

**KABA®**

# INSTALLATION GUIDE

**RAC 3.5 / RAC 4 / RAC 4XT Insert Reader**

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**Note: This installation Guide is for the RAC 3.5 / RAC 4 / RAC 4XT Insert Reader.**

## 1.0 • Introduction and Disclaimers

This document outlines the Installation Steps for the Insert Reader (Item Number R71-432) for the RAC3.5, RAC 4 and RAC 4XT and should be used in conjunction with their respective Installation Guide.

### *Target Audience*

**Please read and follow all directions carefully.** These instructions are designed for use by maintenance professionals or lock installers who are familiar with common safety practices and competent to perform the steps described. Kaba Lodging Systems is not responsible for damage or malfunction due to incorrect installation.

### *Technical Assistance*

**For technical assistance call  
1-800-906-4526, 1-514-340-9025**

**OR**

**Visit the Kaba Support Website:**

**<http://connect.kabalodging.com>**

### *Warnings and Cautions*



**Important:** Carefully inspect panel to ensure that the recommended procedures will not cause damage. Kaba's standard warranty does not cover damages caused by installation.



**Caution:** Wear safety glasses when tools are required for mounting panel reader



Please read and follow all directions carefully.



This installation to be made on a metal panel only. The panel thickness must be in the range of 1/16" (1.59mm) to 1/4" (6.35mm)

## 2.0 Checklist and Exploded Views

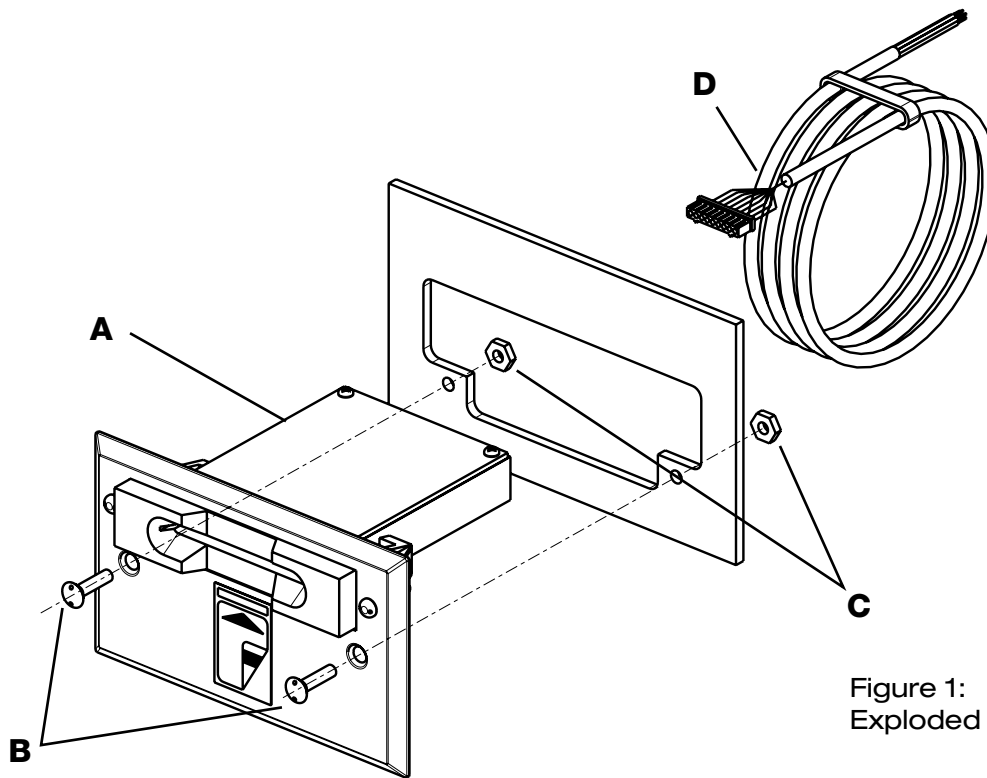


Figure 1:  
Exploded view

### 2.1 Parts list

#### *Each insert reader includes:*

- (A) Insert reader assembly (Item Number R71-432)
- (D) Cable 15 feet with connector

#### *Hardware bag components:*

- (B) 2 x mounting screws 6-32, 3/4" Spanner head
- (C) 2 x Hexagon lock nut

#### *Documentation included:*

Drilling Template DT-512152

### 2.2 Tools required

#### *Mandatory tools required:*

- Safety glasses
- Electric drill
- 5/32" (6.5 mm) drill bit
- AWG 24, 4-pair shielded cable (length dependent on distance between reader and RAC control panel)
- Spanner screwdriver (#6)
- Adjustable wrenches
- Ink marker
- Appropriate tooling for creating the cutout required on the mounting panel
  - \*Dependent on the type of panel material, different tooling may be required. Please refer to the assistance of appropriately qualified maintenance personnel.

#### *Optional tools required:*

- Hammer
- Fine steel file
- Awl or center punch
- Tape
- Tape measure

## 3.0 Installation Guide

### 3.1 Prepare mounting panel

Using the drilling template DT-512152, align the paper template at the desired location, mark the location of the holes to be drilled and the rectangular cut out to be made.



**CAUTION:** Be sure to follow all relevant building standards, codes or regulations and any stipulated safety procedures. Do all appropriate research before commencing work. Kaba Ilco is not responsible for damage or malfunction due to incorrect installation resulting from non-compliance to any building codes, standards or regulations or non-conformance to any stipulated safety procedures.

### 3.2 Cut out hole for insert reader

Using the appropriate tool cut out the rectangular hole for the insert reader. Using the 5/32" (4mm) drill bit, drill the 2 holes needed in the mounting panel for the insert reader attachment.



**CAUTION:** Make sure to remove all burrs and sharp edges after cutting, drilling or tapping operations.

### 3.3 Connect wiring to reader

#### 3.3.1 Connect cables to reader, see fig.1

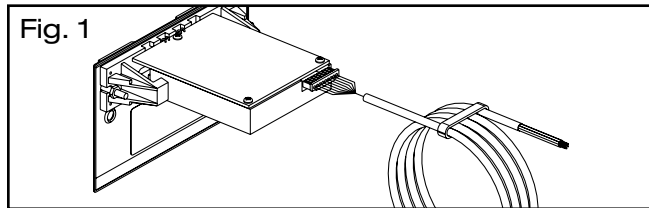


Table 1

Signal Name	Insert Reader Wire Color	Extension for Cable Length over 15ft. Cable Color	RAC 3.5 Ingress Reader Connection	RAC 4/4XT Ingress Reader Connection	RAC 4XT Egress Reader Connection
+12V	Purple	Orange/White	JP3-1	J1-3	J14-3
GND	Purple/Black	White/Orange	JP3-2	J1-2	J14-2
DATA+	White	Black/White	JP3-7	J2-1	J13-1
DATA-	White/Black	White/Black	JP3-8	J2-2	J13-2
GREEN_LED+	Red	Red/White	JP3-3	J3-1	J12-1
GREEN_LED-	Red/Black	White/Red	JP3-4	J3-2	J12-2
RED_LED+	Yellow	Yellow/White	JP3-5	J3-3	J12-3
RED_LED-	Yellow/Black	White/Yellow	JP3-6	J3-4	J12-4
Not Used (Shield)	Black	Shield	-	-	-
Not Used)	-	Brown/White	-	-	-
Not Used	-	White/Brown	-	-	-

#### 3.3.2 Cable Extension

If the 15ft. cable supplied with the reader is not long enough, use gauge 24 (or bigger) shielded cable with 4 pairs to make an extension (up to 500 ft.). Make sure that all pairs on the cable are connected

#### 3.3.3 Connect wires

Depending on the RAC system, follow the appropriate sub section listed below.

##### 3.3.3.1 For RAC 3.5:

Refer to RAC 3.5 Installation guide PK2918. Connect the cable to JP3 as per table 1.

##### 3.3.3.2 For RAC 4XT and RAC 4:

Refer to Installation guide PK3191 for RAC 4XT or PK3197 for RAC 4.

**NOTE:** RAC 4XT supports single (Ingress) or dual (Ingress & Egress) readers, while the RAC 4 supports only a single (Ingress) reader configuration.

##### For Ingress reader:

Connect the cable to J1, J2 and J3, as per table 1.

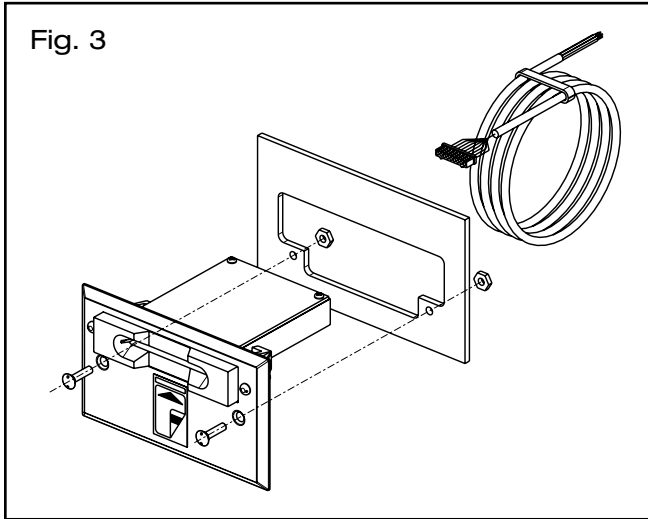
##### For Egress reader:

Connect the cable to J12, J13 and J14, as per table 1.

## 3.0 Installation Guide (Continued)

### 3.4 Insert reader to panel mounting

Slide the insert reader inside the cavity and use the two spanner screws (6-32 x 3/4") and the two hexagon lock nuts 6-32, to screw the insert reader onto the panel (see fig. 3).



## 4.0 Using the Insert Reader

### 4.1 Using the card

To swipe the card, it needs to be inserted into the reader with the magstripe facing down to the right.

### 4.2 Programming

Depending on the RAC version installed, refer to the proper Installation Guide:

RAC 3.5 ..... PK2918

RAC 4XT ..... PK3191

RAC 4 ..... PK3197





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