KVI

Access Control Keypad for MK-DV, JB-DV

- INSTRUCTIONS -

The KVI is a surface mount electronic access control keypad for use with Aiphone's MK-DV or JB-DV video door station. Designed with the same aesthetic look as the door station, this keypad allows access for authorized personnel with up to 100 unique PIN codes. Use the KVI for residential or commercial applications along with the Aiphone MK or JB Video Entry system for a complete audio, video, and access control package.

1 NAMES & FEATURES

KVI Keypad

NAMES & FUNCTIONS:
1. Operation LEDs
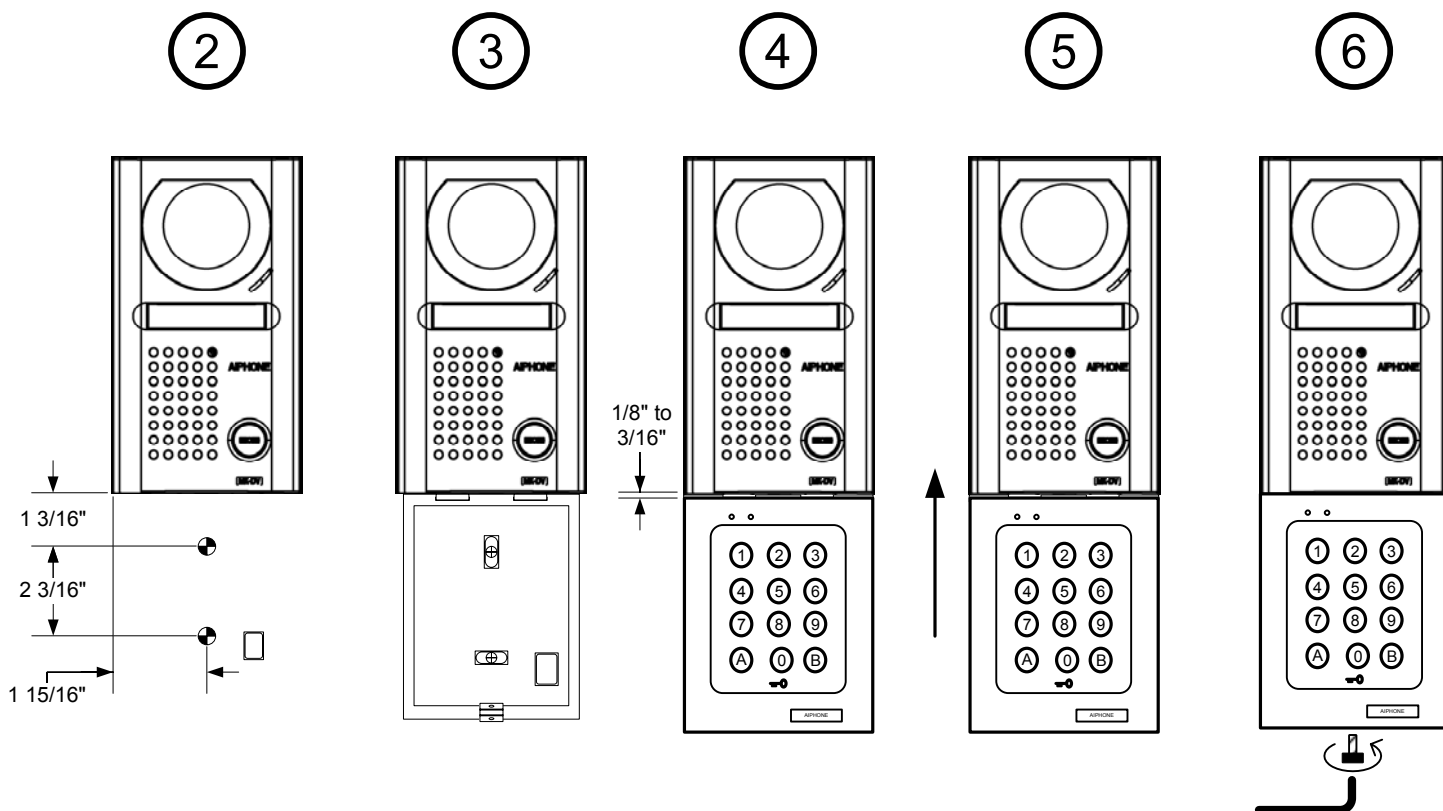2. Digital keys
3. Zinc diecast case

FEATURES:
· Streamline surface mount design
· Compatible with MK-DV or JB-DV
· Can be used as a standalone access control keypad
· 12-digit backlit panel
· Programmable with 100 unit pin codes (4 or 5 digits)
· One programmable master code, 4 or 5-digits
· 2 request-to-exit inputs
· 2 Relay outputs: N/O & N/C
· Red LED lights when relay #1 is activated
· Green LED lights when relay #2 is activated

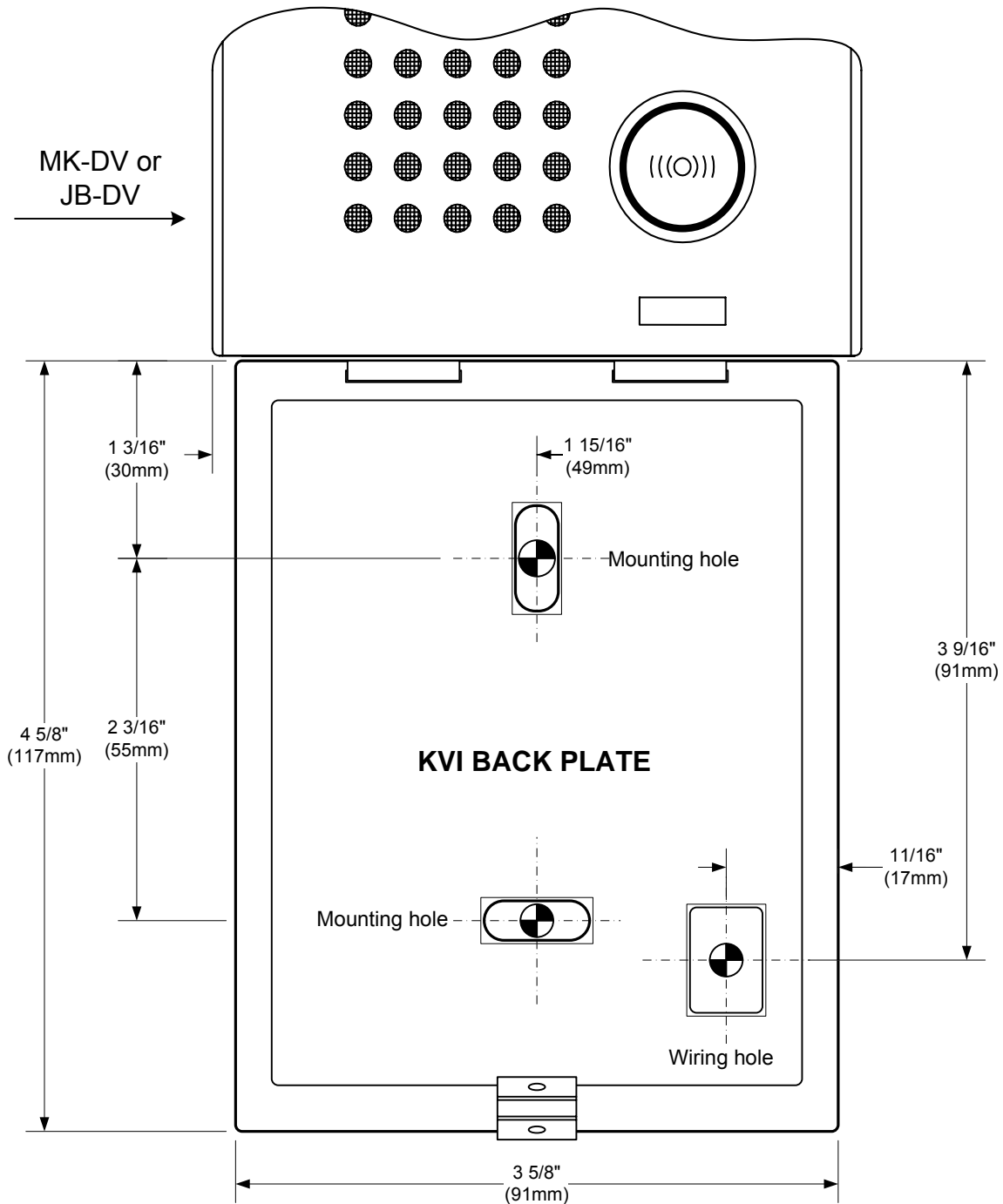| MOUNTING HARDWARE: Qty Description	
1 TORX M4x10 screw	
1 TORX T20 Tool	
2 M4x30 screw	
2 S5 plastic anchor	
1 05D 680K varistor	

2 INSTALLATION & MOUNTING

Mounting Instructions:

1. After the MK-DV or JB-DV video door station has been installed, position KVI mounting bracket underneath and mark mounting hole positions. (Use exact dimension template on page 3 for positioning.) Top KVI bracket mounting hole should be 1-3/16" below the bottom of the video door station.

2. Drill two mounting holes, 3/16" diameter, 1-3/8" depth (Ø5mm, depth 35mm) and an access hole for the multi-conductor connecting wire. (See illustration on page 3.)

3. Install the plastic anchors in mounting holes.
    Mount the KVI back plate with the M4x30 screws.

4. Insert the KVI keypad cable in the wiring access hole (lower right corner). Place the KVI keypad against the back plate, leaving a gap of 1/8" to 1/4" between the bottom of the video door station and the top of the keypad.

5. Slide the keypad up (matching up to the bottom of the video door station). The keypad will slide into the clips at the top of the bracket.

6. Make sure the keypad covers the back plate (the bottom of the keypad seated properly on the back plate). Install the M4-10 screw in the bottom of the keypad, using the Allen key to tighten the screw (Torx T20).

2 INSTALLATION & MOUNTING

MOUNTING TEMPLATE:

MK-DV or
JB-DV →

(((O)))

1 3/16"
(30mm)

1 15/16"
(49mm)

Mounting hole

3 9/16"
(91mm)

4 5/8"
(117mm)

2 3/16"
(55mm)

KVI BACK PLATE

11/16"
(17mm)

Mounting hole

Wiring hole

3 5/8"
(91mm)

NOTE: This diagram is actual scale, and can be copied for use as a template for mounting the KVI.

3 WIRING DIAGRAM

12-24V AC/DC

| Power in | Black |
| Power in | Red |

KVI KEYPAD

Strike # 1

power

varistor

N/O Contact #1	Orange
Common Contact. #1	Pink
N/C Contact #1	Brown

Request-To-Exit Switch #1

NOTE: Either contact can operate an electric strike or magnetic lock (connected with either the Normally Open or Normally Closed output).

Request-To-Exit #1	Green
R-T-E Common	Yellow
Request-To-Exit #2	Lt. Blue
	Lt. Green

Request-To-Exit Switch #2

Optional contact for "Request-to-Enter" function (See page 5)

Mag Lock #2

power

varistor

N/C Contact #2	Dark Blue
Common Contact #2	Purple
N/O Contact #2	Gray

4 SETTINGS

DEFAULT VALUES:
· Master code: 12345
· Pin Code length: 5 digits
· Timed relay output (Relay 1 and 2): 1 second
· Backlit time per use: 10 seconds
· Key-in keypad time: 120 seconds
· No Pin codes pre-programmed

PIN CODE LENGTH:
· The Master code and the Pin codes must have the same code length.
· The Master code and the Pin codes can be set to either a 4 or 5 digit code.
· All the digit keys on the keypad can be used in a Pin code (0 to 9, A and B).
· The master code cannot be used as a Pin code.
· Codes 0000 and 00000 are strictly used to delete a Pin code, and cannot be set as a Pin code.
· Each key-in on the keypad lights the red LED.

REQUEST TO EXIT:
· The request-to-exit input 1 (green & yellow wires) activates relay 1.
· The request-to-exit input 2 (blue & yellow wires) activates relay 2.

REQUEST TO ENTER:
A separate timer or switch may be connected across the light green and yellow wires to allow the 0 button to function as a request-to-enter button. If the timer or switch contact is closed, the 0 button will function as a request-to-enter button. If the contact is open, the 0 button will function normally.

SETTING THE CODE LENGTH AND THE MASTER CODE:
1. Enter the master code twice (for the first use, the master code default value is "12345"). The red LED will light up to confirm entry into programming mode.

    NOTE: If you change the code length to a 4 digit from the default 5 digit, you must change the master code to a 4 digit code prior to exiting programming or you will not be able to re-enter the program mode. If this happens, a manual reset of the system would then be required. Refer to page 6 for reset procedure.

2. Enter "A3" to set the code length (both pin code and master code). The green LED will light up for 1 second. Enter "4" for a 4-digit code length or "5" for a 5-digit code length. The green LED will light up to confirm that the code length has been accepted.

3. Enter "A4" to modify the master code. The green LED will light up for 1 second. Enter the 4 or 5-digit master code. The green LED will light up for 1 second to confirm that the new master code has been accepted.

4. Press "B" to exit programming mode. The red LED will turn off to confirm that the unit is no longer in programming mode.

    NOTE: When the red LED flashes 4 times, it indicates a data computing error.

SETTING THE PIN CODES:

Group 1: User numbers 00 to 59 activates Relay 1.
Group 2: User numbers 60 to 99 activates Relay 2.

1. Enter the master code twice (for the first use, the master code default value is 12345). The red LED will light up to confirm entry into programming mode.

2. Enter the user number (from 0 to 99). If the user number is free, the green LED lights up and turns off right away. If the user number has been previously programmed, the red LED will turn off and come on again immediately.

3. Enter the 4 or 5-digit Pin code. The green LED lights up for 1 second to confirm that the new Pin code has been accepted.

   NOTES:
   * If the new Pin code entered is already programmed or is the same as the master code, the red LED flashes 4 times to indicate a data computing error.
   * The master code cannot be used as a Pin code. Codes 0000 and 00000 are used strictly to delete a Pin code and cannot be used as a Pin code.

4. Press "B" to exit programming mode. The red LED will turn off to confirm that the unit is no longer in programming mode.

SETTING TIME DELAYS:

1. Enter the master code twice (Default setting of the master code is 12345). The red LED will light up to confirm entry into programming mode.

2. Enter "A0" to program the keypad's backlight time. The green LED will light up for 1 second. Enter the time in seconds (i.e. "10" for 10 seconds to "99" for 99 seconds). The green LED will light up for 1 second to confirm that the data was accepted.

3. Enter "A1" to program the time delay for relay 1. The green LED will light up for 1 second. Enter the time in seconds (i.e. "01" for 1 second up to "99" for 99 seconds). To program a latched contact output, enter "00" (Contact will remain latched upon code entry until the next accepted code is entered). The green LED will light up for 1 second to confirm that the data was accepted.

4. Enter "A2" to program the timed delay for relay 2. The green LED will light up for 1 second. Enter the time in seconds (i.e. "01" for 1 second up to "99" for 99 seconds). To program a latched contact output, enter "00" (Contact will remain latched upon code entry until the next accepted code is entered). The green LED will light up for 1 second to confirm that the data was accepted.

5. Press "B" to exit programming. The red LED will turn off to confirm that the unit is no longer in programming mode.

   When the Red LED flashes 4 times, a data computing error has occurred.

RESET:

1. Enter the master code twice (Default setting of the master code is 12345). The red LED will light up to confirm entry into programming mode.

2. Enter "A5". The green LED will light up for 1 second. Press "A B" to start the reset. The green LED will light up. Wait until the green LED turns off (approximately 3 seconds). The master code will be reset to the factory default value of 12345 and all the Pin codes will be deleted from the keypad.

3. Press "B" to exit from programming. The red LED will turn off to confirm that the unit is no longer in programming mode.

OR

4. Turn the power off. Short the yellow and white wires together.

5. Turn the power back on. The green LED will light while the data is being reset. Separate the yellow and white wires. The green LED will turn off when the reset function is completed. If the short is maintained between the two wires, the green LED will stay lit.

Copy this chart and use as a master copy for the Pin Codes entered into the KVI keypad.

Master Code				

→

Master Code				

→

Red LED lights on
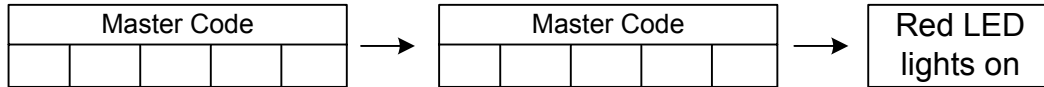
• To select code length, enter "A3". Green LED will light up for 1 second. Select desired digit length (4 or 5). Green LED will light up to confirm that the change was accepted.

• To modify master code, enter "A4". Green LED will light up for 1 second. Enter new master code. The Green LED will light up to confirm that the change was accepted.

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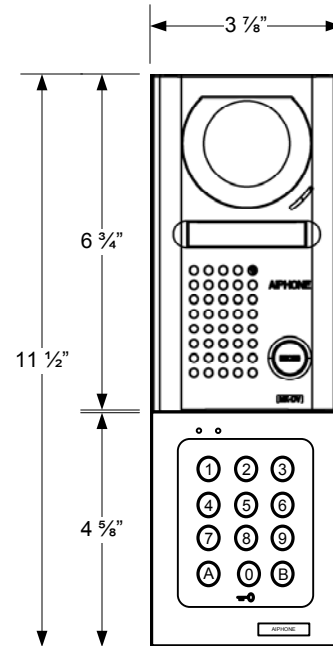| Keypad backlit time	
A0	

Time delay relay 1	
A1	

Time delay relay 2	
A2	

• Enter "A1" to program the time delay for relay 1. Green LED will light up for 1 second. Enter time in seconds (01-99). To program a latched output, enter "00". The green LED will light up for 1 second to confirm that the data has been accepted.

• Enter "A2" to program the time delay for relay 2 (same as above A1 above).

• Enter "A0" to program the keypad backlight time. Green LED will light up for 1 second. Enter time in seconds (10-99). The green LED will light up for 1 second to confirm the data has been accepted.

Input Voltage: 12 to 24V, AC or DC
Keypad: 12-digit backlit keypad
Outputs: 2 relays N/O & N/C, 6A at 250V
PIN Codes: 100 pin codes (4 or 5 digit pin codes programmable in two groups)
Master Code: 1 programmable master code, 4 or 5-digit
Inputs: 2 request-to-exit inputs
"0" key can be used as request-to-enter button, enabled with a timer relay contact
Red LED: Programming indicator and relay 1 activation indicator
Green LED: Validation in programming mode and relay 2 activation indicator
Operating temperature: -4°F to 158°F (-20°C to 70°C)
Cable Length: 9 feet
Dimensions: MK-DV/JB-DV – 6 ¾"H x 3 ⅞"W x 1"D
KVI – 4 ⅝"H x 3 ⅞"W x 1"D
Wires: 13 total.
Power = Red, Black
Relay 1 = Orange, Brown, Pink
Relay 2 = Dark Blue, Purple, Gray
R-T-E = Green, Lt. Blue, Yellow
Timer for R-T-E = Lt. Green, Yellow
Reset = White, Yellow

PROGRAM CODES:
A0: Set keypad backlit time
A1: Set timed output for relay 1
A2: Set timed output for relay 2
A3: Set PIN code length (4 or 5 digits)
A4: Modify Master Code
A5: Enter Reset Mode