VAX-MDK Power Consumption

VAX-MDK (Multi-Door Kit) panels require an external 12 VDC-13.5 VDC power supply. Use this document to calculate the amperage required to safely power the controller with all connected components.

12 VDC vs 13.5 VDC Power Supply

It is recommended to use a 13.5 VDC Power Supply when attaching the optional battery backup. Using the higher voltage will allow PRS-MASTER board in the Multi-Door Kits to fully charge the battery.

Component Current Draw

Component	12 VDC Power Supply		13.5 VDC Power Supply	
	Standby	Full Load	Standby	Full Load
PRS-MASTER PCB	82mA	82mA	74mA	74mA
Battery Backup	+60mA		+125mA	
VAX-EXP-2D	15mA	27mA	15mA	27mA
VAX-IO-STR-2	10mA	30mA	10mA	30mA
VAX-300R Reader	72mA	72mA	77mA	77mA
VAX-600KP Reader/Keypad	82mA	105mA	95mA	105mA
Door Strike	300mA	500mA	300mA	500mA

Current Calculation

Use following formula to calculate minimum amperage power supply required:

(PRS-MASTER PCB + (VAX-EXP-2D * EXP Quantity) + (VAX-IO-STR-2 * IO Quantity) + (Reader * Reader Quantity) + (Lock * Lock Quantity) + Optional Battery Backup) * 1.20 (Safety Margin)

Kit	12V Power Supply			13.5V Power Supply		
	Base	+ Readers*	+ Strikes**	Base	+ Readers*	+ Strikes**
VAX-MDK-2	131mA	304mA	1.5A	121mA	294mA	1.4A
VAX-MDK-4	163mA	476mA	3A	154mA	467mA	2.75A
VAX-MDK-6	196mA	650mA	4.25A	186mA	640mA	4.1A
VAX-MDK-8	228mA	822mA	5A	218mA	812mA	5A

* Includes Base total, assumes 72mA (12V) and 77mA (13.5V) per reader.

** Includes Reader total, assumes 500mA per door strike.

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