

## Features

### 2081-9279, 12 V, 110 Ah rechargeable sealed lead-acid battery features:

- Output terminals are high current posts; connecting hardware is included with battery cabinet
- Batteries have UL 924 recognized pressure relief valves

### 2081-9280 Battery Cabinet (ordered separately):

- Use when fire alarm control panel internal charger is capable of charging 110 Ah batteries
- For compatible Simplex 4100ES/4100U systems, connection requires two wires to a 4100-5128 Battery Distribution Terminal Block located in the cabinet
- For compatible 4100 Legacy systems, wiring requires two wires for charging and two wires for battery connections
- Refer to data sheet *S4081-0002* for 4100ES/4100U compatible battery cabinet *with* charger

## Description

2081-9279, 110 Ah rechargeable sealed-lead acid batteries provide reliable and repeatable discharge and recharge characteristics for use in fire alarm and other systems applications. For use with Simplex fire alarm control panels with battery chargers capable of up to 110 Ah, mount these batteries in external battery cabinet 2081-9280, located close-nippled to the control panel.

## Battery details

### Series connections

Connect two of these 12 V batteries 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.

### 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.

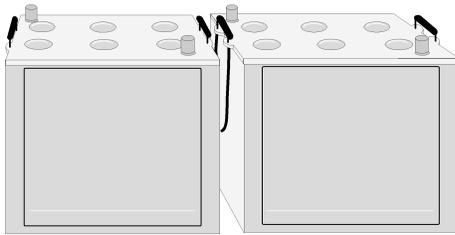


Figure 1: 2081-9279 batteries, 2 required for 24 VDC system (actual appearance may vary)

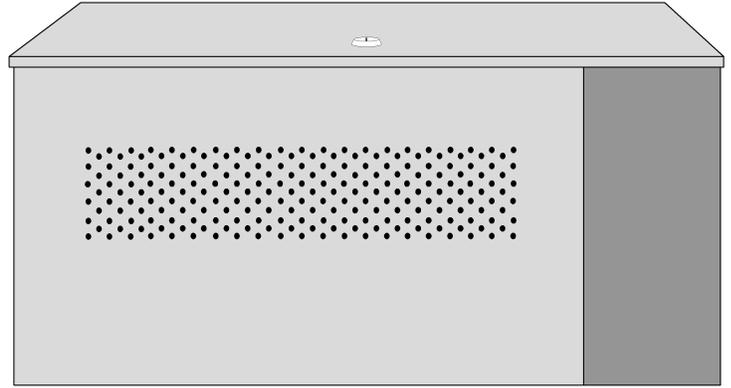


Figure 2: 2081-9280 Battery Cabinet

## 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. Testing is available through your local Simplex product supplier.

## Additional information

Refer to Installation Instructions *574-670* for Battery Cabinet installation details. See 4100ES basic panel data sheet *S4100-1031* for the latest power supply/battery charger information.

## Compatible Simplex battery chargers

Description*	SKU reference
4100ES/4100U Power Supplies for Master Controller/CPU Bays	4100-9xxx Series
4100ES Additional ES Power Supply (ES-PS)	4100-5401
4100ES/4100U Additional SPS	4100-5111, 4100-5113
4100ES Additional EPS+	4100-5311, 4100-5313
4100ES Additional EPS	4100-5325, 4100-5327
4100ES/4100U Remote Power Supply (RPS)	4100-5125, 4100-5127
4100ES/4100U TrueAlert Addressable Power Supply (TPS)	4100-5120, 4100-5122
4100 Legacy power supplies	4100-0104, 4100-0114, 4100-0124

\* Battery cabinet 2081-9280 has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7315-0026:144 for allowable values and/or conditions concerning material presented in this document. Additional listings may be applicable; contact your local Simplex product supplier for the latest status. Listings and approvals under Simplex Time Recorder Co. are the property of Tyco Safety Products Westminster.

## Specifications

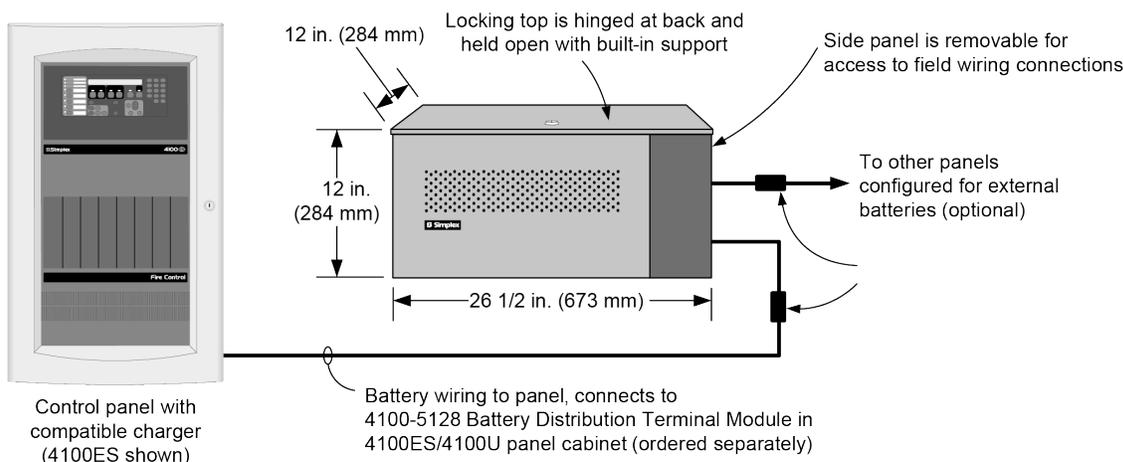
**Table 1: 2081-9280 Battery Cabinet**

Specification	Rating
Dimensions	26 1/2 in. W x 12 in. H x 12 in. D (673 mm x 305 mm x 305 mm)
Hardware Included	Terminals and cables for compatibility with 2081-9279 batteries
Battery Protection	Internally mounted fuseholder with 80 A fuse, included
Wiring Terminals	14 AWG to 2 AWG (2 mm <sup>2</sup> to 32 mm <sup>2</sup> )
Color	Red
Weight	Cabinet = 49 lbs (22.2 kg)
Total weight	Cabinet with two batteries = 213 lbs (97 kg)

**Table 2: 2081-9279 battery reference information**

Specification	Rating
Dimensions (per battery)	11 3/16 in. W x 9 in. H x 10 1/2 in. D (284 mm x 230 mm x 267 mm)
Capacity	110 Ah at 20 hour discharge rate
Discharge Voltage	12 V per battery, 2 required for 24 V system
Connections	High current terminal posts
Weight	82 lbs (37 kg), per battery
Total weight	Cabinet with two batteries = 213 lbs (97 kg)

## 4100ES/4100U wiring and 2081-9280 Battery Cabinet detail reference



**Figure 3: 4100ES/4100U wiring with 2081-9280 Battery Cabinet**

## Wiring distance chart

**Table 3: Wiring distances**

Minimum wire size		Maximum distance per battery discharge current range						
AWG	mm <sup>2</sup>	0-15 A	16-20 A	21-30 A	31-40 A	41-55 A	56-70 A	71-79 A
14	2	26 ft (8 m)	—	—	—	—	—	—
12	3	41 ft (12.5 m)	31 ft (9.5 m)	—	—	—	—	—
10	5	66 ft (20 m)	50 ft (15 m)	33 ft (10)	—	—	—	—
8	8	106 ft (32 m)	80 ft (24 m)	52 ft (15.8 m)	39 ft (11.9 m)	—	—	—
6	13	168 ft (51 m)	126 ft (38 m)	83 ft (25 m)	63 ft (19 m)	45 ft (13.7 m)	—	—
4	19	268 ft (81.7 m)	201 ft (61 m)	132 ft (40 m)	100 ft (30.5 m)	72 ft (22 m)	56 ft (17 m)	—
2	32	426 ft (130 m)	320 ft (97.5 m)	211 ft (64 m)	160 ft (48.7 m)	115 ft (35 m)	89 ft (27 m)	80 ft (24 m)

### 2081-9280 Battery Cabinet, additional wiring information:

- Internal battery cabinet output fuse is 80 A for battery protection.
- In-line battery fuse requirement:** To protect the output conductors, install a line fuse rated properly to the load current in the battery plus (+) side of each output pair. Wire per applicable local code.
- Battery output connects to multiple conductor terminal block for connections to other panels requiring external battery power.