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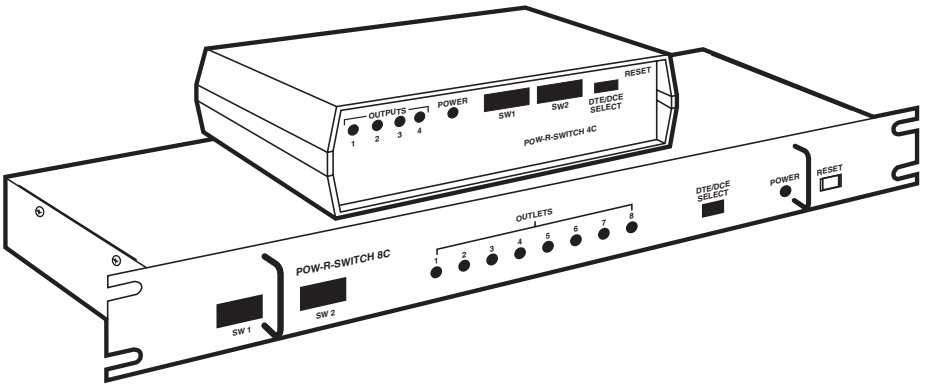
BLACK BOX®
NETWORK SERVICES

JUNE 1998
SWI037A
SWI037AE
SWI038A
SWI038AE

Pow-R-Switches 4C and 8C



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FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.

2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.

3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.

4. Todas las instrucciones de operación y uso deben ser seguidas.

5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.

6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.

7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.

8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.

9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.

11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.

13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.

14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.

15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.

16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.

18. Servicio por personal calificado deberá ser provisto cuando:

    A: El cable de poder o el contacto ha sido dañado; u

    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o

    C: El aparato ha sido expuesto a la lluvia; o

    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o

    E: El aparato ha sido tirado o su cubierta ha sido dañada.

Contents

Chapter **Page**

1. Specifications

Compliance — All models: FCC Class A, DOC Class/MDC classe A; SWI037AE, SWI038AE: CE (models having IEC power connectors)

Interface — All voltages over the range of RS-232

Protocol — Asynchronous

Data Format — 8 bits or 7 bits even/odd parity; 600, 1200, 2400, 9600, 19,200, 38,400, 57,600, and 115,200 bps (DIP-switch selectable)

Flow Control — Transparent to signals through I/O ports

Maximum Distance — From DB9 connectors to attached devices: 50 feet (15.2 m); From RJ-11 connector: 4000 feet (1219 m) unit to unit

User Controls — DCE/DTE slide switch;
DIP switch for data format and rate;
DIP switch for arming code selection;
Reset switch

Indicators — (5) or (9) front-mounted LEDs:
(1) Power, (4) or (8) Output Status

Connectors — All models: (2) DB9 female data connectors (pass-through) and (2) RJ-11 (expansion);
SWI037A, SWI038A: (4) or (8) NEMA 5-15R power outlets;
SWI037AE, SWI038AE: (4) or (8) IEC320 power outlets

Leads/Signals Supported —	All of the leads on the DB9 connectors
Temperature Tolerance —	32 to 104˚F (0 to 40˚C)
Humidity Tolerance —	10 to 90%, noncondensing
Power —	Control circuits input through wallmount 5-VDC supply (included); Output: Up to 8 amps per output and up to 8 amps aggregate total
Size —	SWI037A, SWI037AE: 2.8"H x 8"W x 6.3"D (7.1 x 20.3 x 16 cm); SWI038A, SWI038AE: 1.8"H x 19"W x 8"D (4.6 x 48.3 x 20.3 cm)
Weight —	SWI037A, SWI037AE: 3 lb. (1.4 kg); SWI038A, SWI038AE: 6.5 lb. (3 kg)

2. Introduction

The code-operated Pow-R-Switches are AC power switches having multiple outputs and RS-232 control inputs. They detect a pre-selected code sequence embedded in the data stream and switch the outputs ON or OFF. These Switches provide pass-through connectors for easy insertion into a data line.

Code-controlled Switches can be daisychained with RJ-11 four conductor cables (these cables must have straight-through pinning). Individual models are programmed with unique codes via an 8-position DIP switch, permitting the individual control of up to 2056 individual outlets (256 arming codes x 8 outlets per unit, 8-port model). 4- and 8-port models can be mixed.

Table 2-1. Available Models

Code	Name	Type of AC Connector
SWI037A	Pow-R-Switch 4C	(2) DB9 female, (2) RJ-11, (4) NEMA 5-15R power outlets
SWI037AE	Pow-R-Switch 4C (IEC)	(2) DB9 female, (2) RJ-11, (4) IEC320 power outlets
SWI038A	Pow-R-Switch 8C	(2) DB9 female, (2) RJ-11, (8) NEMA 5-15R power outlets
SWI038AE	Pow-R-Switch 8C (IEC)	(2) DB9 female, (2) RJ-11, (8) IEC320 power outlets

3. Installation

IMPORTANT!

Before attaching any cables or power plugs, make sure that the power is OFF on all equipment, including the Pow-R-Switch.

A serial self-test is included to help you when installing the unit.

3.1 Mode Switch

The DB9 data ports are configured DCE and DTE. This switch reverses the connections for Tx, Rx, CTS, and DTR. This slide switch is recessed behind the front panel and is operated through a hole in the panel.

3.2 Cabling to the Switch

Cable(s) with DB9 male connectors are required. The cable(s) must be wired straight through and pinned for an AT® style 9-pin serial port.

3.3 Cable Length

RS-232 data cables are typically limited to distances of 50 feet (15.2 m) or less at 19.2 Kbps. Extended distance cables are available to increase this distance. Actual installed length will depend on the interface, cable type, and data rate.

3.4 Power Connection

Plug the adapter into the Pow-R-Switch. Plug the AC end into a stable source of 115-volt, 60-Hz power (or 230-volt, 50-Hz power for SWI037AE and SWI038AE). Add AC connections to the output ports. Connect the power input cable to the main AC supply.

3.5 Setting the DIP Switch

Once again, before attaching any cables or power plugs, make sure power to all equipment is OFF. Select the proper data rate, word structure, and arming character. Connect the RS-232 connector(s) and plug in the 5-volt DC power supply. Attach the power cords.

The data rate and word structure can be set by using the chart below. These selections are made on SW1.

Table 3-1. Possible Settings of the Communications DIP Switch

FUNCTION	DIP-SWITCH POSITION*							
	1	2	3	4	5	6	7	8
Data Rate (bps)								
115,200	OFF	OFF	OFF					
57,600	ON	OFF	OFF					
38,400	OFF	ON	OFF					
19,200	ON	ON	OFF					
9600	OFF	OFF	ON					
2400	ON	OFF	ON					
1200	OFF	ON	ON					
600	ON	ON	ON					
Word Structure								
8 data bits, no parity				OFF	OFF			
8 data bits, no parity				ON	OFF			
7 data bits, odd parity				OFF	ON			
7 data bits, even parity				ON	ON			
Self-Test								
Normal Mode						OFF		
Run Self-Test						ON		

*A switch position is ON when it is down (closer to the number that identifies it).

To test your installation, you can use the serial self-test. To enable the self-test, put switch 6 in the ON position and reset the Pow-R-Switch. To end the self-test, turn switch 6 OFF.

The self-test message is sent to the output (DCE) port. Note that the self-test message will not be sent to the DCE port. You can reverse the DTE/DCE selections of the two DB9 connectors by changing the Mode switch (see **Section 3.1**).

3.6 Power Control

Select the arming code by using the DIP switch SW2 mounted at the front of the unit. Turn power ON by sending the arming character followed by the port number and a "1" to the Pow-R-Switch. Turn power OFF by sending the arming character followed by the port number and a "0." You can query the present status of a port (ON or OFF) by sending the arming character followed by the port number and a "#"; the Pow-R-Switch will respond by returning the arming character, the port number, and a "1" if the port is ON or a "0" if the port is OFF.

Arming codes and the data rate and format can be changed without removing power from the unit. Press the Reset switch on the front of the unit after making these changes.

Table 3-2. Possible Settings of the Arming-Code DIP Switch

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
00	NUL	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
01	SOH	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
02	STX	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
03	ETX	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
04	EOT	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
05	ENQ	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
06	ACK	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
07	BEL	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
08	BS	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
09	HT	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
0A	LF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
0B	VT	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
0C	FF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
0D	CR	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
0E	SO	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
0F	SI	ON	ON	ON	ON	OFF	OFF	OFF	OFF
10	DLE	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
11	DC1	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
12	DC2	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
13	DC3	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
14	DC4	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
15	NAK	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
16	SYN	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
17	ETB	ON	ON	ON	OFF	ON	OFF	OFF	OFF
18	CAN	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
19	EM	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
1A	SUB	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
1B	ESC	ON	ON	OFF	ON	ON	OFF	OFF	OFF
1C	FS	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
1D	GS	ON	OFF	ON	ON	ON	OFF	OFF	OFF
1E	RS	OFF	ON	ON	ON	ON	OFF	OFF	OFF
1F	US	ON	ON	ON	ON	ON	OFF	OFF	OFF
20	SP	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
21	!	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
22	"	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
23	#	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
24	$	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
25	%	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
26	&	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
27	'	ON	ON	ON	OFF	OFF	ON	OFF	OFF
28	(	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
29	)	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
2A	*	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
2B	+	ON	ON	OFF	ON	OFF	ON	OFF	OFF
2C	,	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
2D	-	ON	OFF	ON	ON	OFF	ON	OFF	OFF
2E	.	OFF	ON	ON	ON	OFF	ON	OFF	OFF
2F	/	ON	ON	ON	ON	OFF	ON	OFF	OFF
30	0	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
31	1	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
32	2	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
33	3	ON	ON	OFF	OFF	ON	ON	OFF	OFF
34	4	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
35	5	ON	OFF	ON	OFF	ON	ON	OFF	OFF
36	6	OFF	ON	ON	OFF	ON	ON	OFF	OFF
37	7	ON	ON	ON	OFF	ON	ON	OFF	OFF
38	8	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
39	9	ON	OFF	OFF	ON	ON	ON	OFF	OFF
3A	:	OFF	ON	OFF	ON	ON	ON	OFF	OFF
3B	;	ON	ON	OFF	ON	ON	ON	OFF	OFF
3C	<	OFF	OFF	ON	ON	ON	ON	OFF	OFF
3D	=	ON	OFF	ON	ON	ON	ON	OFF	OFF
3E	>	OFF	ON	ON	ON	ON	ON	OFF	OFF
3F	?	ON	ON	ON	ON	ON	ON	OFF	OFF
40	@	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
41	A	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
42	B	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
43	C	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
44	D	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
45	E	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
46	F	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
47	G	ON	ON	ON	OFF	OFF	OFF	ON	OFF
48	H	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
49	I	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
4A	J	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
4B	K	ON	ON	OFF	ON	OFF	OFF	ON	OFF

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
4C	L	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
4D	M	ON	OFF	ON	ON	OFF	OFF	ON	OFF
4E	N	OFF	ON	ON	ON	OFF	OFF	ON	OFF
4F	O	ON	ON	ON	ON	OFF	OFF	ON	OFF
50	P	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
51	Q	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
52	R	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
53	S	ON	ON	OFF	OFF	ON	OFF	ON	OFF
54	T	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
55	U	ON	OFF	ON	OFF	ON	OFF	ON	OFF
56	V	OFF	ON	ON	OFF	ON	OFF	ON	OFF
57	W	ON	ON	ON	OFF	ON	OFF	ON	OFF
58	X	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
59	Y	ON	OFF	OFF	ON	ON	OFF	ON	OFF
5A	Z	OFF	ON	OFF	ON	ON	OFF	ON	OFF
5B	[	ON	ON	OFF	ON	ON	OFF	ON	OFF
5C	\	OFF	OFF	ON	ON	ON	OFF	ON	OFF
5D	]	ON	OFF	ON	ON	ON	OFF	ON	OFF
5E	^	OFF	ON	ON	ON	ON	OFF	ON	OFF
5F	_	ON	ON	ON	ON	ON	OFF	ON	OFF
60	`	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
61	a	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
62	b	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
63	c	ON	ON	OFF	OFF	OFF	ON	ON	OFF
64	d	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
65	e	ON	OFF	ON	OFF	OFF	ON	ON	OFF
66	f	OFF	ON	ON	OFF	OFF	ON	ON	OFF
67	g	ON	ON	ON	OFF	OFF	ON	ON	OFF
68	h	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
69	i	ON	OFF	OFF	ON	OFF	ON	ON	OFF
6A	j	OFF	ON	OFF	ON	OFF	ON	ON	OFF
6B	k	ON	ON	OFF	ON	OFF	ON	ON	OFF
6C	l	OFF	OFF	ON	ON	OFF	ON	ON	OFF
6D	m	ON	OFF	ON	ON	OFF	ON	ON	OFF
6E	n	OFF	ON	ON	ON	OFF	ON	ON	OFF
6F	o	ON	ON	ON	ON	OFF	ON	ON	OFF
70	p	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
71	q	ON	OFF	OFF	OFF	ON	ON	ON	OFF
72	r	OFF	ON	OFF	OFF	ON	ON	ON	OFF

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
73	s	ON	ON	OFF	OFF	ON	ON	ON	OFF
74	t	OFF	OFF	ON	OFF	ON	ON	ON	OFF
75	u	ON	OFF	ON	OFF	ON	ON	ON	OFF
76	v	OFF	ON	ON	OFF	ON	ON	ON	OFF
77	w	ON	ON	ON	OFF	ON	ON	ON	OFF
78	x	OFF	OFF	OFF	ON	ON	ON	ON	OFF
79	y	ON	OFF	OFF	ON	ON	ON	ON	OFF
7A	z	OFF	ON	OFF	ON	ON	ON	ON	OFF
7B	{	ON	ON	OFF	ON	ON	ON	ON	OFF
7C	I	OFF	OFF	ON	ON	ON	ON	ON	OFF
7D	}	ON	OFF	ON	ON	ON	ON	ON	OFF
7E	~	OFF	ON	ON	ON	ON	ON	ON	OFF
7F	DEL	ON	ON	ON	ON	ON	ON	ON	OFF
80		OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
81		ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
82		OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
83		ON	ON	OFF	OFF	OFF	OFF	OFF	ON
84		OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
85		ON	OFF	ON	OFF	OFF	OFF	OFF	ON
86		OFF	ON	ON	OFF	OFF	OFF	OFF	ON
87		ON	ON	ON	OFF	OFF	OFF	OFF	ON
88		OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
89		ON	OFF	OFF	ON	OFF	OFF	OFF	ON
8A		OFF	ON	OFF	ON	OFF	OFF	OFF	ON
8B		ON	ON	OFF	ON	OFF	OFF	OFF	ON
8C		OFF	OFF	ON	ON	OFF	OFF	OFF	ON
8D		ON	OFF	ON	ON	OFF	OFF	OFF	ON
8E		OFF	ON	ON	ON	OFF	OFF	OFF	ON
8F		ON	ON	ON	ON	OFF	OFF	OFF	ON
90		OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
91		ON	OFF	OFF	OFF	ON	OFF	OFF	ON
92		OFF	ON	OFF	OFF	ON	OFF	OFF	ON
93		ON	ON	OFF	OFF	ON	OFF	OFF	ON
94		OFF	OFF	ON	OFF	ON	OFF	OFF	ON
95		ON	OFF	ON	OFF	ON	OFF	OFF	ON
96		OFF	ON	ON	OFF	ON	OFF	OFF	ON
97		ON	ON	ON	OFF	ON	OFF	OFF	ON
98		OFF	OFF	OFF	ON	ON	OFF	OFF	ON
99		ON	OFF	OFF	ON	ON	OFF	OFF	ON

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
9A		OFF	ON	OFF	ON	ON	OFF	OFF	ON
9B		ON	ON	OFF	ON	ON	OFF	OFF	ON
9C		OFF	OFF	ON	ON	ON	OFF	OFF	ON
9D		ON	OFF	ON	ON	ON	OFF	OFF	ON
9E		OFF	ON	ON	ON	ON	OFF	OFF	ON
9F		ON	ON	ON	ON	ON	OFF	OFF	ON
A0		OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
A1		ON	OFF	OFF	OFF	OFF	ON	OFF	ON
A2		OFF	ON	OFF	OFF	OFF	ON	OFF	ON
A3		ON	ON	OFF	OFF	OFF	ON	OFF	ON
A4		OFF	OFF	ON	OFF	OFF	ON	OFF	ON
A5		ON	OFF	ON	OFF	OFF	ON	OFF	ON
A6		OFF	ON	ON	OFF	OFF	ON	OFF	ON
A7		ON	ON	ON	OFF	OFF	ON	OFF	ON
A8		OFF	OFF	OFF	ON	OFF	ON	OFF	ON
A9		ON	OFF	OFF	ON	OFF	ON	OFF	ON
AA		OFF	ON	OFF	ON	OFF	ON	OFF	ON
AB		ON	ON	OFF	ON	OFF	ON	OFF	ON
AC		OFF	OFF	ON	ON	OFF	ON	OFF	ON
AD		ON	OFF	ON	ON	OFF	ON	OFF	ON
AE		OFF	ON	ON	ON	OFF	ON	OFF	ON
AF		ON	ON	ON	ON	OFF	ON	OFF	ON
B0		OFF	OFF	OFF	OFF	ON	ON	OFF	ON
B1		ON	OFF	OFF	OFF	ON	ON	OFF	ON
B2		OFF	ON	OFF	OFF	ON	ON	OFF	ON
B3		ON	ON	OFF	OFF	ON	ON	OFF	ON
B4		OFF	OFF	ON	OFF	ON	ON	OFF	ON
B5		ON	OFF	ON	OFF	ON	ON	OFF	ON
B6		OFF	ON	ON	OFF	ON	ON	OFF	ON
B7		ON	ON	ON	OFF	ON	ON	OFF	ON
B8		OFF	OFF	OFF	ON	ON	ON	OFF	ON
B9		ON	OFF	OFF	ON	ON	ON	OFF	ON
BA		OFF	ON	OFF	ON	ON	ON	OFF	ON
BB		ON	ON	OFF	ON	ON	ON	OFF	ON
BC		OFF	OFF	ON	ON	ON	ON	OFF	ON
BD		ON	OFF	ON	ON	ON	ON	OFF	ON
BE		OFF	ON	ON	ON	ON	ON	OFF	ON
BF		ON	ON	ON	ON	ON	ON	OFF	ON
C0		OFF	OFF	OFF	OFF	OFF	OFF	ON	ON

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
C1		ON	OFF	OFF	OFF	OFF	OFF	ON	ON
C2		OFF	ON	OFF	OFF	OFF	OFF	ON	ON
C3		ON	ON	OFF	OFF	OFF	OFF	ON	ON
C4		OFF	OFF	ON	OFF	OFF	OFF	ON	ON
C5		ON	OFF	ON	OFF	OFF	OFF	ON	ON
C6		OFF	ON	ON	OFF	OFF	OFF	ON	ON
C7		ON	ON	ON	OFF	OFF	OFF	ON	ON
C8		OFF	OFF	OFF	ON	OFF	OFF	ON	ON
C9		ON	OFF	OFF	ON	OFF	OFF	ON	ON
CA		OFF	ON	OFF	ON	OFF	OFF	ON	ON
CB		ON	ON	OFF	ON	OFF	OFF	ON	ON
CC		OFF	OFF	ON	ON	OFF	OFF	ON	ON
CD		ON	OFF	ON	ON	OFF	OFF	ON	ON
CE		OFF	ON	ON	ON	OFF	OFF	ON	ON
CF		ON	ON	ON	ON	OFF	OFF	ON	ON
D0		OFF	OFF	OFF	OFF	ON	OFF	ON	ON
D1		ON	OFF	OFF	OFF	ON	OFF	ON	ON
D2		OFF	ON	OFF	OFF	ON	OFF	ON	ON
D3		ON	ON	OFF	OFF	ON	OFF	ON	ON
D4		OFF	OFF	ON	OFF	ON	OFF	ON	ON
D5		ON	OFF	ON	OFF	ON	OFF	ON	ON
D6		OFF	ON	ON	OFF	ON	OFF	ON	ON
D7		ON	ON	ON	OFF	ON	OFF	ON	ON
D8		OFF	OFF	OFF	ON	ON	OFF	ON	ON
D9		ON	OFF	OFF	ON	ON	OFF	ON	ON
DA		OFF	ON	OFF	ON	ON	OFF	ON	ON
DB		ON	ON	OFF	ON	ON	OFF	ON	ON
DC		OFF	OFF	ON	ON	ON	OFF	ON	ON
DD		ON	OFF	ON	ON	ON	OFF	ON	ON
DE		OFF	ON	ON	ON	ON	OFF	ON	ON
DF		ON	ON	ON	ON	ON	OFF	ON	ON
E0		OFF	OFF	OFF	OFF	OFF	ON	ON	ON
E1		ON	OFF	OFF	OFF	OFF	ON	ON	ON
E2		OFF	ON	OFF	OFF	OFF	ON	ON	ON
E3		ON	ON	OFF	OFF	OFF	ON	ON	ON
E4		OFF	OFF	ON	OFF	OFF	ON	ON	ON
E5		ON	OFF	ON	OFF	OFF	ON	ON	ON
E6		OFF	ON	ON	OFF	OFF	ON	ON	ON
E7		ON	ON	ON	OFF	OFF	ON	ON	ON

*A switch position is ON when it is down (closer to the number that identifies it).

ARMING CODE		DIP-SWITCH POSITIONS*							
HEX	ASCII	1	2	3	4	5	6	7	8
E8		OFF	OFF	OFF	ON	OFF	ON	ON	ON
E9		ON	OFF	OFF	ON	OFF	ON	ON	ON
EA		OFF	ON	OFF	ON	OFF	ON	ON	ON
EB		ON	ON	OFF	ON	OFF	ON	ON	ON
EC		OFF	OFF	ON	ON	OFF	ON	ON	ON
ED		ON	OFF	ON	ON	OFF	ON	ON	ON
EE		OFF	ON	ON	ON	OFF	ON	ON	ON
EF		ON	ON	ON	ON	OFF	ON	ON	ON
F0		OFF	OFF	OFF	OFF	ON	ON	ON	ON
F1		ON	OFF	OFF	OFF	ON	ON	ON	ON
F2		OFF	ON	OFF	OFF	ON	ON	ON	ON
F3		ON	ON	OFF	OFF	ON	ON	ON	ON
F4		OFF	OFF	ON	OFF	ON	ON	ON	ON
F5		ON	OFF	ON	OFF	ON	ON	ON	ON
F6		OFF	ON	ON	OFF	ON	ON	ON	ON
F7		ON	ON	ON	OFF	ON	ON	ON	ON
F8		OFF	OFF	OFF	ON	ON	ON	ON	ON
F9		ON	OFF	OFF	ON	ON	ON	ON	ON
FA		OFF	ON	OFF	ON	ON	ON	ON	ON
FB		ON	ON	OFF	ON	ON	ON	ON	ON
FC		OFF	OFF	ON	ON	ON	ON	ON	ON
FD		ON	OFF	ON	ON	ON	ON	ON	ON
FE		OFF	ON	ON	ON	ON	ON	ON	ON
FF		ON	ON	ON	ON	ON	ON	ON	ON

*A switch position is ON when it is down (closer to the number that identifies it).