LOCKONE®

**Not FF-L-2890B Approved**
Exit Only Model

# LKM10K

## High Security Life Safety Exit Device


# EXIT ONLY
# Push Pull Handle Model
# Installation Instructions

LOCKMASTERS®
INCORPORATED

**In A Single Motion, We'll Change The Way You Think About Security.**

Model: Exit Only Push/Pull Handle

The LKM10K is the second generation of pedestrian door lock devices produced by Lockmasters Inc. It was designed from the ground up to meet the needs to secure Sensitive Compartmented Information Facilities while combining Panic Hardware.

The EXIT ONLY Model is not FF-L-2890B approved, however it is approved for Government use. Since there is not a traditional Exterior Trim with a lever handle, no lock or Key Override can not be installed, so it doesn't meet Type I or II of the Federal Specification. It is for use on inswing or outswing pedestrian doors.

***Read the instructions thoroughly prior to installation.***

# WARNING: THIS IS A FAIL SECURE LOCK.

It is imperative that the door remains open during installation of the LKM10K Lock Series. If the door closes and power is not connected or the Key Override Cylinder is not in place, a lock-out will occur.

**Door Seals, Gaskets and Brackets:** All seals, gaskets & brackets must be in place and applied to the door frame PRIOR to installing the LKM10K lock series. If the seals are installed after the LKM10K has been installed the lock may not latch properly.

**Drilling a Hollow Metal Door:** To avoid alignment problems you should never drill a through hole in a hollow metal door. To ensure a straight hole, you should drill through one side of the door then drill through the other side to complete the hole.

## IMPORTANT SAFETY NOTES

Please read the instructions carefully. This Push/Pull Handle is designed to provide safe and reliable service if installed as described in these instructions.

### Power Tool Safety

Power tools can be hazardous when improperly used. Please follow these steps to ensure your safety.

Always operate a power tool within their design limitations

Eye & Hearing protection is recommended during installation

### General Safety

Work only in well illuminated locations

Watch for pinch hazards with vise and door

Use vise to hold items when using hand saw

UL LISTED

90 Minute Fire Rating



  

# Limited Liability Product Warranty Information

Lockmasters, Inc. warrants to the original retail purchaser for a period of two (2) year from the purchase date of the product that the product shall be free of defects in the materials and workmanship, provided there is compliance with all installation, operating and maintenance instructions provided by Lockmasters, Inc. and provided further, that the product has been subject to normal use without any misuse, negligence, or the occurrence of any accidental damaging. "Product" as used in this warranty refers to the Lock/One™ LKM10K Lock Series, not the installed combination lock.

This limited warranty is in lieu of all other warranties or conditions expressed or implied by law and/or custom.

In no event shall Lockmasters, Inc. liability exceed the original cost of the product.

Lockmasters, Inc. makes no other warranty with respect to the product, expressed or implied, including without limitation any warranty as to suitability of the product for any particular purpose or use of the merchantability thereof and shall not be liable for any loss or damage sustained through burglary, theft, robbery, fire or other hazard.

In the event of a defect in the materials or workmanship covered by this warranty, the purchaser shall return, at purchaser's expense, the product to Lockmasters, Inc. The purchaser's sole remedy shall be the repair or replacement of the product and under no circumstances shall Lockmasters, Inc. be liable to the purchaser or any other for any consequential, incidental, economic, direct or indirect, general or special damages arising out of any breach of warranty.

This warranty and remedies set forth above are exclusive and in lieu of all others, oral or written, expressed or implied. No dealer, distributor, agent or employee is authorized to make any modification or addition to this warranty.

Some states do not allow the exclusion or limitation or implied warranties or limitation of liability incidental for consequential damages, so the above limitation or exclusions may not apply to you.

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## LKM10K EXIT ONLY Push Pull Model Components

Base Plate Fully assembled out of the box

Exterior Trim Plate - **E**

Base Plate - **A**

| Component Parts List | | |
|---|---|---|
| **Letter** | **Part** | **Qty** |
| A | Base Plate | 1 |
| B | Base Plate Cover - Small | 1 |
| C | Base Plate Cover - Large | 1 |
| D | Change Key Plug | 1 |
| E | Exterior Trim Plate | 1 |

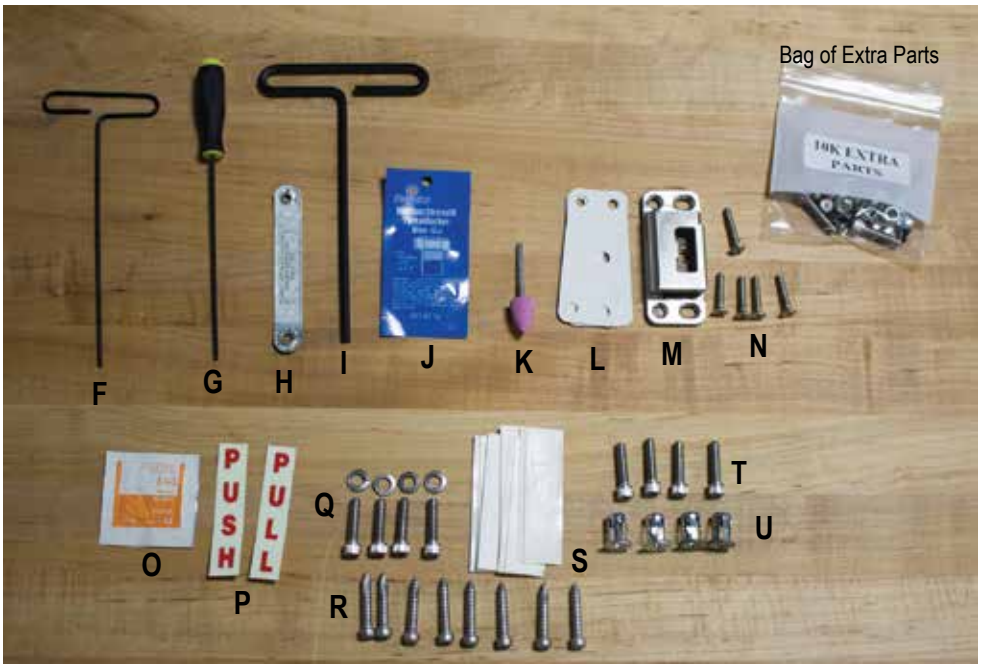
Base Plate Cover - **B**

Base Plate Cover - **C**

Change Key Plug - **D**

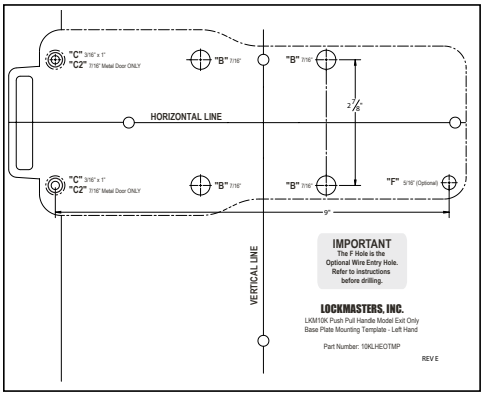
## EXIT ONLY Push Pull Assembly Components

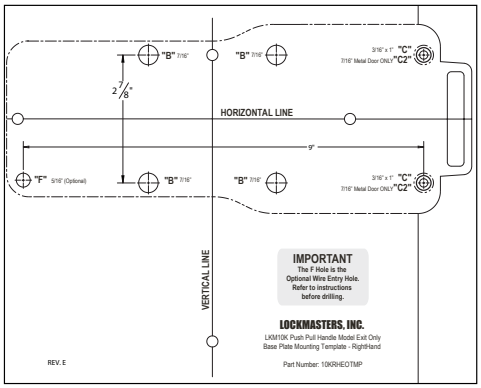



| Parts List | | |
|---|---|---|
| **Letter** | **Part** | **Qty** |
| F | 3/32” T-Handle Wrench | 1 |
| G | 3/32” Ball Hex Wrench | 1 |
| H | Jack Nut Wrench | 1 |
| I | 3/16” T-Handle Allen Wrench | 1 |
| J | Liquid Thread Locker | 2 |
| K | 1/2” Debur Stone | 1 |
| L | Strike Paper Shims | 5 |
| M | #1, #2, #3 & #9 Strike* | 1 |
| N | Strike Screws | 5 |
| O | Alcohol Prep Pap | 1 |
| P | Pull Push Labels | 2 |
| Q | 1/4-20x1-1/8” Socket Head Cap Screw (SS mounting screws) & Split Washers | 4 |
| R | 1/4-20x1-1/4” SS Oval Head Machine Screws | 8 |
| S | Double Sided Tape | 6 |
| T | 1/4-20x1-1/4” Socket Head Screw (Jack Nut mounting screws) | 4 |
| U | Jack Nut (Metal Door Only) | 4 |
| V | Push/Pull Exit LH & RH Template | 2 |
| W | Exterior Trim Template | 1 |

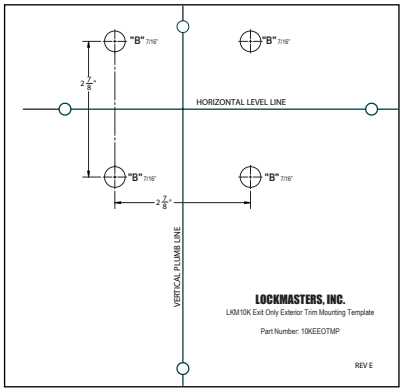
* Selected at time of purchase, #2 shown.

**V**

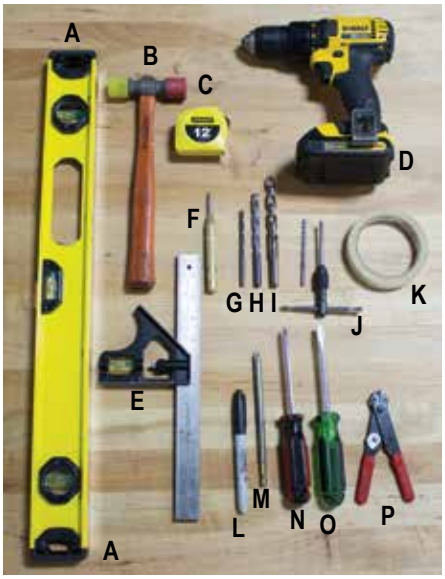



**W**




## Tools Needed




| Tool List | |
|---|---|
| **Letter** | **Part** |
| A | Level |
| B | Rubber Mallet |
| C | Tape Measure |
| D | Cordless Drill |
| E | Slide Square |
| F | Center Punch |
| G | 3/16” Drill Bit |
| H | 5/16” Drill Bit |
| I | 7/16” Drill Bit |
| J | 10-24 Tap & Handle with #25 Drill Bit |
| K | Masking Tape |
| L | Sharpie or Pencil |
| M | 1/4 Philips Bit |
| N | Philips Screwdriver |
| O | Flat Scresdriver |
| P | Wire Strippers |

## Position the Strike

**Step 1 – Temporarily install the strike**

1a - Make a mark on the door frame 43" above the finished floor.

1b – Now with your combination square extend the mark across the door frame.

1c - Attach the double stick tape (S) to the back of the strike.

1d - Secure the strike (M) into position with the strike's center alignment hole at the 43" mark.

***Acoustical Door Note:* Make sure all sound seals and gaskets are in place and applied to the door frame prior to installing the LKM10K Lock Series. Use a strike bracket if needed when installing the lock on outswing acoustical doors. The bracket and strike must be in place before positioning the installation templates.**

***Note: At 43" the strike, handle and dial are within ADA requirements.***

***LKM10K EXIT ONLY Push Pull Model supports a #1, #2, #3 & #9 strikes***

1a - Position strike at 43" above finished floor

1b - Make a straight line across door frame

1c - Attach double stick tape to the back of the strike.

1c - Center the Strike's center hole over the 43" mark and attach.

## Install & Mark the Base Plate Mounting Template

**Step 2 – Mark For the Template Installation**

2a – Put multiple marks across the door 43" above the finished floor, at least 12" across. Draw a line connecting the marks with a level or straight edge to create the horizontal line. Extend the line to the edge of the door. Check the accuracy of the line with the level.

2b – Use the combination square to extend the horizontal line around the edge of the door.

2c – Continue extending the horizontal line to the Exterior Trim side of the door with the combination square at least 10".

2a - Make multiple marks across the door at 43" from the finished floor

2a - Connect the marks with a level

2b- Extend Horizontal line to door's edge

2c- Continue Horizontal line to Exterior Trim side at least 10" across the door.

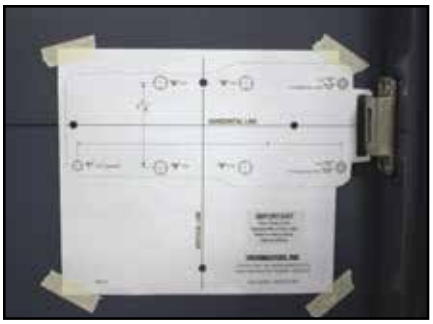
## Attach Base Plate Template

**Step 3 – Position & Attach the Base Plate Template**

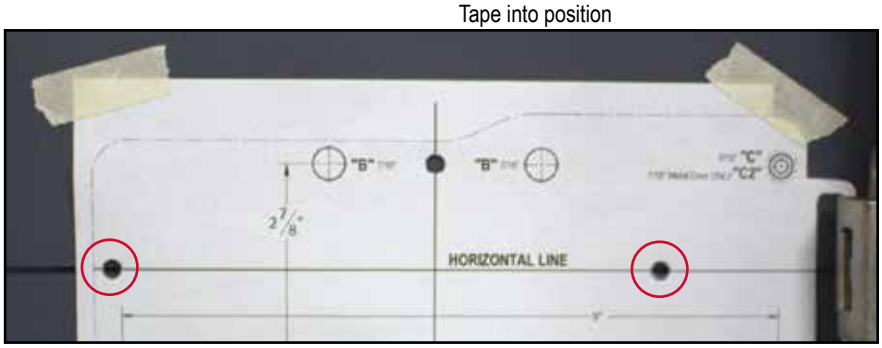
3a – Close the door. Align the pre-punched bail on the Base Plate Template (V) over the strike maintaining equal clearance and attach with one piece of tape.

3b - Now align the 2 pre-punched holes on the template's horizontal line with the marked line on the door and tape into position. (See figure 1)

3a - Align Base Plate Template around Strike

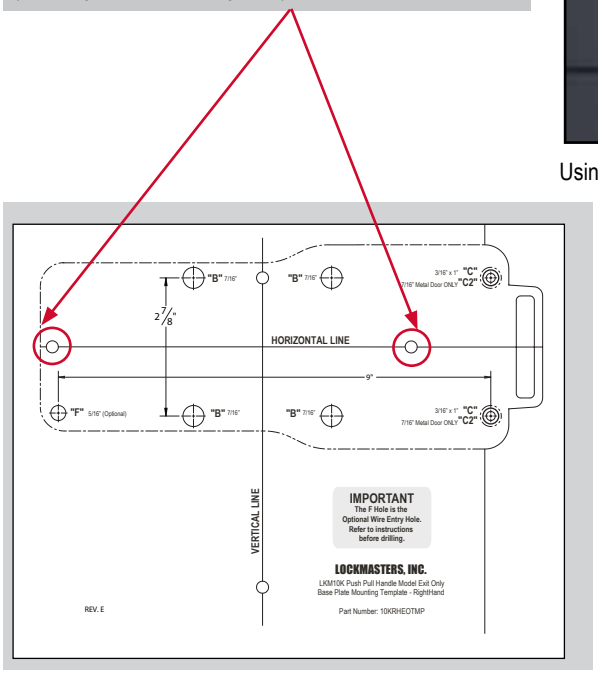


3b - Align the 2 pre-punched holes on the template horizontal line with the marks on the door. Tape into position




Using pre-punched holes to align with marks on doors.

(Figure 1) POSITION BASE PLATE TEMPLATE - Align the Base Plate template's Horizontal Line to the Horizontal lines you just marked through the (2) Pre-Punched Holes (See large red circle in figure 1)




## Mark for Exterior Trim Template

Step 4 – Mark for the Exterior Trim Template (W)

### *Note: For beveled door edge*

IF the door has a beveled edge, establish the high side of the bevel using the combination square. If it has a bevel the square must be flat against the door and flat against the high edge. You will see a gap between the door and combination square. (See Figure 2)

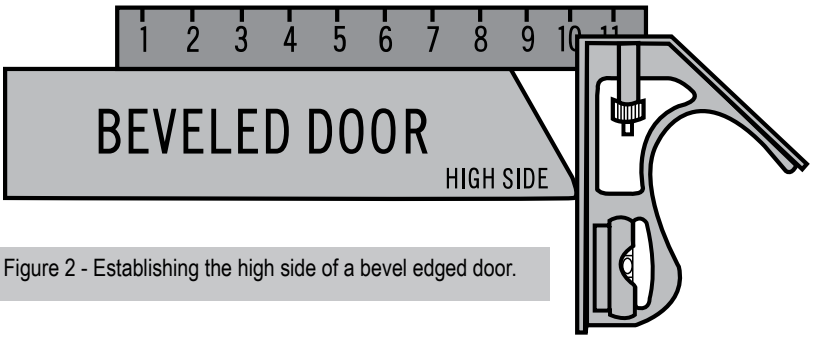
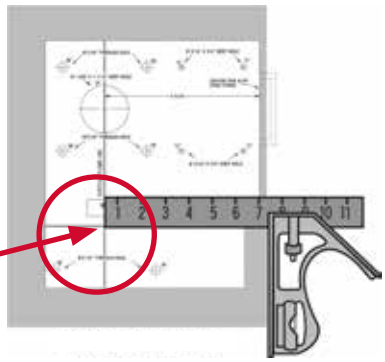



Figure 2 - Establishing the high side of a bevel edged door.

**Step 4 – Position the Exterior Trim Plate Template Continued**

4a – Once the high side of the beveled door is established, loosen the combination square and position the ruler to the vertical line on the Base Plate template and tighten the combination square. (See Figure 3)

(Figure 3) ESTABLISH VERTICAL LINE
On the Base Plate template position the combination square against the vertical line.



4a - Align combination square with Base Plate Template's vertical line.

4b – Transfer the vertical line by flipping the combination square to the other side of the door and make two marks at the end of the ruler approximately 6" apart.

4c – With the level or straight edge positioned on the marks draw the vertical line at least 9". This establishes a vertical line on the exterior trim side of the door.

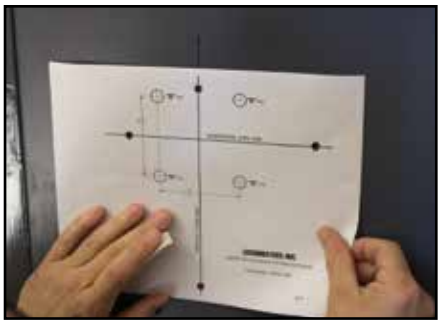
4b - Transfer vertical line to the Exterior Trim side of the door

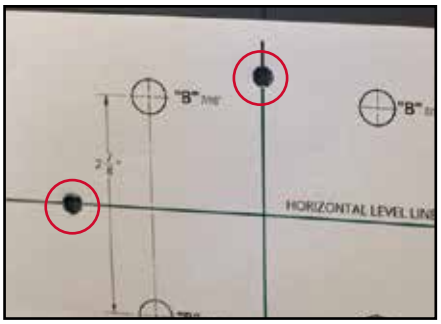
4c - Draw the vertical line from the transfered marks

## Attach Exterior Trim Template

**Step 5 – Position & Attach the Exterior Trim Template**

5a – Use the 4 pre-punched holes on the Exterior Trim template (W) to align the vertical and horizontal lines drawn on the door. Tape the template into place.
*Note: Trim any excess template if it hangs past the doors edge.*






5a - Using the template's pre-punched holes to match the templates vertical & horizontal lines to the marks you just created

5b – Once both templates are attached double check that the marked horizontal and vertical lines are centered in the pre-punched holes on the templates. (See Figure 4)

(Figure 4) POSITION EXTERIOR TRIM TEMPLATE - Align the Exterior Trim template's Vertical & Horizontal Lines to the Vertical & Horizontal lines you just marked using the (4) Pre-Punched Holes (See large red circle in figure 5)

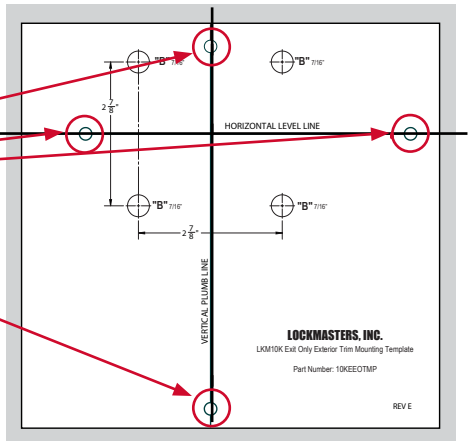



Figure 4 - Sample Template

## Center Punch & Label Holes

**Step 6 – Center punch and label holes**

Step 6A - Begin on the Base Plate side of the door. Use a center punch to mark "punch" the following holes:

4 - (B) Exterior Trim Plate attaching holes

2 - (C or C2) Inside Base Plate attaching holes

C - Wood Doors C2 - Metal Doors

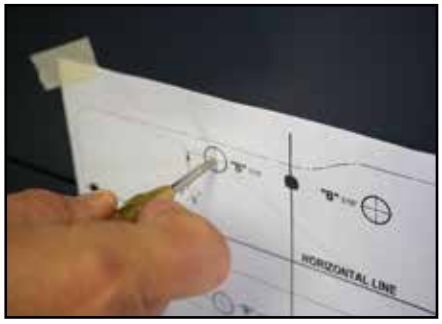
1 - (F) Wire Entry hole (Optional) - ***The Internal Raceway needs to terminate at the F Hole***

NOTE: The F hole is an optional Wire Entry hole. Only punch if LKM10K Base Plate's Deadbolt status switch is being utilized.

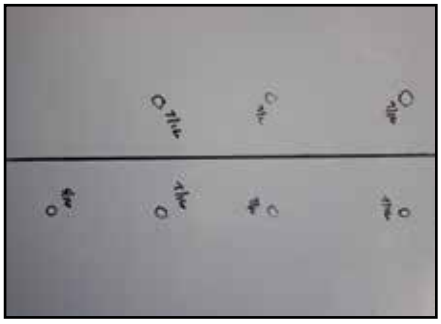
Step 6B – Re-tape the template above the punched holes for easy reference. Label all the hole diameters from the template to the corresponding the holes on the door for reference during drilling.

Step 6C – Move to the Exterior Plate template and center punch to mark "punch" the (4) B holes.

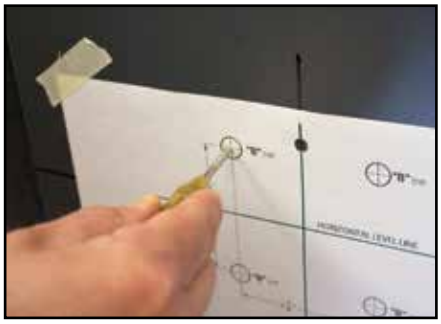
Step 6D - Re-tape the template above the punched holes for easy reference. Label all the hole diameters from the template to the corresponding the holes on the door for reference during drilling.



6a - Base Plate side of the door center punch all the holes you are going to drill



6b - Label all hole diameters from the template to the corresponding holes on the door



6c - Exterior Trim side of the door center punch all four B holes

6d - Label all hole diameters from the template to the corresponding holes on the door

## Pilot Drill Holes

**Step 7 – Drill Pilot Holes**

We recommend using a 3/16" drill bit to pilot drill all center punched holes to a depth of no more than 1"

7 - Pilot drill all holes with a 3/16" bit

***HOLLOW METAL DOOR NOTICE***

***Due to alignment issues, you should never drill a through hole in a hollow metal door. To ensure level through hole you should drill through one side of the door then drill through the other side of the door. When drilling a hollow metal door you need to use a metal cutting hole saw.***

## Drilling The Holes

**Step 8 – Drill the Base Plate side of the door**

8a - WOOD DOOR - Drill the 4 – (B) Exterior Trim attaching holes- use a 7/16" wood drill bit to a depth of 1-1/2".

8a – METAL DOOR – Drill the 4 – (B) Exterior Trim attaching holes – use a 7/16" metal drill bit through the outer skin only.

8b – WOOD DOOR Drill the 2 – (C) Base Plate Attaching holes use a 3/16" drill bit to a depth of 1".

8b - METAL DOOR Drill the 2 - (C2) Base Plate Attaching holes use a 7/16" drill bit through the outer skin only to accommodate the supplied jack nuts.

8c – WOOD DOOR – *Optional* Drill the 1 (F) Wire Entry hole using 5/16" wood drill bit into the raceway

8c – METAL DOOR – *Optional* Drill the 1 (F) Wire Entry hole using 5/16" metal drill bit into the raceway

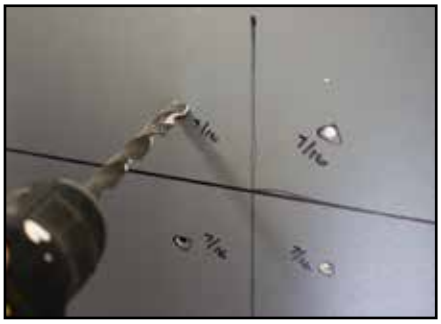
8a - Base Plate side of the door drill all (4) Exterior Trim B attaching holes

8b - Base Plate side of the door drill both Base Plate attaching holes (C2 for metal)

**Step 9 – Drill the Exterior Plate side of the door**

9a - WOOD DOOR – Drill the 4 (B) Exterior Trim Attaching Holes – Use a 7/16" wood cutting bit, drill to a depth of 9/16" and connect to the previously drilled 5/16" (B) Exterior Trim/Base Plate Attaching Holes.

9a - METAL DOOR – Drill the 4 (B) Exterior Trim Attaching Holes – Use a 7/16" metal cutting hole saw and drill through the outer skin.



9a - Base Plate side of the door drill all (4) Exterior Trim B attaching holes

## Prep Drilled Holes

**Step 10 – Prep All Drilled Holes**

10a – WOOD & METAL DOORS - Use the debur stone (K) to debur all drilled holes

10b – WOOD DOOR pre-thread the 2 (C) Base Plate attaching holes using one of the Phillips head thread forming screws (R). A #2 square drive bit works well with the screws

10a - Debur all

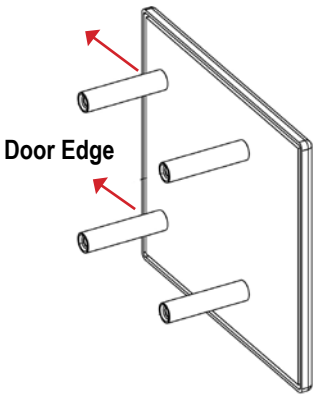
## Attach the Exterior Plate to the Door

Step 11 – Position the Exterior Plate (E) with the narrow offset side toward the door's edge (see Figure 5).

Step 11A – Insert the front plate stand-offs into the (4) B holes on the front of the door. The front plate is designed to fit a 1 ¾" thick door. A snug fit is normal.

Tip - Use a piece of double sided tape (S) to hold the Exterior Trim Plate into position.

(Figure 5) Front Plate Offsets
The short offset side of the Front Plate goes toward the door's edge.




Tip - Use a piece of double-sided tape to hold the Exterior Trim Plate into place

11a - Insert the Exterior Trim Plate's stand-offs into the (4) B holes on the front side of the door.

## Remove Base Plate Cover

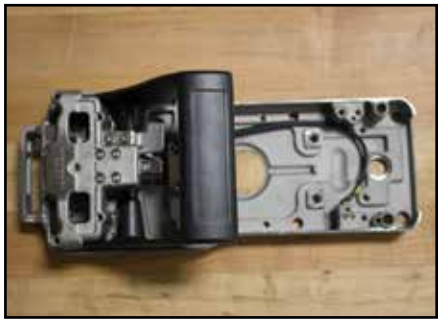
Step 12 – Remove the Base Plate Cover
12a - With the supplied 3/32" ball hex wrench (G) begin removing all of the (8) flat head back cover screws.

12b - Once the screws are removed slide the smaller "nose cone" (B) cover off first. Then slide the larger portion (C) off.

12a - Remove ALL (8) flat head back cover screws.

12b - Slide the smaller "nose cone" cover off first.

12b - Remove the larger portion of the cover off second.



12 - Base Plate with both covers removed

## Insert the Jack Nuts into the Door

Step 13 – Insert Jack Nuts

***For METAL DOOR installations. Jack Nuts are required to maintain the fire rating on the door.***

13a - Insert (1) supplied Jack Nut (J) into (1) 7/16" C2 hole.

13b - Insert a 1/4"-20 cap screw (T) into the supplied Jack Nut Wrench (Q).

13c - Insert the screw into the Jack Nut and thread until flush against the wrench.

13d - Apply pressure with the wrench against the door so the Jack Nut does not turn.

13e - Use your supplied 3/16" T-handle hex wrench (H) and begin to tighten the screw. The pressure from the wrench will allow the Jack Nut to collapse while your tighten the screw.

13f - Once the Jack Nut is firmly seated, remove the screw and remove the wrench.

13g - Repeat steps 13a - 13f on the remaining C2 hole.


13a - Insert Jack Nut into C2 hole


13b - Insert screw into Jack Nut Wrench


13c - Thread screw into Jack Nut until flush


13d & e - With pressure on wrench tighten screw


13f - Jack Nut firmly seated, screw removed

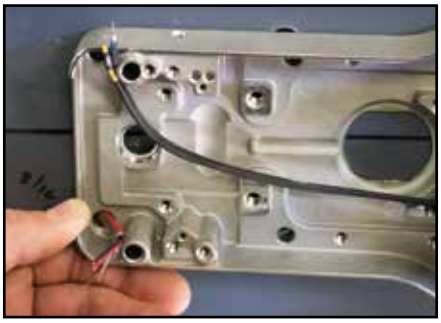
## Attach Base Plate to the Door

Step 14 – Secure the Base Plate (A) to the Door

14a - Make sure you pull all wire through the optional (F) hole on the Base Plate.

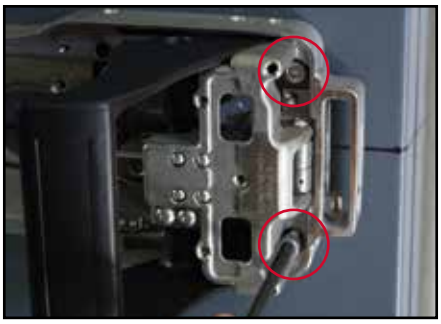
14b – WOOD DOOR – Once the Base Plate rests flush against the door, secure with (2) (R) thread forming screws into the front (2) C holes.

14b - METAL DOOR - Once the Base Plate rests flush against the door, secure with (2) (T) ¼"-20x1-1/4" socket head screws into the (2) front C2 holes. ***Apply thread locker to the screws prior to installing.***



14a - Make sure you pull all wire through the optional (F) hole on the Base Plate if drilled

14b - Align Base Plate with drilled holes and secure to the door with 1/4"x20-1-1/4" socket head screws into (2) front C2 holes.



14b - Align Base Plate with drilled holes and secure to the door with 1/4"x20-1-1/4" socket head screws into (2) front C2 holes.

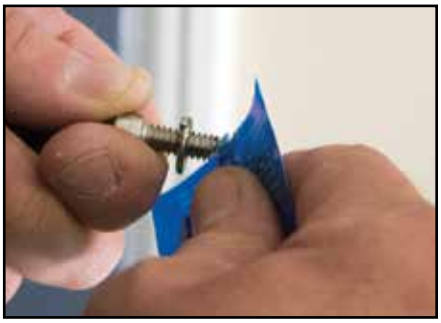
## Attach Exterior Trim to the Door

15a – To ensure vibration doesn't loosen the screws over time we provide split washers (Q) and a pack of thread locker (J) for use on the (4) 1/4"-20x1-1/8" socket head machine screws (Q). They are used to secure the Exterior Trim. Simply place a few drops of liquid onto the thread prior to use.

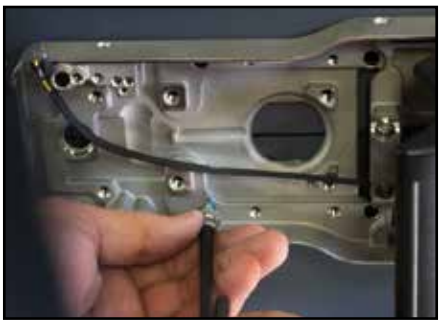
15b – WOOD DOOR - On the Base Plate side of the door, permanently attach the (4) ¼"-20x2-1/8" (Q) screws. These (4) screws will go into the (4) upper B holes.

15c – METAL DOOR – On the Base Plate side of the door, permanently attach the Exterior Trim with the (4) ¼"-20x1-1/8" hex head (R) machine screws. These (4) screws will go into the (4) upper B holes.

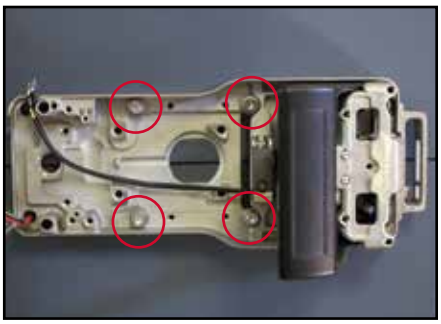
15a - Put split washer onto (4) 1/4"-20x1-1/8" socket head machine screws.



15b - Apply Thread Locker



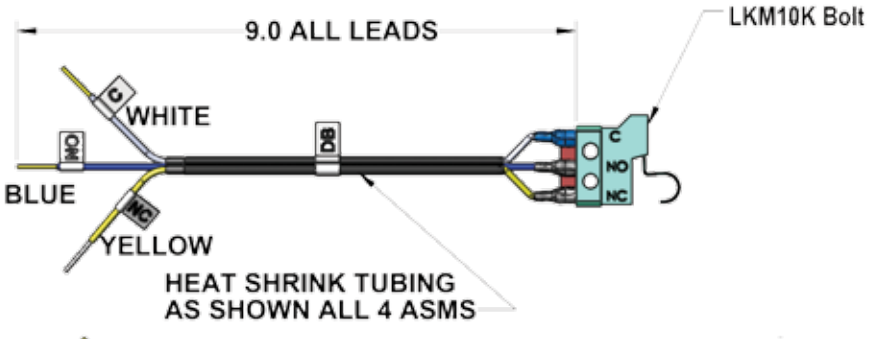
15c - Insert the (4) 1/4"-20x1-1/8" screws and split washers into the (4) B holes.



Exterior Trim Attached through the Base Plate

### STANDARD STATUS SWITCH WIRING

(Figure 8) WIRE DIAGRAMS
The Dead Bolt Status Switch can be used as an option in order to monitor the position of the dead bolt of the LKM10K Lock Series.




White - Common
Blue - Normally Open
Yellow - Normally Closed

## Attach the Cover on the Base Plate

Step 16 – Attach the cover on the Base Plate (A)
16a - Align the smaller section of the Base Plate Cover (B) and secure with 2 screws.

16b - Carefully slide the larger section of the Base Plate Cover (C) over the Base Plate and through the Handle and align the screw holes up and secure with 8 screws.

16a - Align the smaller "nose" section of the Base Plate Cover and secure with screws

16b - Slide the larger cover section onto the Base Plate and secure with the 8 screws.

## Push/Pull Decal

Step 17 – Applying the correct Push/Pull decal to the Base Plate handle

17a - Clean the surface of the handle with the enclosed rubbing alcohol (D) to ensure good label adhesion.

17b - Place the Push or Pull decal (P) on the Base Plate handle depending on the swing of the door.

17a - Clean the handle with rubbing alcohol


17b - Place the correct Pull or Push label on the Base Plate Handle

## Final Strike Installation

Step 18 – Final Strike Adjustment & Installation
18a - Close the door and make sure that no part of the Push Pull Base Plate is rubbing the strike, if so remove and reposition.

**Note:** The LKM10K trigger should engage the notched area on the strike. These notched strikes are exclusive to the LKM10K Lock Series and MUST BE USED.

18b - Center punch the (2) slotted holes on the strike.

18c- Use a #25 drill bit to drill pilot holes on the (2) slotted holes

18d - Use a 10-24 tap and tap the (2) slotted holes

18e - Secure the strike (M) to the door frame using (2) strike screws into the drilled & tapped holes.

18f - Check strike (N) alignment again and make any needed adjustments. Loosen the screws to make horizontal adjustments and add shims (L) if necessary.

18g - Once in the correct position tighten both screws into the slotted holes and center punch the remaining (3) strike holes.

18h - Use a #25 drill bit and drill pilot holes in the remaining (3) holes & tap with a 10-24 tap.

18i - Apply thread locker to strike screws and attach the strike.

18j - Remove the (2) screws from the slotted holes, apply thread locker and re-attach.

18a - Make sure Base Plate is not touching the strike.

18b - Center punch the 2 slotted holes on the strike (top and bottom holes)

18c - Drill Pilot holes with #25 drill bit

18d - Tap the slotted (top and bottom) strike holes

18e - Secure strike to the frame with (2) screws in the slotted holes

18h - Once in position Center Punch remaining (3) holes.

18h - Drill Pilot Holes in the remaining (3) strike holes and tap.

18i & j - Apply Thread Locker to strike screws and attach strike. Remove the (2) previously installed screws, apply Thread Locker and re-install