636RF 6 Amp Power Supply

Modular Access Control Power Supply

- *Field Selectable 12VDC or 24VDC Output - Standard*
- *Dual 12VDC and 24VDC Output - Optional*



"Security Industry Finest"
ISC Expo

MADE IN
THE USA

UL LISTED
Access Control Power Supply - ALVY
General Purpose Power Supply - QQFU/QQFU7

Quality, Performance and Versatility

The SDC 636RF Power Supplies have been developed specifically to support electric locks and access controls. The high performance, heavy-duty 6 Amp circuitry is ideal for inductive loads and multi-door applications. The modular design is built around several different application control modules to meet your specific needs for virtually any electric lock system. Documentation is provided to ensure a well organized installation for individual or multi-door systems that may include locking devices, access controls, station controls and consoles for remote control, annunciation and auxiliary emergency release interface. SDC 600 Series power supplies are manufactured according to Quality Assurance standards.

Modular Design

Ten different, individually fused door control modules are available for virtually any application. Time delays, latching relays and multiple station circuit breaker modules are available for custom configuration.

DIP Switch Select System Operation

Specification of the UR Series Access Hardware Controller provides for six standard DIP switch selectable system and mantrap variations for multiple door systems.

Features

Filtered and Regulated
The output filtering stabilizes the DC output voltage and eliminates AC line noise. The solid state regulator maintains the selected output voltage at 12VDC or 24VDC regardless of the output load changes, including battery charging.

Field Selectable 12 or 24VDC
The output is field selectable for 12 or 24VDC output.

Class 2 Output
The 636RF Power Supply may be configured to use one 6 Amp output or three 2 Amp, Class 2 outputs. Where permitted by code, conduit is not required for low voltage wiring when using Class 2 outputs. The total current draw from all outputs must not exceed 6 Amps.

Battery Charger Output
A separate PTC protected, battery charger output provides 13.5VDC or 27VDC.

LED System Status Indicator
Amber - AC and DC voltages are OK
Green - No DC output
Red - No AC input, powered by batteries

Large Heavy Gauge Enclosure
Model 636RF is housed in a 16 gauge, 16"W x 14"H x 6.5"D cabinet large enough to accommodate several additional modules and six 7 Amp hour batteries with plenty of room for wiring.

Value Added Features

Emergency Release Input (Standard)
A signal input from the fire life safety system turns off the secondary output releasing all failsafe locks. When not used for emergency release, this input may be used as main on-off control.

California Compliant Manual Reset of Emergency Release and AC Power Loss (Optional)
When this feature is required, should an AC power loss occur or the emergency release input is actuated, personnel must restore secondary output power manually at the power supply after the emergency release signal is reset and/or AC power is restored.

Low Battery Disconnect (Standard)
Batteries are disconnected from the output circuit prior to deep discharge preventing battery destruction.

Isolated Charging Circuit (Standard)
While the charging output is 13.5VDC or 27VDC, the secondary output is unaffected and precisely maintained at the selected 12 or 24VDC. This ensures system components are powered by their specified voltage.

The secondary output current is maintained at the full 6 Amp capacity and is not de-rated when charging batteries.

Model

636RF 6 Amp Power Supply
One 6 Amp output and three
2 Amp Class 2 outputs standard

Options

MR-1 Push switch for manual reset of emergency release and AC power loss. California state compliant (CSFM). Consult your local Authority Having Jurisdiction (AHJ) for reset requirements.
(See description page 1)

KL Key locked cover.

14-2 7-day programmable timer.

PS-1 On-Off Push switch in cabinet.

PS-1A On-Off Push switch on cover.

230V 220/230VAC, 50/60/HZ input.



RB12V7

SDC power supplies equipped with batteries provide continuous operation of access controls, locking devices and peripheral components during a power failure.
See Table 2 & 3 to determine battery requirements for standby power.

RB12V7 12VDC, 7 Amp Hour Battery
636RF 6 max.

Specifications

Input:
1 Amp @115VAC 50/60 Hz
(230VAC 50/60Hz optional, not UL listed)

Input Protection:
1 Amp, manually resetable circuit breaker

Selectable Secondary Output:
One, 6 Amp @ 12VDC or 24VDC or
Three, Class 2, 2 Amp @12VDC or 24VDC

Output Protection:
Auto resetting Poly Fuse per output

Battery Charger Output:
500 mA @ 13.5 or 27VDC

Battery Charger Protection:
Auto resetting Poly Fuse

Dimensions: 16" W x 14" H x 6.5" D
(406 W x 355 H x 165 D mm)

Material: 16 gauge (1.52 mm) steel



636RF x 2 UR4-8 x 2 RB12V7

Table 1: Control Module Capacity *

Power Supply:	634RF	
Battery Qty.	0-2	3-6
	RB12V7	
FB4	8	4
12VR	4	4
PSM	1	1
UR-1, UR-2A, UR-4A	2	1
CR-4	4	2
ACM-1	4	2
PB-8, PB-16	4	4

* Total combined load of modules and access control hardware may not exceed 4 amp.

Table 2: 12VDC Standby Power

8 Ah Batteries	1	2	4	6
Amp Hours	8Ah	16Ah	32Ah	48Ah
Load/Amps	Power Back-up Time in Hours			
2	2.3	5.7	14.4	24.7
2.5	1.7	4.2	10.7	18.3
3	1.3	3.3	8.4	14.3
3.5	1.1	2.7	6.8	11.7
4	.5	1.3	3.3	5.7
5	.7	1.7	4.2	7.2
6	.5	1.3	3.3	5.7

Table 3: 24VDC Standby Power

8 Ah Batteries	2	4	6
Amp Hours	8Ah	16Ah	24Ah
Load/Amps	Power Back-up Time in Hours		
2	2.3	5.7	9.8
2.5	1.7	4.2	7.3
3	1.3	3.3	5.7
3.5	1.1	2.7	4.6
4	.9	2.3	3.9
5	.7	1.7	2.9
6	.5	1.3	2.3

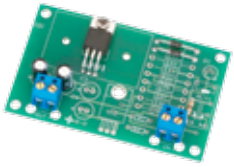
Multiple Use Output



FB4

FB-4 Four 2 Amp fuse protected outputs provide precisely calculated circuit protection. Four modules provide 16 outputs.

Dual 12VDC and 24VDC Outputs (optional)



12VR

Dual 12VDC and 24VDC Outputs (optional)
12VDC regulated and filtered output module with the power supply output set at 24VDC for locking devices and components, the addition of the 12VR provides a separate 12VDC, 500 mA output for 12VDC access controls and components. The total combined 12V/24V load may not exceed 6 Amps. **Add up to six 12VR modules max**.
Input: 24VDC
Output: 500 mA @ 12VDC

Remote Monitoring

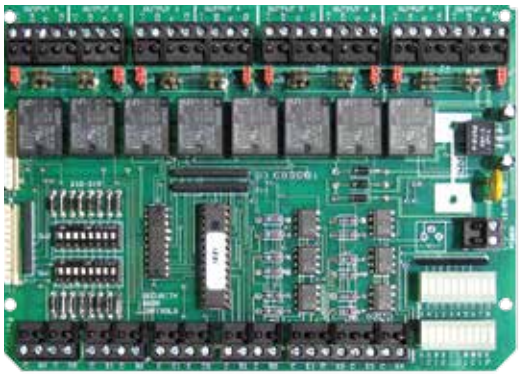


PSM

PSM Power Supply Remote Monitoring Module
The PSM Power Supply Monitoring module provides 2-SPDT, 1 Amp contacts to remotely monitor power supply and battery status.

Remote annunciation conditions include:
- System OK
- AC Fail – No DC Output
- Battery Powered
- System Off – No Battery

Field Programmable Access Hardware Controller



The UR4-8 is capable of providing the logic of 8 relays.

Time Delay Logic



Latching or Conventional Relay Logic



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UR2-4 Two Station Controller
UR4-8 Four Station Controller

The UR series is a microprocessor based controller that provides field selectable application modes for two, three or four stations. The controller installs in 600 series power supplies. Or, individual UR Series Access Hardware Controllers may be mounted in remote junction boxes and powered by a single power supply.

Interface and Centralized Wiring
The UR Series Access Hardware Controller provides complete system interface capability and centralized wiring of all components, including; access controls, electric locks, peripheral equipment and monitoring contacts.

Reduced Components and Engineering
Applications that require several individual relays may be costly and complicated, requiring additional engineering time to produce the proper system logic. The UR eliminates the need for multiple or different relays. All system logic is reduced to one controller.

Selectable Output Modes

- Conventional Relay
- Latching Relay (pulse on, pulse off)
  Latch individual station or all stations
- Time Delay Relay 1-35 seconds
- * Dual, Latching & Time Delay Relay
- Mantrap - All doors normally locked
- Interlock - All doors normally unlocked
- Interlock -
  UR2-4: 1 door locked, 1 door unlocked
  UR4-8: 1 door locked, 3 doors unlocked
  2 doors locked, 2 doors unlocked
  3 doors locked, 1 door unlocked

*Primary input triggers the Time Delay
Auxiliary input triggers latch function

The relay mode may be different per individual station. When mantrap or interlock mode is selected all outputs operate the same.

Documentation

Several access control and mantrap system wire diagrams are provided for common applications.

UR2-4 Specifications

Input Voltage: 12 or 24VDC +/- 10%

Input Current: 280 mA, at rest
350 mA, operating

Trigger Inputs: N.O. Dry, Optically Isolated

Outputs:
2 Fused SPDT Dry, 5 Amp @ 30VDC
2 Non-fused, SPDT Dry, 1 Amp @ 30VDC

UR4-8 Specifications

Input Voltage: 12 or 24VDC +/- 10%

Input Current: 350 mA, at rest
430 mA, operating

Trigger Inputs: N.O. Dry, Optically Isolated

Outputs:
4 Fused SPDT Dry, 5 Amp @ 30VDC
4 Non-fused, SPDT Dry, 1 Amp @ 30VDC

Dimensions: 7" W x 5" H x 2" D
(177.8 x 127 x 50.8 mm)

Door Control Modules

Door control relay modules ensure compatibility of access hardware components and simplify system installation and troubleshooting. Different modules may be specified for one power supply. **See Table 1 to determine the module capacity of the power supply.**
The isolated relay design allows small gauge cable runs of 22 gauge wire up to 1000 feet from the trigger device to the module.

Contacts: 2.5 Amps inductive, 5 Amps resistive
@ 30VDC unless specified otherwise.

UR1 Universal Door Controllers
Voltage input: Automatic Voltage Sensing
12VDC @ 120mA, 24VDC @ 175mA
Trigger Inputs:
a) Two (2) N.O. dry inputs for individual relay
b) Tandem: Either N.O. dry input triggers both relays
Outputs : 2 form "C" SPDT outputs,
(N.C. failsafe, N.O. failsecure)
- 10 Amps (resistive), 7 Amp (inductive) @ 30VDC
- Wet (voltage) and/or Dry output
- Wet output voltage is same as module input voltage
- Two (2) LED relay active indicators

Relay Mode Output Configuration:
a) Two (2) Wet (power) and/or Dry outputs.
b) Tandem: Simultaneously activates both SPDT outputs
3.2" W x 2" L x 1" H (81.28 x 50.8 x 25.4 mm)

CR4 Four Station Relay Module
Voltage input: 120 mA @ 12/24VDC
(4) Fused, 2A SPDT dry outputs
or voltage outputs
(4) 2A SPDT dry outputs
(4) N.O. dry trigger inputs
3.25"L x 2"W (83 x 51mm)

ACM-1 Access Control Module
Voltage input: 45mA @ 12/24VDC
(1) SPDT voltage output
(1) SPDT dry contact
(8) SPDT trigger inputs (4-NC,4-NO)`
(1) LED status indicator
5"L x 3.25"W (127 x 83mm)

PB-8 8 Amp Power Booster
Voltage input: 85mA @ 24VDC input
(1) N.O. Dry trigger Input:
(1) Fused SPDT voltage output
8 Amp Surge
1 Amp Continuous
3.25"W x 2"H (83 x 51mm)

PB-16 16 Amp Power Booster
Voltage input: 85mA @ 24VDC input
(1) N.O. Dry trigger Input:
(1) Fused SPDT voltage output
16 Amp Surge
1 Amp Continuous
3.25"W x 2"H (83 x 51mm)

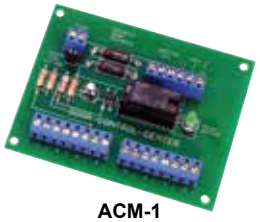
14-2-12 14-2-24 Seven Day Timer
Field programmable, 7 day timer module recommended for automatic timed locking and unlocking of one door or all doors on the same circuit. Schedule up 6 events maximum on single or multiple days, manual on-off override. Replaceable lithium battery maintains time and schedule during power outage.
Input: 30mA, specify 12V or 24V AC/DC
SPDT dry contact,
16 Amps @ 30VDC
2.375"H x 2.375"W x 1.25"D
(60.3 x 60.3 x 32mm)


UR1


PB-8


CR4


PB-16


ACM-1


14-2

Table 4: 12 & 24V Lock & Strike Wire Gauge Chart (AWG)
Distance in feet for 2 conductors from power source to the locking device.

AMPS	25ft	50	75	100	150	200	250	300	400	500	750	1000
0.15	20	20	20	20	20	20	20	20	20	20	18	16
0.25	20	20	20	20	20	20	20	20	18	16	16	14
0.50	20	20	20	20	18	18	18	16	16	14		
0.75	20	20	20	18	18	16	16	14	14			
1.00	20	20	18	18	16	16	14	14				
1.50	20	18	18	16	14	14						
2.00	18	18	16	16	14							
2.50	18	18	16	14								
3.00	18	16	14									
3.50	18	16	14									
4	18	16	14									
5	16	14										
6	16	14										

Wire Gauge

Signal Wires: SDC recommends 22 gauge for all signal wiring.

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