Installation manual
for the
DS7432 Eight Input Remote Module

1.0 Description

The DS7432 is an Eight Input Remote Module that provides a means of addressing up to eight input loops of conventional contacts to the multiplex bus of the control.

2.0 Specifications

- **Control Panel Requirements**: The DS7432 is designed to work with the following control panels:
    - A DS7400, DS7400X, DS7400Xi, DS7400Xi Rev. 3 or DS7400Xi Rev. 4.
    - Up to 7 DS7432s can be used per DS7400 system.
    - Up to 15 DS7432 modules are allowed on DS7400X, Xi and Xi Rev. 3.
    - The DS7400Xi Rev. 4 control panel can support up to 30 DS7432 modules.
- One DS7430, DS7436 or DS9431 Multiplex Expansion Module is required in the system to use the DS7432 Remote Module.
- **Current Draw:** 10 mA Standby, 10 mA Alarm
- **Minimum Bus Voltage For Operation:** 8 VDC peak
- **Wiring:** Refer to the reference guide for the panel's multiplex expansion module for multiplex wiring requirements. The length of the wire connected to the loop inputs on the DS7432 must be less than 250 ft. (76 m) per loop.
- The recommended wiring to the control is standard #18 (1.22 mm) or #22 (0.74 mm) AWG, quad (4-wire) cable. **Do not use shielded or twisted pair cable**.
- **For fire applications, #18 AWG (1.2 mm) wire is required**.

3.0 Installation

ⓘ **P3 of the DS7432 is for European application only. Do not put a jumper here.**

P2 of the DS7432 allows the tamper switch to be bypassed with a jumper when testing or servicing.

ⓘ **Remove jumper P2 when testing or servicing has been completed.**

Use the mounting holes (upper left and lower right corners) to mount. It can be mounted inside or outside of the control enclosure.

Route wiring as necessary from the DS7430, DS7436 or DS9431 in the control enclosure and from the remote devices to the DS7432.

Connect wiring as shown in Figure 3.

ⓘ **If using separate powered detectors (other than smoke detectors) with a DS7400 Series Control/Communicator, the DS7432 can be powered from the control panel auxiliary power (terminals 7 and 8). The detector can be connected to the DS7432 (see Figure 4). This eliminates the need for home-run power wiring from each detector to the control when the DS7432 is mounted outside of the enclosure.**

ⓘ **Be sure all wiring is unpowered before routing.**

If the wiring is to enter through the rear of the enclosure, open the DS7432's rear wire entrance. If the wiring is to run along the surface of the enclosure, open the DS7432's surface wire entrance. See Figure 2.

4.0 Programming

4.1 System Programming

Refer to the System Programming section in your panel's reference guide for Zone programming information.

4.1 DIP Switch Settings

The DIP switches select which zones will be activated by the loop inputs. Set the DIP switches as shown in Table 1 (Page 2).

- No two DS7432s should be set the same.
- The DS7432 occupies eight zones when connected to the control panel. The input loops of the DS7432 correspond to the zones of the control as shown in Table 2.
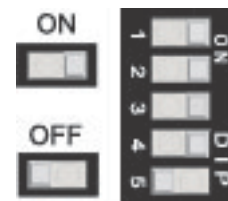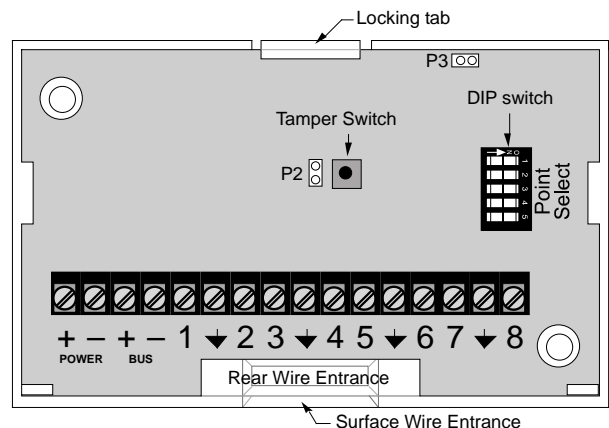

Figure 1: DIP Switch Orientation

Figure 2: DS7432 Front View Without Cover

BOSCH

	DIP Switches				
Zones	1	2	3	4	5
9-16	Off	Off	Off	Off	On
17-24	Off	Off	Off	On	Off
25-32	Off	Off	Off	On	On
33-40	Off	Off	On	Off	Off
41-48	Off	Off	On	Off	Off
49-56	Off	Off	On	On	Off
57-64	Off	Off	On	On	On
65-72	Off	On	Off	Off	Off
73-80	Off	On	Off	Off	On
81-88	Off	On	Off	On	Off
89-96	Off	On	Off	On	On
97-104	Off	On	On	Off	Off
105-112	Off	On	On	Off	On
113-120	Off	On	On	On	Off
121-128	Off	On	On	On	On
129-136	On	Off	Off	Off	Off
137-144	On	Off	Off	Off	On
145-152	On	Off	Off	On	Off
153-160	On	Off	Off	On	On
161-168	On	Off	On	Off	Off
169-176	On	Off	On	Off	On
177-184	On	Off	On	On	Off
185-192	On	Off	On	On	On
193-200	On	On	Off	Off	Off
201-208	On	On	Off	Off	On
209-216	On	On	Off	On	Off
217-224	On	On	Off	On	On
225-232	On	On	On	Off	Off
233-240	On	On	On	Off	On
241-248	On	On	On	On	Off
249-256	On	On	On	On	On

Table 1: DIP Switch Settings

DS7432 Input Loop	Zone Number							
	1	2	3	4	5	6	7	8
Zones 9-16	9	10	11	12	13	14	15	16
Zones 17-24	17	18	19	20	21	22	23	24
Zones 25-32	25	26	27	28	29	30	31	32
Zones 33-40	33	34	35	36	37	38	39	40
Zones 41-48	41	42	43	44	45	46	47	48
Zones 49-56	49	50	51	52	53	54	55	56
Zones 57-64	57	58	59	60	61	62	63	64
Zones 65-72	65	66	67	68	69	70	71	72
Zones 73-80	73	74	75	76	77	78	79	80
Zones 81-88	81	82	83	84	85	86	87	88
Zones 89-96	89	90	91	92	93	94	95	96
Zones 97-104	97	98	99	100	101	102	103	104
Zones 105-112	105	106	107	108	109	110	111	112
Zones 113-120	113	114	115	116	117	118	119	120
Zones 121-128	121	122	123	124	125	126	127	128
Zones 129-136	129	130	131	132	133	134	135	136
Zones 137-144	137	138	139	140	141	142	143	144
Zones 145-152	145	146	147	148	149	150	151	152
Zones 153-160	153	154	155	156	157	158	159	160
Zones 161-168	161	162	163	164	165	166	167	168
Zones 169-176	169	170	171	172	173	174	175	176
Zones 177-184	177	178	179	180	181	182	183	184
Zones 185-192	185	186	187	188	189	190	191	192
Zones 193-200	193	194	195	196	197	198	199	200
Zones 201-208	201	202	203	204	205	206	207	208
Zones 209-216	209	210	211	212	213	214	215	216
Zones 217-224	217	218	219	220	221	222	223	224
Zones 225-232	225	226	227	228	229	230	231	232
Zones 233-240	233	234	235	236	237	238	239	240
Zones 241-248	241	242	243	244	245	246	247	248
Zones 249-256	249	250	251	252	253	254	255	256

Table 2: Loop/Zone Number Relationship

Points 249-256 are not available for DS9400 use.

POWER   BUS   Input Loops

$+ \; - \; + \; - \; 1 \; \blacktriangledown \; 2 \; 3 \; \blacktriangledown \; 4 \; 5 \; \blacktriangledown \; 6 \; 7 \; \blacktriangledown \; 8$

! **When used with a DS9431 , power is connected to the option bus power terminals (RA or RB = +, BA or BB = -). Connection to other (24V) sources will damage the DS7432.**

NO NO   NO NO   NO NO   NO NO

To control panel 12VDC power terminals: +
DS7400, terminals 7 and 8, Fig. 4
DS9400, terminals RA and BA, Fig. 5   -

NC NC   NC NC   NC NC   NC NC

To DS7430, DS7436 or DS9431 MUX   +
BUS Terminals (see Figure 4 or 5)   -

47KΩ 47KΩ   47KΩ 47KΩ   47KΩ 47KΩ   47KΩ 47KΩ

Burg. EOL resistor: DS P/N: 26069 (included)
Fire EOL resistor: DS P/N: 28010 (sold separately)

i **For UL Listed fire installations, Normally Open (N/O) contacts must be used.**

To separate powered detectors (other than smoke detectors)

Initiating circuits are Class B

Figure 3: Wiring the DS7432 with Separate Powered Detectors
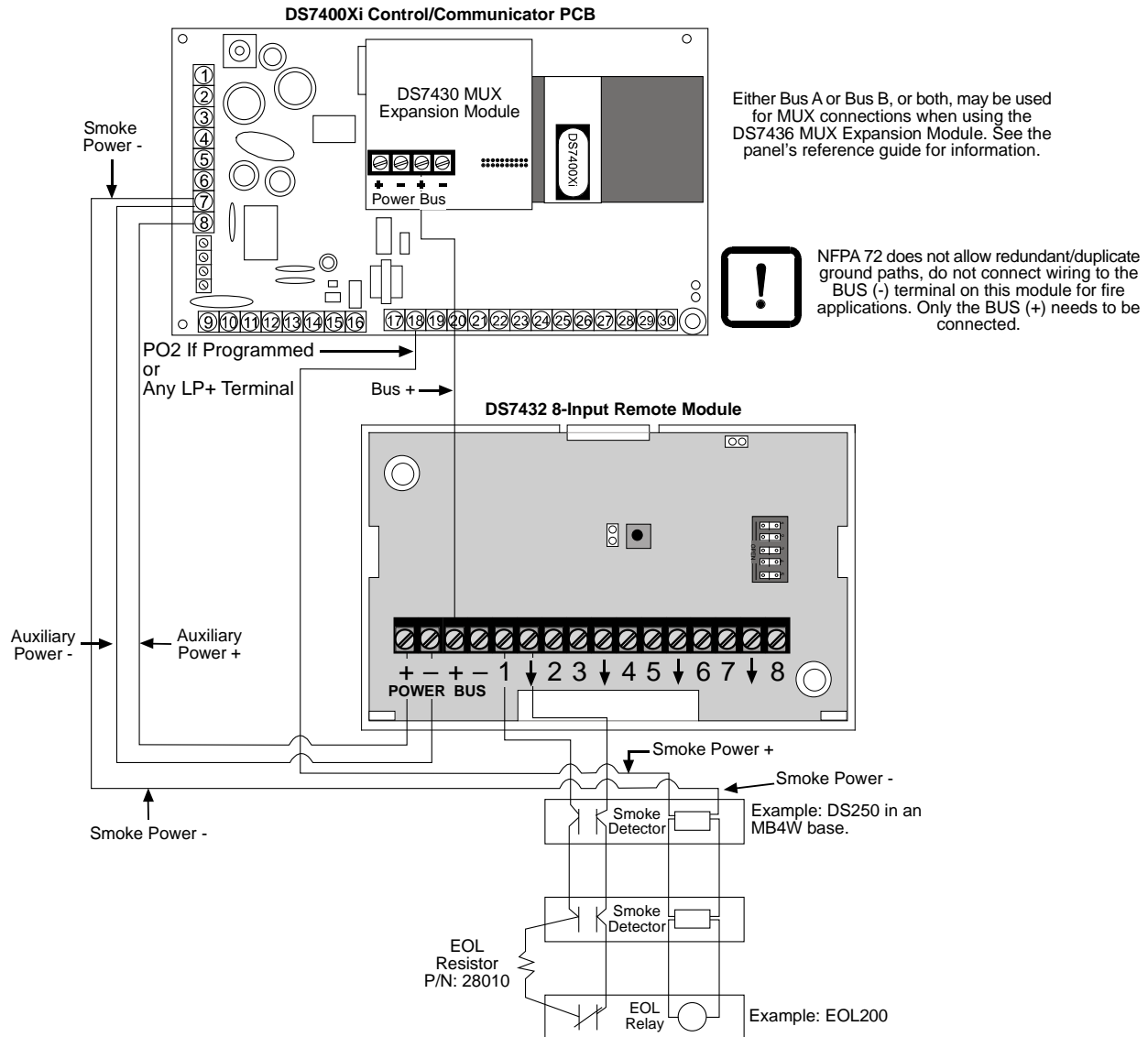
Figure 4: 4-Wire Smoke Detector Wiring for the DS7432 and DS7400Xi Control/Communicator.
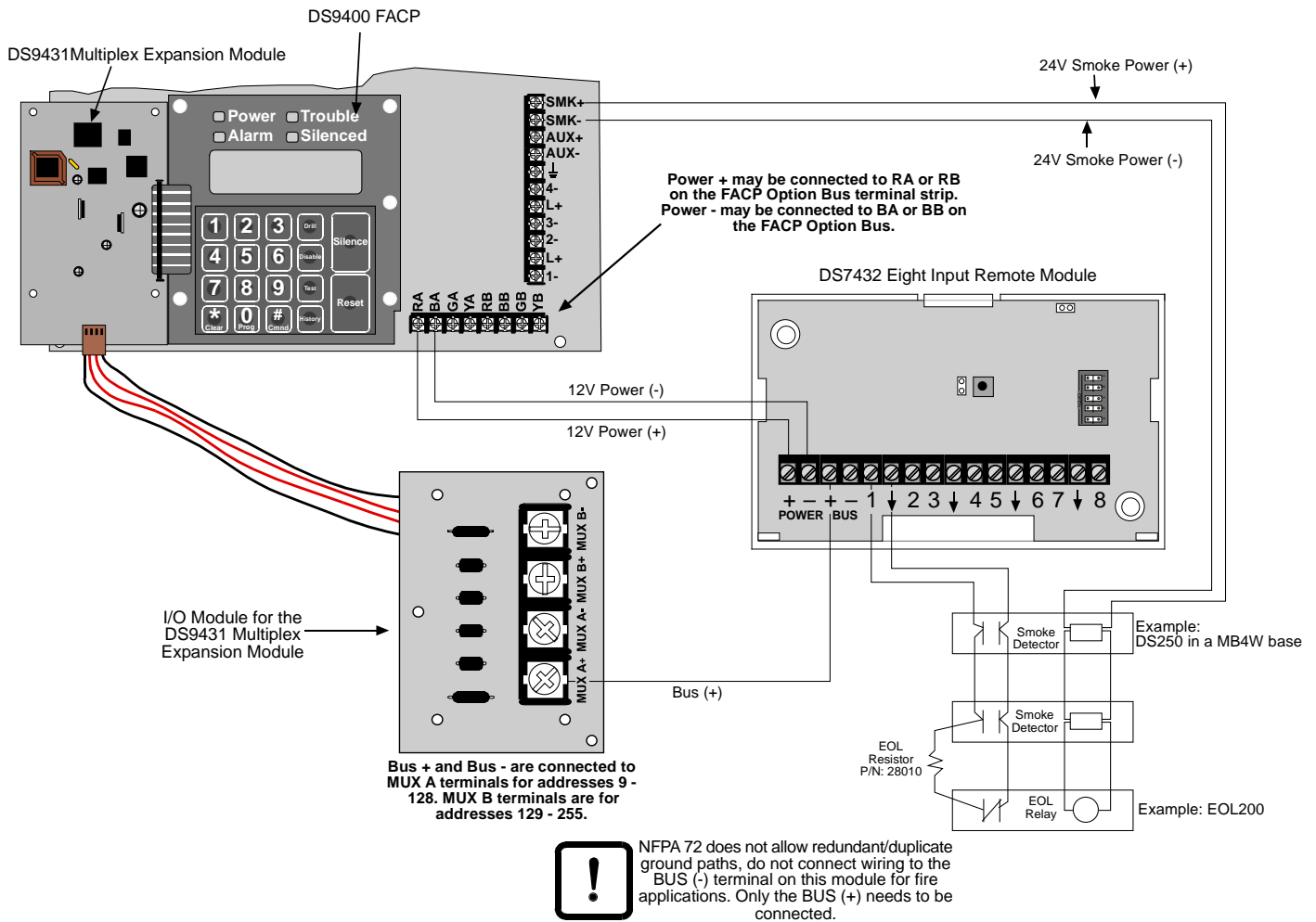
DS9431Multiplex Expansion Module

DS9400 FACP

24V Smoke Power (+)

24V Smoke Power (-)

Power + may be connected to RA or RB on the FACP Option Bus terminal strip. Power - may be connected to BA or BB on the FACP Option Bus.

DS7432 Eight Input Remote Module

12V Power (-)

12V Power (+)

I/O Module for the DS9431 Multiplex Expansion Module

Bus (+)

Bus + and Bus - are connected to MUX A terminals for addresses 9 - 128. MUX B terminals are for addresses 129 - 255.

Example: DS250 in a MB4W base

Smoke Detector

Smoke Detector

EOL Resistor P/N: 28010

EOL Relay

Example: EOL200

! NFPA 72 does not allow redundant/duplicate ground paths, do not connect wiring to the BUS (-) terminal on this module for fire applications. Only the BUS (+) needs to be connected.

Figure 5: 4-Wire Smoke Detector Wiring for the DS7432 and DS9400 Series FACP

ⓘ **For UL Listed fire installations, Normally Open (N/O) contacts must be used.**