panel

1. In the panel enclosure, connect the 14" Black battery wire to panel Terminal 4. Connect the 14" Red battery wire to panel Terminal 3.
2. Plug the 14" Red and Black battery wires onto one 318EXT harness. The 318EXT harness passes through the lower conduit easier if fed from the 352S enclosure side.
3. In the battery enclosure, connect the 318EXT harness to one 318 harness. Connect the 318 harness to two 318R harnesses with ring terminals.
4. Use the non-PTC protected side of the first 318R harness and connect to the first battery on the bottom shelf labeled Battery 5.
5. Connect the PTC protected side to the second battery on the bottom shelf location labeled Battery 6.
6. Connect the second 318R harness PTC side to the second battery located on the center shelf labeled Battery 4.
7. Cut the unconnected non PTC end of the second 318R harness and insulate the cut ends. This end of the harness is not used.
8. Label each battery with the installation date.

Wire Batteries to the Power Supply

1. In the panel enclosure, connect the 14" Black battery wire to the 505-12 BAT negative terminal.
2. Connect the 14" Red battery wire to the 505-12 BAT positive terminal.
3. Plug the 14" Red and Black battery wires onto one 318EXT Battery Harness Extension. The 318EXT harness passes through the upper conduit easier if fed from the 352S enclosure upper knockout.
4. In the battery enclosure, connect the 318EXT harness to one 318 Dual Battery Harness. Connect the 318 harness to two 318R dual battery harnesses with ring terminals.
5. Use the non-PTC protected side of the first 318R Dual Battery Harness and connect to the first battery on the top shelf labeled Battery 1.
6. Connect the PTC protected side to the second battery on the top shelf location labeled Battery 2.
7. Connect the second 318R harness PTC side to the first battery located on the center shelf labeled Battery 3.
8. Cut the unconnected non PTC end of the second 318R harness and insulate the cut ends. This end of the harness is not used.
9. Label each battery with the installation date.

18. Complete Hardware Installation

Ensure all devices are properly addressed and all LX-Bus and Keypad Bus wiring is free of grounds, wire-to-wire shorts, and interference. Ensure all field devices are properly terminated to the panel zone inputs.

19. Connect the Transformer and AC Power

⚡ Caution: Do not plug in the transformer until all devices are connected to the panel and the batteries are wired. Never share the transformer output with other equipment.

Run the transformer wires (18 AWG minimum) into the panel enclosure through a conduit. Wire the transformer as follows:

- Black wires from each transformer to Black AC cord wire
- White wires from each transformer to White AC cord wire
- Green/Yellow wire to the electrical ground

After all components are installed, plug the transformer into an unswitched 120 VAC outlet.

20. Program the Keypads

Note: Address 1 is reserved by the system for programming keypads.

1. On the keypad, hold down the back arrow and **CMD** keys for two seconds to display **SET BRIGHTNESS**.
2. Enter **3577** (INST) and press **CMD**.
3. Press the left Select key under **KPD OPT** (Keypad Options).
4. Press the **CMD** key to display **KEYPAD ADDRESS**. Set the ATM keypad address as listed in Table 2:
5. Press the **CMD** key twice until **DEFAULT KPD MSG** displays.
6. Press any top row Select key. Enter the area name and panel account number as the default keypad display. For example, **PREMISE 3486**.
7. At **ARM PANIC KEYS**, press the Select key under **PN** (Panic) to enable the panic option. An asterisk displays next to enabled panic key options.
8. Press **CMD** until **STOP** displays. Press the right Select key under **STOP** to exit keypad programming.
9. If additional keypads are installed, repeat the steps above and refer to Table 2 for keypad addresses.

Caution: Do not install included panic labels on keypads.

Keypad Address	Location
1	RESERVED (Programming Keypad)
2	PREMISES
3	VAULT
4	OTHER SAFES
5	BRANCH ATM
6	VENDOR ATM
7	DRIVE UP PREMISE
8	DRIVE UP VAULT

Table 2: Keypad Addresses

21. Initialize the Panel and Configure Communication

After completing each of the following steps, press **CMD** to advance to the next option. Program these settings according to the information recorded in Generic Bank Branch System Information.

1. Reset the panel by placing a jumper over both RESET jumper pins. After a few seconds, remove the jumper and place it on one pin for use later.
2. Enter **6653** (PROG) at the panel keypad and go to **INITIALIZATION**.
3. At **INIT ALL?** select **YES**. At **SURE?** select **YES** to initialize the panel.
4. Enter **6653** (PROG), go to **COMMUNICATION**, then press any select key.
5. At the **ACCOUNT NO** prompt, press any select key and enter the 4-digit account number.
6. Go to **NETWORK OPTIONS** and press any select key.
7. At **DHCP**, select **NO**.
8. At **LOCAL IP ADDRESS**, enter the Control Panel IP address.
9. At **GATEWAY ADDRESS**, enter the Gateway address.
10. At **SUBNET MASK**, enter the Subnet Mask address.
11. Go to **REMOTE OPTIONS** and press any select key.
12. At **NETWORK PROG PORT** enter the remote programming port.
13. Press **CMD** until **STOP** is displayed. Press any select key. This will save the changes and will exit panel programming.

The panel is now ready for the remote connection to receive programming.

22. Zone Layout

For zones 1-10, refer to Wire the Zones.

Note: Greyed-out areas in the following tables indicate items not included in this kit.

Zone #	Name	Zone #	Name
500	Safe 1 Door	534	Teller Line Motion
502	Safe 1 Heat	535	Drive-in Motion
503	Safe 1 Seismic	536	ATM Room Motion
504	Safe 2 Door	537	Cash Room Motion
506	Safe 2 Heat	538	AHD Room Motion
507	Safe 2 Door Seismic	539	Rear Entry Motion
516	AHD Door	540	Break Room Motion
517	AHD Heat	541	TeleData Room Motion
518	AHD Seismic	542	Electric Room Motion
519	AHD Head Tamper	543	Roof Hatch Latch
532	Front Entry Motion	544	Unused
533	Lobby Motion	545	Unused

Table 3: Zones 500-547 (714-16 on LX500)

For Wincor 2350xe ATMs			
Zone #	Name	Zone #	Name
548	ATM 1 Cash Chest	552	ATM 2 Cash Chest
549	ATM 1 Deposit Chest	553	ATM 2 Deposit Chest
550	ATM 1 Cash & Deposit Heat	554	ATM 2 Cash & Deposit Heat
551	ATM 1 Cash & Deposit Seismic	555	ATM 2 Cash & Deposit Seismic

Table 4: Zones 548-555 (Pre-installed 714 on Wincor ATM)

For All Other Models of ATMs			
Zone #	Name	Zone #	Name
548	ATM 1 Chest	552	ATM 2 Chest
549	ATM 1 Heat	553	ATM 2 Heat
550	ATM 1 Seismic	554	ATM 2 Seismic
551	Empty	555	Empty

Table 5: Zones 548-555 (Pre-installed 714 on non-Wincor ATM)

Zone #	Name	Zone #	Name
600	Teller 1 Holdup	623	Office/Plat 4 Holdup
601	Teller 2 Holdup	624	Office/Plat 5 Holdup
602	Teller 3 Holdup	625	Office/Plat 6 Holdup
603	Teller 4 Holdup	626	Office/Plat 7 Holdup
604	Teller 5 Holdup	627	Office/Plat 8 Holdup
605	Teller 6 Holdup	628	Office/Plat 9 Holdup
606	Teller 7 Holdup	629	Office/Plat 10 Holdup
607	Teller 8 Holdup	630	Drive-in 1 Holdup
608	Teller 9 Holdup	631	Drive-in 2 Holdup
609	Teller 10 Holdup	632	Drive-in 3 Holdup
610	Teller 11 Holdup	633	Drive-in 4 Holdup
611	Teller 12 Holdup	635	CRM Holdup
620	Office/Plat 1 Holdup	636	Cash Room Holdup
621	Office/Plat 2 Holdup	639	Other Holdup
622	Office/Plat 3 Holdup		

Table 6: Zones 600-639 (1100XH Wireless Receiver)

23. Download Programming

Call the central station to confirm that network communication is established with the panel. Provide the cellular SIM and any pertinent zone information.

24. Finalize the Installation

Refer to customer instructions for testing the system, finalizing the installation, and receiving document sign offs.

Test Communication Status

1. On the keypad, enter the Diagnostics Menu (**DIAG**).
2. Press **CMD** until **COMM STATUS** displays, then press any Select Key.
3. At **PATH**, enter the path number.
4. Repeat the steps for each of the communication paths.

Perform a Walk Test

Perform the Walk Test to test protection devices connected to zones assigned to areas. After power-up, reset the panel. Enter the Walk Test code **8144** (WALK) and press **CMD**. Refer to the Appendix in the included XR550 Series Programming Guide (LT-1232) for testing details.

25. Wiring Details and Diagrams

The following section includes kit wiring diagrams.

