



# APPLICATION NOTE

## DOOR CONTROL WIRING MATRIX

*LZR-FLATSCAN SW*

*LZR-FLATSCAN 3D SW*



### BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, Inc., the sensor manufacturer, cannot be held responsible for incorrect installations or incorrect adjustments of the sensor/device; therefore, BEA, Inc. does not guarantee any use of the sensor/device outside of its intended purpose.

BEA, Inc. strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor/device system performance is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL294, UL325, and International Building Code).

Verify that all appropriate industry signage, warning labels, and placards are in place.



	R		Bk	Bl	Br	G	W	Gy	P	
	POWER <sup>1</sup>		O1: N.O.	O1: N.C.	O1: COM	O2: REACTIVATION <sup>2</sup>	O2: ACT (COM)	O3: VPB <sup>3</sup>	MONITORING <sup>4</sup>	
Besam ETIK <sup>5</sup>	30.5558			15/17	16/18	Logic Module	12	13	Not supported.	
Besam MP/CUP	30.5558		5		4	Logic Module	4	3	Not supported.	
Besam PowerSwing/EXB	30.5558			TB4-29	TB4-26	Logic Module	TB3-20	TB3-21	Not supported.	
Besam SM	30.5558		TB1-7		3	Logic Module	3	1	Not supported.	
Assa Abloy SW 100/200, DITEC HA9 <sup>6</sup>	24V+	GND		EXU-SA 3	EXU-SA1	EXU-SA 1 and 2 (N.C.)	CU-ESD 1	CU-ESD 2	Refer to BEA product User's Guide and OEM manual.	
CONDOR	30.5558		DMS O		COMMON N	V and W	COM 16	ACTIVATE 17	Not supported.	
DCU DC700 Access Auto. E5500 Quad Systems E5500	30.5558		CN6 GREEN		CN6 BLACK	AUX CN7 (AF = 2)	CN2 #3	CN2 #2	Not supported.	
Detex BS1000S/UDC100	30.5558		5		1	J2-3 and 1	1	2	Not supported.	
Dor-O-Matic	30.5558		PURPLE		GRAY	Logic Module	GRAY	YELLOW	Not supported.	
Dorma 400/700	30.5558		SWING		GND	APPR and GND	GND	TRIGGER	Not supported.	
Dorma ED 100/250 <sup>7</sup>	1	3		15	3	11 (N.C.)	3	42	Refer to BEA product User's Guide and OEM manual.	
Gyrotech/Nabco Magnum	30.5558		3 VIOLET		5 RED	Logic Module	5 RED	6 BLACK	Not supported.	
Gyrotech/Nabco Opus	30.5558		5		2	2 and 4	2	3	1 and 7	
Gyrotech/Nabco U19	30.5558		WHITE 6B		RED 7	Logic Module	RED 7	61/62	Not supported.	
Gyrotech 300/400 <sup>8</sup>	30.5558		WHITE		RED	Logic Module	RED	BLACK	Not supported.	
Horton 4160-3 <sup>9</sup>	30.5558		DAUGHTER BOARD		DAUGHTER BOARD	Logic Module	WHITE	BLACK	Not supported.	
Horton 4190 <sup>10</sup>	30.5558		10		3	Logic Module	3	2	Not supported.	
Horton 5190	+24 VDC	0 V	CN16 ORANGE (10)		CN16 YELLOW (9)	CN16 GREEN (8)	CN16 BROWN (7)	CN20 2 = interior 3 = exterior	CN7 COM	CN16 PURPLE (13), BLUE (14)
Hunter HA, DITEC HA8	30.5558		SAFE 2		RTN	ACT 2 and return	RTN	ACT	Not supported.	
Keane-Monroe K	30.5558		YELLOW		WHITE	Logic Module	WHITE	GREEN	Not supported.	
LCN Digital / Senior Swing	30.5558		P2 GREEN		P2 WHITE	P3 white and green	P6 GRAY	P6 YELLOW	Not supported.	
Record 6000/8000 <sup>11</sup>	4	6		10	11	11 and 12 (N.C.)	1	2	Refer to BEA product User's Guide and OEM manual.	
Stanley "L" <sup>12</sup>	30.5558		BLUE		YELLOW	Logic Module	YELLOW	ORANGE	Not supported.	
Stanley MP	30.5558		7		8	Logic Module	8	2	Not supported.	
Stanley MC 521 <sup>13</sup>	30.5558		TB3-4		TB3-3	TB5 3 and 4	TB4-3	TB4-4	Refer to BEA product User's Guide and OEM manual.	
Stanley MC 521 Pro and IQ <sup>13</sup>	TB4-5	TB4-6	TB3-4		TB3-3	TB5 3 and 4	TB4-3	TB4-4	Refer to BEA product User's Guide and OEM manual.	
Tucker	30.5558			J4-14	J4-8 jumped to 12 & 13	N.C. contact between J4 13 and COM	J4-8 jumped to 12 & 13	J4-10	Not supported.	
Tormax 1301Motion	30.5558		SAFETY A #2		SAFETY A #1	A6	A5	INPUT C #2	Refer to BEA product User's Guide and OEM manual.	
Tormax TDA	30.5558		7		8	C4 and C8	8	2	Not supported.	
Tormax TTX II	30.5558				14	17 and 18	4	5	Not supported.	

Note 1	If only VAC power is available, a 12V transformer paired with a rectifier must be used. Do not use a 24V transformer and rectifier as this will cause damage to the product.																		
Note 2	LE21 function or BR3-X programmed to function 22																		
Note 3	FS3D only.																		
Note 4	<p>Monitoring consists of two purple and two blue wires. If monitoring is not used, cap off unused purple and blue wires. Wire as follows:</p> <table border="1"> <thead> <tr> <th>Door Type</th> <th>System Harness</th> <th>Control Monitoring</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Single</td> <td>1 blue + 1 purple</td> <td>1<sup>st</sup> leg</td> </tr> <tr> <td>1 blue + 1 purple</td> <td>2<sup>nd</sup> leg</td> </tr> <tr> <td rowspan="2">Pair / Dual Egress</td> <td>1 blue + 1 purple</td> <td>1<sup>st</sup> leg</td> </tr> <tr> <td>1 blue + 1 purple</td> <td>2<sup>nd</sup> leg</td> </tr> <tr> <td rowspan="2">Pair / Dual Egress (independent controls)</td> <td>2 blues</td> <td>1<sup>st</sup> control</td> </tr> <tr> <td>2 purples</td> <td>2<sup>nd</sup> control</td> </tr> </tbody> </table> <p>Effective November 11, 2017: Monitoring is required for ANSI 156.10 compliance.</p>	Door Type	System Harness	Control Monitoring	Single	1 blue + 1 purple	1 <sup>st</sup> leg	1 blue + 1 purple	2 <sup>nd</sup> leg	Pair / Dual Egress	1 blue + 1 purple	1 <sup>st</sup> leg	1 blue + 1 purple	2 <sup>nd</sup> leg	Pair / Dual Egress (independent controls)	2 blues	1 <sup>st</sup> control	2 purples	2 <sup>nd</sup> control
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Note 5 (BESAM ETIK)	Jump 17+18, if not used.																		
Note 6 (BESAM SW 100/200)	<p>Set EXU-SA jumper to "Door open/closed" indication.</p> <p>Jump 1+2 on EXU-SA board.</p> <p>Blanking Potentiometer must be set fully counterclockwise.</p> <p>Auxiliary switch may be used for home switch.</p>																		
Note 7 (DORMA ED 100/250)	<p>Jump 11+3 on ontrol.</p> <p>Use ON/OFF/H.O. jumper. Control switches must be used.</p> <p>Make certain Home Switch Control Function "Sr" is set to 1.</p>																		
Note 8 (GYROTECH 300/400)	Set control to "swing-safe."																		
Note 9 (HORTON 4160-3)	Must have daughter board.																		
Note 10 (HORTON 4190)	PNP harness p/n: 20.5322																		
Note 11 (RECORD 6000/8000)	Jump 11+12 and 14+15.																		
Note 12 (STANLEY "L")	The older Stanley, all metal (silver), "L" shape control does not have stall. A control with stall must be used.																		
Note 13 (STANLEY MC521 / MC521 PRO)	Jump TB2 2+3 (if not using factory On/Off/Hold Switch).																		