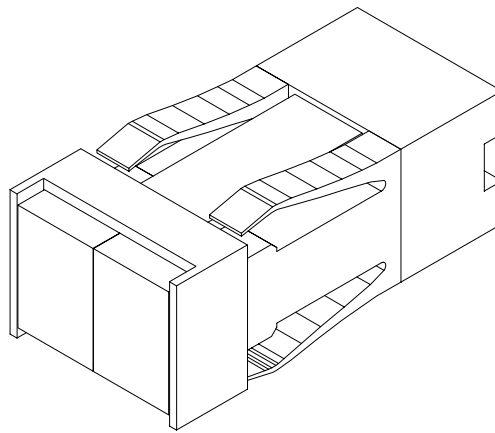




Part of
SM15

PB08
Illuminated Pushbutton Switch



INSTALLATION AND OPERATION MANUAL

REV 4.00 November 24, 2003

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Section 1.0 Description

1.1 Introduction

Information in this section consists of: purpose of equipment, features, specifications, and a listing of all models available to the date of publication.

1.2 Purpose of Equipment

The PB08 is a positive action 2-pole switch with two individual legend lamps. The PB08 switch is designed for use with the RS08/RS12 series of remote switches from NAT.

1.3 Features

Units are shipped assembled (but with no legends inserted), and with lamps (28 V) installed. The desired legends must be cut from the sheet provided and inserted inside the lens cap. If 14 V operation is required, substitute type 386 lamps.

The combination of a two pole switch with two individual legend lamps is very effective for GPS, LORAN or other NAV AID transfer switching and annunciation.

1.4 Specifications

1.4.1 Electrical Specifications

Lamp Power	+14/+28 VDC at 200 mA max.
Lamps	Type 388 for 28 V operation Type 386 for 14 V operation

1.4.2 Physical Specifications

Height	17.9 mm (0.71 inches)
Length	48.5 mm (1.91 inches)
Width	23.8 mm (0.94 inches)
Mounting	Front mounting, held in place by compression fingers

Mounting hole height 14.9 mm (0.59 inches)

Mounting hole width 20.8 mm (0.82 inches)

1.5 Unit Nomenclature

The following list indicates the models available at the date of publication of this document. Other models may be available.

Model	Description / Distinction
PB08-001	2 section lighted pushbutton switch Green/Blue segments with changeable legends and lamps (28 VDC lamps supplied) Positive action (push on/push off) 2 pole output, individual lamps Gold logic rated contacts Ideal for GPS/LORAN/NAV selection Interfaces with RS08/RS12 Supplied with assorted legends
PB08-002	Identical to the PB08-001 but with Green/Green segments

End of Section 1.0

Section 2.0 Installation

2.1 General

Information in this section consists of: unpacking and inspection procedures, installation procedures, post-installation checks and installation drawings.

2.2 Unpacking and Inspection

Unpack the equipment carefully and locate the warranty card. Inspect the unit visually for damage due to shipping and report all such claims immediately to the carrier involved. Note that each unit should have the following:

- PB08 Switch
- Legend Sheet
- Installation Manual

Verify that all items are present before proceeding and report any shortage immediately to your supplier.

2.3 Installation Procedures

2.3.1 Warnings

These switches are very high quality, gold-contact units meant for logic switching. Do not attempt to switch high-current loads (>200mA) with these contacts or permanent damage will result.

2.3.2 Cautions

The lens assembly fits in the housing with either color to the right, so be sure to follow the drawings in section 2.4 to ensure correct wiring.

2.3.3 Notes

Other lens combinations are available from NAT, or they can be interchanged with legends from the LL08.

2.3.4 Installing the Legends

To install the required legends into the PB08, first examine the legends supplied and pick out the combination that is most suitable for your application. Note that both horizontal and vertical legends are provided. IN ALL CASES, the normal (or VOR/ILS) legend should be the GREEN legend, to assure FAA compliance. Other legends can be made with transfers, if needed.

Cut the legends along the border line and then into two individual sections using sharp scissors. Withdraw the lens/diffuser assembly from the switch body by gripping the lens cap on the provided notches and pulling out. A slight rocking motion will make it easier. Pop the lenses off of the diffuser, and insert the legends of your choice, making sure they are adequately trimmed and square. Replace the lenses, then push the whole assembly back into the switch body. When it is firmly seated, it will lock into place.

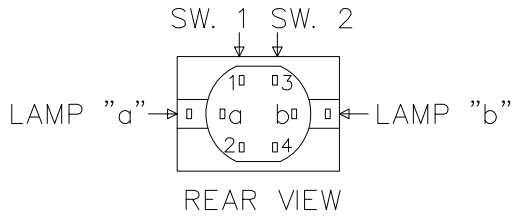
2.3.5 Changing Lamps

To replace or change lamps, withdraw the lens/diffuser assembly and pull out the lamp with a pair of needle-nosed pliers. Push in a new lamp and press down on the top of the lamp with the end of a pencil eraser or other object until the lamp clicks into place. When it is correctly seated, it will not move farther in. Replace the lens assembly.

2.4 Installation Drawings

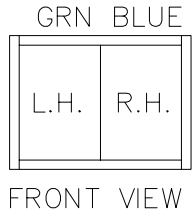
DRAWING	REV.	DESCRIPTION	TYPE
PB08\403-0	1.01	PB08 Illuminated Pushbutton Switch	Interconnect
PB08\904-0	1.01	PB08 Illuminated Pushbutton Switch	Exploded View
PB08\701-0	1.00	PB08 Illuminated Pushbutton Switch	Parts List

Section 2.0 ends after these Drawings



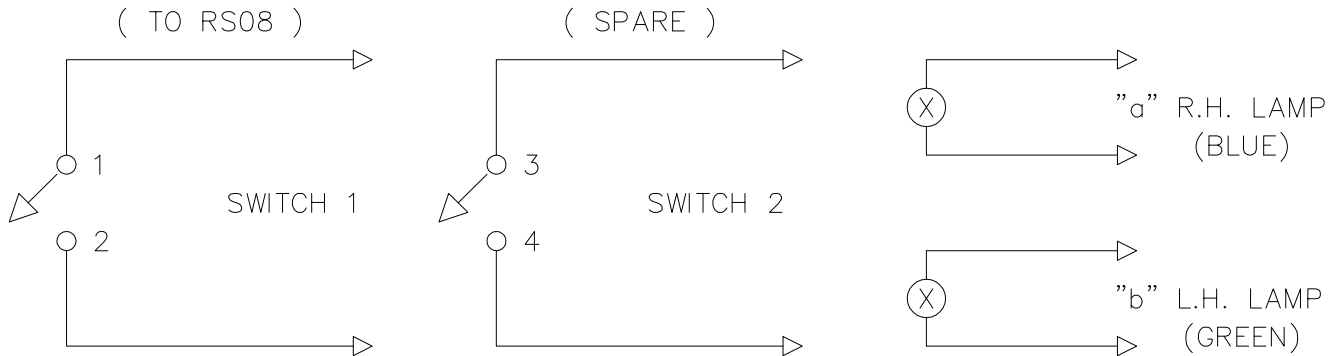
"a" CONNECTS TO R.H. LAMP (BLUE)

"b" CONNECTS TO L.H. LAMP (GREEN)

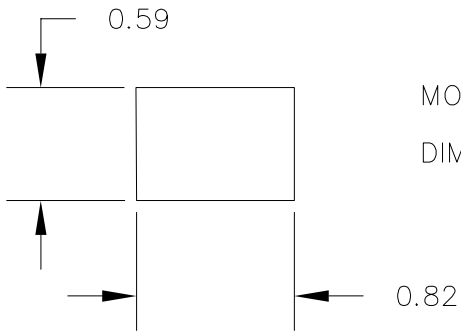


NORMALLY SUPPLIED WITH TYPE 388 LAMP (28VDC)

USE TYPE 386 LAMP FOR 14V OPERATION



SWITCHES CLOSE WHEN
BUTTON IS PUSHED IN.

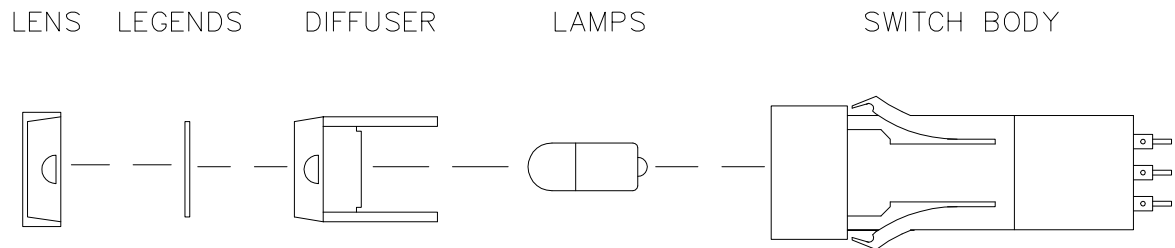


MOUNTING HOLE:
DIMENSIONS ARE IN INCHES

Confidential and Proprietary to NAT

REVISION	DATE	*nat NORTHERN AIRBORNE TECHNOLOGY LTD.			
-	DEC 16/85	DESIGNED BY	DESCRIPTION		
1.01	OCT 17/95	KEN VEITCH	ILLUMINATED PUSHBUTTON SWITCH		
		DRAWN BY	PART NUMBER	DRAWING TYPE	SHEET
		KV/PL	PB08	INTERCONNECT	1/1
		APPROVED BY	DRAWING NUMBER	FILE NUMBER	
			PB08\403-0	PB08\403-0101	





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REVISION	DATE	*nat NORTHERN AIRBORNE TECHNOLOGY LTD.			
-	DEC 19/85	DESIGNED BY	DESCRIPTION		
1.01	OCT 17/95	KEN VEITCH	ILLUMINATED PUSHBUTTON SWITCH		
		DRAWN BY	PART NUMBER	DRAWING TYPE	SHEET
		KV/PL	PB08	EXPLODED VIEW	1/1
		APPROVED BY	DRAWING NUMBER	FILE NUMBER	
			PB08\904-0	PB08\904-0101	





PARTS LIST

NAT Part #: **PB08-001**

Description: **Illuminated Pushbutton Switch**

Document #: **PB08\001\701-0**

Rev: **1.00**

Prepared By:

NAT
214

Checked By:

NAT
104

Approved By:

NAT
107

<u>IDENT</u>	<u>DESCRIPTION</u>	<u>MFR. P/N OR VALUE</u>	<u>PACKAGE</u>	<u>NAT P/N</u>	<u>QTY.</u>
MECHANICAL PARTS					
M101	Lamp/Switch Body			85-57-461	1
M102	Lamp, 28 VDC		T1-3/4	45-01-388	2
M103	Blue/Green Lens Assembly *			85-82-461	1
M104	Legend Set			43-10-108	1
M105	Legend Set			43-10-208	1
* For other models replace with:					
<u>PB08-002</u>					
M103A	Diffuser Assembly			85-82-001	1
M103B	Lens, Green			85-82-005	2
OPTIONAL PARTS					
M106	Lamp, 14V		T1-3/4	45-01-386	
M107	Lens, Amber			85-82-004	
M108	Lens, Green			85-82-005	
M109	Lens, Blue			85-82-006	

End of Parts List

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Section 3.0 Operation

3.1 Introduction

Information in this section consists of the functional and operating procedures for the PB08 Illuminated Pushbutton Switch.

3.2 Performance

The PB08 switch provides a positive action two pole switch with two independent legend lamps. It is very effective for GPS, LORAN or other NAV AID transfer switching and annunciation.

The operation of the switch and the lamps are completely independent of each other; the operation of the switch will have no direct effect on the lamps. Any relationship between them must be accomplished through the aircraft wiring.

3.2.1 Switch Operation

The PB08 provides a switch with two sets of contacts, pins 1 and 2, and pins 3 and 4. Both sets of contacts close when the switch is depressed and open when the switch is depressed a second time.

3.2.2 Lamp Operation

The PB08 provides two lamps which operate completely independent of each other. Two contacts are provided for each lamp and whether a lamp is lit or not depends entirely on aircraft wiring.

End of Section 3.0

