



USER MANUAL

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1 Purpose of document

This user manual provides the necessary information for the user to understand the purpose and functionality of the Booyco Lamp Room Verification Unit for Pedestrian Tag. The document provides information on the components and operation of the system.

2 Revision Control

Revision Date	Revision Number	Comments
23 August 2021	02	New Template
17 December 2020	01	Update and New Template

Table 1: Revision Control Table

3 Definitions

Abbreviation	Definition
CXS	Collision X(Warning or Avoidance) System
LED	Light Emitting Diode
VLF	Very Low Frequency

Table 2: Definition Table

4 Overview

The Booyco CXS Lamp Room Verification Unit for Pedestrian Tag is crucial in verifying and maintaining that CXS systems are operational before/while in a working zone. The unit only works in conjunction with CXS products. This verification unit specifically verifies the operation of the Booyco Pocket Tags that are carried by pedestrians above and below ground.

5 System Component Overview

There are several main functional components in addition to the Lamp Room Verification Unit for Pedestrian Tag that ensures the verification of Pocket Tags can be done. Figure 1 shows the Lamp Room Verification Unit for Pedestrian Tag



Figure 1: Lamp Room Verification Unit for Pedestrian Tag

Table 3 shows the functional component description for the components labelled in Table 1.

Allocated Number	Description
1	CXS Lamp Room Verification Unit For Pedestrian Tag
2	VLF Pedestrian Tag

Table 3: System component overview

6 System Operation

The Lamp Room Verification Unit for Pedestrian Tag requires any indication LEDs of its own which is usually traffic lights that Booyco Electronics supplies, the results of the pocket tag verification procedure are indicated on the pocket tags themselves. The verification procedure is discussed in detail next.

6.1 Verification Unit Operation: Pocket Tags

To ensure that the Pocket Tag is functioning correctly, the Lamp Room Verification Unit for Pedestrian Tag has used to verify the pocket tag. The pocket tag indicates the verification process on its indication LED's shown in Figure 2.



Figure 2: Pocket Tag LED location

The following procedure is following and observed when verifying the pocket tag at the verification unit. Proceed to verification unit with Pocket Tag.

1. Proceed to verification unit area with pocket tag
2. The verification procedure will begin automatically and the LED will flash in a specific sequence.
3. If the verification sequence is correct the Pocket Tag is functioning correctly.
4. If the verification sequence does not begin or the sequence is incorrect the device is functioning incorrectly and must be replaced with a functioning pocket tag.

The verification sequence for the pocket tag is a sequence of flashing LEDs with different colours (See Figure 2). The sequence is seen in Table 3.

Sequence	
1. Flash Green	
2. Flash Orange with Vibration	
3. Flash Red with Buzzer and Vibration	
4. Flash Blue	
5. Flash Purple	
6. End of Sequence	

Table 4: Verification Sequence

If the sequence is incorrect or if the sequence does not begin it will be displayed on the screen of the Lamp Room Verification Unit for Pedestrian Tag.

6.2 Verification Unit Operation: Booyco Cap lamp

To ensure that the Cap Lamp is functioning correctly, the Lamp Room Verification Unit For Pedestrian Tag is used to verify the Cap Lamp. The Cap Lamp indicates the verification procedure on its indication LED's, Cap lamp shown in Figure 3.



Figure 3: Booyco Cap Lamp

The following procedure is followed and observed when verifying the Cap lamp at the verification unit.

1. Proceed to verification unit area with Cap Lamp
2. The verification procedure will begin automatically and the LED will flash in a specific sequence in Table 5.
3. If the verification unit is correct and the Buzzer activated on the Cap Lamp, the unit is functioning correctly.
4. If the verification unit does not begin or the sequence is incorrect the device is functioning incorrectly and must be replaced with a functioning Cap Lamp.

Sequence	
Flash Green	
Flash Orange with Vibration	
Flash Red with Buzzer and Vibration	
Flash Blue	
Flash Purple	
End of Sequence	

Table 5: Lamp Room Verification Unit for Pedestrian Tag Verification Procedure

The Lamp Room Verification Unit for Pedestrian Tag primary screen results can be seen in Figure 4.

No Messages		
UID	Tag Name	OP
0xCCC14C30	John Smith	✓
0xDDD25D40	Jane Doe	✗
ID:12345-PTS01	2020-03-03 13:00:00	

Figure 4: Lamp Room Verification Unit for Pedestrian Tag Screen

The purpose of this screen is to provide basic feedback and verify if the Lamp Room Verification Unit for Pedestrian Tag the column descriptions are given in Table 5.

Column Name	Description
UID	Displays the identification number of the CXS Booyco Cap Lamp
Tag Name	Displays the name stored on the CXS Booyco Cap Lamp
OP	Displays if the CXS Booyco Cap Lamp is operational (green tick is the operational and red cross is non-operational)

Table 6: Main Screen Display Columns

7 Technical Specifications

7.1 Technical Parameters

The technical parameters of the Pocket Tag can be seen in Table 7.

Parameter	Specification
Input Power	100-240 VAC
Internal Power Supply	13.8VDC
Power Consumption	<70W
Enclosure	Polycarbonate
Dimensions	44 × 25 × 66 cm (W×L×H)

Table 7: Technical Specifications