

# Instruction Bulletin

## Adjusting Auto-Latch Mechanisms Pad-Mounted Switchgear

### Qualified Persons

#### **WARNING**

The equipment covered by this publication must be selected for a specific application and it must be operated and maintained by **Qualified Persons** who are thoroughly trained and knowledgeable in the installation, operation, and maintenance of underground power distribution equipment along with the associated hazards that may be involved. This publication is written only for such qualified persons and is not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment. Proper installation is the responsibility of the operating and construction personnel and the utility performing and authorizing the work. Completion of these instructions implies no further warranty by the manufacturer.

A **Qualified Person** is defined in the National Electrical Code (NEC/NFPA-70) as: One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved.

The specific electrical safety training requirements to be considered a qualified person are detailed in **NFPA-70E, Article 110.1(D), Employee Training**. Some of the requirements from the 2012 edition are shown below. For the specific detailed training requirements for a Qualified Person make certain to refer to the most recent applicable edition.

These training requirements would include, but are not limited, to the following key points:

- The skills and techniques necessary to distinguish exposed energized parts from other parts of electrical equipment.
- The skills and techniques necessary to determine the proper approach distances corresponding to the voltages to which the qualified person will be exposed.
- The proper use of the special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment.
- Tasks performed less often than once per year have additional training requirements.

These instructions are intended only for such qualified persons. They are not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment. Additionally, the recommendations in this instruction bulletin are not intended to supersede or to take the place of established utility safety guidelines and established practices. If there is any question, consult with your foreman or supervisor, as appropriate.

Please refer to OSHA 29 CFR 1910.399 and NFPA 70E Articles 100 and 110.

### Application Notes - Please Read Before Beginning Adjustment Process

#### Note 1

These instructions apply to pad-mounted switchgear that is equipped with the Federal Pacific auto-latch self-latching mechanisms that may include some non-stainless steel springs and bushings. It does not apply to equipment with any other style of door latch. Door latches utilized after December 2007 include stainless-steel bushings and springs.

#### Note 2

- These instructions and illustrations are based on 15kV PSE switchgear.
- Modify as required for other types of Federal Pacific pad-mounted switchgear.

#### Note 3

- If replacing existing auto-latch components, such as the striker rail (Step 1) or the auto-latch mechanisms (Step 2), mark the locations of the old components to aid in the placement of the replacement components.

#### **DANGER**

The following maintenance procedures must be performed with the switchgear completely de-energized and isolated from voltage. Any attempt to perform maintenance with the unit energized may result in electrical arc flash that can cause equipment damage, personal injury, or death.

#### **DANGER**

In no case should the unit be left unsecured even for a short period of time.

## SAFETY INFORMATION

### Understanding Safety-Alert Messages

There are several types of safety-alert messages which may appear throughout this instruction bulletin as well as on labels attached to the pad-mounted switchgear. Familiarize yourself with these types of messages and the importance of the various signal words, as explained below.

#### **DANGER**

"DANGER" identifies the most serious and immediate hazards which will likely result in serious personal injury or death if instructions, including recommended precautions, are not followed.

#### **WARNING**

"WARNING" identifies hazards or unsafe practices which can result in serious personal injury or death if instructions, including recommended precautions, are not followed.

#### **CAUTION**

"CAUTION" identifies hazards or unsafe practices which can result in minor personal injury or product or property damage if instructions, including recommended precautions, are not followed.

#### **NOTICE**

"NOTICE" identifies important procedures or requirements that, if not followed, can result in product or property damage if instructions are not followed.

## FOLLOWING SAFETY INSTRUCTIONS

#### **NOTICE**



Thoroughly and carefully read this instruction bulletin before installation of the pad-mounted switchgear, before switching or operating the switches or fuse mountings in this equipment, and before performing any maintenance on the equipment.

### SAFETY PRECAUTION

#### **DANGER**

Federal Pacific Fuse Mountings in conjunction with appropriate fuses are designed to protect equipment and to disconnect faulted equipment from the system. The fuses cannot protect personnel from injury or electrocution if contact is made with energized circuits or hardware.

If you do not understand any portion of this instruction bulletin and need assistance, contact Federal Pacific at 276-466-8200.

### Replacement Instructions & Labels

If you need additional copies of this instruction bulletin, contact Federal Pacific at 276-466-8200.

It is important that any missing, damaged, or faded labels on the equipment be replaced immediately. Replacement labels are available by contacting Federal Pacific.

## Auto-latch Adjustment Process

### Step 1

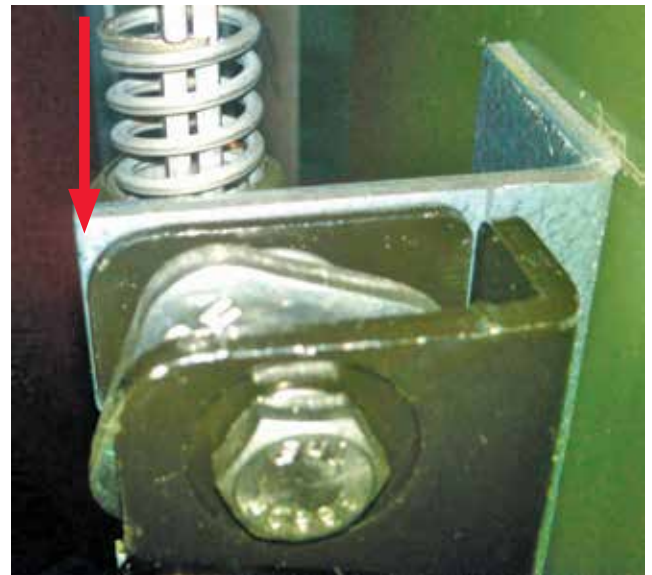
Ensure that the Striker Rail is Mounted Flush with the front edge of the Center Divider Wall. (Figure 1)

### Step 2

Ensure that each of the three (3) latch mechanisms is flush with the front of the Latch Rail. (Figure 2.) Adjust all three as needed.



**Figure 1 – The front of striker rail is mounted flush with the edge of center divider wall.**



**Figure 2 – The top latch moved flush with front of latch rail. (Adjust all three.)**

## Auto-latch Adjustment Process

### Step 3

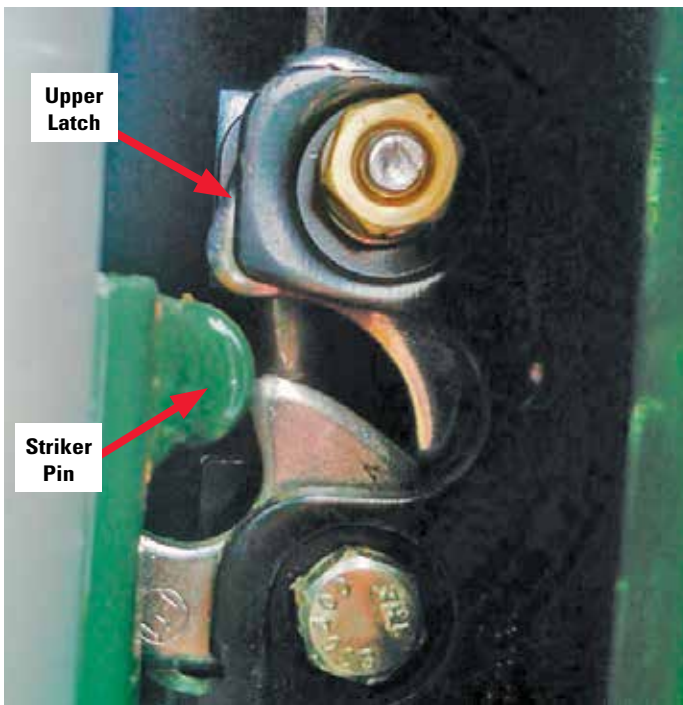
Adjust the auto-latch mechanism and striker rail so that the mechanism operates properly

#### Step 3A

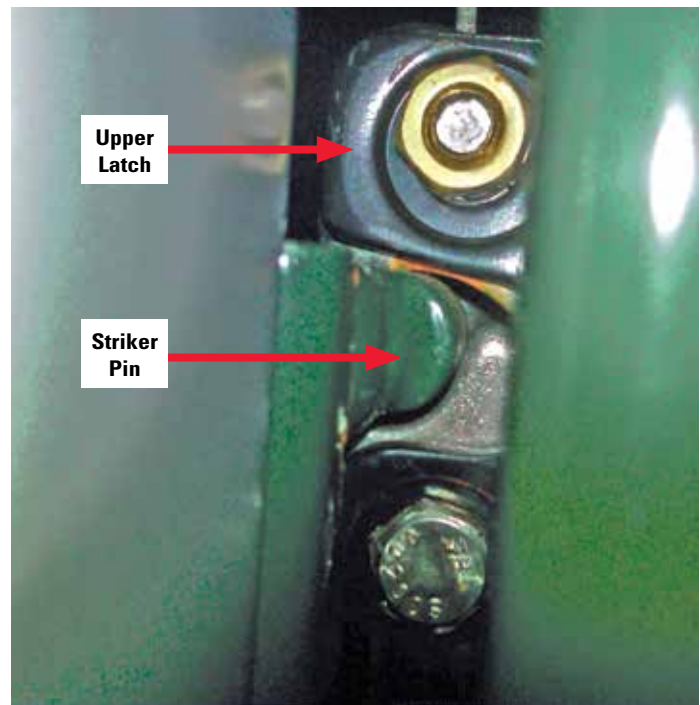
Align the pins vertically by moving the striker rail up and down as needed to align the striker pins with the top of the slots in the latches. (Figure 3.)

#### Step 3B

Move the striker rail forward or backward, as needed, to ensure proper latching. (Figure 4)



**Figure 3 – Align top of pin with top of slot in latch. (Open the passive door to obtain the view.)**



**Figure 4 – Door properly latched on striker pin. (View from open passive door side.)**

