Application

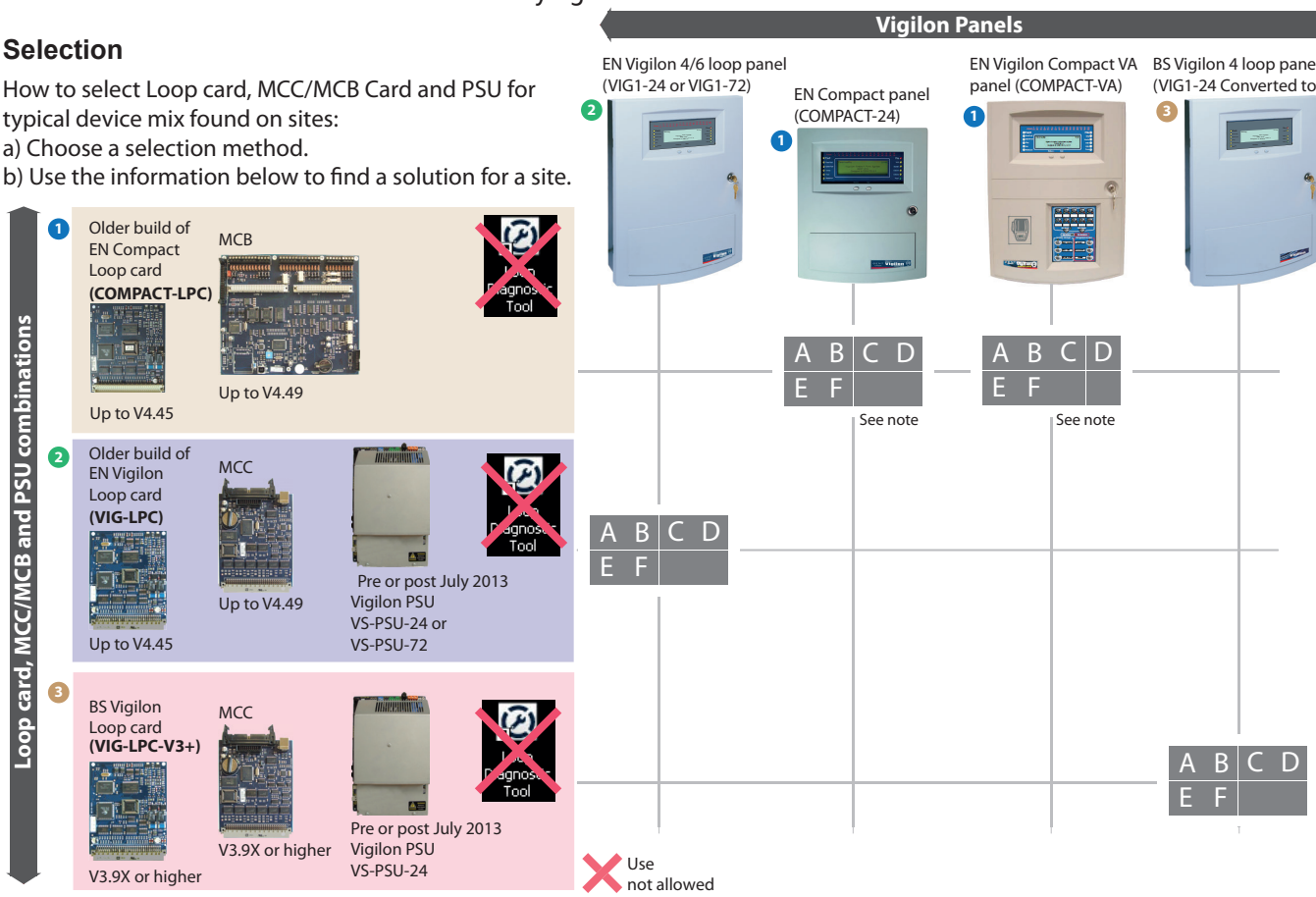
Loop Cards
(VIG-LPC and COMPACT-LPC)

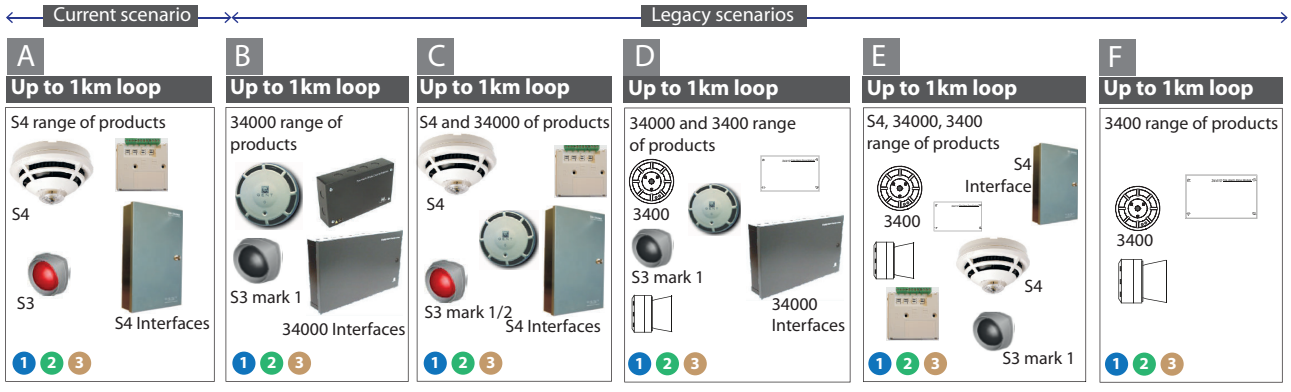
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The Loop Cards (VIG-LPC and COMPACT-LPC) are for use in Vigilon panel range. Ensure the selected card firmware version is taken into consideration when identifying a workable solution.

Selection

How to select Loop card, MCC/MCB Card and PSU for typical device mix found on sites:
a) Choose a selection method.
b) Use the information below to find a solution for a site.





Typical loop device mix found on sites. (Note S4 and S3 devices in above scenarios are those with strobe only.)

Typically the Compact and Compact VA systems use **S4 and S3 loop devices** ie site scenarios A.

A 1km loop length is the sum of the length of cable used on the main loop and spur circuits off the main loop, on which system devices are connected.

Selection Method 1

a) Select a panel.
b) Select the applicable cards and or PSU build.
c) Determine which site device mix is required, eg: A, B ----or D.

For example:
If we select an EN Vigilon 4/6 loop panel (VIG-24) having Cards shown in 2 then it will work with site device mix A, B, C, D, E or F.

Selection Method 2

a) Select a site device mix, eg A, B ----or D.
b) Note the number in circle.
c) Match the number in circle with cards and panels.

For example:
If a site has device mix B installed on a 1km loop and you want an EN Vigilon Compact panel (COMPACT-24) then Cards shown in 1 must be built into the panel.

Selection Method 3

a) Match the number in circle.

For example:
Panel 1 will work with Cards 1 when used in site with Device mix 1.

Loop Cards

Older Loop Cards

- VIG-LPC (is for use in Vigilon 4/6 loop panels only)
- COMPACT-LPC (is for use in Vigilon Compact and Compact VA panels only)

These Loop Cards can also be installed in Vigilon panels having 3400 devices on their loop circuits.

Condition of use

The Older Loop cards (VIG-LPC or COMPACT-LPC) MUST NEVER BE USED as replacement for Post March 2014 Loop Cards (VIG-LPC-EN or COMPACT-LPC-EN) where longer loop length of up to 2km exist or where compliant Part 23 devices are installed on Loop circuits.

The Older Loop cards (VIG-LPC or COMPACT-LPC) can only be used as replacement cards for the same build, as a like for like replacement card.

- Up to 1km loop length is possible with a mix of S4, S3 Mark 1/2 and 3400 devices installed on a loop circuit. A rough method for calculating the maximum device loop load by load factor is shown in part 2 of this document. Both parts 1 and 2 of this document can be downloaded by registered user of Gent Expert forum. For precise loop load and battery standby calculation use the 'Battery Standby Calculator' tool.

Battery Standby Calculator Tool

The 'Battery Standby Calculator Tool' can be downloaded from www.gentexpert.co.uk website by registered users.

Vigilon Loop Diagnostic tool

The Loop Diagnostic Tool CANNOT be used to diagnose Vigilon panel fitted with Loop Cards (VIG-LPC or COMPACT-LPC).

WEEE Directive:
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Do not dispose of with your normal household waste.
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User guide

Loop loading
(VIG-LPC and COMPACT-LPC)

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This document shows how to calculate the loop load using loop load factors and is applicable for Older Loop Card fitted in a Vigilon panel, the card:

- VIG-LPC (is for use in Vigilon 4-6 loop panels only)
- COMPACT-LPC (is for use in Vigilon Compact and Compact VA panels only).

A precise battery standby calculation result is obtained using the 'Battery Standby Calculator tool'. The tool can be downloaded for website www.gentexpert.co.uk accessible to registered users.

Loop Cable length

The loop cable length is defined as the sum of the length of cable used on the main loop plus that used on all the spur circuits off the main loop having system devices. The Loop Cable length can be up to 1km when using Loop Card (VIG-LPC or COMPACT-LPC).

Loop load calculations by load factors for a 1km loop card

The following calculations assume the use of S4 and S3 Mark 1/2 devices (strobe only devices) on loop circuits to determine maximum loop loading for a 1km loop length using load factors units.

Calculations

To calculate the 'Total Load Factor Units' for all the devices on a Loop circuit:

1. Enter ❶ the total number of each device type on a loop.
2. Multiply columns ❶ x ❷ to determine the Load factor units for each device type.
3. Determine the sum of Load Factor units of all the device types, ensure the total load factor unit value is less than 1000.

Device part number	*Description*	*Maximum devices per loop allowed*	❶ *Devices on loop*	❷ *Load factor (unit) per device*	❶x❷ *Load factor of devices*
VIG-RPT-72	*Repeat panel -loop powered*	*4*	_____x	*3*	
VIG-MIM-A3	*A3 Zonal and Mimic Panel*	*4*	_____x	*3*	
S4-720	*Heat Sensor*	*200*	_____x	*0.5*	
S4-780	*Heat Sensor, Sounder and Speech*	*120* *65**	_____x _____x	*8.25* *15.25**	
S4-720-ST-VO	*Heat Sensor, Speech & Strobe*	*55* *40**	_____x _____x	*17.5* *25**	
S4-715	*Optical Sensor*	*200*	_____x	*0.5*	
S4-710 / 34710	*Optical Heat Sensor*	*200*	_____x	*0.5*	
S4-770	*Optical Heat Sensor & Sounder*	*150* *75**	_____x _____x	*6.5* *13.25**	
S4-711-VO	*Dual Optical + Heat Sensor & Speech*	*120* *75**	_____x _____x	*8.25* *15.25**	
S4-711	*Dual Optical Heat Sensor*	*200*	_____x	*0.5*	
S4-711-ST	*Dual Optical Heat Sensor & Strobe*	*100*	_____x	*10*	
S4-771	*Dual Optical Heat Sensor & Sounder*	*150* *75**	_____x _____x	*6.5* *13.25**	
S4-711-ST-VO	*Dual Optical Heat Sensor, Speech & Strobe*	*55* *75**	_____x _____x	*17.5* *25**	
S4-911 replaced with S4-901	*Dual Optical Heat Sensor & CO*	*200*	_____x	*0.5*	
S4-911-ST-VO	*Dual Optical Heat Sensor & CO Strobe Sounder Speech*	*55* *40**	_____x _____x	*17.5* *25**	
S4-34800 / ..805 or 348XX-EN	*MCP - glass / resettable MCP 34000 range*	*200*	_____x	*3.75*	

Device part number	Description	Maximum devices per loop allowed	❶ Devices on loop	❷ Load factor (unit) per device	❶x❷ Load factor of devices
S4-34807	Keyswitch MCP	200	_____x	3.75	
S4-34418	Keyswitch interface	170	_____x	3.75	
S4-34440-02 S4-34440-12	Mains powered interface	32 (8 #) ~	_____x	1	
S4-34404 or S4-34401	Mains switching interface	200 (8 #)	_____x	2.75	
S4-34411 or S4-34415	1 - MV Output Interface module	200	_____x	1.375	
S4-34410	1 Channel Input Interface (LV) exc. zone inc. zone	 100 32	 _____x _____x	 1 23.5	
S4-34450	4 Channel I/O Interface (LV) exc. zone inc. zone	 32 32	 _____x _____x	 4.975 27.475	
S4-34420	1 Channel I/O Interface (LV)	170	_____x	1.075	
S4-34760	Venturi-Air Duct Kit (S4-715)	200	_____x	0.5	
S4-34740	Beam sensor pair	8 pairs	_____x	2.5 per pair	
34701	Tee breaker	200	_____x	0.4	
S2IP-ST-XR S2IP-ST-XW	Strobe Red Strobe White	100 40	_____x _____x	10 25	
S3-SN-X S3IP-SN-X S2IP-SN-X inc. suffix -V2	Sounder	200 88*	_____x _____x	5 11.25*	
S3-VP-X S3IP-VP-X	Sounder with speech	55	_____x	17.5	
S3-VP-ST-XR S3IP-VP-ST-XR	Sounder, Speech with red strobe	40	_____x	25	
S3-SN-ST-XR S3IP-SN-ST-XR inc. suffix -V2	Sounder with red strobe	65 45*	_____x _____x	15.25 21.5*	
S3IP-SN-ST-XW inc. suffix -V2	Sounder with white strobe	35 28*	_____x _____x	28.5 34.75*	
The Load Factor (unit) per device and allowed maximum devices per loop are stated in the table above are revised from time to time due to product changes. *Key* *X - Signify colour: R - Red & W - White of product body and strobe* *~ - A maximum of up to 100 input channels are allowed per loop.* ** - Value applicable when sounder operates in turbo mode or bell tone.* *# - 8 maximum if outputs are sectored.* *LV - Low voltage MV - Medium voltage*				**Total Load Factor Units for all the Devices on a Loop is 1000 max.**	

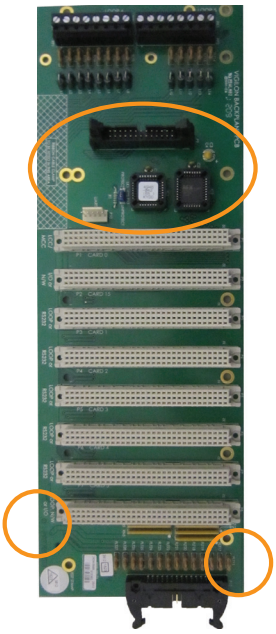
How to ensure device load on a loop remains within allowable limit

If the Total calculated Load Factor exceed 1000 for a loop having a maximum of up to 200 devices then consider reducing the load by removal of some loop devices.

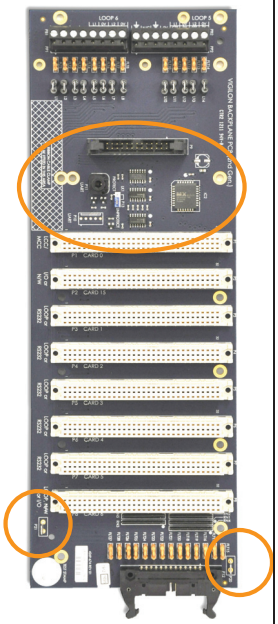
How to identify old and new Vigilon 4/6 loop panel hardware

The following photos show where to look to identify old and new parts.

Older build of
Vigilon Backplane



Post July 2013 build of
Vigilon Backplane



Older build of Vigilon PSU



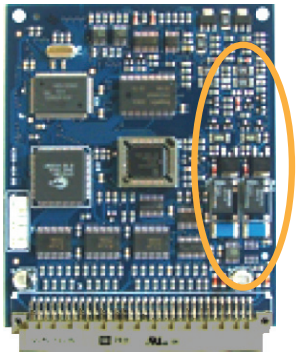
(VS-PSU-24) or
(VS-PSU-72)

Post July 2013 build of Vigilon PSU



(VIG-LPC)

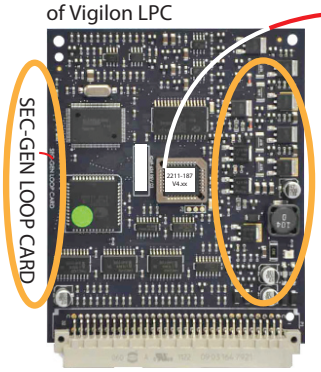
Older build of build
of Vigilon LPC



(VIG-LPC-EN)

Post March 2014 build
of Vigilon LPC

Labels with
Software version
and part numbers



How to check which Loop Processor Card is fitted in the Vigilon panel

a) Find the loop card status under the Info menu.
b) Observe if the loop card is (1) or (2).

[Info]
[Status]
[Card]

LPC can be Card 1 to 6 { Params 0-15 } [E] [C] [Q]

```
Card 1: Fault 0: Disable 0: Warning  0
Loop  card (2) Version 4.48  23\9\2013
Loop Started: loop Complete
z Devices: 0 Teebreakers
0V resistance is xxR, L is y
```

(1) VIG-LPC build (Old loop card)
(2) VIG-LPC-EN build (New loop card)

Older loop card will not display resistance and L values



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