

# NABCO ENTRANCES INC.

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
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Effective Date: May 15, 2009

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## NABCO ENTRANCES TECHNICAL BULLETIN

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Muskego, Wisconsin 53150  
Phone: 1-414-679-0045  
Fax (toll free): 1-888-679-3319

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Effective Date: February 1, 1998

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**Technical contact:**  
**Joseph Lecher**

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### New U10 Microprocessor Controller

The new Microprocessor Controller (MC) U10 has a closed-loop panic (power-down) system. This system will shut down if the panic wires break. There are two ways to identify the U10. First, the cover has black letters on a black background. Second, the Microprocessor chip on the board will read NABCO-U10. The U10 will be used in all sliders, bifolds, and swingers. There are several different versions of MC's in the field today. Below is a chart of the different versions and their uses.

U00	To be used in sliders only
U01	To be used in sliders only
U02	Sliders and limited swing use
U03	Sliders, bifolds and swingers use/not Acuswing V64 or higher
U04	Acuswing V64/V65 swing doors, sliders and bifolds ( <i>new panic circuit</i> )
U10	Acuswing V65 swing doors, sliders and bifolds ( <i>new panic circuit</i> )

Changes to the new MC affect the Acuswing programming. The slide and bifold programming is the same as U03. There were slight modifications made for Acuswing and Acusensor rail (Acurail) operation.

The major change, which affects all products, is the closed-loop circuit for panic. This means when a panic wire is broken or cut, door movement will stop until the wire is repaired. If replacing a malfunctioning MC version U00-U03, the following additional parts are required.

- A. The new panic switch assembly, **part number 229222**
- B. A new rocker-switch assembly with night mode feature, **part number 219821**
- C. If you are using a key switch in place of the rocker switches, the new key switch is **part number 219820**

These replacement assemblies are only compatible with the MC version U10.

If any special wire applications are needed, please call the Engineering Department for further assistance.

Bulletin Number: <b>1</b>
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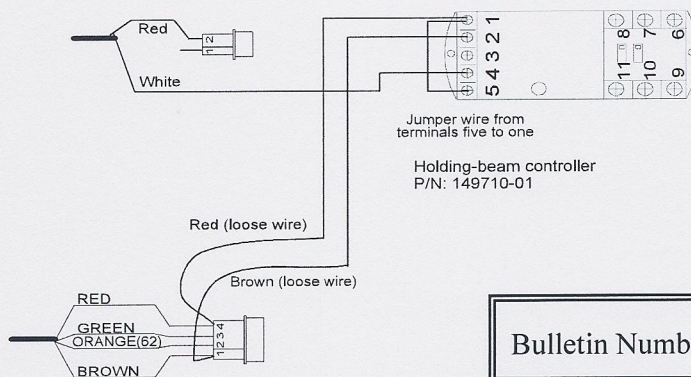
**Who is the technical contact?**  
**Joe Lecher**

## New Holding Beams

NABCO ENTRANCES is upgrading the holding beam models with a new model.. These new holding beams can cover a wider opening with less degradation in the beam "cone". Future orders for Bifolds, Sliders, and swing doors with holding beams will be supplied with this new model.

For retrofits and replacement parts, the part number for a single set of beams is 149710-01. This includes a controller, one emitter, one detector, the wiring between the beams and the controller, and a set of instructions. The controller wires directly into the microprocessor without a transformer. (Non-microprocessor units will require a transformer 12\24 volts AC\DC.) If an additional set of beams is desired, they can be obtained by ordering part number 149710-02. The controller provided in 149710-01 can interface with up to two sets of beams. Follow the instructions provided with the unit on opposing the emitter and detectors.

Wire diagrams vary between microprocessor and non-microprocessor controls. Below is a typical wiring diagrams for microprocessor based systems. Although holding beams settings are always active and can not be adjusted for the Bifold and the Swinger, they can be adjusted on Sliders. See the Handy Terminal Manual, Special Functions section for more information.



**Bulletin Number: 2**



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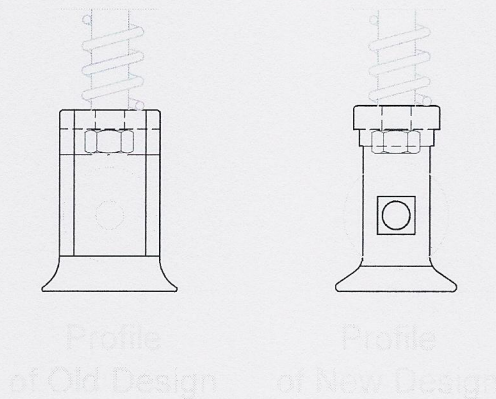
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**Who is the technical contact?**  
**Mike Laeuger**

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### 1175 Full Open Bottom Guide Change

To eliminate interference between the housing casting of the bottom guide and the "T" nut of the tie rod assembly inside the bottom rail of the full open door, the casting supporting the shoulder bolt has been changed. This redesign will negate the rubbing or stickiness in the door rotation when the door is panicked open.



The new casting was also designed to raise the nut holding the shoulder bolt farther from wheel. In some cases, a washer was needed between the shoulder bolt and the casting to prevent the end of the bolt from rubbing on the wheel. This will no longer be necessary with the new casting.

The new part is a direct replacement for the old part. Since they are installed in the factory, no additional work is required of the installed due to this change. It fits into the same track and the mounting holes on the stiles remain the same. The new parts are due from the casting company in mid to late May. They will be appearing in the 1175 Whisper Slide shortly after that.

Bulletin Number: **3**



# NABCO ENTRANCES TECHNICAL BULLETIN

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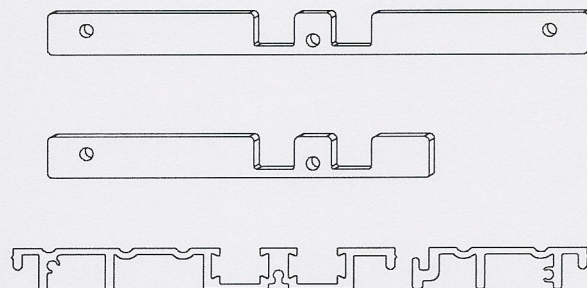
Effective Date: May 1, 1998

**Who is the technical contact?**  
*Michael Laeuger*

## *Correction to 1175 Installation Manual* **Redesigned Floor Threshold for Sliders**

The extrusion for the threshold on full open and pocketed units has been redesigned to install in-line with the jamb tubes, *not offset as shown in Figure 8 of the manual*. Recessing the floor track has also been simplified with this change. A 1/2" deep by 4 1/2" wide (6 3/8" on pocketed units) channel across the entire opening is all that is required for recessing the unit. With this design change, the jamb tubes are recessed into the floor with the threshold. **Caution:** This type of installation must have been specified when the order was placed so that engineering could account for the recess.

With the modification to the extrusions, a screw spline was added to the threshold. In the near future, stainless steel caps & screws will be supplied in the parts box to seal off the exposed end of the threshold. If you would like to retrofit this installation, contact customer service to request the caps (part number 249857-10 for full open, 249857-20 for pocketed) and 3 screws (part number 240094-12). You need one set of the above parts for each exposed track.



**New Threshold Extrusions & Track End Caps**

Bulletin Number: **4**



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Effective Date: May 21, 1998

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**Who is the technical contact?**

*Michael Laeuger*

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### *Correction to 1175 Installation Manual*

#### Installation of Capture Hole for Full Open Ball Detents

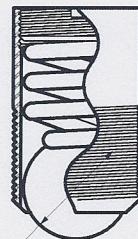
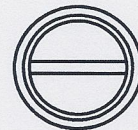
The size of the ball detents used on full open and pocketed units has been increased to provide a more secure fit into the header and the floor track. Because of the larger ball, the size of the hole used in step 17 on page 6 needs to be increased. It should read as follows:

17. Locate the point where the score marks intersect the first centering groove on the bottom of the header (closest to the outside of the header) and the only groove on the floor track. Start with a 1/4" diameter drill, drill a hole at each location and countersink it to 3/8" x 82°. Increase the hole and countersink size until a satisfactory fit is obtained. **Caution:** Do not overdrill the hole to an oversized hole.

The force provided by the ball detent is also adjustable with the new design. Remove the Ball Detent and Bracket assembly from the bottom or top of the stile. With a blade screwdriver, tighten or loosen the brass cap on the rear of the ball detent. Reinstall the Ball Detent and Bracket Assembly into the stile. Test and repeat if necessary.

This correction will be incorporated into the next printing release of the installation manual.

The new Ball Detent was designed so that the part could replace the Ball Detents in Horton units and the hole pattern in the mounting bracket will allow the assembly to replace Stanley Ball Detent assemblies.



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Cross Section of New Ball Detent



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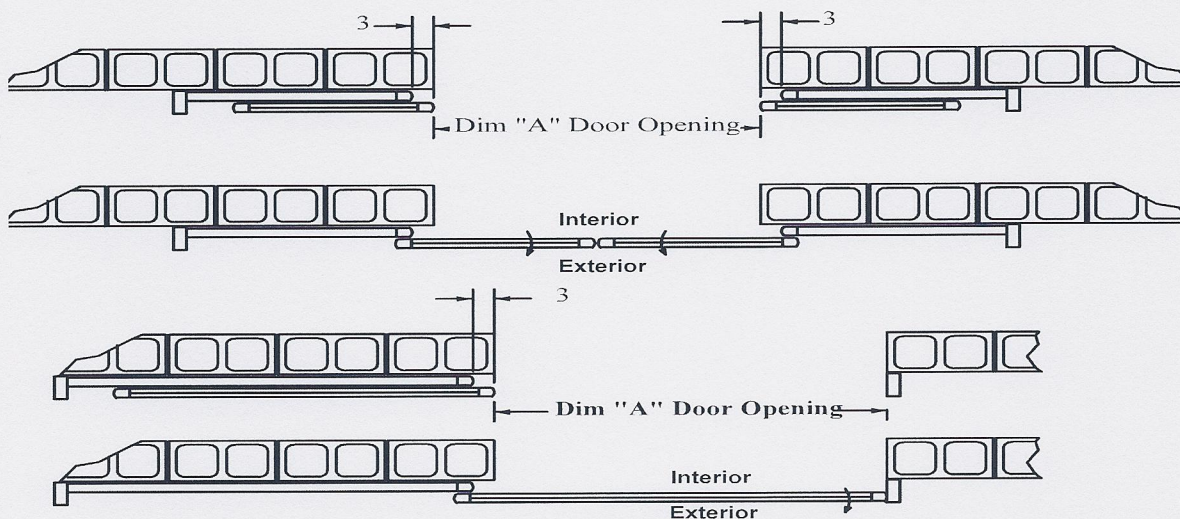
Effective Date: July 1, 1998

**Who is the technical contact?**

***Michael Laeuger***

## Clarification of Surface Applied 1175 Dimensions

In discussions with several distributors, we felt clarification was necessary detailing some of the dimensions we design our *Surface Applied 1175 units* to and how this can assist in getting the unit desired.



Because our cutting lists and order forms for standard size units are set up for even dimensioned openings for *any* of our units, it is simpler to maintain that terminology for surface applied units. Hence, a 42" single will have a 42" slide opening and 45" breakout opening (from the above drawing). This layout ensures that your customer will get the maximum usable door opening from his building opening.

However, the structural member or wall material that the unit is applied to will be visible at the back 3" of the door. If this is objectional to the customer, order a door opening that is 3" smaller than the opening in the building for a single or 6" smaller than the opening in the building for a bi-part. Please note that in this type of layout, the door will protrude into the opening by 3 inches.

Bulletin Number: **6**



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Effective Date: July 8, 1998

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Who is the technical contact?

*Michael Laeuger*

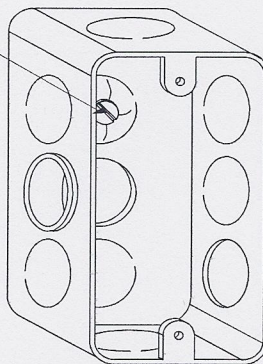
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### IMPORTANT!

### Grounding of the 1175

In order to provide a more sufficient method of grounding the 1175, a ground screw has been installed in the bottom of the switch junction box. This screw should be used for utility power grounding instead of header bolts specified in Section W, Step 2 of the Installation Manual.

Ground Screw



Future printings of the  
installation manual will reflect this correction.

Bulletin Number: 7



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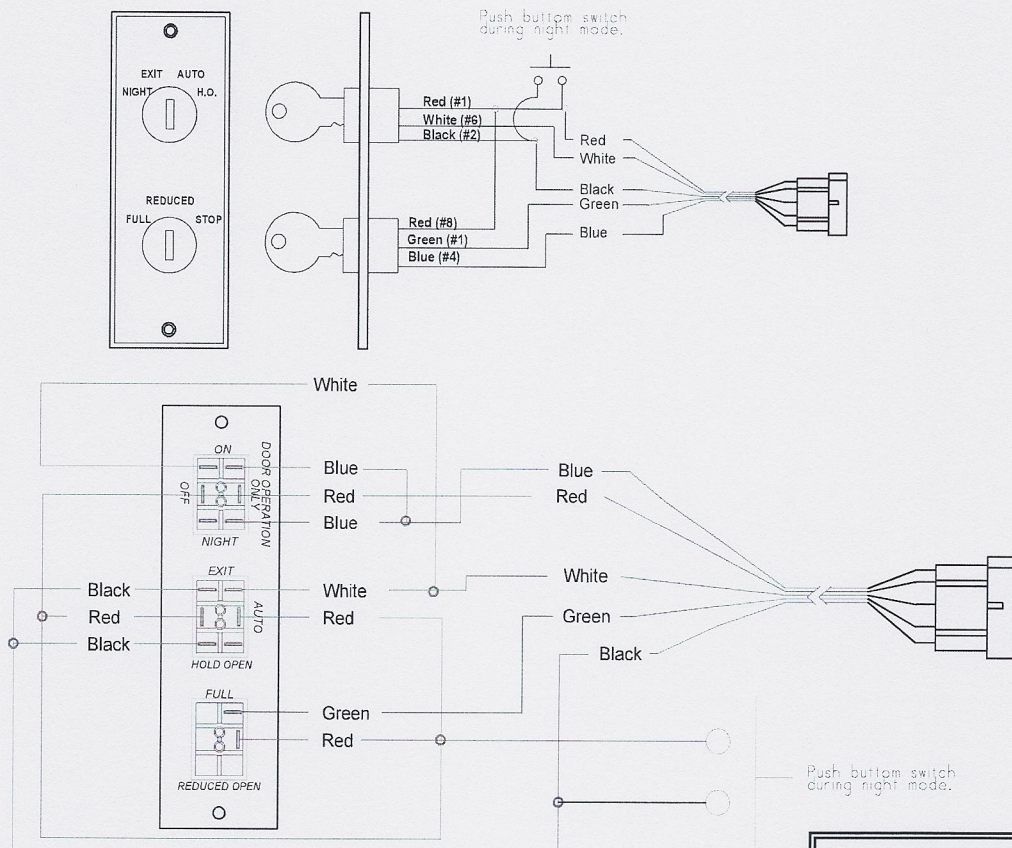
Effective Date: October 15, 1998

**Who is the technical contact?**  
*Michael Laeuger*

## Night Mode on 1175 Rocker Switches

A fourth position has been added to the bank of control switches on the 1175 slider. The new position is labeled "Night" and is on both the rocker and the key switch assemblies. This new position is provided with all new slider switch assemblies and can be retrofitted with any U10 microprocessor based systems.

Night mode disconnects the activation signal from both the interior and the exterior Acusensors but still allows them to function as threshold protectors. Activation is achieved by either a wall push plate or card reader. To tie either of these devices into the system, the activation signal needs to be wired into the red and black wire of the switch assembly. Simple wiring diagrams are shown below.



**Bulletin Number: 8**



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Effective Date: October 15, 1998

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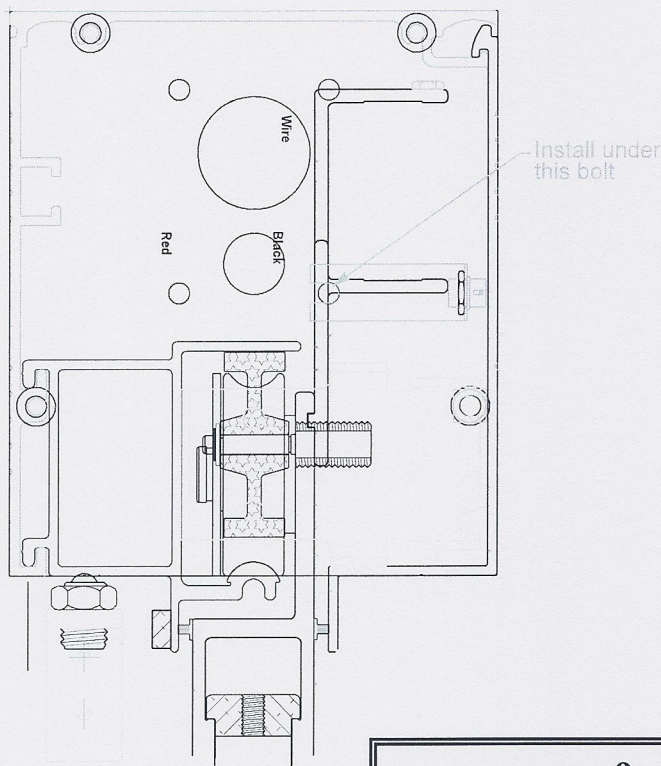
**Who is the technical contact?**  
*Michael Laeuger*

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### External Access to Handy Terminal Connector on 1175

On most 1175 sliders being shipped after today, the technician will be able to pry off the NABCO Entrances logo nameplate and get direct access to the Handy Terminal connector. The nameplate is adhesively attached to a flat hole plug that is pressed into a 7/8" diameter hole near the operator end of the header in the cover. Although the appearance of this nameplate is the same as on the back side of the header, a small flat blade screwdriver can remove the hole plug. It can be reinstalled without damage by simply pressing it back into the hole.

The handy terminal connector is shipped inside the header mounted to a 90° bracket. By installing this bracket under one of the bolts that secure the header to the jamb tube, the connector is aligned with the hole plug in the cover. Installation of the bracket is shown below. This feature will not be available on small number of units that have an additional sidelight or applications where the microprocessor is not installed at the end of the header.



Bulletin Number: **9**



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Effective Date: October 15, 1998

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**Who is the technical contact?**

*Michael Laeuger*

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### Instructions for Painting Units in the Field

Recently, we have had some calls about panels that were painted by the distributors that broke apart during the heating cycle of the paint curing process. The cause of these breakages is elementary physics- the *steel* tie rod that secures the door components does not stretch as much as the *aluminum* rail when heated and this causes excessive stress on T nuts.

The more professional painting establishments are aware of this and should inform you of this problem before painting. To prevent the breakage, the tie rods in the top and bottom rails of the doors and panels need to be loosened several turns. The wider the panel and the higher the curing temperature, the greater the difference between the length of the steel rod and the length of the aluminum rail. We recommend that you consult with the painter before the units are painted.

Bulletin Number: <b>10</b>
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Effective Date: February 19, 1999

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**Technical contact: Mike Laeuger**

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**To:   NABCO Entrances Sales Representatives and Distributors**

**Re:   Bottom Guide Roller Assembly - p/n 219053 and Threshold Bumper extrusion - p/n 149019, the GT 1175 - Full Open and Pocketed Units**

NABCO Entrances is examining some concurring problems with the nylon threshold bumper found in the 1175 floor track. Since we introduced the revised casted bottom guide, the difficulties have increased.

Soon, we will have a permanent solution to this problem. This will include some or all of the following:

- •    Quality Inspection - 100% inspection of the bottom guide casting to verify that it is within tolerance (so that it correlates with the remaining parts of the roller assembly), and inspection for the floor track.  
  
Parts found within tolerance, but continue to cause interference, will be machined.
- •    NABCO Entrances will ship all GT 1175 units with the inner bumper extrusion only. Our research concludes that removing the outer bumper extrusion will not affect the units sliding performance.  
  
The removal of the outer bumper extrusion may help with unusual recycling or abnormally slow door speeds.
- •    NABCO Entrances is reviewing the cost effectiveness of retooling the bottom guide casting, floor threshold and/or nylon bumper threshold.
- •    NABCO Entrances is considering new vendors to supply a more consistent nylon bumper extrusion.

Thank you for your continued patience and understanding. Your ideas on the issue and resolution of it have been beneficial. We apologize for any inconvenience that this has caused you and your customers.

Bulletin Number: <b>11</b>
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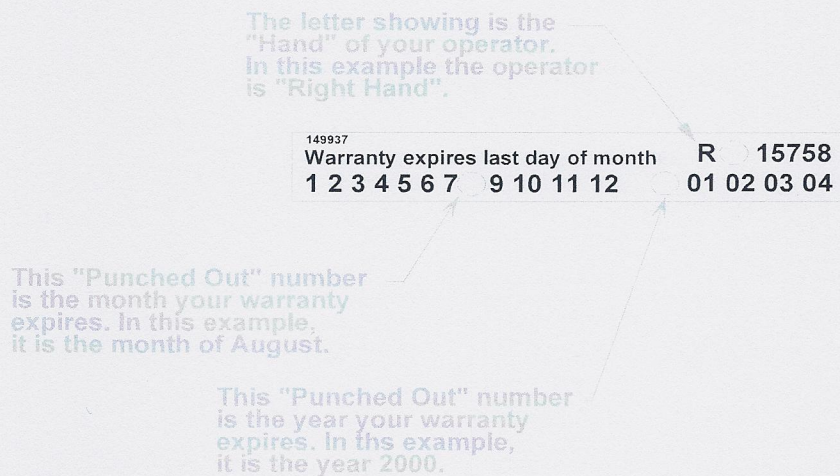
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**Who is the technical contact?**  
**Jim Schwantes**

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### Warranty Stickers on 710's

As of 2-3-99 all System 710 Operators built at the factory will have a silver "Warranty Sticker" on the top edge of the gear holder casting {Next to the motor flange.} This will replace the stamped numbers in the same location that we have used in the past. This sticker will enhance the appearance of our product and provide you with accurate information regarding the expiration date of your warranty. Please refer to the illustration below that explains the features of this sticker.



Bulletin Number: **12**



## NABCO ENTRANCES TECHNICAL BULLETIN

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Effective Date: February 9, 1999

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**Who is the technical contact?**  
**Nick Taguchi**

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### Recommended Settings for the Folding Doors

We recently had a calls about a couple of folding doors that recycled more than they should. The problem was narrowed to growing friction in the mechanisms due to age and excessive speeds set in the microprocessor.

If you are experiencing unusual amount of recycles, we recommend you change the following settings:

OPEN SPEED: "0" or "1" or "2" with "2" being the maximum.

CLOSE SPEED: "0" or "1" with "1" being the maximum.

START POWER: "0" or "1" with "1" being the maximum.

CHECK: "0" or "1" with "1" being the maximum.

SENSITIVITY: "3"

If this does not solve the recycles, try applying a small amount of grease to the moving arms and rollers. If this does not solve the problem, the control box should be replaced.

Bulletin Number: **13**



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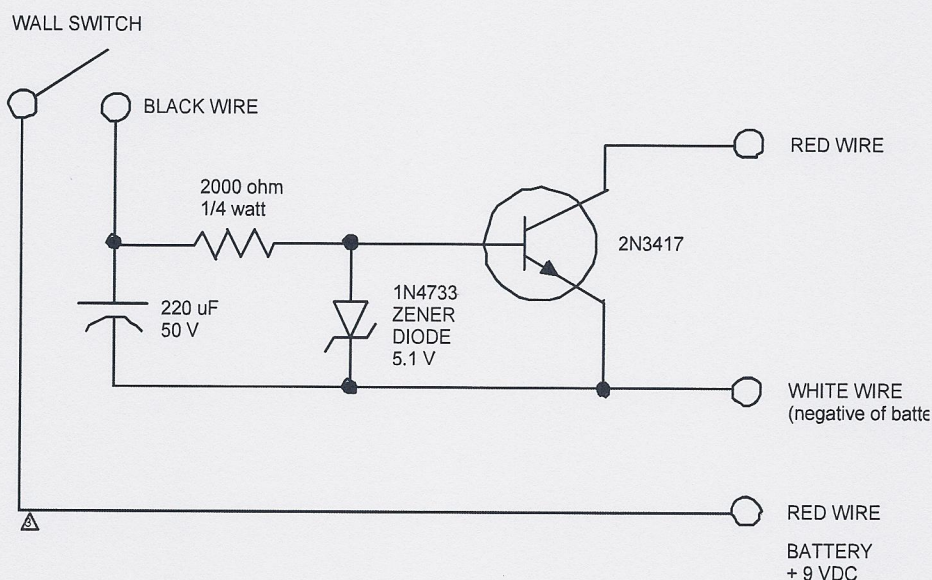
**Who is the technical contact?**  
*Tom Holdorf*

### Modification for Radio Controlled Transmitters

We have received reports of pulse extender boards having weak signals. As a result, they were not picked up by the receiver.

To strengthen the signal:

1. Remove the RED wire from the switch going to the pulse extender board.
2. Cut this wire off at the board.
3. Solder a wire onto the radio controlled transmitter board where the red battery wire is soldered.
4. Attach the other end of this wire to the switch.



Bulletin Number: **14**



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Effective Date: May 6, 1999

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**Contact the Engineering Dept. Tech.  
Services at 866-622-8325**

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### **Holding Beams Standard in Surface Applied Sliders**

Effective immediately, all surface applied (no sidelights) sliders with wall track will be supplied with holding beams and holding beam modules. Some of our installers have had difficulty Mounting the Acusensor on the interior of the building and, due to excessive thickness in the building walls, providing adequate pattern in the opening. The additional holding beams will enhance the sensing pattern in the building opening.

The module will be installed in the header with the beams stored inside the header. At Installation, run the beam wires through the header, through the access hole for the power down Switch, into the vertical mullion and out the pre-drilled hole. A transformer is not required in normal situations since the microprocessor has enough reserves to power this device. We will Continue to supply two Acusensors with these units as well.

Bulletin Number: <b>15</b>
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Effective Date: December 5, 1999

**Who is the technical contact?**

*Michael Laeuger*

### Weight Limit on Sliding Doors

We wish to reiterate an important piece of information that is stated in the Model 1100 section of the architectural binder. The maximum weight of the sliding door(s) on an 1175 is 300 pounds **TOTAL**. This includes the weight of the glass and other extras that you might consider adding at installation (crash bars, cladding, exit hardware, ... etc.). The components built into the microprocessor do not have the power to move equipment heavier than 300 pounds and the door system will fail to operate.

Engineering calculates the weight of the doors at the time of order processing and notifies you of a problem if the weight limit is exceeded. You must make note of any hardware that will be added after it leaves the factory so that this may be taken into account in the calculation. Failure to do so may result in an inoperable door system and will require dual operators and controls to solve the problem.

For an approximation of the weight of a door, use the following formulae:

Door Only:  $13 + \{0.15 \times \text{door height (in inches)}\} + \{0.58 \times \text{door width (in inches)}\} =$

Glass Only: Door height (in inches) x door width (in inches) x GW =

For 1/4" glass GW = 0.023   For all other thicknesses GW = 0.046

**Total =**

Example: A 84" x 36" door with 1/4" glass is:

$13 + (0.15 \times 84) + (0.58 \times 36) = 46.5$  pounds

$84 \times 36 \times 0.023 = 69.5$  pounds

**Total = 116 pounds**

We will not be responsible for additional charges that result from having to add extra equipment to a unit because the request for quotation and order form was missing pertinent weight information. Contact Engineering for a more accurate calculation if the amount you calculated is in question.

Bulletin Number: **16**



## NABCO ENTRANCES TECHNICAL BULLETIN

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Effective Date: December 6, 1999

**Who is the technical contact?**  
*Michael Laeuger*

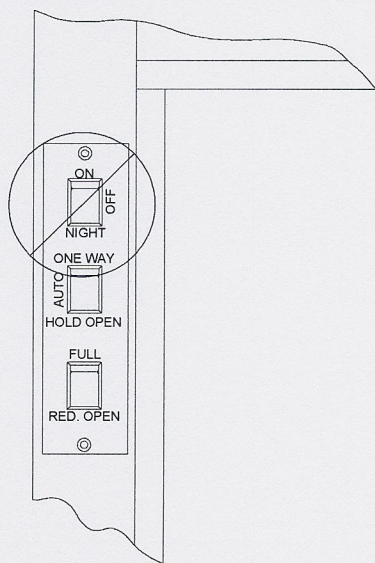
### Rebooting the Acusensor

Due to the number of field comments regarding the sensing range of the Acusensor's depth, we find it necessary to remind you that **any changes** to the settings **require** the Acusensor be rebooted. This includes moving the depth lever on the side of the unit!

To reboot, it is necessary to remove the power to the Acusensor. This can be done one of two ways:

1. Unplug the connector from the acusensor for 5 seconds, *or*
2. Turn off the power switch inside the header.

The Acusensors do NOT reboot by turning the door operation switch to off on the sidelight!



**If the Acusensor is not  
rebooted, any changes  
made to the settings will  
not take effect or be put  
into memory.**

Bulletin Number: **17**



## NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech   Lanson Parts   Zone Gard  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 1-414-679-0045  
Fax (toll free): 1-888-679-3319

---

Effective Date: February 3, 2000

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<p><b>Who is the technical contact?</b> <i>Jim Schwantes</i></p>
--

### Upgraded push rod for "Single Fold" folding doors.

There have been a few instances of the push rod breaking in single folding door systems. This has not been a problem on the 4 panel bi-folding systems. I believe this is because the longer rod in a 4 panel system is able to flex slightly, thus relieving strains under severe loading. The short rod in a single folding unit is so short that it apparently is unable to relieve this strain.

I have come up with an upgraded push rod for singles that should cure this problem. This rod is now being shipped on all new single fold units being built. If you have an older unit with the welded "pipe" style of push rod, you may upgrade by ordering **Part No. 215898.**

This part is identifiable by its hexagonal body as opposed to the round "pipe" body of the previous part. It should be adjusted to a center to center length of 8" for all single fold units.

<p>Bulletin Number: <b>18</b></p>
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## NABCO ENTRANCES TECHNICAL BULLETIN

S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: (toll free): 1-877-622-2694  
Fax (toll free): 1-888-679-3319

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Effective Date: May 8, 2000

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**Who is the technical contact?**  
***Michael Laeuger***

---

### New U11 Microprocessor replaces U10

Because field experience has shown us that the U10 Microprocessor control used in swingers needed some refinement, we have now gone to a next revision of the control. Revisions were also made to improve folding door operation. For swinging and folding doors, the U11 is different from the U10 in the following ways:

1. It will no longer do a slow learning sweep when turned on.
2. When the door is pushed while opening, the U11 will not trip into the slow or stop mode as easily as the U10.
3. There is now a unique Handy Terminal settings just for folding doors that will provide a different range of speed adjustments specifically designed for that type of door.
4. When used in a folding door, the U11 will control the BEA Bodyguard without the need for an additional module.

For sliding doors, the U11 is no different than the U10 and therefore is interchangeable.

As of March 27, all swingers with Microprocessor controls and all folding doors will have U11 controls. As of May 4, all GT1175 and Convenience Windows will be shipped with the U11. We have new Set Up and Programming Manuals for the U11 for Sliders, Swingers, and the Folding Door which can be requested from the factory if you want one in advance.

In addition to using the U11 on folding doors, the factory will soon begin shipping all folding doors with a BEA Bodyguard on the fold side for threshold sensing, an Acusensor for activation, and an optional Acusensor & shim assembly for two-way traffic activation.

*Continued on the next page*

Bulletin Number: <b>19</b>
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The description below outlines the differences in setting the door with the Handy Terminal.

### SETTING THE SWING OR FOLDING DOOR MODE

The initial question of "Swing or Slide" is still answered as "swing", but the folding mode is selected later in the adjustment sequence when the "Manual Open" choices are made. As shown below, how the "Manual Open" choices are made will determine if the setting is for a swing or a folding door as well as choosing how the door will act if pushed open manually.

- 0: for swing door only-the door will close when the door is pushed manually then released.
- 1: for swing door only-the door will be activated when pushed ("Push-to-start")
- 2: for folding door only- the door will close when the door is pushed manually then released.
- 3: for folding door only- the door will be activated when pushed ("Push-to-start").

### FOLDING MODE

The output option has changed: Option "3" will now be used to select a mode for controlling the Bodyguard sensor. In the U11, the AUX. Output can be used for controlling an electric lock in sliders and swing doors, but in folding doors, its function will be to control the Bodyguard. If an electric lock is required in a folding door, a Model 170 module would be required. Contact the factory for instructions on how to wire this module.

### SWING MODE:

In the U11, the Sig. At Closing and Sig. Full Open options are used as shown below:

- Option 1**      Sig. At Closing: N, Sig. Full Open:N  
This option is for the Acuguard system with sensors on both sides of the door. The operator's microswitch must be used here to shut off the swing-side door sensor before it sees the rail or wall.
- Option 2**      Sig. At Closing:Y, Sig. Full Open:N  
This option is used in the same application as 1 above, but it will enable the control to ignore the Acuguard signal at backcheck and beyond, making the use of the backcheck microswitch unnecessary.
- Option 3**      Sig. At Closing:N, Sig. Full Open:Y  
This option is for the Acurail system of holding beam and Acusensor on swing-side.
- Option 4**      Sig. At Closing:Y, Sig. Full Open:Y  
This option is for systems that consist of a mat and holding beam.



## NABCO ENTRANCES TECHNICAL BULLETIN

S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone (toll free): 1-877-622-2694  
Fax (toll free): 1-888-679-3319

Effective Date: January 17, 2001

**Who is the technical contact?**

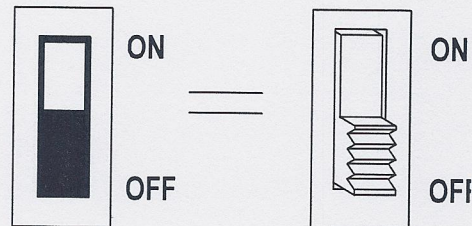
***Michael Laeuger***

### DIP Switch Settings on Acusensor 2

The information on the decal on the inside face of the Acusensor 2 may be misinterpreted. The simple images of the switch can be construed in such a manner that all the settings are set opposite of what is desired.

In essence, the shaded portion of the simple switch diagram represents the tang or tab of the switch.

If the information on the decal is used for setting mode switch on the Acusensor 2, use the following switch convention:



We are working with our vendor to produce better graphics for the label and will include this revised label on future production runs of the Acusensor 2. Use the directions for settings in the Acusensor manual until the label can be updated.

Bulletin Number: **21**



## NABCO ENTRANCES TECHNICAL BULLETIN

S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone (toll free): 1-877-622-2694  
Fax (toll free): 1-888-679-3319

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Effective Date: January 19, 2001

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**Who is the technical contact?**

*Michael Laeuger*

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### Maximum Power Draw on the 12 Volt Output of the U10/11 Microprocessor (Especially Pertinent to Simultaneous Pair Acugard Swing Operators)

The maximum amount of current draw on any U10 or U11 Microprocessor is 500 mA. Any more than this amount will cause the microprocessor to shut the power to ALL of the devices. The power will be reinstalled automatically after the excessive devices are removed. The following is the current required for each of the components:

Acusensor 1A	80 mA
Acusensor 2A	80 mA
Electric Lock Relay	50 mA
Acugard Sensors (each stick)	100 mA
Rocker Switch Bank	20 mA
BEA Body Guard	130 mA
BEA Eagle	130 mA

The current draw of each of the components wired into each microprocessor must be summed up and confirmed that the total does not exceed 500 mA. On simultaneous pair swing doors with Acugard Safety Systems, it is important that the devices for each door be wired into its microprocessor and **NOT** all into one.

Bulletin Number: <b>22</b>
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# NABCO ENTRANCES TECHNICAL BULLETIN

S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone (toll free): 1-877-622-2694  
Fax (toll free): 1-888-679-3319

Revision Date: March 20, 2001

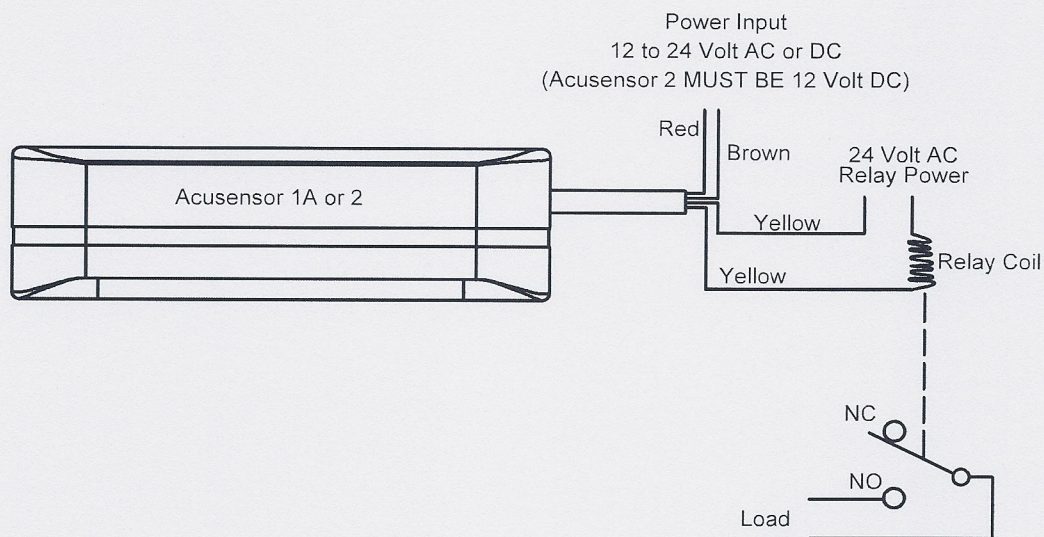
**Who is the technical contact?**  
*Michael Laeuger*

## .12 Amp Maximum Draw for Acusensor Contacts

The contacts on any of the sensors in the Acusensor product line are rated for 0.12 amps. If the device you are controlling draws more than 0.12 amps, it will be necessary insert a relay into the circuit that can handle the load and act as an interface between the sensor and the load. The relay is a matter of simple electronics and any local electronics shop could build the circuit.

Connecting the Acusensors to any of NABCO's past and present control boxes activate and safety inputs is not a problem. But the relay internal to the Acusensor could be over-stressed by trying to directly control items such as electric locks, strikes, or other solenoids. These devices will draw too much current and damage the relay's contacts.

Note: This bulletin was revised by deleting a diode that was incorrectly included in the original wiring diagram.



Bulletin Number: **23 REVISED**



## NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 1-262-679-0045  
Fax (toll free): 1-888-679-3319

Effective Date: March 28, 2001

**Who is the technical contact?**  
*Aaron Clark*

**To: Southern Ohio Door**

**Subject: Limit Arm Support Location - Model 1175**

The Limit Arm Support was originally positioned 16 inches from the pivot end of the top rail. This position has been modified to 14.50 inches effective 3/28/01 due to a change in the length of the new solid steel limit arm (print included).

It is mandatory that this support position change also be made to units manufactured with the new steel limit arm between 11/1/00 and 3/28/01 since the previous 16 inch location of the support might prevent the door from breaking open in a panic situation. The date of manufacture may be found on the label affixed to the header. A print of the top rails is included with this bulletin to indicate the required new location and size of the hole needed for the limit arm support.

Units built with the old type aluminum limit arm or medium stiles do not require modification. However, our records indicate the following installations were shipped to you during the 11/1/00 to 3/28/01 time frame and therefore may have the new steel limit arm and support combination requiring modification:

NABCO Entrances, Inc.

Order Number

Customer Name

35721	B. D. Oil
01394	Ace Manufacturing
01972	Cincinnati Bell
35989	BP Hanover IN
02460	Toy Store

We recognize this modification will require some assistance from you. Therefore, NABCO Entrances, Inc. will reimburse you \$30.00 for each door panel you modify. Please advise our sales department of the units you modify. Thanks for your assistance with this matter!

Bulletin Number: **24**



## NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 1-262-679-0045  
Fax (toll free): 1-888-679-3319

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Effective Date: November 14, 2001

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**Who is the technical contact?**  
*Aaron Clark*

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### **Subject: Lock & Lock Rod Assembly (Pt. # 128366)**

The Adams-Rite lock assembly on the slide doors have occasionally been reported as difficult to operate. All door locks are cycle tested in the door assembly department at the factory. Even though the locks pass inspection, some become difficult to operate after a short time in the field. To remedy this situation NABCO is installing a spring between the lock rod and mounting block in the top stile of the door. This reduces the load on the lock by offsetting the rod weight with the spring.

### SPRING INSTALLATION INSTRUCTIONS

1. Remove the lock cylinders.(Screw the cylinder locking screws back into lock to permit removal of the lock later.)
2. Remove the lock mounting screws. Using a screwdriver or similar tool, guide the selected tool through the cylinder hole to support the lock when the lock mount screws are removed. (When guiding the selected tool through the cylinder holes be sure not to damage any of the internal components of the lock.)
3. Remove the lock mount screws.
4. Remove the lock rod guide screws. Be sure to hold onto the lock rod guide when removing screws so the guide does not fall into the stile.
5. Carefully pull the lock assembly up out of the stile. Since there is a fastener used to install the muntin bar in the stile, narrow stile doors with muntins will only allow the lock to be pulled up about one inch. Medium stile units will allow the lock to be pulled up high enough to expose the entire tip of the lock rod.
6. The spring needs to be attached per the print accompanying this bulletin.
7. In case the lock rod cannot be pulled completely up and out of the stile, it is suggested the spring be attached to the lock rod guide block first and held in place as the spring is pulled down and hooked around the base of the lock rod tip.
8. If the lock rod tip can be pulled out of the end of the stile, it is suggested that you also remove the lock rod guide and install the spring on the rod and rod guide prior to reinstalling the lock rod guide in the stile.

Bulletin Number: **25**



# NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech   Lanson Parts   Zone Gard  
 S82 W18717 Gemini Drive  
 Muskego, Wisconsin 53150  
 Phone: 1-262-679-0045  
 Fax (toll free): 1-888-679-3319

Effective Date: 11/02/01

**Who is the technical contact?**

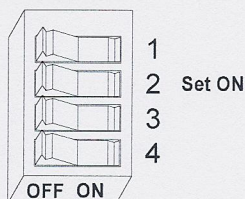
*Michael L. Slosiarek or Jake Gotoda*

## ***Correction to GT 710 Instruction Manual (P/N 125660)*** **Selector Switch No. 2 Setting**

Some customers have indicated that auxiliary electric strike or latching devices may not latch when used with a Model 710 Low Energy Operator. The Model 710 hydraulic closer is intended to control the closing speed and subsequent closing force. However, there are indications the motor may be acting as a brake. The Magnum Controller was designed to eliminate Model 710 motor braking phenomenon if properly set-up.

### **PROPER SELECTOR SWITCH # 2 SET-UP SEQUENCE** **FOR MODEL 710**

Selector Switches



Step 1. Disconnect power to the Magnum Controller circuit board !!!

**Note 1:**

If power is disconnected and switch # 2 is placed into the "ON" or "OFF" position, a manually activated door will close with full motor braking plus hydraulic closer braking.

Step 2. Place switch # 2 into "ON" position. (Customarily pre-set at factory.)

Step 3. Re-connect power to the circuit board and wait a minimum of (8) seconds before activating door manually or automatically.

**Note 2:**

The door will now close without the motor braking phenomenon. It will close with adjusted hydraulic closer braking only.



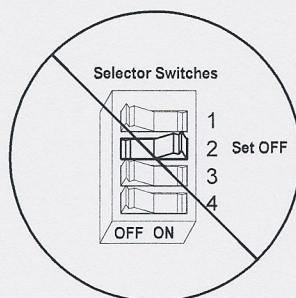
**Note 3:**

If a minimum of (8) seconds has not expired as directed in Step 3 prior to door activation, the door will close with full motor braking plus adjusted hydraulic closer braking.

**Note 4:**

If switch # 2 is repositioned into the "OFF" position after Step 3 is accomplished, the door will continue to close without motor braking phenomenon. It will close with adjusted hydraulic closer braking.

## **INCORRECT SELECTOR SWITCH # 2 SET-UP SEQUENCE FOR MODEL 710**



Step 1. Disconnect power to circuit board !!!! (This step is proper.)

Step 2. **(AVOID)** placing switch # 2 into **OFF** position. (Off position is not correct.)

Step 3. Reconnecting power to the circuit board and waiting a minimum of (8) seconds, before activating door manually or automatically, will provide performance as noted below:

**Note 1:**

If Step 2 is ignored and Step 3 is performed, the door will close with medium motor braking phenomenon plus hydraulic closer braking as adjusted by the installer.

**Note 2:**

If switch # 2 is placed into **ON** position after Step 3 is accomplished and a minimum of (8) seconds has expired, the door will close with medium motor braking phenomenon plus hydraulic closer braking as adjusted by the installer.

Bulletin Number: **26**



## NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech Lanson Parts Zone Gard  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 1-262-679-0045  
Fax (toll free): 1-888-679-3319

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Effective Date: December 19, 2001

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**Who is the technical contact?**

***Michael L. Slosiarek***

---

### Telco Holding Beam Receiver (P/N 1410204-20)

A few customers have indicated they have experienced problems with the "Telco" brand holding beam sets when used for Breakout Shutdown or as a Safety device.

An examination of the holding beam kits in-house showed the "Telco" receiver was an (SMR 3306 S 2.5) PNP Normally Open - Dark Operated type instead of an (SMR 3106 S 2.5) NPN Normally Closed - Dark Operated type. Using the (SMR 3106 S 2.5) receiver will correct the problem and allow the holding beams to properly perform the Breakout Shutdown or Safety functions as intended.

Most units manufactured, in the past, have utilized "Optex" sensors which are not subject to this bulletin. A cursory investigation of a door system can easily identify the "Telco" product by the black colored snap-in sensor housings. The "Optex" sensor snap-in housings are clear plastic.

Since we are unsure of the quantity you may require, replacement receivers (P/N 1410204-20) should be ordered (cost free) through NABCO Entrances, Inc. Customer Service department (877-622-2694).

The SMR 3006 S 2.5 number was incorrect on the original bulletin number 27.

<p>Bulletin Number: <b>27 Revised</b> <b>12/19/01</b></p>
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## NABCO ENTRANCES TECHNICAL BULLETIN

S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: (toll free): 1-877-622-2694  
Fax (toll free): 1-888-679-3319

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Effective Date: February 4, 2002

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**Who is the technical contact?**

***Mike Buckley***

---

### Setup and Programming Manual U11 Version Swing Door Systems (March 26, 2000)

Please make note of corrections to pages 20 & 21 in the above manual.

These pages illustrate the wiring harnesses used with the U11 microprocessor.

**Note!** The following information shows what devices can be used with the connector identified as "Red to Green May be used for lockout":

1. Acusensor
2. Mat (not correct - correction covered in Bulletin # 20)
3. Motion detector (not correct - delete this item.)
4. Presence detector

This connection for presence detectors only.

We appreciate your input on this matter or any technical issue. Please call the above telephone number if you have any questions or comments.

Thank you.

Bulletin Number: **28**



## NABCO ENTRANCES TECHNICAL BULLETIN

Gyro Tech Lanson Parts Zone Gard  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 1-262-679-0045  
Fax (toll free): 1-888-679-3319

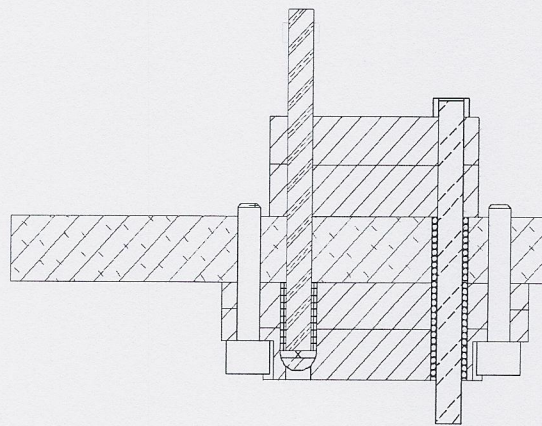
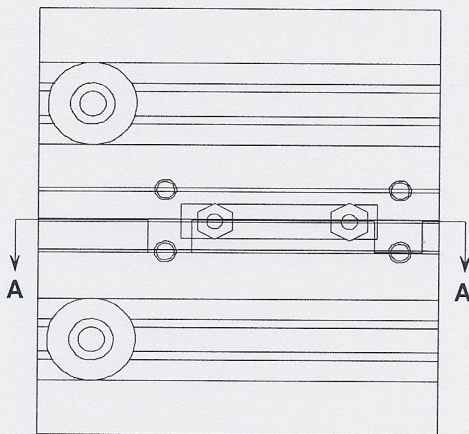
Effective Date: March 15, 2002

Who is the technical contact?  
Engineering Department

### OHC Swing Door Top Pivot

A Center Pivot Support Block is factory mounted to the OHC Top Pivot Base Assembly inside a swing header. This support block provides the adjustable top pivot for a swing door panel. Four (4) 5/16 - 18 UNC capscrews torqued to a minimum of 15 ft.- lbs. are utilized. These screws are also bonded with Loctite adhesive to ensure they remain tight.

In addition to the factory assembly procedures, we recommend the screws be checked by a field technician, using a torque wrench set to 15 ft. - lb., prior to the final installation of a swing door panel. This will ensure a securely mounted door panel.



Section A-A

Bulletin Number: 29



# NABCO ENTRANCES TECHNICAL BULLETIN

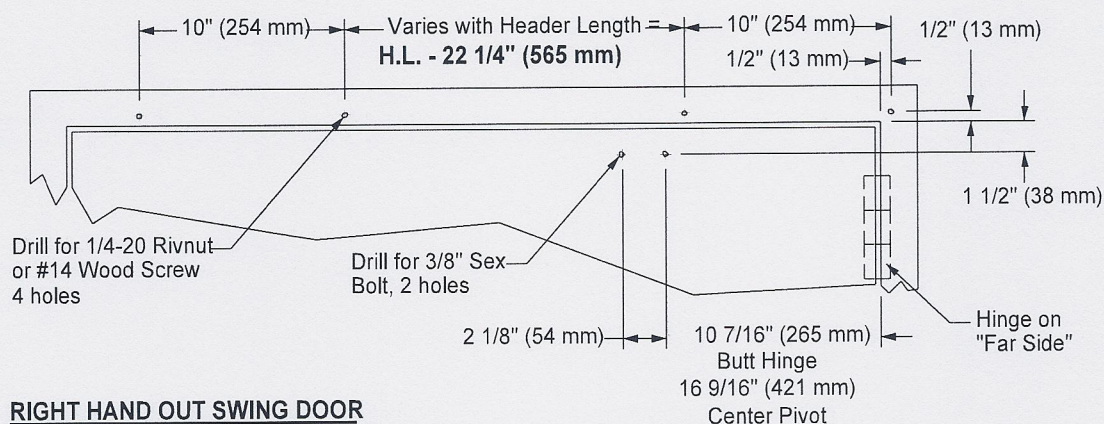
Gyro Tech   Lanson Parts   Zone Gard  
 S82 W18717 Gemini Drive  
 Muskego, Wisconsin 53150  
 Phone: 1-262-679-0045  
 Fax (toll free): 1-888-679-3319

Effective Date: March 15, 2002

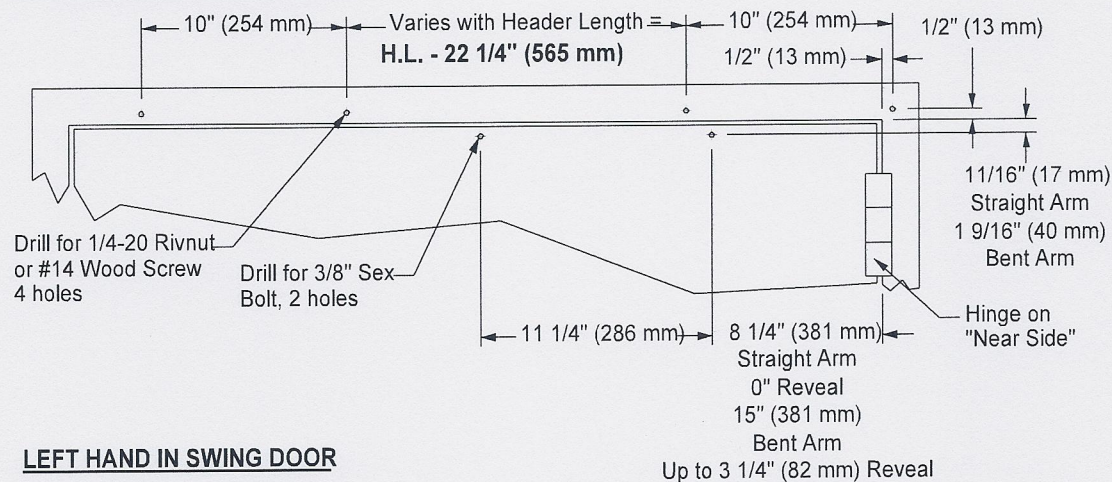
**Who is the technical contact?**  
**Engineering Department**

## Model 710 Door Frame Drilling Details

The Model 710 Header End Cap material thickness was revised in February 2001. The frame drilling details on page 6 of the Instruction Manual P/N 125660 should have been revised to reflect the material thickness change. Thus, locating frame screw holes to align with the header mounting screw holes. The appropriate 22-1/4 inch dimension is shown below.



### RIGHT HAND OUT SWING DOOR



### LEFT HAND IN SWING DOOR

Bulletin Number: **30**



# NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319

Effective Date: August 2, 2002

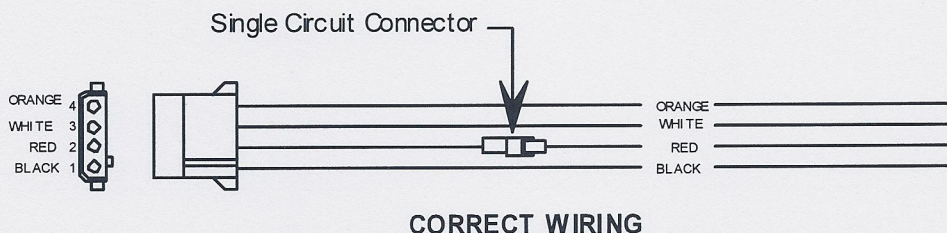
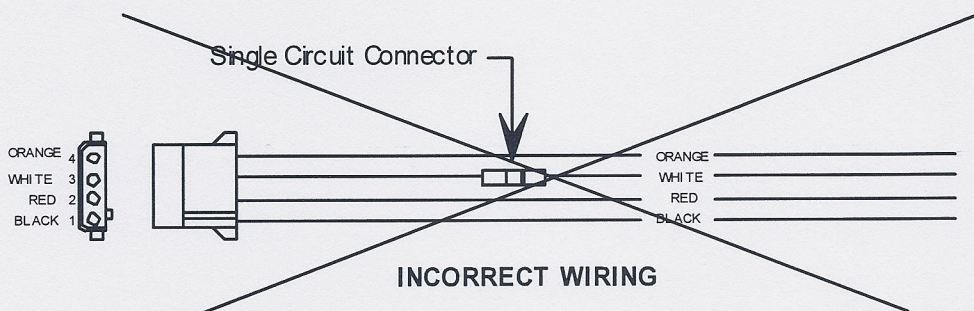
Who is the technical contact?  
Glenn Nieman

## Mat Harness #22-0535-01 shipped between 3/15/02 & 7/25/02

Mat harnesses shipped between 3/15/02 & 7/25/02 have the single circuit connector installed on the wrong color wire (white). Mat harnesses shipped after 7/25/02 are correct with the single circuit connector installed on the red wire. The only products affected using the single circuit connector are GT300, GT400 & GT500 inswing operators with the analog control (not U11 microprocessor) with a PANIC LATCH.

**WARNING:** If the PANIC LATCH is connected to the white wire, the safety will be shut off, but the door may still be activated in the break out position.

**DO NOT CONNECT THE PANIC LATCH TO THE WHITE WIRE!** The panic latch must be spliced into the RED wire for proper function of the door system. See correct harness at the bottom of this page.



Bulletin Number: **31**



## NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319  
Technical Assistance:  
866-622-8325

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Effective Date: August 12, 2002

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**Contact the Engineering Dept. Tech.  
Services at 866-622-8325**

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### Corrections to 1175 Slider Installation Manual & 1400 Folding Door Installation Manual

Model 1175 Whisper Slide  
Sliding Door Package  
Installation Manual  
Part # 15-9244  
Issue May 17, 2000

Page 23 Item 8 is incorrect and reads as follow: (See correction at bottom of page)

*"8. I want to eliminate all outside switches and sensors and make the system operate in automatic mode.*

- a. Disconnect the 12 pin connector from inside the microprocessor and install the special connector jumper tool p/n 115941 into its place.*
- b. The system will consist of only the motor, operator and control box (Microprocessor). The handy terminal will be the only means of operating the door."*

Model 1400 Folding Door System Installation Manual  
Part # 15-9388-02  
Issue Jan 29, 2001 Revision  
Page 14 and 15 is incorrect and reads as follow: (See correction at bottom of page)

*"To eliminate all outside switches and sensors and make the system operate in Automatic mode: Disconnect the 12 pin connector from inside the Microprocessor. The system will consist of only the motor, operator and control box (Microprocessor). The Handy Terminal will be the only means of operating the door."*

#### **Correction (applies to both model 1175 and 1400):**

Please make note that on door systems using U04 to the current model microprocessors, the twelve pin connector CANNOT be removed without first inserting Test Jumper Plug (part # 11-5941) in its place. Removing the twelve pin connector breaks the continuity on the Blue (BA) wire to Red (7) and shuts down the door. The Test Jumper Plug restores this circuit and allows the technician to operate the door by means of the Handy Terminal.

Bulletin Number: <b>32</b>
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## NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319

Effective Date: October 1, 2002

**Contact the Engineering Department  
Technical Services at 866-622-8325**

### New U12 Microprocessor Controller

The new Microprocessor Controller (U12) has new and additional features. The U12 will be able to filter out more efficiently, encoder noise that commonly resulted in stroke errors. The conversion from U11 to U12 will actually take place mid to late October based on current inventory.

#### Improved features are as follows:

1. Updated software results in less chance of communications lockup with Handy Terminal..
2. Updated self-diagnosis software to minimize stroke over and frequency errors caused by electrical noise.
3. At the fully closed position the control will automatically reset a door that was in slow (Creep) mode.

#### New features are as follows:

1. Improved performance to release doors forced against the electric lock, by automatically powering the unit closed to allow the lock to retract.

When you have an electric lock, please set the following items;

**Auxiliary Output : 0 and Output Timer : 3**

2. In the case of a folding door, two modes of back check are available.  
Use Handy Terminal to set as either "normal back check" or "33% reduced back check" as follows:

**Normal back check --- Signal Slow : N**

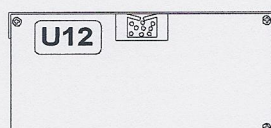
**Reduced back check - Signal Slow : Y**

#### <Notes>

\* U12 has the interchangeability with U04, U10 and U11.

If you have U01, U02 or U03, and are upgrading to a U12, additional parts are required to accommodate the "closed loop" panic circuit not found on the U01, U02 or U03 versions. Call the Engineering Department Technical Service for additional information.

\* The "U12" is identified with a red label on the side of Microprocessor.



**Bulletin Number: 33**



## NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319

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Effective Date: April 15, 2003

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Contact the Technical Services Dept.  
at 866-622-8325

---

### Correction to Magnum Installation Manuals

The following old Magnum installation manuals have an error in the description of the control board connector pins and their corresponding wire colors on the "J1" main harness:

<u>Number</u>	<u>Application</u>	<u>Old Revision/Effective Date</u>
1210279	Magnum-2, old casting	9/23/02
155942	Retro-fit pre-Magnum to Magnum-2, old casting	6/2000
1510319	Magnum-2, GT300,400,500	10/1/02

If you have any of the above manuals, the following wiring corrections apply:

**J1, Pin # 1:** is described as using the Purple or Violet wire when it should say it uses the White wire. This is the "locked out" safety circuit that connects to an overhead presence detector.

**J1, Pin # 5:** is described as using the White wire when it should say it uses the Violet wire. This is the "continuous duty" safety circuit that connects to a swing side door mounted ACUGARD sensor or safety mat.

Note: The wiring diagrams in the above manuals are correct. These manuals have been updated and have newer Revision/Effective Dates.

### Magnum-2 Retro-fit kits for pre-Magnum and older Magnum Controls

Please note, when retrofitting a GT710 to a Magnum-2 control, the wire harnesses included in the kit must be used. The older harnesses will not work due to changes in color coding and connector design.

Bulletin Number: <b>34</b>
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## NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319

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Effective Date: July 14, 2003

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**Contact the Engineering Dept. Tech.  
Services at 866-622-8325**

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### **GT710 Installation Instruction – Magnum II (New Casting)**

(Part Number 1210279 April 21, 2003 Revision)

#### **Clarification to Pages 9, 11, 12 and 13**

Page 9: “LEFT HAND INSWING DOOR” template drawing has a center pivot added, and is now shown with the “A” dimension to a butt hinge and the “B” dimension the center pivot.

Page 11 – 13 “Arm installation and alignment numbers” are shown with the operator on a bench, since the arm is installed prior to mounting the operator to the door frame. (Note, due to this view the door swings in the opposite direction of the drawing title.) The alignment numbers on the spindle have been corrected also.

These changes are included in manuals with a revision date of July 14, 2003.  
The revision date is found in the lower left corner of the manuals cover.

Bulletin Number: <b>35</b>
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## NABCO ENTRANCES TECHNICAL BULLETIN

NABCO Entrances, Inc.  
S82 W18717 Gemini Drive  
Muskego, Wisconsin 53150  
Phone: 877-622-2694  
Fax: 888-679-3319

Effective Date: May 26, 2005

Who is the technical contact?  
**Mike Buckley**

### Magnum-4 Controls - Diode Upgrade

A small percentage of Magnum-4 control boards have recently experienced intermittent failures related to the braking circuit. Typical failures have surfaced within the first few days of operation such as; intermittent door operation, doors opening with no available speed adjustment, or blown fuses. The culprit has been identified as a diode in the motor braking circuit. Previous upgrades were made to the Magnum's operating parameters such as; faster opening speed for low energy units and changes to the motor frequency. This has affected the ability of this diode to function properly even though it meets the manufacturer's specifications.

As of 5/26/05 Magnum-4 controls shipping from NABCO will be equipped with a new high speed diode (Ultrafast Power Rectifier) that will handle the increased demands through the brake circuit. This control board is identified with a "**Green**" dot sticker next to the bar code label (see picture below).

We are continuing to monitor this situation. In an effort to provide you with a more reliable product, we have instituted enhanced Magnum testing procedures at the circuit board manufacturer's facility. NABCO has stepped up its testing as well. We are extremely pleased, as I'm sure you will be, that this problem has been identified. Based on your field input our control board manufacturer has observed an actual in-house failure and has verified the effectiveness of the new high speed diode with measurable improvements. Together we feel confident that the replacement with the high speed diode will do the job.

Since this problem generally manifests itself within a few days of installation, NABCO feels the Magnum-4 boards presently in service (that have not already experienced the issue mentioned above) will function properly and should not need replacement. We would, however like to extend an offer to upgrade any boards that you have in stock by returning the units to NABCO. We encourage this upgrade so future installations will not be subject to brake circuit failure in certain applications.

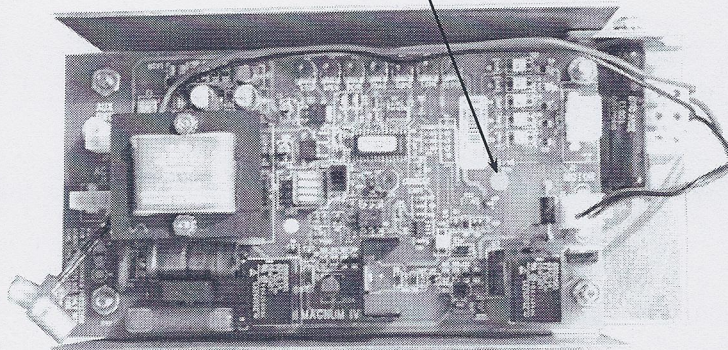
With the total of all the enhancements made to the Magnum control board, and the valued input we have received from you in the field, we are confident in proceeding with the design of the simultaneous pair control. This project had been set aside until we were confident in the present board design.

Thank you for your continued support as we look forward to this next generation simultaneous pair control, and your continued use of the Magnum-4 (Green dot) with the high confidence we have in its performance.

If you have any questions or comments please contact  
Mike Buckley -Technical Services at 866-622-8325.

Sincerely, John Cianciolo

*Green Dot indicates updated D14 diode  
on Magnum 4 Control as of 5/26/05  
Green dot replaces Red dot.*



Bulletin Number: **36**



# NABCO ENTRANCES TECHNICAL BULLETIN

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Muskego, WI, 53150  
Phone: (877) 622-2694, Fax: (888) 679-3319  
www.NabcoEntrances.com

Effective Date: March 21, 2006

Who is the technical contact?  
Mike Buckley

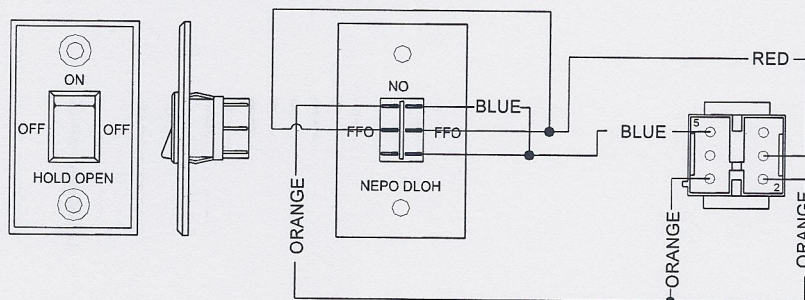
## Reconfiguring Rocker Switch on Swing Doors with U Series Control

**Issue:** On current rocker switch configurations, if the rocker switch (P/N 12-9551) is set to HOLD OPEN while the door is open, the door will first fully close before going to HOLD OPEN.

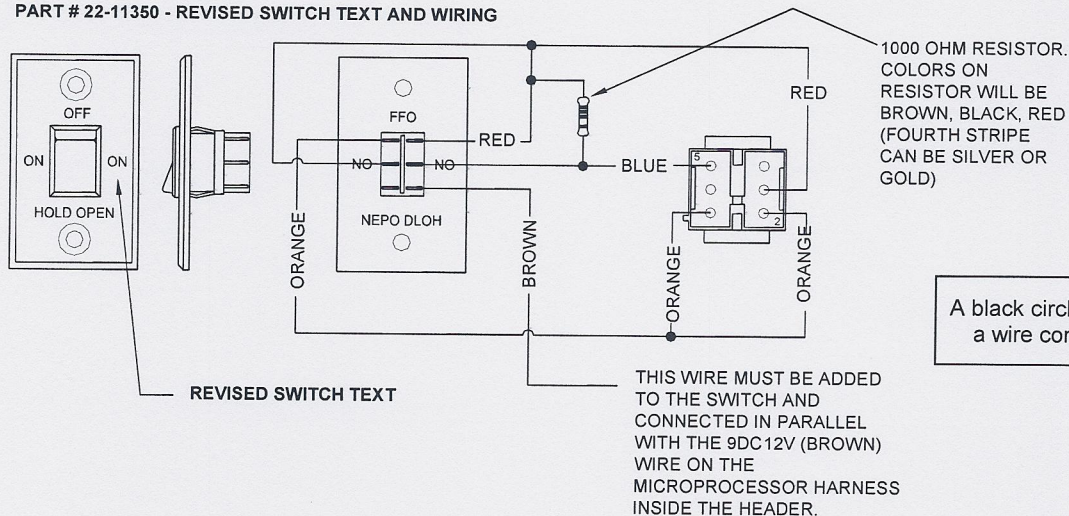
**Reason:** The rocker switch must first pass through the OFF position before switching to HOLD OPEN. This momentarily turns off the control thereby causing the door to first close.

**Solution:** To eliminate this, re-wire the rocker switch as shown below. The wording on rocker switch face plate will also need to be changed as shown below. Note: a new wire must be connected *in parallel* with the 9DC12V BROWN on the control's main harness (refer to tagged wires on control harness). This wire is routed to a pin on the rocker switch as shown. A 1000 ohm 1/4 watt resistor is also added as shown in the diagram. We will be making this change to current production models soon.

### PART # 12-9551 - CURRENT SWITCH TEXT AND WIRING



### PART # 22-11350 - REVISED SWITCH TEXT AND WIRING



Revised 6/16/06  
Added switch part numbers

Bulletin Number: **37**



# NABCO ENTRANCES TECHNICAL BULLETIN

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[www.NabcoEntrances.com](http://www.NabcoEntrances.com)

Muskego, WI, 53150

Phone: (877) 622-2694, Fax: (888) 679-3319

[www.NabcoEntrances.com](http://www.NabcoEntrances.com)

Effective Date: March 30, 2006

Who is the technical contact?  
Mike Buckley or Rick Filas

Mike Buckley or Rick Filas

## ANALOG CONTROL - DOOR HESITATION AND/OR CREEP MODE PROBLEMS

**Issue:** A small percentage of Gyro Tech swing door analog controls have been reported to have one or more of the following conditions:

1. The unit may hesitate for about 3-5 seconds before opening.
2. Unit may switch back and forth into and out of creep mode.
3. Unit will stay in creep mode.

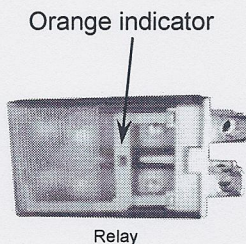
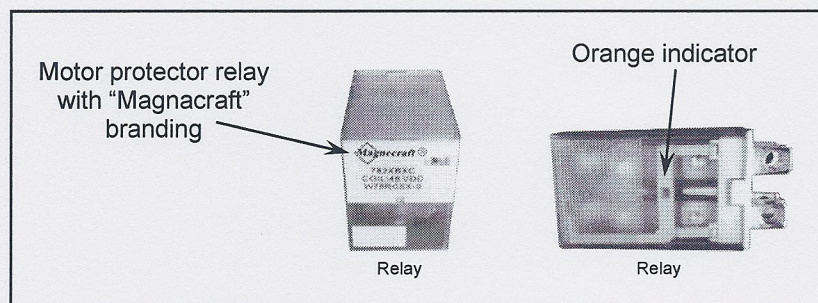
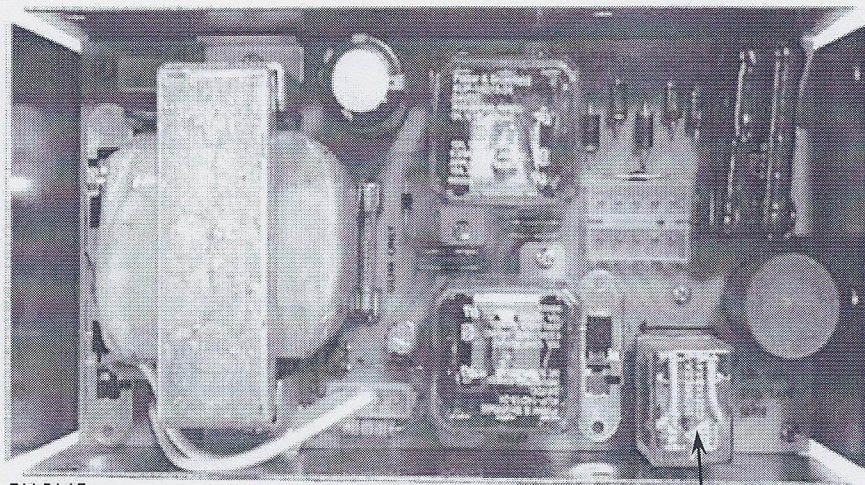
2. Unit may switch back and forth into and out of creep mode.

3. Unit will stay in creep mode.

**Reason:** The Magnacraft brand motor protector relay with the orange indicator has malfunctioned.

**Solution:** If you have an analog control with the Magnacraft motor protector relay (with the orange indicator) and are experiencing one or more of the conditions noted above, call Customer Service for a warranty replacement P/N 24-0952. Note: remove the old relay from the control and return to Nabco for replacement. If you have already returned an analog control to Nabco, the Magnacraft relay will automatically have been replaced.

Refer to illustrations below.



Motor Protector Relay  
Part # 24-0952

Part # 24-0952

(Also posted on website)

Bulletin Number: **38**

Note: Does not apply to GT-500 Standard Mode Controls



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Phone: 877-622-2694  
Fax: 888-679-3319

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Effective Date: July 17, 2007

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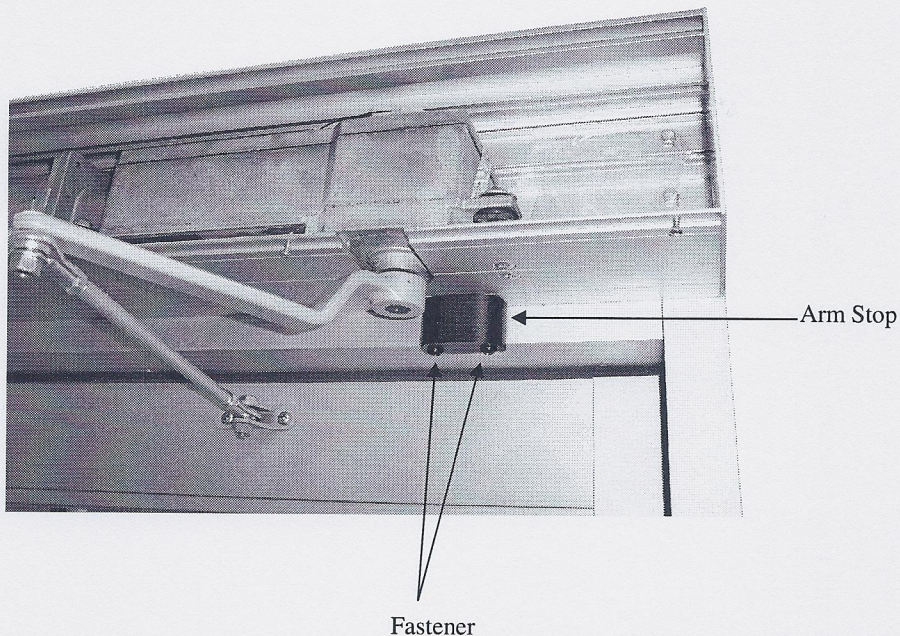
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**Contact the Customer Service Department  
at 877-622-2694**

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### Swinger Arm Stop – Outswing Units

The arm stop used on GT710 and Sideload units was redesigned. This design change required a new longer fastener. The fastener needed for the new arm stop is a ¼-20 x 1 ½" Long Phillips Pan Head Type F Self Threading Fastener (24-4941-21). If you have received the arm stop and need the longer fasteners, please contact customer service. The fasteners will be shipped regular UPS at no charge or can be shipped with your next order. Our records show that the longer fasteners are needed on orders shipped with the new arm stop from 5/16/07 to 7/11/07.



Bulletin Number: <b>39</b>
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## NABCO ENTRANCES TECHNICAL BULLETIN

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Muskego, WI, 53150  
Phone: (877) 622-2694, Fax: (888) 679-3319  
www.NabcoEntrances.com

Effective Date: October 25, 2007

Who is the technical contact?  
Mike Buckley

### Issue:

U19 microprocessor control stops working on GT300 and GT400 Swing Door Operators

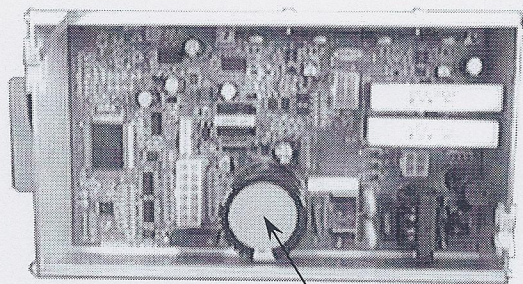
### Reason:

U19 Microprocessor controls (Part # 24-8901-19) used in some bottom load swing door installations (GT300 or GT400's) have experienced a component failure on the circuit board. The component (a photocoupler) is located in a position that is exposed to heat from other parts mounted directly below it due to the horizontal mounting of the controller unit (with the printed circuit facing the ground). We suspect that over time, rising heat could be causing the photocoupler to fail. When this component fails, the door will not operate automatically until the control is replaced. Some controls have been functioning out in the field for more than two years before experiencing a failure from the photocoupler while other units have been installed for much longer and have not had any failures.

This does not apply to Sideload Swing Operators (GT8300 or GT8400) or Sliders (GT1175). Controls in these types of units are mounted with the with the printed circuit vertical. We have not seen any failures on Fold Door (GT1400) units even though the control is mounted horizontally like bottom load swing operators.

### Solution:

Since this is an intermittent issue that occurs only with bottom load swing operators and difficult to tell if and when a failure will occur, NABCO will extend the warranty for controls returned due to this issue. U19 Bottom Load swing operator controls will soon be shipped with a higher temperature rated photocoupler. An orange sticker inside the control will be added to identify a U19 control with the improved component. Refer the illustration below. Our overseas electronic assembly department will make the change on all U19's in the near future so we do not have to replace here in Muskego. For now - If you have placed U19 orders for your stock, or have returned controllers for repairs, please note for us if the use will be for bottom load swing operators so the new photocoupler can be installed and the orange label added for identification.



ORANGE STICKER

If you have questions please call our Tech Line at: 866-622-8325.

Bulletin Number: **40**



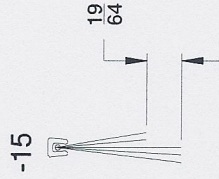
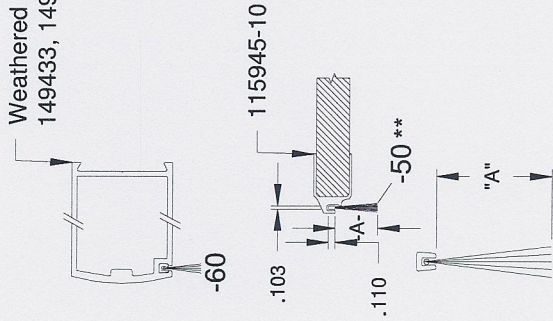




EXTRUSION	MACHINED	204 CLEAR	313 BRONZE
145636-0X	249125-0X	240013-03	240013-04

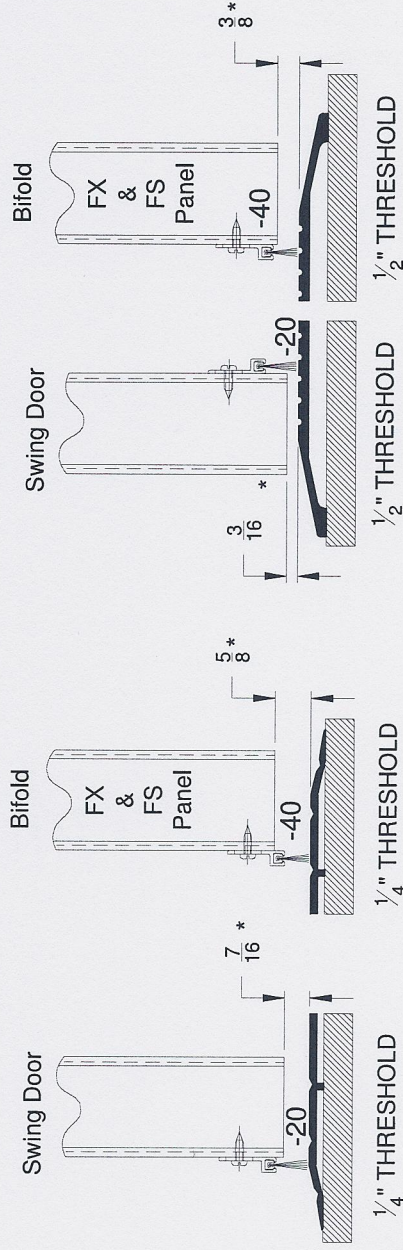
-01 = 204 CLEAR  
-02 = 313 BRONZE

Weathered Stile  
149433, 149086

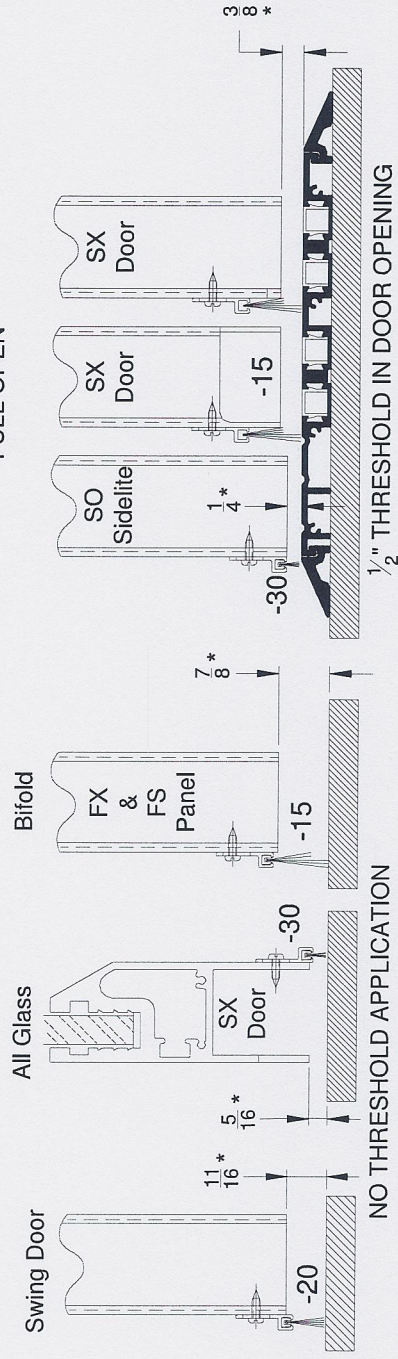


\* - Nominal Dimension

Dash # (144899-xx)	Dim -A-	Stock Length
-10	1.000"	84"
-15	.980	84"
-20	.56	83"
-30	.25	84"
-40	.44	84"
-50 **	1.25	96"
-60	.56	83"
-70	.25	84"
-80	.56"	96"
-90	1.50"	84"



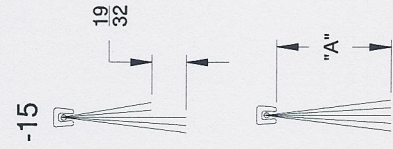
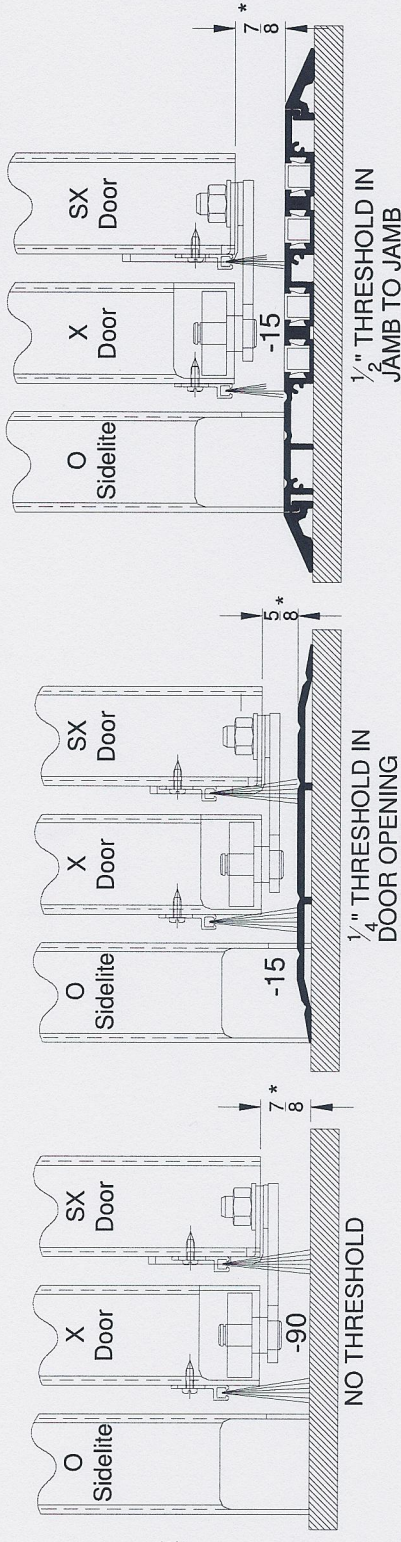
1175  
TELESCOPIC  
FULL OPEN



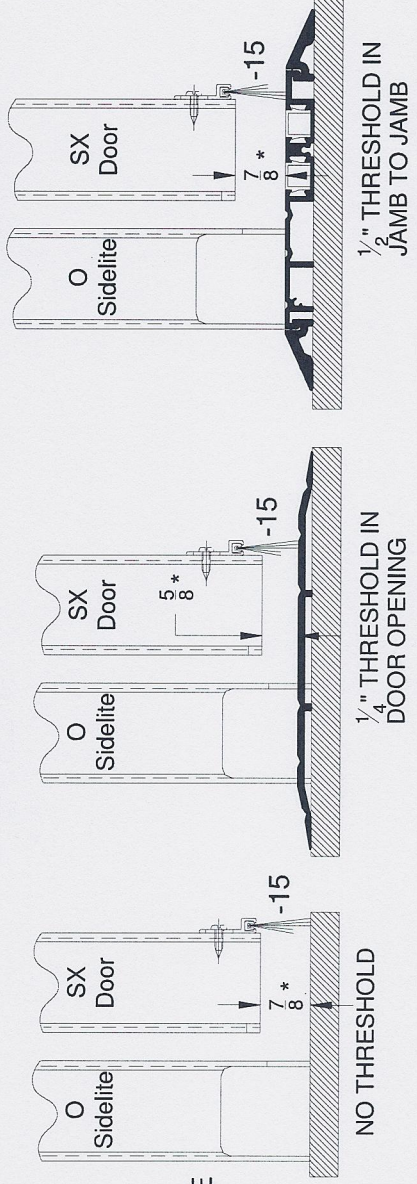
# WEATHERING OPTIONS SHEET 1 of 2



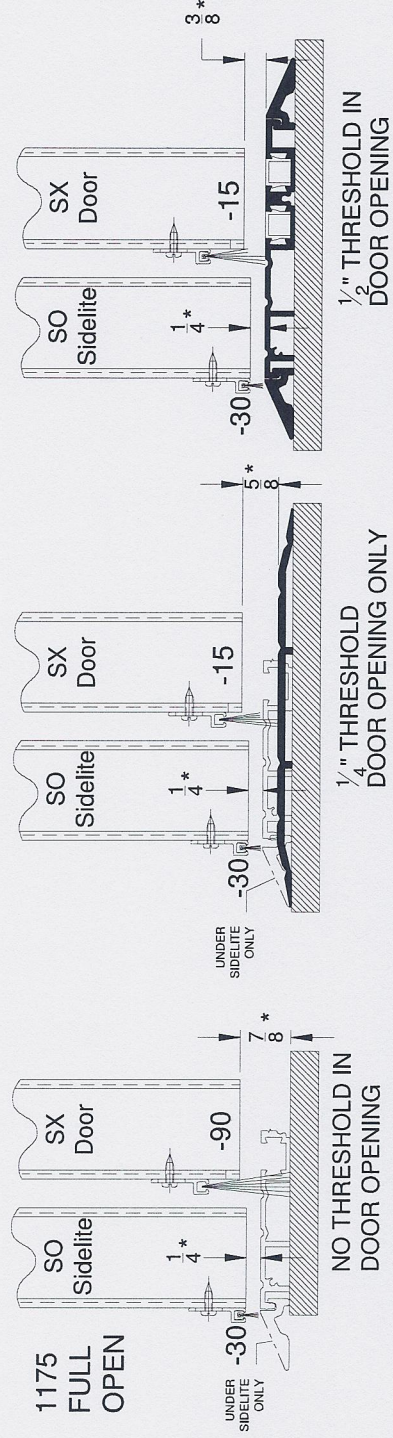
# 1175 TELESCOPIC FIXED SIDELITE



# 1175 FIXED SIDELITE



# 1175 FULL OPEN



\* - Nominal Dimension

Dash # (144899-xx)	Dim -A-	Stock Length
-10	1.000"	84"
-15	.980	84"
-20	.56	83"
-30	.25	84"
-40	.44	84"
-50 **	1.25	96"
-60	.56	83"
-70	.25	84"
-80	.56"	96"
-90	1.50"	84"

# WEATHERING OPTIONS SHEET 2 of 2



The bottom door glass height has been increased by 3/8" per Tech Bulletin #41.  
Please update Page B2-30 in your Price Binder. Effective on orders starting 8/18/08.

### Glass Size Chart using 1/4" Thick Glass

Standard Aluminum Series Slider

This Chart is for Estimating Purposes Only

Do not use this chart for ordering glass.

You will receive the actual glass sizes from Nabco once your order is processed by Engineering.

Nabco is not Responsible for Incorrectly Ordered Glass

Door Opening Width	Door Panel	Sidelite Fixed Panel	Sidelite Swing Panel
36" Single	34-3/4" T 36-1/2" x 34-7/8" B	36-7/8" x 34-3/4"	36-9/16" x 34-3/4"
42" Single	34-3/4" T 42-1/2" x 34-7/8" B	42-7/8" x 34-3/4"	42-9/16" x 34-3/4"
44" Single	34-3/4" T 44-1/2" x 34-7/8" B	46-7/8" x 34-3/4"	46-9/16" x 34-3/4"
48" Single	34-3/4" T 48-1/2" x 34-7/8" B	48-7/8" x 34-3/4"	48-9/16" x 34-3/4"

48" Bi-Part	34-3/4" T 24-1/2" x 34-7/8" B	26-5/8" x 34-3/4"	26-5/16" x 34-3/4"
60" Bi-Part	34-3/4" T 30-1/2" x 34-7/8" B	32-5/8" x 34-3/4"	32-5/16" x 34-3/4"
72" Bi-Part	34-3/4" T 36-1/2" x 34-7/8" B	38-5/8" x 34-3/4"	38-5/16" x 34-3/4"
84" Bi-Part	34-3/4" T 42-1/2" x 34-7/8" B	44-5/8" x 34-3/4"	44-5/16" x 34-3/4"
96" Bi-Part	34-3/4" T 48-1/2" x 34-7/8" B	50-5/8" x 34-3/4"	50-5/16" x 34-3/4"

Sizes effective on units with 2" Muntin Bars

#### ESTIMATING INFORMATION:

- Use this chart only if:
  - Slider is standard height and width.
  - Muntin bar is standard size (2" x 1-3/4" set at 42-1/4" to top).
  - Glass is 1/4" thick (6mm).
  - Narrow stiles (2-1/8") are specified.
  - Slider is Aluminum Series only (not All Glass Unit)
- When quoting, estimate 2 panels each of glass for each door and sidelite.
- For units without muntin bar, the height per panel is **72-1/8" Door and 72" Sidelite**.
- Deduct 1/2" from above sizes if you are using 1" thick glass.
- T = Top portion of the door panel.  
B = Bottom portion of the door panel.







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Phone: (877) 622-2694, Fax: (888) 679-3319  
www.NabcoEntrances.com

Effective Date: May 15, 2009

Who is the technical contact?  
Chad Schumacher

### **Issue:** (Update from previous Bulletin #40 dated October 25, 2007)

Some U19 Microprocessor controls (Part # 24-8901-19) may stop working due to a heat related component failure (photocoupler) on the circuit board. If this photocoupler fails, a swing, slide or fold door becomes inoperable until the control is replaced.

### **Note:**

- 1) If the photocoupler fails on a swing or fold door while in the open position the door will close abruptly with no electronic braking and will not work again until the control is replaced. Turning the power off to the door will enable electronic braking for manual operation (even though there is no electricity) until the control can be replaced.
- 2) If the photocoupler fails on a slider the door will stop at that point and quit working until the control is replaced. Manual opening and closing force may be slightly increased due to electronic braking.

### **Solution:**

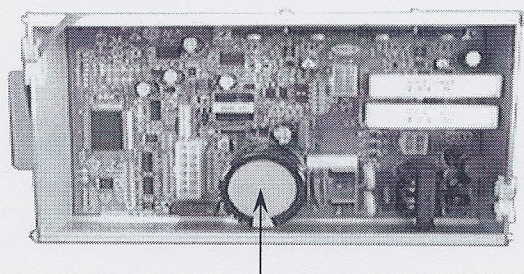
As of 7/31/08, all U19 microprocessor controls across all product lines include a new photocoupler. Also as of 7/31/08 the orange dot sticker (shown below to identify an updated control) will only be used on rebuilt controls. New controls will have a new serial number sticker starting with #162501. This serial number sticker can be found on the bottom of the control. All U19 controls with the serial #162501 or higher will include the new photocoupler.

**1) Swing and Fold:** If you have a **U19 swing or fold door operator control that does not have either an orange dot sticker or a serial number of 162501 or higher, you must return it to NABCO for updating.**

**See the attached list of jobs that require the updated U19 control.** Many of these controls have already been updated. Call or email Chad (cschumacher@nabcoentrances.com) to start this exchange program within your organization. Please fill in the completion date on the list for each job to confirm that updated U19's are installed. Return the completed list to NABCO as soon as possible.

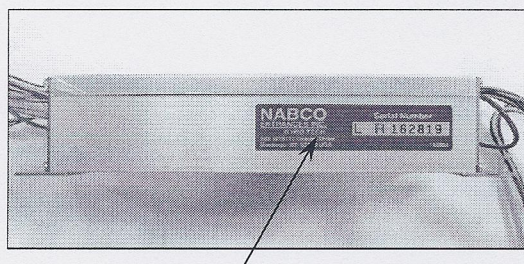
**2) Sliders:** You are not required to update the U19 control.

**Returned U19 controls will be updated by NABCO at no cost to you. NABCO will also include an additional 90 day warranty on returned U19 controls. Thank you for your patience and assistance in addressing this customer satisfaction issue.**



**ORANGE DOT STICKER ON UPDATED  
NEW CONTROLS PRIOR TO 7/31/08  
AND**

**ORANGE DOT STICKER ON ANY UPDATED  
USED (REBUILT) CONTROLS AFTER 7/31/08**



**SERIAL NUMBER STICKER ON UPDATED  
NEW CONTROLS STARTING WITH # 162501**

**AS OF 7/31/08—THE SERIAL NUMBER RE-  
PLACES THE USE OF THE ORANGE DOT  
STICKER ON NEW CONTROLS.**

Bulletin Number: **43**