

# TOMAR

## Instruction Manual

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**SCORPION**  
BEACON

IS0588-01  
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#### 970-BCN-CR1

<b>Red</b>	+12Vdc
<b>Black</b>	Ground
<b>Orange</b>	Warning Mode 1
<b>Blue</b>	Warning Mode 2
<b>Orange &amp; Blue</b>	Warning Mode 3
<b>Red/White</b>	Alt Mode 1*
<b>Brown/White</b>	Alt Mode 2*
<b>Red/White &amp; Brown/White</b>	Alt Mode 3*
<b>Green</b>	Intensity Control
<b>Brown</b>	Steady Burn

\*Alt modes will override warning modes if both are activated simultaneously

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## PROGRAMMING INSTRUCTIONS

### Entering Programming Mode:

To activate programming mode, connect the BLACK Wire to ground then simultaneously attach the GREEN wire and the RED wire to +12 Vdc.

### Changing Warning Patterns and Flash Rates:

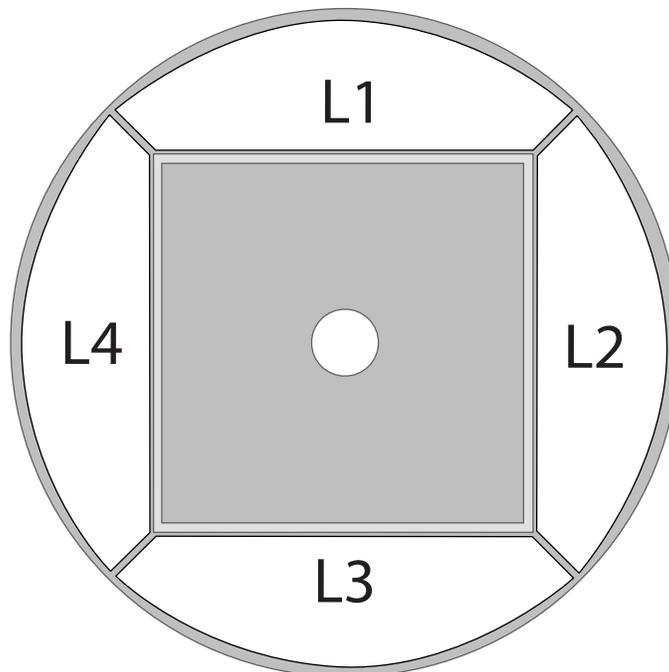
Six unique warning patterns can be selected by using different combinations of the ORANGE, BLUE, BROWN/WHITE and RED/WHITE wires.

To change the warning mode, attach the wire(s) corresponding to the mode to be changed to +12Vdc. Tap the RED/WHITE wire to +12Vdc to advance the flash pattern. See the list of available flash patterns below.

A unique flash rate can be assigned to each warning mode. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN/WHITE wire to +12Vdc to advance the flash rate. See the list of available flash rates below.

### Changing Alt Mode Flash Rates:

The Alt mode flash patterns are not selectable. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN wire to +12Vdc to advance the flash rate. See the list of available flash rates below.



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## WARNING PATTERNS

1) OFF	All OFF
2) COMBINATION	Pattern 3, Pattern 4, Pattern 10, Pattern 5, Repeat
3) ALL ON	Lamps 1,2,3,4 simultaneously on
4) FRONT/REAR	Lamps 1,2 Alt with Lamps 3,4
5) ALTERNATING 2	Lamps 1,4 Alt with Lamps 2,3
6) CIRCLE (FILL)	Lamps 1/1,2/1,2,3/1,2,3,4/Off
7) CIRCLE (TRAIL)	Lamps 1/2/3/4
8) SWEEP 1 (FILL)	Lamps 1/1,2/1,2,3/1,2,3,4/3,2,1/2,1/1,Off
9) SWEEP 2 (TRAIL)	Lamps 1/2/3/4/3/2
10) CROSS	Lamps 1,3 ALT 2,4

## ALT MODE PATTERNS

### Red/White Wire

1) Circle Right Fill	1/1,2/1,2,3/1,2,3,4/Off
2) Circle Right Trail	1/2/3/4
3) Alt 1	Corners 1,2 Alt 3,4
4) Alt 2	Corners 1,4 Alt 2,3

### Brown/White Wire

1) Circle Left Fill	4/4,3/4,3,2/4,3,2,1/Off
2) Circle Right Trail	4/3/2/1
3) Alt 2	Corners 1,4 Alt 2,3
4) Alt 1	Corners 1,2 Alt 3,4

### Red/White & Brown/White Wire

1) All On	(1,2,3,4)
2) ALT	(1,2 ALT 4,3) (1,4 ALT 2,3)
3) ALT/All On	(1,4 ALT 2,3) (1,2,3,4)
4) Circle/All On	1/2/3/4 ALT 1,2,3,4

## DEFAULT PATTERNS/RATES

ORANGE Wire	Mode Pattern #2	Combo Scroll Flash
BLUE Wire	Mode Pattern #3	All ON Scroll Flash
ORG/BLU Wire	Mode Pattern #4	Alt 1 Scroll Flash
RED/WHT Wire	Alt Mode Pattern #1	Circle Right Fill Scroll Flash
BRN/WHT Wire	Alt Mode Pattern #1	Circle Left Fill Scroll Flash
RED/WHT & BRN/WHT Wire	Alt Mode Pattern #1	All ON Scroll Flash

## FLASH RATES

1) Single Flash	
2) Double Flash	
3) Neobe Flash	
4) Scroll Flash	(4 SECONDS EACH OF ALL RATES)

## BCN-CR1-CP/MAG

### Selecting Flash Pattern

#### Cycle Forward

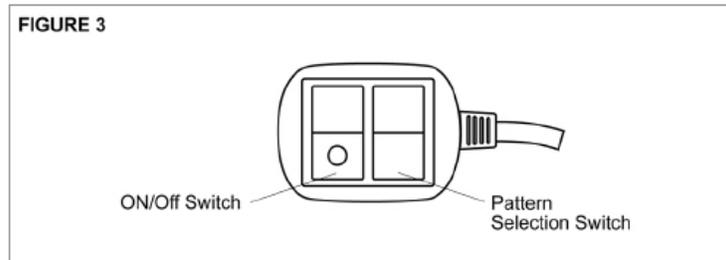
With the unit turned on, press the Pattern selection switch once and then release. Continue until the desired pattern is reached. The last pattern selected will become the default pattern.

#### Cycle Backward

Press twice in less than 1 second. Repeat until the desired flash rate is selected.

#### Reset to Pattern #1

With the unit turned on, press and hold the Pattern selection switch for more than three seconds. The unit will flash three times then return to Pattern #1 to indicate that it has reset. Pattern #1 will become the default pattern.



### Flash Patterns

Pat#	Flash Patterns	RATES	Pat#	Flash Patterns	RATES
01) Default	All On 1,2,3,4	Neobe 150	23)	1,3 ALT 2,4	NEOBE_75
02)	All On 1,2,3,4	Neobe 75	24)	1,3 ALT 2,4	Double 250
03)	All On 1,2,3,4	Double 250	25)	1,3 ALT 2,4	Double 125
04)	All On 1,2,3,4	Double 125	26)	1,3 ALT 2,4	Single 375
05)	All On 1,2,3,4	Single 375	27)	1,3 ALT 2,4	Single 150
06)	All On 1,2,3,4	Single 150	28)	1,3 ALT 2,4	Single 75
07)	All On 1,2,3,4	Single 75	29)	1/2/3/4	Neobe 150
08)	1,2 ALT 3,4	Neobe 150	30)	1/2/3/4	Neobe 75
09)	1,2 ALT 3,4	Neobe 75	31)	1/2/3/4	Double 250
10)	1,2 ALT 3,4	Double250	32)	1/2/3/4	Double 125
11)	1,2 ALT 3,4	Double 125	33)	1/2/3/4	Single 375
12)	1,2 ALT 3,4	Single 375	34)	1/2/3/4	Single 150
13)	1,2 ALT 3,4	Single 150	35)	1/2/3/4	Single 75
14)	1,2 ALT 3,4	Single 75	36)	4/3/2/1	Neobe 150
15)	1,4 ALT 2,3	Neobe 150	37)	4/3/2/1	Neobe 75
16)	1,4 ALT 2,3	Neobe 75	38)	4/3/2/1	Double 250
17)	1,4 ALT 2,3	Double250	39)	4/3/2/1	Double 125
18)	1,4 ALT 2,3	Double 125	40)	4/3/2/1	Single 375
19)	1,4 ALT 2,3	Single 375	41)	4/3/2/1	Single 150
20)	1,4 ALT 2,3	Single 150	42)	4/3/2/1	Single 75
21)	1,4 ALT 2,3	Single 75			
22)	1,3 ALT 2,4	Neobe_150			

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## 970-BCN-CR2, DUAL COLOR BEACONS

Channels 1,2,3,4 are one color, 5,6,7,8 are the second color.

Red	+12Vdc
Black	Ground
Orange	Warning Mode 1
Blue	Warning Mode 2
Orange/Blue	Warning Mode 3
Red/White	Alt Mode 1*
Brown/White	Alt Mode 2*
Red/White & Brown/White	Alt Mode 3*
Green	Intensity
Brown	Steady Burn

\*Alt modes will override warning modes if both are activated simultaneously.

### ENTERING PROGRAMMING MODE

To activate programming mode, connect the BLACK Wire to ground then simultaneously attach the GREEN wire and the RED wire to +12 Vdc.

RED/WHITE Changes mode pattern  
BROWN Changes ALT mode pattern

In programming mode switch green then:

BROWN/WHITE Changes mode flash rates  
BROWN Changes ALT mode flash rate

### Mode Patterns

- 1) OFF
- 2) Combination Color 1: Combo, Patterns #4,#8,#16,#6
- 3) Combination Color 2: Combo, Patterns #5,#9,#17,#7
- 4) All On Color 1: All On 1,2,3,4
- 5) All On Color 2: All On 5,6,7,8
- 6) Alt 1 Color 1: Corners 1,2 Alt 3,4
- 7) Alt 1 Color 2: Corners 5,6 Alt 7,8
- 8) Alt 2 Color 1: Corners 1,4 Alt 2,3
- 9) Alt 2 Color 2: Corners 5,8 Alt 6,7
- 10) Circle Right (Fill) Color 1: 1/1,2/1,2,3/1,2,3,4/Off
- 11) Circle Right (Fill) Color 2: 5/5,6/5,6,7/5,6,7,8/Off
- 12) Circle Right (Trail) Color 1: 1/2/3/4
- 13) Circle Right (Trail) Color 2: 5/6/7/8
- 14) Sweep Color 1: 1/2/3/4/3/2
- 15) Sweep Color 2: 5/6/7/8/7/6
- 16) Cross Color 1: 1,3 Alt 2,4
- 17) Cross Color 2: 5,7 Alt 6,8

**Alternate Mode Patterns**

**RED/WHT WIRE**

- 1) Alt 1 Dual Color: 1,2 Alt 7,8
- 2) Alt 2 Dual Color: 1,4 Alt 6,7
- 3) Cross Dual Color: 1,3 Alt 6,8
- 4) Dual Alt 1 Dual Color (1,2 Alt 7,8) (1,4 Alt 6,7)

**BRN/WHT WIRE**

- 1) Alt 1 Dual Color: 3,4 Alt 5,6
- 2) Alt 2 Dual Color: 2,3 Alt 5,8
- 3) Cross Dual Color: 2,4 Alt 5,7
- 4) Dual Alt 1 Dual Color (5,6 Alt 4,3) (5,8 Alt 2,3)

**RED/WHT & BRN/WHT WIRE**

- 1) Dual Color All On: (1,2,3,4 Alt 5,6,7,8)
- 2) Dual Color Alt: (1,2 Alt 7,8) (5,6 Alt 3,4)
- 3) Dual Color Alt: (1,4 Alt 6,7) (5,8 Alt 2,3)
- 4) Dual Color Circle: 1/6/3/8/5/2/7/4

**Default Patterns/Rates**

ORANGE WIRE:	Mode Pattern #2	Combination Color 1 Scroll Flash
BLUE WIRE:	Mode Pattern #3	Combination Color 2 Scroll Flash
ORG/BLU WIRE:	Mode Pattern #16	Cross Color 1 Scroll Flash
RED/WHT WIRE:	Alt Mode Pattern #1	Alt 1 Dual Color Scroll Flash
BRN/WHT WIRE:	Alt Mode Pattern #1	Alt 1 Dual Color Scroll Flash
RED/WHT & BRN/WHT WIRE:	Alt Mode Pattern #1	Dual Color All On Scroll Flash

**Flash Rates**

- 1) Single Flash
- 2) Double Flash
- 3) Neobe Flash
- 4) Scroll Flash (4 Seconds each of all rates)