

# **Fire Alarm Control Panel Accessories**

System Batteries, Sealed Lead-Acid; with Applications Reference for Battery Cabinets, and Battery Cabinets with Charger

# Features

## Rechargeable, sealed lead-acid batteries:

- Lead-calcium grid structure with immobilized electrolyte in absorbent separator
- · Low maintenance with no need to add water
- · Low self-discharge characteristics
- One-piece, high impact polystyrene cell cover with high reliability dual seal construction
- UL 924 recognized pressure relief valves

## Available in a variety of capacities:

- Batteries for internal mounting range from 6.2 Ah up to 50 Ah, depending on control panel cabinet size
- Larger batteries, up to 110 Ah, mount in external battery cabinets with models available with internal chargers

#### Battery cabinets with chargers:

 Battery cabinets with charger communicate with their connected fire alarm control panel and are available for 4100ES/4010ES Series panels

# Description

Autocall rechargeable sealed-lead acid batteries provide reliable and repeatable discharge and recharge characteristics for use in fire alarm and other systems applications. They are designed with immobilized electrolyte in an absorbent separator, allowing them to provide rated capacity on the first cycle.

Because of their sealed construction, packaging is allowed within the system electronics enclosure (see Figure 3). When this is applicable, the quantity of system cabinets and the battery wiring distances are both minimized. Where required, external battery cabinets can be close-nippled to the control panel to house larger batteries with battery chargers available in some battery cabinet sizes.

# **Battery Details**

**Charging.** These batteries are intended to be used with compatible Autocall battery chargers.

Series Connections. These batteries are required to be connected in series to produce 24 V system voltage. Battery sets must be of identical voltage, model number, appearance, and approximately the same date of manufacture for proper operation.

**Testing.** Battery capacity testing is recommended to be performed by using a sealed lead-acid battery tester designed to withdraw a minimum of battery charge. The preferred tester applies a variety of amplitude and duration controlled test pulses that compares terminal voltage against those predicted for the specific battery size. (Testing is available through your local Autocall product supplier.)

**Shipping.** Sealed lead-acid batteries are shipped via ground or sea transportation only. They are not shipped via air.

**Disposal.** Battery chemicals and materials can be recycled. Refer to information shipped with the battery or on its case. Return to the battery manufacturer or to a similarly qualified battery processing facility for proper disposal.

**Seismic Activity Applications.** Battery brackets are available for systems tested for compliance with specific batteries. Please refer to data sheet *AC2081-0019* for details.

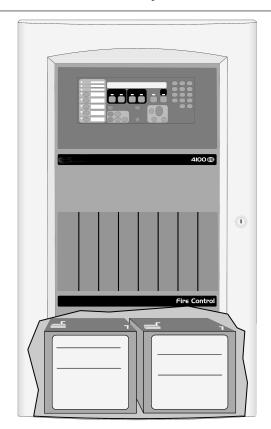


Figure 1: Compatible Sealed Lead-Acid Batteries can be Installed Inside Fire Alarm Control Panel Cabinets

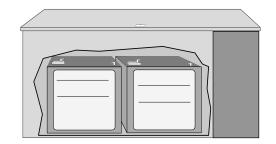


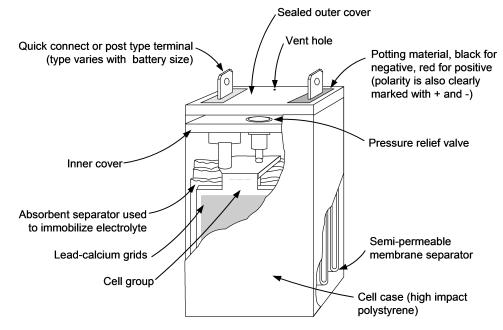
Figure 2: Remote Battery Cabinets are Available for Larger Battery Requirements



System Batteries, Sealed Lead-Acid; with Applications Reference for Battery Cabinets, and Battery Cabinets with Charger

# **Battery Construction Reference**

Actual appearance will vary with battery size.



**Figure 3: Battery Contruction Reference** 

# **Battery Size Specifications**

Battery Model	Capacity @ 20 Hour Discharge Rate	Width*	Depth*	Height with Terminals	Approximate Weight*
2081-9272	6.2 Ah	6-1/8" (156 mm)	2-5/8" (67 mm)	4" (102 mm)	5.75 lbs (2.6 kg)
2081-9274	10 Ah	6" (153 mm)	4-1/16" (103 mm)	4" (102 mm)	9.2 lbs (4.2 kg)
2081-9275	18 Ah	7-1/4" (184 mm)	3-3/8" (86 mm)	6-5/8" (168 mm)	14.3 lbs (6.5 kg)
2081-9271 (rectangular case, typically for service)	33 Ah	12-1/2" (318 mm)	3-3/8" (86 mm)	7-1/16" (179 mm)	26.6 lbs (12.1 kg)
2081-9276 ("square" case, use for new)	33 Ah	7-3/4" (197 mm)	5-1/4" (133 mm)	6-3/4" (171 mm)	26.5 lbs (12 kg)
2081-9279	110 Ah	11-3/16" (284 mm)	10-1/2" (267 mm)	9" (230 mm)	82 Lbs (37 kg)

\* Dimensions and weight are per battery and are for reference only. Exact size may vary. Refer to Battery Compatibility for Fire Alarm Control Panel Mounting and External Battery Cabinet Compatibility Reference for mounting compatibility. These batteries are 12 V each and series connected for 24 V system use.

Note: When wired in series for 24 V output, these batteries are to be of identical voltage, appearance, model number, and approximately the same date of manufacture.

# **General Battery Specifications**

Specifications					
Nominal Voltage Rating	12 Volts per battery				
Discharge Rating	20 Hour Rate				
Typical Charge/Discharge Cycles	100 to 150				
Preferred Charge Temperature Range	60 °F to 90 °F (15.6 °C to 32.2 °C)				



System Batteries, Sealed Lead-Acid; with Applications Reference for Battery Cabinets, and Battery Cabinets

with Charger

# Battery Compatibility for Fire Alarm Control Panel Mounting

Note: Refer to individual fire alarm control panel product data sheets for additional battery application information

## Table 1: Battery Compatibility for Fire Alarm Control Panel Mounting

## Autocall Control Panel Model Series (see legend and notes below)

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Battery Model	Capacity	4004	4007ES & 4005	4006	4009 (all models)	4010ES	4100ES
2081-9272	6.2 Ah	Yes	Yes	Yes	Yes	Yes	Yes
2081-9274	10 Ah	Yes	Yes	Yes	Yes	Yes	Yes
2081-9275	18 Ah	Note 3	Yes	Ext	Ext	Yes	Yes
2081-9271 rectangular	33 Ah	Note 3	Ext	NA	NA	Yes	Yes
2081-9276 "square"	33 Ah	Note 3	NA	NA	NA	Yes	Yes
2081-9279	110 Ah	Requires external battery cabinet, compatible with 4100ES, 4010ES Series only					

**Yes =** Can be placed in the respective equipment cabinet

Ext = External battery cabinet is required, refer to selection chart on page 4

**NA =** Not applicable/not compatible

## Note:

- 1. These batteries meet the requirements of UL, ULC for use with respective equipment battery chargers listed above. Contact your local Autocall product supplier for proper battery selection per system requirements.
- 2. Use A4081 series companion cabinet and charger, refer to External Battery Cabinet Specification Reference.
- 3. Some control panel models are listed for battery replacement reference only.
- 4. For 2 bay international applications only, 50 Ah batteries will fit in the cabinet.

# **External Battery Cabinet Compatibility Reference**

#### Table 2: External Battery Cabinet Compatibility Reference

#### Battery Cabinets without Chargers (connects to charger in panel)

	Panel Compatibility	Battery				
Cabinet		2081-9275 18 Ah*	2081-9271 Rectangular 33 Ah	2081-9276 Square 33 Ah	2081-9279 110 Ah	
A2081-9280	4100ES, 4010ES	NA	NA	NA	Yes	
A009-9801	multiple	Yes	Yes	NA	NA	
4009-9802	multiple	Yes	Yes	NA	NA	

## Table 3: External Battery Cabinet Compatibility Reference

#### **Battery Cabinets with Chargers** Battery Cabinet **Panel Compatibility** 2081-9271 Rectangular 2081-9276 Square 33 2081-9275 18 Ah\* 2081-9279 110 Ah 33 Ah Ah A4081-9306 4100ES, 4010ES NA NA NA Yes A4081-9308

\*Batteries smaller than those listed are normally mounted in the product cabinet

\*\* 25 AH capacity was effective as of 7/2005

Yes = Can be placed in the respective equipment cabinet

**NA =** Not applicable/not compatible



# **External Battery Cabinet Specification Reference**

#### Table 4: Battery Cabinets Without Chargers; Shallow Design with Front Door

SKU	Color	Listings	Description		Dimensions
A2081-9281	Beige	UL			25-3/4" W x 20-3/4" H x 6-3/4" D (654 mm x 527 mm x 171 mm)
A009-9801*	Beige	UL and FM	For up to 25 Ah batteries*	External battery cabinet without charger, with locking solid door and battery harness; for	16-1/4" W x 13-1/2" H x 5-3/4" D (413 mm x 343 mm x 146 mm)*
4009-9802	Beige	UL	For up to 33 Ah batteries	close-nippled mounting to fire alarm control panel cabinet	25-3/4" W x 20-3/4" H x 4-1/8" D (654 mm x 527 mm x 105 mm)

\* Depth increased for 25 Ah batteries effective 7/2005.

#### Table 5: Battery Cabinet Without Charger for 110 Ah Batteries; for use with compatible panel mounted chargers (refer to data sheet AC2081-0012)

SKU &Listing	Color	<b>Cabinet Description</b>	CompatibleChargers	<b>Charger Description</b>	Dimensions
	Red		4010-9xxx Series	4010ES Main System Supply (MSS)	_
		Battery cabinet for	4100-9xxx Series	4100ES System Power Supplies (SPS)	
A2081-9280		2081-9279, 110 Ah batteries; includes 80 A battery fuse, terminals	A100-5111 A100-5113	4100ES Additional SPS	26-1/2" W x 12" H x 12" D (673 mm x 305 mm x
Listings include: UL	and battery connection cables; see data sheet for details	A100-5125 A100-5127	4100ES Remote Power Supply (RPS)	305 mm)	
		A100-5120 A100-5122	4100ES TrueAlert Addressable Power Supply (TPS)	_	

## Table 6: Battery Cabinet Without Charger for 110 Ah Batteries; for use with compatible panel mounted chargers (refer to data sheet AC2081-0012)

SKU	Color	Input Voltage	Description	Dimensions
A4081-9306	Red	120 VAC	Battery cabinet with charger for up to 110 Ah batteries;	
A4081-9308	Red	220/230/240 VAC, multi- tapped	Note: Required for ULC listed charging of 110 Ah batteries; Listings include: UL & ULC- see data sheet for details	27-7/8" W x 13-1/2" H x 14-5/8" D (708 mm x 343 mm x 371 mm)

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