

SUBJECT

**MAY 23, 2002**  
**BESAM PASSPORT PLUS & LO-21B SETUP WITH SWINGMASTER MP**  
**INSTALLATION GUIDELINES**

GENERAL  
BESAM  
GUIDELINES

- For the Passport Plus System to work properly with the LO-21B and the Swingmaster MP, specific PMD settings must be made as well as proper setup of sensors. Observe the following:

PMD Function 11: Value = 60 Degrees	PMD Function 18: Value = 00
PMD Function 12: Value = 5° less than value of function 10	PMD Function 19: Value B
PMD Function 16: Value = 02	PMD Function 20: Value B
PMD Function 17: Value = 00	

- Be sure not to power all the sensors from the same control. Split up the power to the sensors equally amongst the two controls (See wiring diagram on back of this page).
- Synch. Lines between master and slave control: 2, 3, 5, 8, 9, and 11 shall synch. to like numbers. 10 shall synch. to 12, and 12 shall synch. to 10.

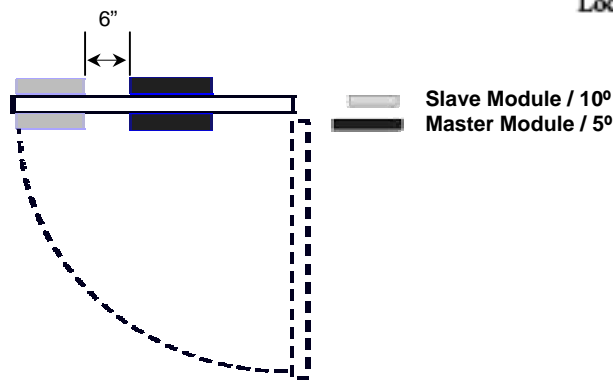
SUPERSCAN  
GUIDELINES

Follow these simple guidelines to facilitate an easy SuperScan installation:

- When installing a SuperScan on a center-hung 36" door with a 1" finger-guard, the extrusion must be cut to  $31" \pm 1/8"$
- When installing the SuperScan extrusions on to the door, the extrusion (without end-cap) must be 1" down from top of the door to the top of the SuperScan extrusion, and must be placed 7/8" in from the leading edge of the lock stile.

The following applies to installations for 36" doors using 1 master and 1 slave SuperScan module for each side of each door:

- Set all SuperScan Master Modules to a 5° angle
- Set all SuperScan Slave Modules to a 10° angle
- With the end cap installed on the lock stile end of the SuperScan, push the slave module out to the leading edge until it stops against the end cap
- Place the Master Module so that the leading edge of the module is 6" from the beck end of the slave module.



- SuperScan time delay potentiometers are set to 4 seconds by factory default – adjust them to the minimum setting on all master modules.
- Wire transfer on the jamb should be parallel with the centerline of the SuperScan end-cap.
- Wire transfer loops should have a 6" to 8" drop from centerline of end-cap to low point on cable.
- A Quick-Disconnect cable is optional when installing SuperScans. If using a Quick Disconnect cable, be sure to reference the respective User's Guide, as there are specific wiring requirements

## LO-21B GUIDELINES

The following guidelines should be observed when wiring a Passport Plus System to a Swingmaster MP with CUP control box:

- ❑ Be sure to set dipswitch #6 to the OFF position (factory default) on the LO-21B. This means that voltage must be present on the Red and Black wires on the LO-21B when the door is in the closed position.
  - ❑ Set dipswitch #7 OFF and #8 ON (factory default) for the LO-21B. This allows the unit to work with a normally open safety (presence) circuit. Circuit closes upon Passport detection.
1. Dipswitch settings must also be configured so that the proper lockout time will occur as the door is closing. The total time set on the dipswitches should be close to the actual overall closing time on the door from the full open position.
    - ❑ Allow doors to begin closing from the fully open position.
    - ❑ Step in behind the door as it is closing, and remain there. Observe the Passport LED.
    - ❑ If red LED on Passport comes on before door gets fully closed, lockout time delay needs to be increased. If the red LED does not come on until several seconds after the door is fully closed, lockout time delay needs to be decreased.

## PASSPORT GUIDELINES

1. Be sure to use a BodyMount with the Passport installation. Set the Passport tilt angle to 5°. Without a BodyMount, the SuperScan may see slight door movement while closed and cause false detection by the Passport.
2. Refer to the Besam wiring diagram in this Bulletin for further assistance.
3. Upon powering the Passport Plus system, the Passport should go through a set-up for the closed door position. Once the door is activated to the open position, the Passport will again go through a setup, but this time for the open door position. If the Passport does not setup in the open door position, there may be incorrect data from the LO-21B. If this occurs, check the following:

- ❑ Place the door in the hold open position. Using a BEA remote control, unlock the Passport and press Magic Wand + 2. If the Passport does not start flashing green, incorrect data may exist.
- ❑ Go directly to the Switch 2 input at the CUP control – terminals 14 & 19. With the door closed, check to see if there is 18 Volts DC at these two terminals. If so, place the door to hold open and check the voltage again, it should now read 0 volts DC. If Switch 2 is not changing state, be sure to check PMD function 12. It should be 5° less than function 10. If all is Ok, work your way to the Passport data. There are only a few things that can possibly be wrong. Outlined below is the path that the voltage takes as it goes towards the Passport:

1. From Switch 2 (terminals 14 & 19) to the red and black wires of the LO-21B
2. The red and black wires go directly into the LO-21B. Wires are polarity sensitive. Red should always have the positive input (CUP terminal 19).
3. Dipswitch 6 on the LO-21B tells the module when voltage should be present. If dipswitch 6 is OFF, then the LO-21B is expecting to see voltage when the door is closed, and no voltage when the door is open.
4. From the LO-21B, data voltage goes out on the White and Red/White striped wires. The Red/White striped wire always goes to terminal 7 (Data +) of the Passport. The output voltage (data) being switched on these two wires is approximately 12 volts DC.

Proper Voltage Readings on White & Red / White Striped Wires From LO-21B

CLOSED DOOR	OPEN DOOR	CLOSING DOOR
0 Volts DC	12 Volts DC	6 to 8 Volts DC

5. If you get to this point and the data is correct, but the Passport will not switch between door open and door closed setup, the Passport is faulty.
6. Be certain to walk-test the complete door and sensor system to insure compliance with ANSI A156.10.

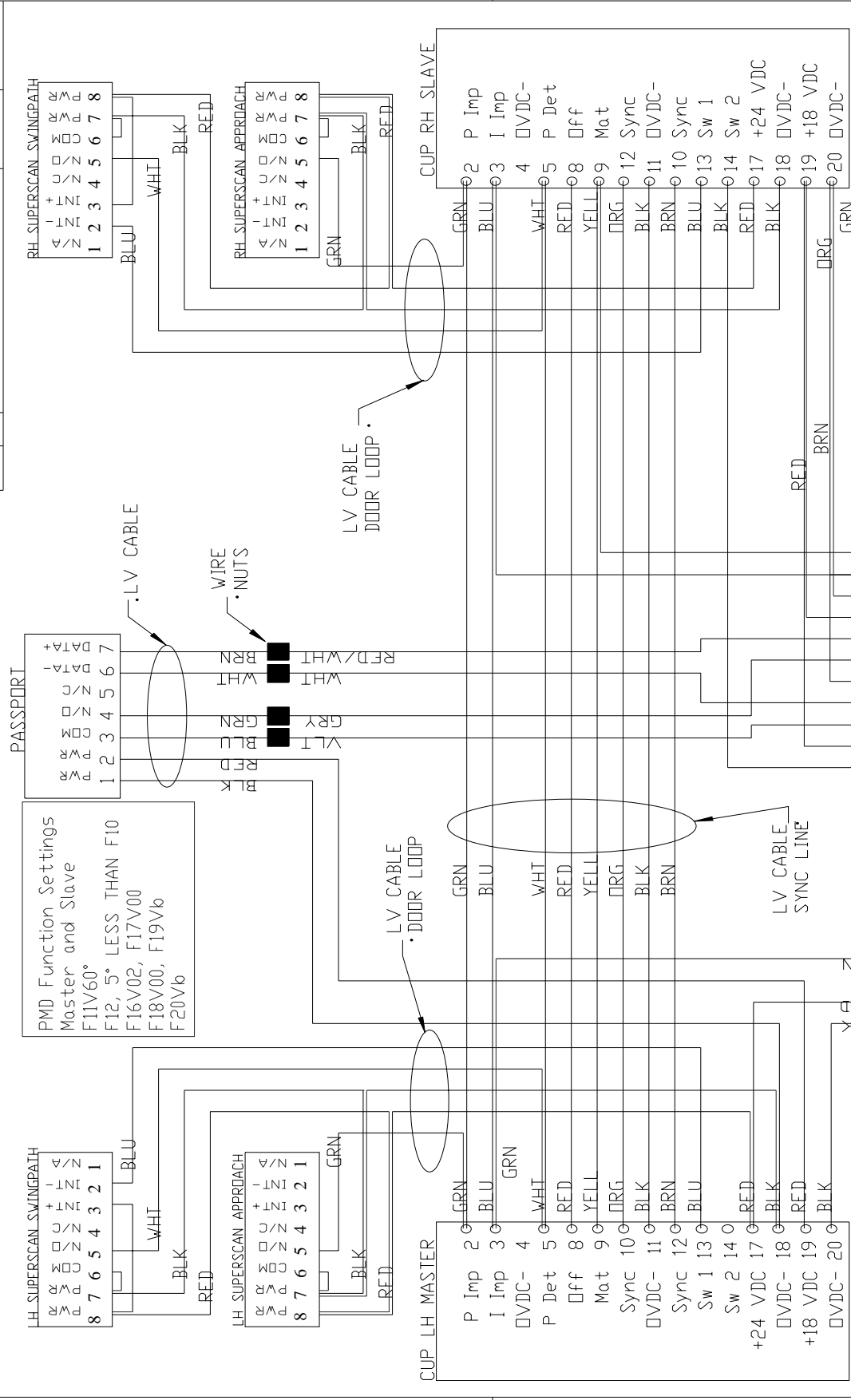
**WARNING:** When installing any BEA lockout relay, the red / white striped wire, and white wire (Data Wires) must never touch each other when power is applied to the module. If the wires do touch each other, damage to the module will result. The functional indication will be improper data voltage. Usually the indicating voltage will be the same for door open and door closed. Thus, a dual setup for the Passport pattern will not be possible.

**REMEMBER, DO NOT PLUG THE WIRE HARNESS INTO THE MODULE UNTIL ALL WIRING IS COMPLETE.**

## COMPANY CONTACT

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call B.E.A., Inc. for further assistance during **Eastern Standard Time at 1-800-523-2462 from 8am - 5pm.** For after-hours, call East Coast: 1-866-836-1863 or 1-800-407-4545 / Mid-West: 1-888-308-8843 / West Coast: 1-888-419-2564. **DO NOT leave any problem unresolved.** If you must wait for the following workday to call B.E.A., 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.**  
**Web: [www.beasensors.com](http://www.beasensors.com)**

ZONE	REV	DESCRIPTION	Date	APPROVED



**UNLESS OTHERWISE SPECIFIED**  
DIMENSIONS ARE IN INCHES  
INCLUDE THICKNESS OF COILS  
TOLERANCES: DN ± .015 SURF  
3-PLACE DECIMALS ± .005  
ANGLES ± .5 DEG

DRNBY: AWM DATE: 04/05/02  
CHKBY: CJM DATE: 04/05/02

**84 TWIN PIGTAILS DRIVE**  
**DRIVE/REWIN**  
608-443-5800 (FAX-5829)

**besam**  
Automated Entrance Systems, Inc.

**PASSPORT 9000MP PLUS**  
**FOR SIMULTANEOUS PAIR**

SIZE: DMS/INV NO. B  
SCALE: NS  
SHEET: 1 OF 3

REV: -