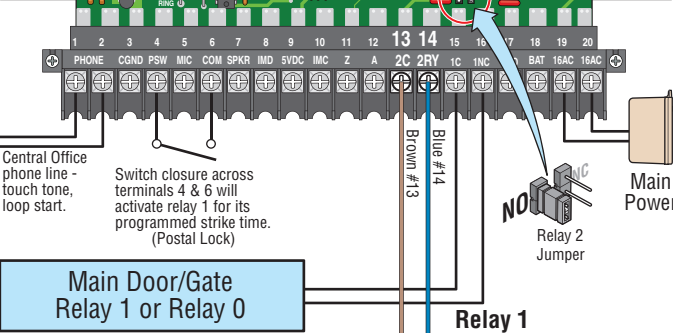
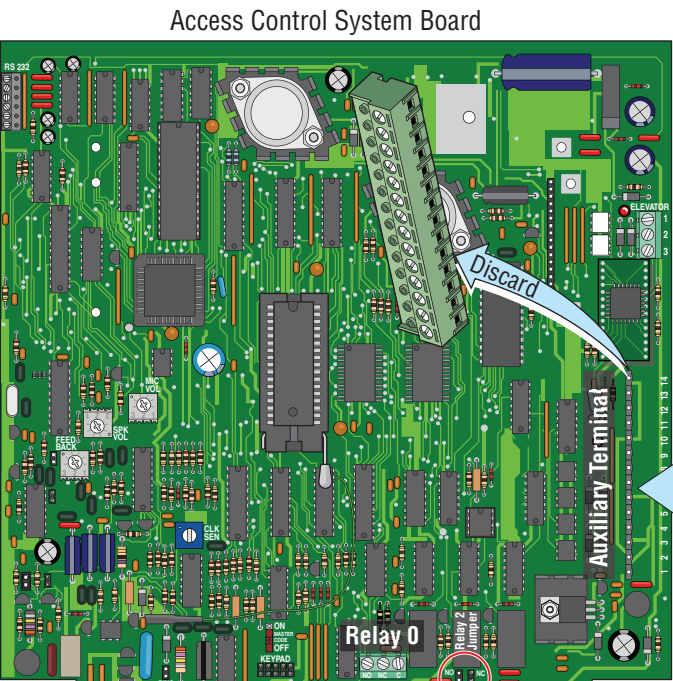


QUICKSTART "BASIC" WIRELESS TRACKER EXPANSION BOARD TO WIRELESS BASEBOARD RELAY 2 GUIDELINES

For **COMPLETE** installation instructions, please refer to the instruction sheets included with the wireless kits, **Wireless Layout and Start-Up Guide** and the **HARDwired Installation/Owner's manual P/N 2358-065**.



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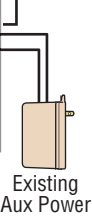
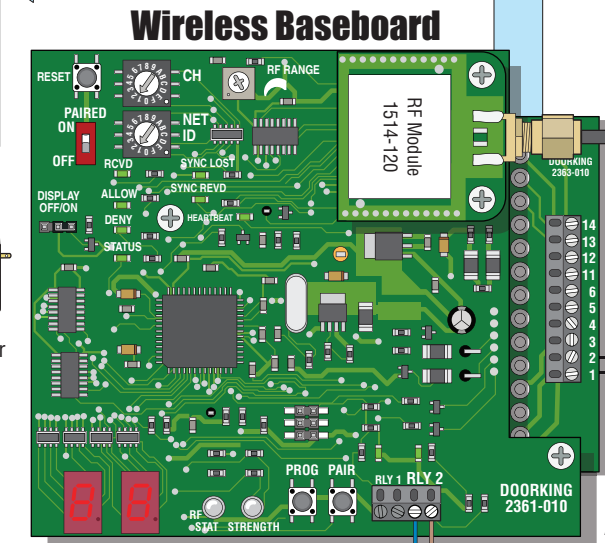


Important Note: Relay 2 is used to control wireless tracker expansion board addresses 3-10, Relay 1 or Relay 0 can be used as the Primary Relay that will open a visitor door or gate when the resident pushes "9" on their telephone.

Relay 2
Relay 2 gets activated by Wiegand 2 input.

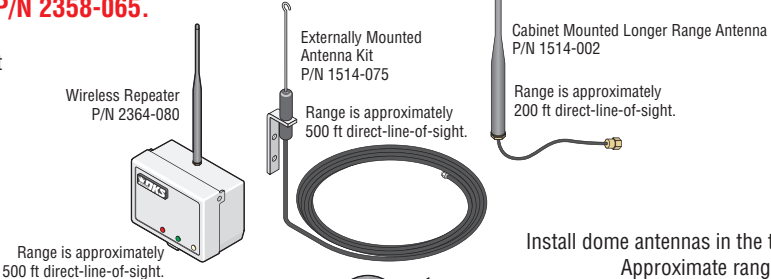
The wireless baseboard **REPLACES** the 14-pin auxiliary terminal on the access control system's board. The existing 16.5 VAC, 20 VA access control system's input power transformer is **REQUIRED** and is reconnected to the 10-pin terminal #1-#2. Antenna is **REQUIRED**.

Plug into 14-Pin Auxiliary Terminal

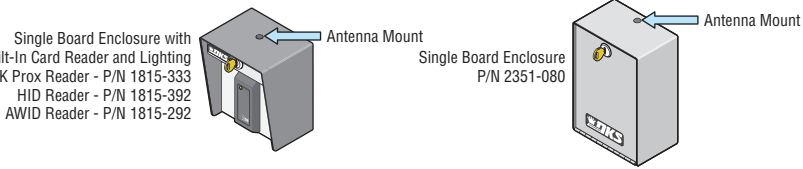


N.O. Blue
Com Brown

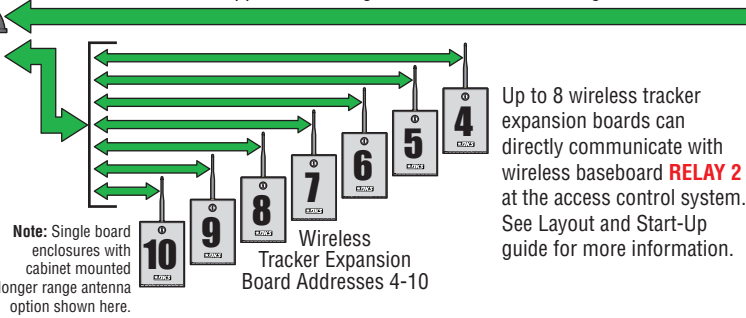
Antenna Options



Wireless Tracker Expansion Board Enclosure Options



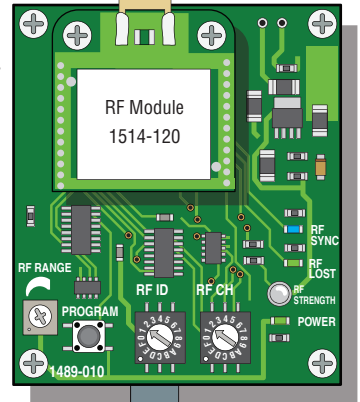
Install dome antennas in the top of a selected enclosure (not included)
Approximate range is 100 ft direct-line-of-sight.



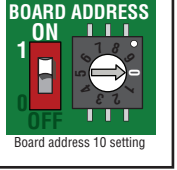
Note: Single board enclosures with cabinet mounted longer range antenna option shown here.

Wireless Tracker Expansion RF Board

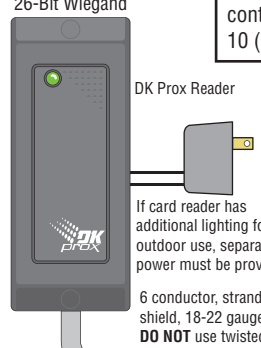
Plug the RF board into the wireless connector and secure board with 4 screws to the tracker expansion board. Power transformer must connect to tracker expansion board #33 and #34 (**REQUIRED**). Antenna is **REQUIRED**.



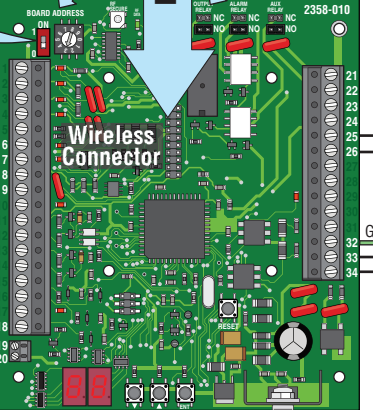
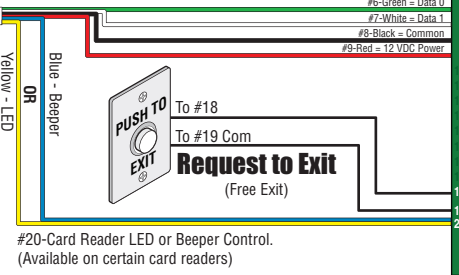
Multiple Wireless Tracker Expansion Board Address Note:
When using multiple wireless tracker expansion boards, **FIRST** board address **MUST** start at 3 and continue in order thru board address 10 (up to 8 boards) if required.



Card Reader

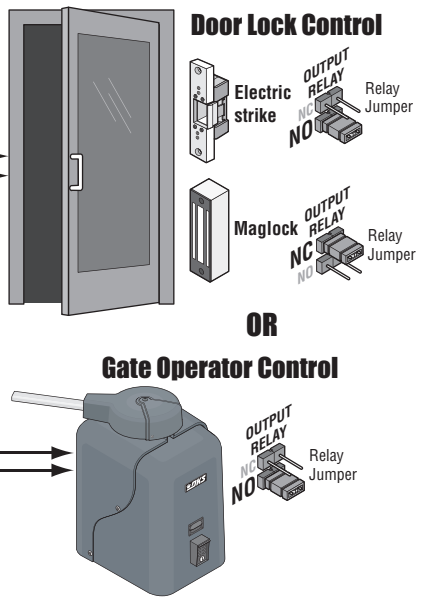


Switch **MUST** be **ON (1)** for board address 10.
Switch **MUST** be **OFF (0)** for board addresses 3 thru 9.



Tracker Expansion Board Address 3

Board Power
16.5 VAC, 20 VA
Required
18 GA. Wire 100 ft max
16 GA. Wire 200 ft max



Start-Up Wireless Communication Between Boards after Installation is Complete

Steps 1-4 **MUST** be performed on **EACH** wireless tracker expansion board used in the entire system. Power down the other wireless tracker expansion boards used in the system while performing these 4 steps on each board. See reverse side for more information.

1) **Channel Number** and **RF ID Number** must match on baseboard and all tracker expansion boards.

2) **RF Range** adjusted to Max (full clockwise) on each board. Board Address must be set correctly on each board used. See "Multiple Wireless Tracker Expansion Board Address Note".

3) Press **Program Button** on each board to save settings.

4) Press **Reset Button** on each board to reboot boards.

After the 4 steps have been performed:

- RF SYNC LED will blink **BLUE** on each board while establishing communication between boards. This may take up to 20 sec.
- RF SECURE LED on tracker expansion board will turn steady **RED** when communication has been **SUCCESSFULLY** established.

Typical Wireless Tracker Expansion Board Wiring Options for Access Point

NO "optional" tracker features or battery back-up wiring shown, see manual for details.

Multiple Wireless Tracker Expansion Board Wiring Note:
All wireless tracker expansion boards can be wired with desired options for their access points like shown on wireless tracker expansion board address 3.

QUICKSTART ADJUSTMENTS AND PROGRAMMING OPTIONS FOR WIRELESS BOARDS GUIDELINES



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IMPORTANT
CH
All tracker expansion boards **MUST** be set to **SAME** channel number as wireless baseboard.

IMPORTANT
NET ID
All tracker expansion boards **MUST** be set to **SAME** NET ID number as wireless baseboard.

RESET Button - Press to reboot board.

ON - Only accepts card codes from **PAIRED** tracker boards.

OFF - Normal Setting - Allows card codes from paired or unpaired tracker boards.

PAIRED ON
OFF

Normal Data Communication
Yellow - **RECD**
Green - **ALLOW**
Red - **DENY**
Not used - **STATUS**
Red - No Signal - **SYNC LOST**
Blinking Blue - Searching
Steady Green - connected.
HEARTBEAT:
Blinking Green - Normal

Baseboard LED Display
When board is powered up **OR** **PROG** Button is pressed, LED display (display jumper **ON**) shows **RF RANGE** adjustment setting on board for a few seconds (number has a decimal point in the lower right of the LED Display), then LED display will **automatically** change to **RF STRENGTH** number continuously (NO decimal point displayed for RF strength number). This number is the **ACTUAL** RF signal loss being sent/received by the board.

ON - Connection to at least 1 remote
Blinking - No connection
RED - Not paired
Green - Paired
STRENGTH
Green - Good
Amber - Marginal
Red - Poor

Program Button - Press after adjustment is made to **RF RANGE**, **RF ID** or **RF CHANNEL** before changes will take effect.

PAIR Button - Press and hold 3 sec. to **PAIR** with all wireless tracker boards. Press to display **RF RANGE** and **RF STRENGTH** on LED Display.

For **COMPLETE** programming and adjustment instructions, please refer to the instruction sheets included with the wireless kits, **Wireless Layout and Start-Up Guide** and the **HARDwired Installation/Owner's manual (P/N 2358-065)**.

Wireless Baseboard

RF RANGE
Set to max (full clockwise). This may need to be changed when using a repeater. See Repeater instruction sheet and Wireless Start-Up guide for more information.

DO NOT connect **HARDwired** tracker expansion boards to wiegand 1 (terminals 11-14) if **WIRELESS** boards will be using wiegand 1).

Wireless Tracker Expansion Board

RF SECURE:
UNPAIRED MODE:
Steady Red – Board is communicating with **unpaired** wireless baseboard.
Blinking Red – Board is **NOT** communicating with **unpaired** wireless baseboard.
PAIRED MODE:
Steady Green - Board is communicating with **paired** wireless baseboard.
Blinking Green - Board is **NOT** communicating with **paired** wireless baseboard.

RF DATA – (Green) Reply from baseboard.
RF STATUS – (Green) Not used.
CODE SENT – (Yellow) Card code is sent to baseboard.
CODE GOOD – (Green) Access granted.
CODE BAD – (Red) Access denied or card code **not** in database.

Antenna is **REQUIRED**.

Relay jumpers **MUST** be set for each relay used.

RF SYNC:
Slowly Blinking Blue - Sync to baseboard.

Ground - REQUIRED

REQUIRED
16.5 VAC
20 VA
Power Transformer
18 AWG 100 ft max
16 AWG 200 ft max

LED Display

RESET Button - Press to reboot board.

RF STRENGTH
Green - Good
Amber - Marginal
Red - Poor

RF RANGE
Set to max (full clockwise). This may need to be changed when using a repeater. See Repeater instruction sheet and Wireless Start-Up guide for more information.

RF ID
All tracker expansion boards **MUST** be set to **SAME** NET ID number as wireless baseboard.

RF CH
All tracker expansion boards **MUST** be set to **SAME** channel number as wireless baseboard.

RF SECURE
All tracker expansion boards **MUST** be set to **SAME** RF SECURE LED (Paired - steady GREEN).
All tracker expansion boards **MUST** be set to **SAME** RF SECURE LED (Unpaired - steady RED).

RF STRENGTH
Green - Good
Amber - Marginal
Red - Poor

RF SYNC
Slowly Blinking Blue - Sync to baseboard.

RF DATA
Green - Reply from baseboard.

RF STATUS
Green - Not used.

CODE SENT
Yellow - Card code is sent to baseboard.

CODE GOOD
Green - Access granted.

CODE BAD
Red - Access denied or card code **not** in database.

Wireless Tracker Expansion RF Board Adjustments

RF Range
Set to max (full clockwise). This may need to be changed when using a repeater. See Repeater instruction sheet and Wireless Start-Up guide for more information.

Program Button:

- Press after adjustment has been made to **RF RANGE**, **RF ID** or **RF CH** before changes will take effect.
- Press and hold for 3 sec. to **PAIR** to wireless baseboard, may take up to 20 sec. (**RF SECURE LED Paired** - steady **GREEN**).
- Press and hold **again** for 3 sec. to **UNPAIR** from wireless baseboard if necessary (**RF SECURE LED Unpaired** - steady **RED**).

Channel and ID
IMPORTANT
RF CH
All tracker expansion boards **MUST** be set to **SAME** channel number as wireless baseboard.
IMPORTANT
RF ID
All tracker expansion boards **MUST** be set to **SAME** NET ID number as wireless baseboard.

Basic Programming Sequence on EACH Wireless Tracker Expansion Board

Follow these basic steps to perform desired programming, See programming options table for **PROGRAM STEPS**.

- Press ▼▲ arrow buttons or **ENT** button to **ACTIVATE** LED display.
- Press ▼▲ arrow buttons again to **CHOOSE** desired **PROGRAM STEP**.
- Press **ENT** button to **ENTER** desired **PROGRAM STEP**. (LED display number will blink after **ENT** button has been pressed).
- Press ▼▲ arrow buttons to choose **SELECTION NUMBER** for desired function of program step.
- Press **ENT** button to program **SELECTION NUMBER** for desired function of program step. (Function has now been programmed into board).
- Press **ENT** button again to exit programming **OR** after 10 seconds, board will automatically exit programming.

Note: Repeat these steps for all other desired programming functions. **Each** tracker expansion board will have to be **INDIVIDUALLY** programmed with desired functions. After all tracker expansion boards have been programmed....

Manage the Complete Access Control System from Your PC

Refer to the **DKS Remote Account Manager Software** to program and manage the complete system.



Your PC connected to the access control system. Either IM Server **OR** TCP/IP **OR** RS-232 **OR** Modem to Modem Connection. See **PC Programmable Telephone Entry and Access Control Systems Installation/Owner's manual** for more information about connection options.



IMPORTANT Display Decimal Point Note

1

4

When decimal point is displayed: Indicates you are selecting a program step.

2

1

When decimal point is **NOT** displayed: Indicates you are **IN** a program step.

Programming Options on EACH Wireless Tracker Expansion Board

Program Step	Function	Options	Selection Number	Function Description	Factory Default
1	Door Strike Timer	00 - 99 MIN MAX	00	Sets Strike Time for Output Relay (term #25 & #26)	01 (1 second)
			01 - 99	0.25 second strike time - MINIMUM Strike time in 1-second increments: 01 = 1 second, 99 = 99 seconds - MAXIMUM	
			00	Set Strike Time for RX of Output Relay (input at term #18)	
2	Free Exit Timer, Strike Time	00 - 99 MIN MAX	00	0.25 second Egress Strike time - MINIMUM	01 (1 second)
			01 - 99	Egress Strike time in 1-second increments: 01 = 1 second, 99 = 99 seconds - MAXIMUM	
			00	Timer starts when valid access has been granted	
3	Door Ajar Timer	01 - 99 MIN MAX	00	1 second Door Ajar Timer - MINIMUM	12 (60 seconds)
			01 - 99	Timer set in 5-second increments: 01 = 5 seconds, 10 = 50 seconds, 99 = 495 seconds - MAXIMUM	
			00	Timer setting for Aux Relay activation	
4	Aux Relay Timer	00 - 99 MIN MAX	00	1 second Door Ajar Timer - MINIMUM	12 (60 seconds)
			01 - 99	Timer set in 5-second increments: 01 = 5 seconds, 10 = 50 seconds, 99 = 495 seconds - MAXIMUM	
			00	Timer setting for Aux Relay activation	
5	Not Used				
6	Not Used				
7	Not Used				
8	Door Contact Switch Logic	0 or 1	00	Sets Door Contact Switch for the type Door Lock connected to Output Relay	0 (N.O. w/door closed)
			01 - 99	N.O. - Normally Open: contact from door lock with Door Closed (typical - electric strike)	
			01 - 99	N.C. - Normally Closed: contact from door lock with Door Closed (typical - maglock)	
9	Not Used				
10	Not Used				
11	Hold Open or Hold Egress functions	0 or 1	0	Sets how Aux & Alarm Relays respond during Hold Open or Hold Egress situation	0 (No Aux relay functions)
			0	No Aux Relay functions. Alarm will be in "Reset". If Alarm Relay is set for "Integral" mode, Alarm relay will not activate. If Alarm Relay set for "Bypass" mode, Alarm Relay will activate for Hold Open period or Extended Egress Hold.	
			1	Aux Relay will function for all settings. If Alarm Relay is set for "Integral" mode, Alarm relay will not activate. If Alarm Relay set for "Bypass" mode, Alarm Relay will activate for Hold Open period or Extended Egress Hold.	
12	Not Used				
13	Not Used				
14	Not Used				
15	Aux Relay Functions	0 - 5	0	Sets function for Aux Relay (term #21 & #22)	0 (Disabled)
			0	Aux Relay Disabled	
			1	No Door Ajar Timer: Requires Door Contact Switch. Aux Relay activates when Door Not Closed.	
			2	No Door Ajar Timer, Pulse: Requires Door Contact Switch. Aux Relay "pulses" when Door Not Closed.	
			3	Door Ajar Timer: Requires Door Contact Switch. When door opens, start Door Ajar timer. When timer expires Aux Relay activates for Aux Relay timer or until door closes, whichever occurs first.	
			4	Door Ajar Timer, Pulse: Requires Door Contact Switch. When door opens, start Door Ajar timer. When timer expires Aux Relay Pulses for Aux Relay timer or until door closes, whichever occurs first.	
16	Alarm Relay Functions	0 - 4	0	Sets function for Alarm Relay (term #23 & #24) See Door Operation Note below.	0 (Disabled)
			0	Aux Relay Disabled	
			1	Bypass Mode: Alarm Relay provides "Bypass" to Alarm Door Contact Switch. With proper door input (access or egress) activate Alarm Relay, start Strike timer and Door Ajar timer. When Door Ajar timer expires, deactivate Alarm Relay.	
			2	If second Door Contact Switch is provided, generate transaction for Door Ajar and Door Closed following Door Forced condition. Also generate transaction for Door Forced condition.	
			3	Integral Mode, Door Ajar Timer: Door Contact Switch connected to Tracker, Alarm Relay provides connection directly to Alarm System. When door is opened for any reason, start Door Ajar timer. When Door Ajar timer expires and Door is still OPEN, activate Alarm Relay. Reset when door closes. Send Door Ajar and Door Close transactions.	
			4	Integral Mode, Proper and Forced condition: Door Contact Switch connected to Tracker, Alarm Relay provides connection directly to Alarm System. With proper door input (access or egress) start Strike timer and Door Ajar timer. When Door Ajar timer expires and Door is still OPEN, activate Alarm Relay. Reset when door closes. If door is opened without proper condition, activate alarm relay. When door closes deactivate Alarm Relay. Send Door Ajar, Door Close and Door Forced transactions.	
17	Not Used				
18	Not Used				
19	Reset to Factory Defaults	5	5	Sets all parameters to Factory Defaults.	
20	View RF POT Setting	Displays on LED Display		Sets maximum amount of allowable signal strength loss	
21	View RF Signal Loss	Displays on LED Display		Displays current signal loss between Base and Tracker	
22	Card Code Forwarding	0 or 1		Sets Wireless Tracker to act as Repeater	0 (Off)
			0	ONLY USE AS DIRECTED BY DOOR KING TECH SUPPORT	
			1	Repeater Mode OFF	

Door Operation Note:

PROPER Condition: The access control system **OR** request to exit device **HAS** activated the **OUTPUT RELAY** on the tracker expansion board and the **Door Contact Switch** indicates the door is **OPEN**. This shows the door has been **PROPERLY OPENED**.

FORCED Condition: The access control system **OR** request to exit device has **NOT** activated the **OUTPUT RELAY** on the tracker expansion board and the **Door Contact Switch** indicates the door is **OPEN**. This shows the door has been **FORCED OPENED**.