# PN-250BE Code Following Relay

## **General Description**

The PN-250BE relay is used as a front contact repeater to decode a coded track relay. The circuit in which it is used can be designed to provide single-stroke immunity, yet remain energized during a code change. The PN-150BE relay can also be operated from a decoding unit. This relay is recommended for applications where more contacts are required. Contacts of the PN-150BE relay are standard low voltage silver to silver-impregnated front and silver-to-silver back. Front testing is not available.

PN-250BE relays are horizontally separated at least 5 inches, or the width of two PN-150 relays or one PN-250 relay. This spacing is designed to prevent magnetic interference between adjacent relays. The 5 inch space may be filled with any other type of PN-150 or 250 relay, except for the PC-250TR code generating relay.

## **Specifications**

Refer to the ordering tabulation for operating specifications.



# **Ordering Information**

- Standard relay and plug-in base order numbers listed in tabulation and RSE-4R1.
- When writing your order, specify the required contacts and coil resistance.
- Relay bases are ordered separately. Indicate the type of relay to be used with that base.
- For detailed specifications and complete parts lists, request ASTS USA Service Manual SM-4597.
- Refer to RSE-4S1 for shop maintenance tools and supplies.

	PN-250BE Relay and Base					
	Front		Coil Resistance (Ohms)		Full-Stroke Series Coils	
Order No.	Testing	Contacts	Series	Multiple	Amps	Volts
N322550-703	X	6FB Std.	55	13.8	0.0197	1.08
N322550-704	Х	6FB Std.	175	43.8	0.0112	1.96
N438689-001	Plug-In base for PC-250BE (ref. RSE 4R1)					

(See reverse side for general features of ASTS USA electro-mechanical vital relays.)

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## General Features of ASTS USA PN-Series Electro-Mechanical Vital Relays

ASTS USA vital and non-vital plug-in relays serve a multitude of functions in both railroad and transit control circuit applications. These time-proven relays are space-saving, easily installed or removed and can be handled in the field without disturbing coil or contact wiring.

In addition to production of PN-series electromechanical relays at the same high standards, ASTS USA also provides high-quality remanufacturing services for these relays so that they can be returned to service in like-new condition. Refer to the "Remanufacturing Services" section of this catalog or call 1-800-652-7276 for additional information.

## Advantages

- Wide selection available for every application
- Meets or exceeds applicable AREMA (AAR) requirements
- Plug-in design permits quick installation or removal
- Indexed to assure proper mounting
- Sturdy plug-in base for every relay model
- Operates over wide temperature range

### **High Quality Design and Assembly**

All components of ASTS USA plug-in relays are constructed according to rigid quality control standards and are thoroughly tested before shipment. Coils are encapsulated for protection against mechanical damage and moisture. Magnetic circuits are constructed of non-aging materials. The air gap is not disturbed when the coil is removed or the contact springs adjusted. Those relays with an adjustable magnetic shunt may be adjusted for degree of magnetic hold-down force without changing the contact adjustment or the hold-down pole-piece position.

Contact fingers and springs utilize a simple, reliable design and are heat treated to assure uniformity of material and contact stability. The heavy contact fingers extend through the base to serve as plug connectors. Heel contacts are actuated by operating arms pivoted to the armature. Contact surfaces have sufficient wiping action to be self-cleaning. "Standard" contact materials include fine silver heels and backs, and silver-impregnated carbon (S.I.C.) fronts with a typical capacity of 4A @ 30 Vdc or 175 Vac. "Heavy Duty" (H.D.)" contact materials also include fine silver heels and backs and silver-impregnated carbon (S.I.C.) fronts with a typical capacity of 15A @30 Vdc or 30 Vac.

Other types of contact material for special application are described with the particular relay. Standard contacts are factory-adjusted to standard minimum opening and conform to AREMA (AAR) requirements.

All vital plug-in relays incorporate a transparent molded cover over the relay contacts and armature structure. The cover is sealed to the frame with a gasket that assures a tight, dust-proof and moisture-proof seal.

#### **Contact Designations**

Front and back contacts of plug-in relays are designated "F" and "B", respectively. The dependent contacts are denoted FB, while the independent contacts are denoted "F" or "B" alone

#### Testing

Many ASTS USA vital relays are provided a front testing capability. The front testing facility is in series with the coil control circuit to permit deenergization of the relay while it is in its service mounting, without disturbing the relay or wiring. Testing may also be accomplished through the rear of the relay mounting base without opening a contact or coil circuit. Refer to *RSE-4S1* for special tools utilized in maintaining ASTS USA plug-in relays.

### Latch

A spring-operated latch holds each plug-in relay securely to its mounting base. The latch is released by pressing a button on the front of the relay.

## Indexing

All plug-in relays are equipped with indexing pins to prevent insertion of an incorrect relay into the mounting base. Each relay is accompanied by an indexing plate that is applied to the base at the initial installation.

### System Voltage

This voltage, which is listed in the relay ordering tabulation specifications, is prescribed for relays in locally energized circuits. Higher voltage may be used, if required, up to 10 watts power dissipation.