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## 1.0 Wiegand Reader - Cable Specs & Wiring

- 5-conductor, 22 AWG, overall shielded; max cable distance is 500 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).

635-DRM Terminal Functions (PN 20-0235-10)	Wiegand Reader
LED (LED control line)	LED Control
D 1 (Data 1)	DATA 1
VDC (+12 VDC) ( for +5 VDC use Regulator PN 92-3001-05 )	VDC
GND (Ground)	GND
D 0 (Data 0)	DATA 0

## 2.0 ABA Reader - Cable Specs & Wiring

- 5-conductor, 22 AWG, overall shielded; max cable distance is 500 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).

635-DRM Terminal Functions (PN 20-0235-10)	ABA Reader
LED (LED control line)	LED Control
D 1 (Clock/Strobe)	CLOCK/STROBE
VDC (+12 VDC) ( for +5 VDC use Regulator PN 92-3001-05 )	VDC
GND (Ground)	GND
D 0 (Data 0)	DATA

## 3.0 Biometric Reader - Cable Specs & Wiring

- 5-conductor, 22 AWG, overall shielded; max cable distance is 500 feet.
- Cat-5e Ethernet cable for TCP/IP communication back to the server; max cable distance 300 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs)
- *See next section for information on IDEMIA Morpho Sigma Readers.*

635-DRM Terminal Functions	Wiegand Biometric Reader
LED (LED control line)	LED Control
D 1 (Data 1)	DATA 1
VDC (+12 VDC) ( Do not use for reader )	VDC (separate power supply required for the reader)
GND (Ground) ( Do not use for reader )	GND (Connect to separate power supply) Also bond / common the ground of the separate power supply to ground of the controller power supply.
D 0 (Data 0)	DATA 0

#### 4.0 BridgePoint Reader (NON-FICAM)

- 5-conductor, 22 AWG, overall shielded max distance 200 feet (or 500 feet if using 18 AWG).
- 2-conductor- twisted pair, 22 AWG max cable distance 500 feet (for Mode/Factor Control).
- The reader will require a separate power supply if the current draw is over 150 mA.
- You must common reader P.S. ground to controller ground.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy recommendations).
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- DRM Relay-2 must be use for Mode/Factor Control.

##### MODES/FACTORS:

- Mode 1 Card Only (high)
- Mode 2 Card + Pin (low)

##### 635-DRM Terminal Functions (PN 20-0235-10)

<b>LED</b>	(LED control line)
<b>D 1</b>	(Data 1)
<b>VDC</b>	(+12 VDC)
<b>GND</b>	(Ground)
<b>D 0</b>	(Data 0)

##### BridgePoint Wiegand Reader

<b>LED1</b>
<b>WEG 1</b>
<b>VDC</b>
<b>GND</b>
<b>WEG 0</b>

##### 635-DRM RELAY-2

<b>COM</b>	(must tie to the reader's power supply ground)
<b>NO</b>	(to mode control line)

##### BridgePoint Mode/Factor

<b>- -</b>
<b>LED2</b>

##### NOTES:

- Mode signal line High (unconnected) for 1-Factor Card Only.
- Mode signal line Low (connected to ground) for 2-Factor Card + Pin.
- Place a schedule on Relay-2 in System Galaxy Reader Properties - to alternate Mode/Factor.

## 5.0 IBC Magnetic Swipe/ABA Reader

- 5-conductor, 22 AWG, overall shielded max distance 200 feet (or 500 feet if using 18 AWG).
- 2-conductor- twisted pair, 22 AWG max cable distance 500 feet (for Mode/Factor Control).
- The reader will require a separate power supply if the current draw is over 150 mA.
- You must common reader P.S. ground to controller ground.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy recommendations).
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10

### 635-DRM Terminal Functions (PN 20-0235-10)

### IBC ABA Reader

<b>LED</b> (LED control line)	<b>Orange Wire (LED)</b>
<b>D 1</b> (Data 1   Clock/Strobe)	<b>Green Wire (Clock/Strobe)</b>
<b>VDC</b> (+12 VDC)	<b>Red Wire (8 to 15 VDC operating range)</b>
<b>GND</b> (Ground)	<b>Blue Wire (Ground)</b>
<b>D 0</b> (Data 0)	<b>White Wire (Data)</b>

System Galaxy reader port needs set to ABA (Clock/Data)

The screenshot shows the Galaxy system configuration interface. A red arrow points to the 'Reader Type' dropdown menu, which is set to 'ABA (Clock/Data)'. The interface includes fields for Loop, Reader Name, and Reader Type, along with various configuration tabs and checkboxes.

Loop: Default Loop  
 Loop: 002, Cont: 000, Port: 2 - (ID 003)  
 Reader Name: Loop: 002, Cont: 000, Port: 2 - (ID 003)  
 Reader Type: ABA (Clock/Data)  
 ABA (Clock/Data)

Control Unit: All Controllers

Notes:

General Timing/Schedules Relay 2 Settings Alarm Options Passback/W/ho's In Group/Interlock  
 Access Rules Elevator Schedules Graphic Symbols

☐ Disable Door Forced Open Message ☐ Time & Attendance Reader ☐ Door Supervision  
☐ Disable Open Too Long Message ☒ Event Log E-Mail Enabled ☐ Not Supervised  
☐ Disable Door Closed Message ☒ Event Log RS-232 & TCP/IP Transmit Enabled

## 6.0 IDEMIA (Morpho) SIGMA Biometric Reader - Cable Specs & Wiring

- 3-conductor, 20 - 24 AWG, overall shielded; non-stranded; max cable distance is 500 feet.
- 2-conductor, 16 AWG for at +12vdc (18 AWG for +24vdc) for 500 feet distance. Reader draws 1A at 12v (0.5A at 24v).
- Cat-5e Ethernet cable for TCP/IP communication back to the server; max cable distance 300 feet.
- Separate power supply required (current draw is 1A). You must common the reader's power supply ground to controller ground.
- Ground the drain-wire at one end only - land drain wire at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).
- 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- DRM Relay-2 is used to control Sigma "Wait for Panel Decision" for Voice/Prompt synchronization.

635-DRM Terminal Functions (PN 20-0235-10)		Wiegand Reader
<b>LED</b>	(LED control line)	
<b>D 1</b>	(Data 1)	<b>WIEG DATA 1</b>
<b>VDC</b>	(+12 VDC) ( Do not use for reader )	VDC (separate power supply required for the reader)
<b>GND</b>	(Ground) ( Do not use for reader )	GND(Connect to separate power supply) Also bond / common the ground of the separate power supply to ground of the controller power supply.
<b>D 0</b>	(Data 0)	<b>WIEG DATA 0</b>

635-DRM RELAY-2		SIGMA "Wait for Panel Decision"
<b>COM</b>	(must tie to ground of the reader's power supply)	- -
<b>NO</b>	(for voice/prompt control line)	<b>LED1</b>

### NOTES:

- "Wait for Panel Decision": connect Sigma LED1 to the 'NO' leg of Relay-2. The 'COM' leg of Relay-2 must be tied to DRM GND.
- Set Relay-2 for Timed Mode (1 to 2 secs) and "Valid Unlock" checkbox must be "checked" in System Galaxy Reader Properties.

## 7.0 Invixium (IXM) Biometric Reader - Cable Specs & Wiring

- 3-conductor, 22 AWG, overall shielded; non-stranded; max cable distance is 500 feet.
- 2-conductor, 18 AWG for at +12vdc for 500 feet distance. Reader draws 1A at 12v .
- Cat-5e Ethernet cable for TCP/IP communication back to the server; max cable distance 300 feet.
- Separate power supply required (current draw is 1A). Must common reader's p.s. ground to controller ground.
- Ground the drain-wire at one end only - land drain wire at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).
- 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- 635-DRM LED is used to control reader's for Voice Command when configured for "Wait for Panel Decision".

635-DRM Terminal Functions (PN 20-0235-10)		Invixium Reader
<b>LED</b>	(LED control line)	<b>ACP LED1</b> (used to control Voice Command)
<b>D 1</b>	(Data 1)	<b>W DATA_OUT1</b>
<b>VDC</b>	(+12 VDC) ( Do not use for reader )	(use separate power supply for reader
<b>GND</b>	(Ground) ( Do not use for reader )	<b>VIN – (GND)</b> (Connect GND to separate power supply and bond / common the ground of the separate power supply to the controller power supply)
<b>D 0</b>	(Data 0)	<b>W DATA_OUT0</b>
		<b>VIN + (VDC)</b> to separate power supply
		<b>VIN – (GND)</b> to separate power supply

### NOTES:

- The IXM Reader must be configured to "follow panel decision" in the IXM-WEB software in reader configuration screen.
- Galaxy controller must be set for Door Lock = Steady-High; Door Unlock = Steady-Low in the **LED Options tab** of the **Loop/Cluster Properties** screen.

## 8.0 SCM Reader (NON-FICAM)

- 5-conductor, 22 AWG, overall shielded max cable distance 500 feet.
- 2-conductor- twisted pair, 22 AWG, max cable distance 500 feet (for Mode/Factor Control).
- The reader will require a separate power supply if the current draw is over 150 mA.
- You must common reader P.S. ground to controller ground.
- Ground the Drain-wire at one end only (at the DRM Board "GND").
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs)
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- DRM Relay-2 must be use for Mode/Factor Control.

### MODES/FACTORS

- Mode 1 Card Only
- Mode 2 Card + Pin

635-DRM Terminal Functions (PN 20-0235-10)		SCM Reader
LED	(LED control line)	LED Control
D 1	(Data 1)	D 1
VDC	(+12 VDC)	VDC
GND	(Ground)	GND
D 0	(Data 0)	D 0

635-DRM's RELAY-2 Terminals		SCM Mode/Factor
COM	(must tie to the reader's power supply ground)	REL 2
NO	(to mode control line)	RELGRN

### NOTES:

- Mode signal line = High (unconnected) for 2-Factor Card + Pin.
- Mode signal line = Low (connected to ground) for 1-Factor Card Only
- Place a schedule on Relay-2 in System Galaxy Reader Properties to alternate Mode/Factor.

## 9.0 STid Easyline Reader

- 5-conductor, 22 AWG, overall shielded max cable distance 500 feet.
- 2-conductor- twisted pair, 22 AWG, max cable distance 500 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- You must common reader P.S. ground to controller ground.
- Ground the Drain-wire at one end only (at the DRM Board “GND”).
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- Refer to the reader manufacturer’s instructions for wiring (manufacturer’s specs may supersede Galaxy specs).

635-DRM Terminal Functions (PN 20-0235-10)		STid Easyline Reader
LED	(LED control line)	LED1 Control
D 1	(Data 1)	D 1
VDC	(+12 VDC)	VDC
GND	(Ground)	GND
D 0	(Data 0)	D 0

### IMPORTANT NOTICES

- Easyline PC2 Readers are configured to read secure sector of the *STid PC2 encoded smart cards*.
- The STid Reader with Proximity Module (acts as pass-through data) can read 125KHz cards (EM/ HID PROX/ AWID/ IOPROX/ INDALA), in addition to the 13.56 MHz STid PC2 Smart Cards.
- Do not mix non-mobile STid Readers with mobile-enabled (Blue) STid Readers in the same system.
- The mobile-enabled (Blue) STid Readers can only use the free Green Mobile ID (Mobile app).
- Before power is applied, you must connect all accessory and field wiring, and firmly mount the reader to the wall.
- The tamper switch is an accelerometer and is calibrated upon power up. If the reader is moved after being powered up, the reader will be in a 'tamper' state and will not send the correct 26 -bit Wiegand data but will send 30-bit data to indicate tamper state.

## 10.0 STid Reader with Galaxy Configuration

- 5-conductor, 22 AWG, overall shielded max cable distance 500 feet.
- 2-conductor- twisted pair, 22 AWG, max cable distance 500 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- You must common reader P.S. ground to controller ground.
- Ground the Drain-wire at one end only (at the DRM Board “GND”).
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- Refer to the reader manufacturer’s instructions for wiring (manufacturer's specs may supersede Galaxy specs).

635-DRM Terminal Functions (PN 20-0235-10)		STid Galaxy-Configured Reader
LED	(LED control line)	LED1 Control
D 1	(Data 1)	D 1
VDC	(+12 VDC)	VDC
GND	(Ground)	GND
D 0	(Data 0)	D 0

### IMPORTANT NOTICES

- STid Readers are configured to read the secure sector of the Galaxy 40-bit Secure Card.
- These readers can also read the *card serial number* CSN/UID of MIFARE and MIFARE-DESFIRE cards.
- PC2 Smart Cards: STid Reader can read the CSN from PC2 smart cards but cannot read the secure area.
- The STid Reader with Proximity Module (acts as pass-through data) can read 125KHz cards (EM + HID PROX + AWID + IOPROX + INDALA), in addition to the 13.56 MHz. MIFARE/DESFIRE.
- The mobile-enabled (Blue) STid Readers can use the Green, Yellow, and Blue Mobile ID (Mobile app).
- Before power is applied, you must connect all accessory and field wiring, and firmly mount the reader to the wall.
- The tamper switch is an accelerometer and is calibrated upon power up. If the reader is moved after being powered up, the reader will be in a 'tamper' state and will not send the correct 40 -bit Wiegand data but will send 44-bit data to indicate tamper state.
- The STid- 40-bit Galaxy Secure Card prefix = 6. The 40-bit card can be batch loaded or manually keyed for enrollment.
- In System Galaxy Reader Properties, choose "Galaxy 40-bit" format when using the Galaxy configuration

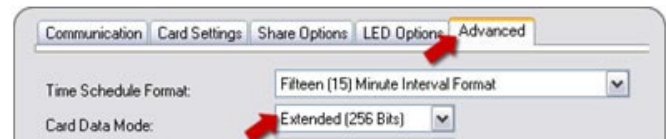
## 11.0 Veridt Stealth Series Reader (FICAM Solution for Technologies Industry)

- 5-conductor 22 AWG overall shielded; max cable distance 500 feet
- 2-conductor Twist pair, 22 AWG, max line distance 4000 feet (RS-485 Comm. for Mode/Factor Control)
- A separate Power Supply is required (reader draws 400 mA at +12vdc).
- Must common reader's power supply ground to controller ground.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy recommendations).
- Min. Board Requirement: 635-DSI Board (Dual Serial Interface) PN 20-0655-10 – for Mode/Factor Control

READER MODES/FACTORS	EWAC to 635 DRM Wiring Pinout	
	EWAC Module	635 DRM
Mode 1 Card Only		
Mode 2 Card + Pin	GND -----	GND
Mode 3 Card + Pin + Bio	D0 -----	D0
	D1 -----	D1
	I/O -----	LED
	NC -----	Not Used

1. Install System Galaxy (SG) software according to Galaxy documentation.
2. Validate WEB API by using address: <http://localhost:8000/swagger>.
3. Also verify the GCS DataLoader Service is running on the Galaxy Comm/Event Server.
4. When you add the 635-Series Clusters into the SG Loop/Cluster Properties screen, do the following ...

On the Advanced tab,  
set the Card Data Mode droplist to  
"Extended Card (256 Bits)".



On the LED Options tab, set LED States:  
DOOR Locked = 'Steady High'  
DOOR Unlocked = 'Steady Low'



5. In the SG Reader Properties screen, configure the Reader Type field to 'Standard Wiegand'.
6. In the SG Access Group Properties screen, you must create the Access Groups you will need.
7. In the SG Access Profile Properties screen, you must create 1 or more Access Profiles by assigning your access groups to the profile, based on your system needs.
8. Install the Galaxy 635-series Controller hardware according to Galaxy documentation.
  - a) In the controller, be sure to enable *Extended Card Mode* (set to "yes" in lower case).
  - b) Be sure to configure the correct IP Address for the Event Server.
9. Install the Technology Industries (TI) FICAM software per the manufacturer's documentation.
10. From the *SG Cardholder screen* perform a card lookup of the GOV. ID CARD to validate that it is correctly pushed from the *TI FICAM Software* into System Galaxy database.
11. Install Veridt Reader and EWAC Module according to the manufacturer's documentation.
12. Connect the EWAC Module to the Galaxy Model 635 DRM (Dual Reader Module) using the wiring pinout in the table above.



## 12.0 Veridt Stealth Series Readers (NON-FICAM)

- 5-conductor 22 AWG overall shielded; max cable distance 500 feet.
- 2-conductor Twist pair, 22 AWG, max line distance 4000 feet (RS-485 Comm. for Mode/Factor Control)
- Separate Power Supply required (reader draws 400 mA at +12vdc). Common reader's power supply ground to controller ground.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy recommendations).
- Min. Board Requirement: 635-DRM Board (Dual Reader Module) – PN 20-0235-10
- Min. Board Requirement: 635-DSI Board (Dual Serial Interface) – PN 20-0655-10 – for Mode/Factor Control

635-DRM Terminal Functions (PN 20-0235-10)	Veridt Reader
LED (LED control line)	LED Control * required
D 1 (Data 1)	DATA 1
VDC (+12 VDC) (Do not use for reader)	VDC (Connect to separate power supply)
GND (Ground) (Do not use for reader)	GND (Connect to separate power supply)
	Also bond / common the ground of the separate power supply to the ground of the controller power supply.
D 0 (Data 0)	DATA 0

635-DSI Terminal Functions (PN 20-0655-10)	Veridt Reader RS-485 Comm.
A + RS-485 Data	Yellow Wire
B – RS-485 Data	Blue Wire

### NOTES:

- DSI Section used for Mode/Factor Control must be set to “Veridt CAC Reader” in System Galaxy Serial Channel Properties.
- LED Option must be set for Door Locked “Steady High” and Door Unlocked “Steady Low” in System Galaxy Loop Properties.

1. Install System Galaxy (SG) software according to Galaxy documentation.
2. When you add the 635-Series Clusters into the SG Loop/Cluster Properties screen, do the following ...

On the Advanced tab,  
set the Card Data Mode droplist to  
“Extended Card (256 Bits)”.



On the LED Options tab, set LED States:  
DOOR Locked = ‘Steady High’  
DOOR Unlocked = ‘Steady Low’



3. Open the DSI Serial Channels Properties screen from the SG menu Configure > Hardware, Serial Channels as follows:
  - a) Select the appropriate DSI Board Section (Section 1 or 2) that will support the CAC readers.
  - b) Set the Section Use field to the “Veridt CAC Reader”.
  - c) Once the Section is set for CAC Readers, set the CAC Mode you want (i.e., Card Only, Card+PIN, or Card+PIN+BIO).
4. In the SG Reader Properties screen, configure the Reader Type field to ‘Standard Wiegand’.
5. Install the Galaxy 635-series Controller hardware according to Galaxy documentation.
  - a) In the controller, be sure to enable *Extended Card Mode* (set to “yes” in lower case).
  - b) Be sure to configure the correct IP Address for the Event Server.

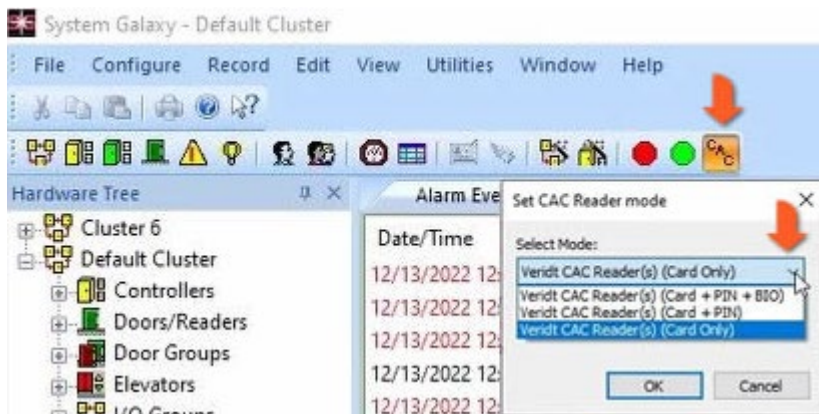
Continue on next page ...

## Veridt Stealth Series Readers (NON-FICAM) - continued from previous page

You can change the **Reader Mode** in the System Galaxy software by clicking the **CAC button** on the System Galaxy toolbar. Then select the desired Reader Mode from the Mode droplist and click the OK button in the pop-up dialog window.

### READER MODES/FACTORS

- ▶ Mode 1 Card Only
- ▶ Mode 2 Card + Pin
- ▶ Mode 3 Card + Pin + Bio



### 13.0 WaveLynx Reader - Cable Specs & Wiring

- 5-conductor, 22 AWG, overall shielded; max cable distance is 500 feet.
- The reader will require a separate power supply if the current draw is over 150 mA.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring. (Manufacturer's specs may supersede Galaxy specs).

635-DRM Terminal Functions (PN 20-0235-10)	WaveLynx Reader
<b>LED</b> (LED control line)	<b>LED Control</b> ( blue )
<b>D 1</b> (Data 1)	<b>DATA 1</b> ( white )
<b>VDC</b> (+12 VDC)	<b>VDC</b> ( red )
<b>GND</b> (Ground)	<b>GND</b> ( black )
<b>D 0</b> (Data 0)	<b>DATA 0</b> ( green )

#### WAVELYNX KEYPAD MODE SETUP

1. Within 1 minute of reader power-up, enter the **keypad config code: \*88889999**
2. The reader will beep 3 times, and a green LED will flash with each beep.
3. Within 2 seconds of entering the config code, enter the 3-digit **format key code: #XXX**  
You must enter your 3-digit facility code (0-255) within 2 seconds of pressing the # key.  
For example, you would press #096 for FAC 96. Note that FAC 96 is Galaxy's default Facility Code.
4. The reader will beep 3 times, and green LED will flash with each beep.
5. In operation, the keypad will buffer up to 5 keystrokes (not to exceed 65535).
6. Press # to send the PIN data.

#### IMPORTANT NOTICES

- WaveLynx Readers **do not read the CSN** (unencrypted sector of ANY Card).
- WaveLynx Readers will read the **secure sector** of the **WaveLynx Leaf® Card** and **40-bit WaveLynx-Galaxy Card**.
- WaveLynx Readers will also read Standard Proximity/HID® cards and AWID cards.
- WaveLynx Leaf® Technology Cards must enrolled via the "Not in System" event message from the Event screen.  
*Leaf® cards cannot be batch loaded or manually keyed entry.*
- The WaveLynx-Galaxy **40-bit Secure Card prefix = 12**.  
The 40-bit Secure Cards can be batch loaded or manually keyed.
- In System Galaxy Reader Properties, choose "Galaxy 40-bit" format when using the Galaxy configuration.

**14.0 635-DRM (PN 20-0235-10) – FULL SECTION TERMINAL PINOUT**

*Each Reader Section has the following terminals...*

**READER WIRING (9-PIN CONNECTOR)**

- 5-conductor, 22 AWG, overall shielded; max cable distance is 500 feet.
- Reader may require separate power supply if the current draw is over 150 milliamps.
- Ground the Drain-wire at one end only - at the DRM Board (GND).
- Refer to reader manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).

635-DRM (Terminal Functions)		Wiegand	ABA
LED	(LED control line)	LED Control	LED Control
D 1	(Data 1)	DATA 1	CLOCK/STROBE
VDC	+12 VDC (For +5VDC use Regulator PN 92-3001-05)	VDC	VDC
GND	(Ground )	GND	GND
D 0	(Data 0)	DATA 0	DATA
unused			

**DOOR CONTACT & REX MOTION DETECT (9-PIN CONNECTOR)**

- 2-conductor, 22 AWG, overall shielded (for Door Contact).
- 4-conductor, 22 AWG; overall shielded (for REX/Motion Detector). for Door Contact
- Separate Power Supply for REX/Motion Sensor.
- Ground all Drain-wires at one end only - at the DRM Board (GND).
- Refer to device manufacturer's instructions for wiring (manufacturer's specs may supersede Galaxy specs).

635-DRM (Terminal Functions)		Device State
COM	(Common)	LED Control
CNT	(Door Contact)	NC Normally Closed Contact = Door Closed/Contact Closed
REX	Request to Exit (motion sensor)	NO Normally Open = Momentary Push Button

**LOCK RELAY CONNECTOR (RLY-1)**

- 2-conductor, Minimum 18 AWG for LOCK (Manufacturer's specs for wire gauge may supersede Galaxy's instructions).
- Separate Power Supply required for Lock – follow manufacturer's requirements for lock power supply.
- Relay is Form-C SPDT Dry, (Rated max. 24v, 1.5 Amps)

635-DRM RELAY-1	LOCK DEVICE
COM	COMMON
NC = Normally Closed >	Land lock wiring according to
NO = Normally Open >	Manufacturer's instructions.

**RELAY-2 CONNECTOR – OPTIONAL OUTPUT**

- For optional output (i.e. piezo, bell, buzzer)
- Relay is Form-C SPDT Dry, (Rated max. 24v, 1.5 Amps)
- Relay-2 (mode/timers/event-triggers) must be configured for desired behavior in SG Reader Properties

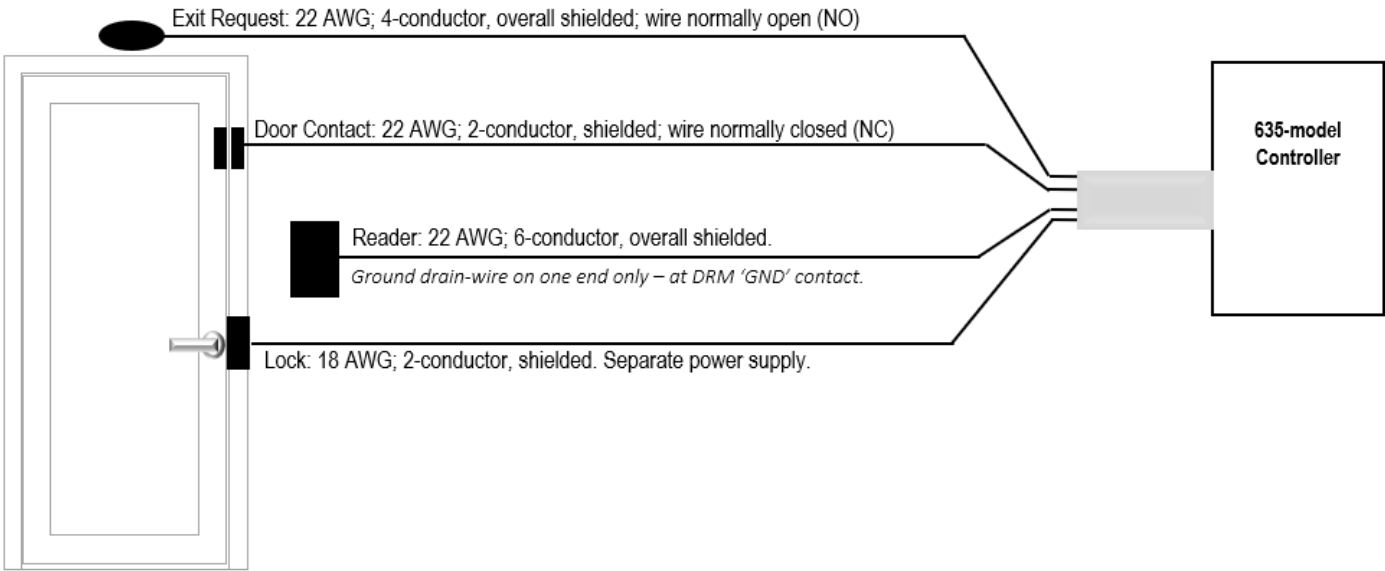
635 DRM RELAY-2	DEVICE
COM	COMMON
NC = Normally Closed >	Land wiring according to
NO = Normally Open >	Manufacturer's instructions

MODES*	Available Events	
• FOLLOWS	<input type="checkbox"/> Door Forced Open	<input type="checkbox"/> Valid Unlock
• TIMED	<input type="checkbox"/> Door Open Too Long	<input type="checkbox"/> Duress
• SCHEDULED	<input type="checkbox"/> Invalid Access Attempt	<input type="checkbox"/> Passback
• LATCHED	<i>Note: the events you can select will vary depending on which mode is chosen.</i>	
* Timers affect behavior.		

15.0 DOOR TOPOLOGY DIAGRAM

This diagram shows the Lock, Door Contacts, REX and Reader connected to the controller. -

Connection Type	Max Distance	Wire Gauge & Specifications
Request to Exit	500 ft. from controller	22 AWG; 4-conductor, overall shielded; wired normally open (NO)
Door Contact	500 ft. from controller	22 AWG; 2-conductor, overall shielded; wired normally closed (NC)
Lock Hardware	500 ft. from controller	18 AWG; 2-conductor minimum, shielded; Separate Power Supply.
Refer to manufacturer's instructions for device wiring (manufacturer's specs may supersede Galaxy specs).		



Jumper-out the following contacts, only if they are unused ...

- a) DRM board: If *door contacts* are not installed, you must jumper CNT to GND.
- b) CPU board: If *Low Battery wiring* is not installed, you must jumper Low Batt to GND.
- c) CPU board: If *AC Fail wiring* is not installed, you must jumper the AC Fail to GND.