

Version 1.0  
May 2002  
Elevator/Lift Car Direction Lantern: 140.14



# **LONMARK<sup>®</sup>**

## **Functional Profile:**

### ***Vertical/Conveyer Transportation***

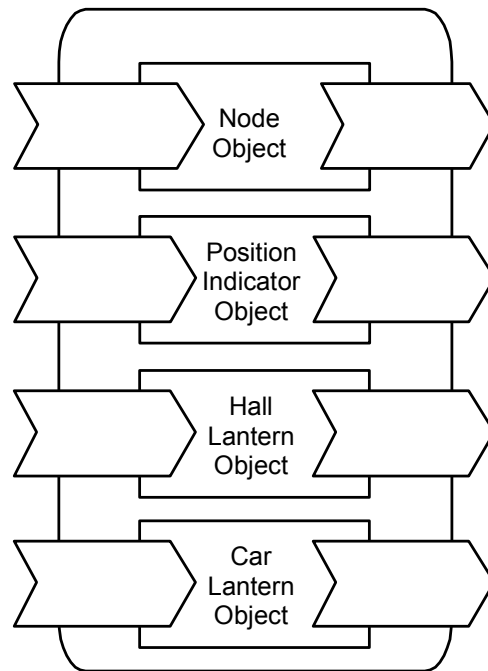
## **Elevator/Lift Car-Direction Lantern**

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## Overview

This document describes the Functional Profile of a Car Direction Lantern Object. Use of the standard Node object is implied. The node will most likely include other objects such as Position Indicator and Hall Lantern.

The Car Direction Lantern is used in an elevator system to indicate the current direction of travel of the Elevator Car.



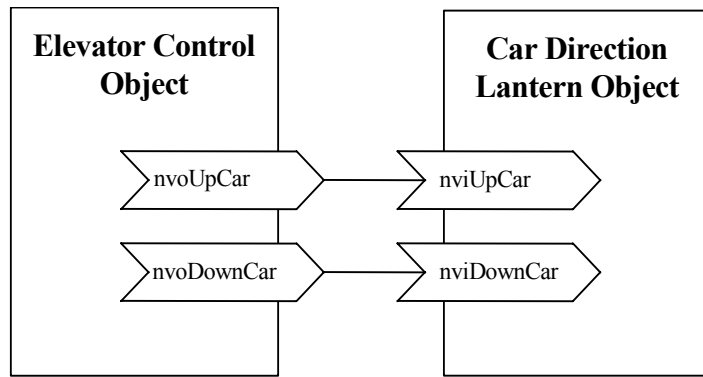
**Figure 1** Node Concept

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## Example Usage

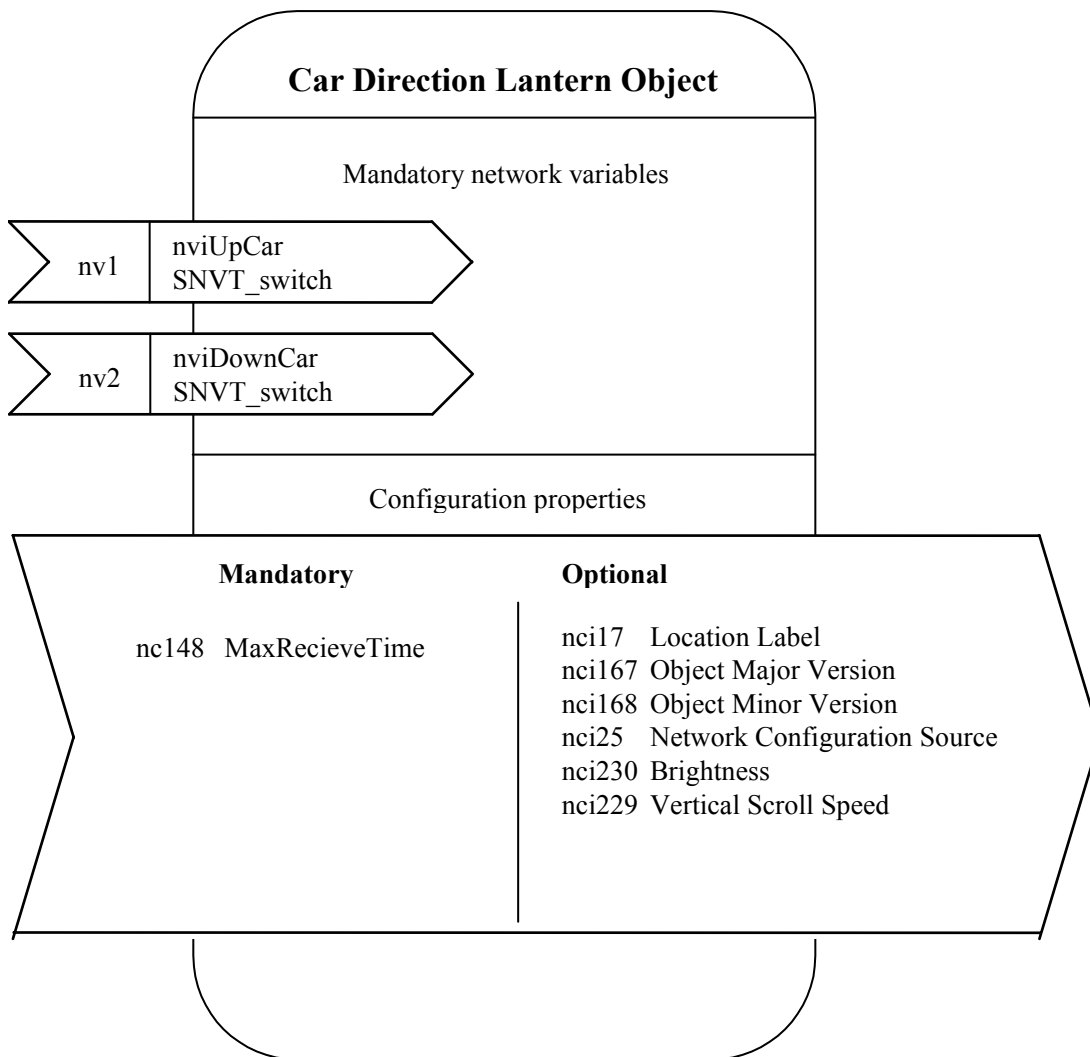
The Elevator control sends out the direction of the elevator car to operate a Car Direction Lantern. The lantern is normally fitted within the elevator car but further such lanterns may be fitted on landings.

The information sent to drive this lantern is also relevant for controlling the scrolling direction of vertical floor names on position indicator objects which support vertical scrolling.



**Figure 2** Example Usage of the Object with individual bindings

## Object Details



**Figure 3** Object Details

**Table 1** SNVT Details

NV # (M/O)*	Variable Name	SNVT Name	SNVT Index	Description
1 (M)	nviUpCar	SNVT_switch	95	Up Direction Signal
2 (M)	nviDownCar	SNVT_switch	95	Down Direction Signal

\* M = mandatory, O = optional

**Table 2** SCPT Details

Man. Opt. *	SCPT Name NV Name Type or SNVT	SCPT Index	Associated NVs **	Description
Man	SCPTmaxRcvTime nciMaxReceiveT SNVT_time_sec	48	Entire Object	Used to define how long lantern will wait before switching off.
Opt	SCPTlocation nciLocation SNVT_str_asc (36)	17	Entire Object	Used to provide physical location of the node
Opt	SCPTobjMajVer nciObjMajVer unsigned short	167	Entire Object	Defines the major version number of the Object
Opt	SCPTobjMinVer nciObjMinVer unsigned short	168	Entire Object	Defines the minor version number of the Object
Opt	SCPTnwrkCnfg nciNetConfig SNVT_config_src	25	Entire Object	Defines the source of network configuration information
Opt	SCPTbrightness nciBrightness SNVT_switch	230	Entire Object	Defines brightness of display as % of max.
Opt	SCPTscrollSpeed nciScroll SNVT_switch	229	Entire Object	Defines rate of vertical floor label scrolling as % of max, or no scrolling

\* Man = mandatory, Opt = optional

\*\* List of NVs to which this configuration property applies.

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## Mandatory Network Variables

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### nviUpCar

```
network input sd_string("@p|1") SNVT_switch nviUpCar;
```

This input network variable is used to allow an external node to instruct the lantern to display an 'UP' indication.

### *Valid Range*

Value	State	Action
ANY	0	None
0	1	None
>0	1	Show 'UP' indication
ANY	0xFF	Undefined, No Action

### *Default Value*

state = 0          value = 0

Where no data is received within the heartbeat time, the indication will clear. If heartbeat is disabled, the indication will clear after 10 seconds.

### *Configuration Considerations*

The maximum receive time should be configured if the timeout needs to be other than the default 10 seconds.

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## nviDownCar

```
network input sd_string("@p|2") SNVT_switch  
nviDownCar;
```

This input network variable is used to allow an external node to instruct the lantern to display a 'DOWN' indication.

### *Valid Range*

Value	State	Action
ANY	0	None
0	1	None
>0	1	Show 'DOWN' indication
ANY	0xFF	Undefined, No Action

### *Default Value*

```
state = 0      value = 0
```

Where no data is received within the heartbeat time, the indication will clear. If heartbeat is disabled, the indication will clear after 10 seconds.

### *Configuration Considerations*

The maximum receive time should be configured if the timeout needs to be other than the default 10 seconds.

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## Configuration Properties

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### Recieve Heartbeat (Mandatory)

```
network input config sd_string("&1,p,0\x80,48")  
SNVT_time_sec nciMaxReceiveT;
```

This input configuration property sets the maximum period of time that can expire before the Object will automatically clear indications generated by either –

nv1 – nviUpCar (Mandatory)

nv2 – nviDownCar (Mandatory)

## *Valid Range*

The valid range is 1.0 to 30.0 seconds.

Values outside this range are invalid and will disable the automatic update mechanism. A value of zero (0) will be used for the internal timer in cases where configured values are above 30.0 seconds.

## *Default Value*

The default value is 10.0 (default 10 second time).

## *Configuration Requirements/Restrictions*

This CP has no modification restrictions (no\_restrictions). It can be modified at any time.

## *SCPT Reference*

SCPTmaxSendTime (48)

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## **Location Label (Optional)**

```
network input config sd_string("&1,p,0\x80,17")
SNVT_str_asc nciLocation;
```

This configuration property can be used to provide the location of the Object/node, where *p* is the Object index. The above code declaration is for providing the location of the Object. If it is preferred, the location of the node can be represented with the following code declaration:

```
network input config sd_string("&0,,0\x80,17")
SNVT_str_asc nciLocation;
```

## *Valid Range*

Any NULL-terminated ASCII string up to 31 bytes of total length (including NULL). The string must be truncated if the length does not allow the 31<sup>st</sup> character to be the NULL (0x00).

## *Default Value*

The default value is an ASCII string containing all zeroes.

## *Configuration Requirements/Restrictions*

This CP has no modification restrictions (no\_restrictions). It can be modified at any time.

## *SCPT Reference*

SCPTlocation (17)

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## **Object Major Version (Optional)**

```
network input config sd_string("&1,p,0\x84,167")
unsigned short nciObjMajVer;
```

This configuration property can be used to provide the major version number of the Object when implemented on a device.

## *Valid Range*

Any integer number from 1 to 255. Only 1-byte of information is accepted.

## *Default Value*

The default value is one (1).

## *Configuration Requirements/Restrictions*

This CP is a constant (const\_flg). It is not to be modified except that it is allowable to modify the value in a download of new code to the device.

## *SCPT Reference*

SCPTobjMajVer (167)

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## **Object Minor Version (Optional)**

```
network input config sd_string("&1,p,0\x84,168")
unsigned short nciObjMinVer;
```

This configuration property can be used to provide the minor version number of the Object when implemented on a device.



## *Valid Range*

Any integer number from 0 to 255. Only 1-byte of information is accepted.

## *Default Value*

The default value is zero (0).

## *Configuration Requirements/Restrictions*

This CP is a constant (const\_flg). It is not to be modified except that it is allowable to modify the value in a download of new code to the device.

## *SCPT Reference*

SCPTobjMinVer (168)

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## **Network Configuration Source (Optional)**

```
network input config sd_string("&1,p,0\x80,25")
SNVT_config_src nciNetConfig;
```

All nodes that support self-installation must provide this configuration property to allow a network tool to also install the node.

## *Valid Range*

When a node is self-installed this variable should be set to CFG\_LOCAL when the node is manufactured. A variable set to CFG\_EXTERNAL signifies that a network tool will assign network addresses for the node.

## *Default Value*

For a self-installed node the default value is CFG\_LOCAL.

## *Configuration Requirements/Restrictions*

This CP has no modification restrictions (no\_restrictions). It can be modified at any time. If a change is made from External to Local (unlikely), the node will need to be reset.

## *SCPT Reference*

SCPTnwrkcnfg(25)

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## Brightness (Optional)

```
network input config sd_string("&1,p,0\x80,230")
SNVT_switch nciBrightness;
```

This configuration property can be used to adjust the brightness level of the display of a Hall Lantern.

### *Valid Range*

Value	State	Action
ANY	0	Display OFF
0	1	Display OFF
>0	1	Minimum Brightness, (0.5% to 100%)
200	1	Maximum Brightness, (100%)
ANY	0xFF	Undefined, No Action

### *Default Value*

not defined

### *Configuration Requirements/Restrictions*

This CP has no modification restrictions (no\_restrictions). It can be modified at any time.

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## Scrolling Speed (Optional)

```
network input config sd_string("&l,p,0\x80,229")
SNVT_switch nciScroll;
```

This configuration property can be used to adjust the speed at which the display of a Hall Lantern scrolls floor labels. Any Hall Lantern, which supports scrolling, must include this configuration property

### *Valid Range*

Value	State	Action
ANY	0	Display OFF
0	1	Display OFF
>0	1	Min Scroll Speed, (0.5% to 100%)
200	1	Max Scroll Speed, (100%)
ANY	0xFF	Undefined, No Action

### *Default Value*

not defined

### *Configuration Requirements/Restrictions*

This CP has no modification restrictions (no\_restrictions). It can be modified at any time.

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## Key for Unresolved References

$p$  is this Object's index relative to the node `sd_string` declaration, when implemented.

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## Power-up State

There is no immediate network action on Power-up State.

There will be no indication until an input is received.

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## Boundary and Error Conditions

None specified.

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## Additional Considerations

None specified.

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