

# Chamberlain/Lift-Master

## Replacement Plug-in Vehicle Detectors

Replaces Chamberlain Part #'s: 71-416-3NH = 120 VAC

71-416-7NH = 24 VAC

Indicator: (LED) A single Bi-Color LED will show:

- Solid Green, with proper power applied
- Solid Red during current Detect
- Blinking Red during current Fault

*Note: Blinking continues until the detector is reset.*

Sensitivity Control: (8 position Rotary Switch)

- 7 = Most sensitive (High).
- 4 = Medium (works best for most applications).
- 0 = Least sensitive (Low).

Frequency Control: Switches 1 & 2 on the DIP switch

Frequency Range: 15 -150 KHz

- 0+0 = Low
- 1+0 = Medium Low
- 2+0 = Medium High
- 2+1 = High



*Note: When two or more loops are installed in close proximity to each other, set each detector on different frequency to prevent cross talk.*

Voltage: To verify voltage check label on the black oscillator cover.

A part number ending in: 3NH = 120 VAC

7NH = 24VAC

Temperature Range: - 40 to +80 C

Relay Output Rating: 10A, 277VAC, 24VDC.

Mechanical: 4.5" L x 3.250" W x 1.0" H.

*Note: Whenever the detector settings are changed or after a new installation, reset the detector without a vehicle present over the loop.*

*LIS Inc.*

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# R71- 416 Setup

## DIP Switch Positions

<u>Switches 1 &amp; 2:</u>	<u>Provides four (4) different frequency settings</u> Off/Off = High Off/On = Med/Low	On/Off = Med/High On/On = Low
<u>Switches 3 &amp; 4:</u>	<u>Provide for four (4) different mode settings</u> Off/Off = Pulse-on-Entry* Off/On = Presence *Applies to relay # 2 only	On/Off = Pulse-on-Exit* On/On = Fault
<u>Switches 5 &amp; 6:</u>	<u>Provide four (4) different Presence lengths.</u> Off/Off = 8 min. Off/On = 60 min.	On/Off = 16 min. On/On = Permanent
<u>Switch 7:</u>	Not used	
<u>Switch 8:</u>	<u>Provides for Fail-safe or fail-secure operation.</u> Off = Fail-safe	On = Fail-secure*

<u>Factory Settings:</u> The R71 is shipped with all switches in the down (OFF) position. This provides for the following settings:	
Frequency:	High
Mode Setting:	Pulse-on-Entry (relay #2)
Presence:	16 minute (both relays)
Relay #1:	Fail-Safe
Relay #2:	Fail -Secure for power

<i>R71- 416 Pin Number &amp; Color Code</i>					
1	Relay 2 Com	Blue	6	Relay 1 N.C.	White
2	Relay 2 N.O.	Orange	7	Supply + (Live)	Red
3	Relay 2 N.C.	Yellow	8	Supply – (Neutral)	Black
4	Relay 1 Ground	Green	9	Loop	Brown
5	Relay 1 N.O.	Violet	10	Loop	Gray

## R71- 416 Installation Tips

1. Supply the proper voltage. The Bi-Color LED should be solid GREEN with correct power applied. Over voltage protection is standard with this product. In the event of incorrect voltage the Bi-Color LED will come on briefly and fade out without damage to unit. Check voltage sticker on side of oscillator cover. Reapply correct voltage.
2. Solid Red (Bi-Color) LED indicates a current detect. Vehicle or metal object in the field of detection.
3. Blinking Red (Bi-Color) LED indicates current fault. Check loop connections (twisted Gray & Brown) to ensure proper, tight connection to loop.
4. Sensitivity level 4 will be adequate for most situations. Operate detector at lower sensitivity levels while detecting all desired vehicles.
5. Most applications require using the fail-safe relay #1 providing presence (detector stays in detect as long as vehicle is present over the loop, up to presence time limit). Relay #1 Normally Open connections are: Pins 4 & 5, the Green (common) and Violet (N.O.) wires from the wiring harness. These wires are taken to the terminal strip for your desired function.
6. For a second output (pulse or presence) relay 2 is used. Commonly the #2 (Orange, N.O.) and #1 (Blue, Common) are used, this will provide a Fail-secure for power output. When using relay 2 select the proper DIP switch settings for your application.

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