

TECHNICAL BULLETIN #46

DOOR POSITION SYSTEM TIPS & TRICKS

DISTRIBUTE TO ALL FIELD TECHNICIANS

Description

DATE: 09 August, 2011

SUBJECT: The purpose of this bulletin is three fold.

1. To show how to obtain a successful learn on the DP-HUB when the Bodyguard is mounted on the operator cover side. (See *Topic 1, solution a, b, or c on this page*)
2. To show proper and alternative methods for installing the door position/home switch. (See *Topic 2, page 2-3*)
3. Definitions:
 - 3.1. DP-HUB: P/N 10DPHUB: Programmable Hub mounted inside the automatic door header.
 - 3.2. DPS: Door Position Switch/Home Switch.
 - 3.3. EDPS: P/N 10EDPS: Enhanced Door Position Sensor installed inside the Superscan extrusion.

Topic 1

The Door Position System requires a normally closed contact on the Bodyguard input of the DP-HUB for the door to run. The system is in a safe mode and the door will not move if the Bodyguard input is open. To set up the system and perform a successful "Learn" you can use any of the following three solutions to provide a constant closed contact at the DP-HUB input.

Solution 1a

If the operator cover can be safely secured on top of the operator, you can set the Bodyguard to "Permanent Closed".

- a. Set the Bodyguard relay output to "2" (Normally Closed) which is the required setting when using the Door Position System.
- b. Set F2 to "3". This will prevent the Bodyguard from detecting and opening its relay contact.
- c. After you have the DP-HUB set up, and have achieved a successful "Learn", close the cover and set F2 on the Bodyguard back to 1.
- d. Complete a Bodyguard closed door setup (Magic Wand, 1). Complete a Bodyguard open door setup (Magic Wand, 2).

Solution 1b

If the operator cover can be safely secured on top of the operator, the you can physically close the Bodyguard contact with a jumper.

- a. Insert a jumper at the Bodyguard green terminal strip on terminals 3 and 4.
- b. After you have the DP-HUB set up, and have achieved a successful "Learn", close the cover and remove the jumper.
- c. Complete a Bodyguard closed door setup (Magic Wand, 1). Complete a Bodyguard open door setup (Magic Wand, 2).

Solution 1c

If the operator cover cannot be safely secured with the Bodyguard attached and there is no way to plug it into the DP-HUB, cut a 10 pin connector off of an old or extra Bodyguard harness, leaving an inch or two of the green and white wires attached. Wire nut the white and green wire together.

- a. Plug the connector into the socket on the DP-HUB marked "Bodyguard".
- b. After you have the DP-HUB set up, and have achieved a successful "Learn", remove the connector.
- c. You can now connect the regular Bodyguard harness and install the cover in place.
- d. Complete a Bodyguard closed door setup (Magic Wand, 1). Complete a Bodyguard open door setup (Magic Wand, 2).

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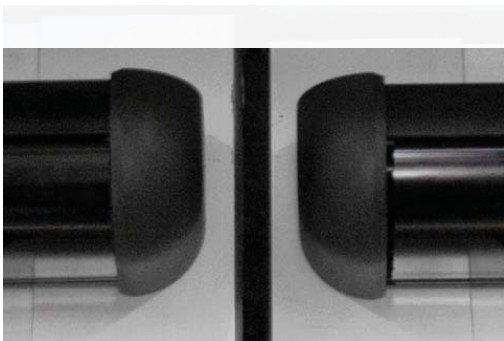
Topic 2

When using the supplied door position switch/home switch on a pair of doors, it's important that it be installed into the swing side Superscan end caps. Installing it on the approach/push side will result in the system failing to learn. (Error E5 and/or E7) Solution "a" proves this is due to the fact that the doors travel open too many degrees before the home signal breaks.

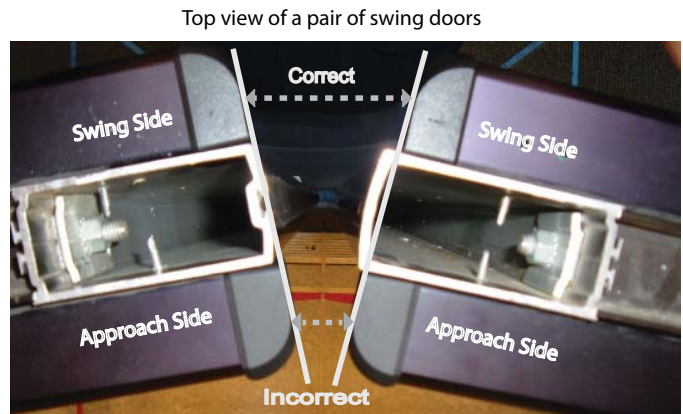
If you cannot accomplish a typical installation, due to vertical rods or the customer does not like the look of the Surface Mount Adapter. See Solution "b" or "c" to connect a DRY contact switch that is **closed** when the door is closed.

Solution 2a

Always mount the switch and magnet into the swing side Superscan end caps. Use the supplied Door Position Sensor Superscan mounting template to ensure proper location of the Superscans. (Refer to page 4 of the Door Position System user guide. 75.5652) Take the time to properly adjust the home switch. Switch should break as soon as the doors begin to open. (Refer to page 5 of the Door Position System guide, 75.5652)



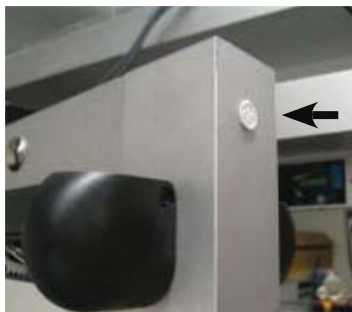
Correct swing side Superscan installation



Solution 2b

You can use a magnetic bullet switch in the nose of the door with the magnet in the jamb or the other door.

- a. Drill a hole through the extrusion and frame.
- b. Route the wires into the extrusion, then into the EDPS.



Magnetic bullet switch secured in the nose of the door is a good solution for a single center pivoted door where the surface mount adapter cannot be used.

Tip: With the door(s) closed, look at the DPHUB; you should see the orange LED indicating the home switch is made and the door(s) are closed. Slowly, manually open the door(s) while looking at the DPHUB orange LED. This LED should turn off approximately within an inch of door movement. **DO NOT** proceed any further with the installation until this is resolved.

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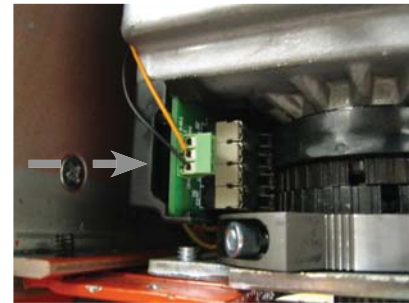
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Solution 2c

Where surface applied exit devices are used and the standard “Home” switch will not work because the Superscans cannot be mounted close enough together, which is typical on Dual Egress applications, refer to page 16 of the Door Position System user guide (75.5652) for alternative solutions. In this example we are showing the auxiliary switch(s) on a Magic Force operator and splicing into the DP-HUB door mounted sensor harness. You can use this option for a single door or a pair of doors as you are only required to splice into 1 harness even if you are working with a pair of doors. This is only one example and any operator with auxiliary switches may be used. The door mounted harnesses each have two connectors at the DP-HUB end.

- a. Find the orange wire (*pin 3*) and the orange/black striped wire (*pin 4*) of the 8 pin connector. Cut both wires leaving enough length to wire nut. Add enough length to the two wires to reach the auxiliary switch(s). If you are working on a pair of doors, use both switches and wire them in series with the two wires from the door mounted sensor harness.
- b. Set the cams for the switches so that when the doors are fully closed, the switches are closed. They should trip as soon as the door starts to open.
- c. You can verify if they are wired and set correctly by observing the orange “Home” LED on the DP-HUB.
- d. With the door(s) closed, the orange LED should be on.
- e. If the door(s) are pushed open manually, the LED should go off. Try to adjust the cams so the LED goes off with very little door movement.

Operator mechanical limit switch



ANSI / AAADM COMPLIANCE



Upon finishing the installation and/or service work perform at a minimum a daily safety check in accordance with the minimum inspection guidelines provided by AAADM. Provide each owner with an owner’s manual that includes a daily safety checklist and contains at a minimum the information recommended by AAADM. Offer a familiarization session with the owner explaining how to do daily inspections and calling out location of cutoff switches to put equipment out of service if a deficiency is noted. The equipment should be inspected in accordance with the minimum inspection guidelines annually. A safety check that includes at a minimum the items listed on the safety information label must be performed during each service call. If you are not an AAADM certified inspector BEA strongly recommends to have an AAADM certified inspector perform an AAADM inspection and placing a valid inspection sticker below the safety information label prior to placing the equipment into operation.

BEA Contact



Do not leave problems unresolved. If a satisfactory solution cannot be achieved after troubleshooting a problem, please call BEA, Inc. If you must wait for the following workday to call BEA, leave the door inoperable until satisfactory repairs can be made. Never sacrifice the safe operation of the automatic door or gate for an incomplete solution.

Our Service Technicians can be called 24 hours a day, 7 days a week. For more information visit www.beasensors.com.

Phone: 1-800-523-2462		Fax: 1-888-523-2462	
After Normal Business Hours			
West / Mexico 1-888-419-2564	Central 1-800-407-4545	AK, MI, WI, TX, Canada 1-866-836-1863	East 1-866-249-7937