FITTING ALVIN RECLOSERS IN LV PILLARS/CABINETS IN INDOOR SUBSTATIONS

Update: See sections in red for changes.

This bulletin replaces Issue 02 which has now been withdrawn.

OVERVIEW

ALVIN reclosers are being installed in LV pillars/cabinets in distribution substations, to mitigate the impact of transient faults. In some instances, the pillars/cabinets are not deep enough for the pillar/cabinet door to close fully such that the doors are ajar by a few centimetres.

DETAIL

As part of the rollout of ALVIN reclosers, some LV pillars/cabinets have been identified which are not deep enough for the pillar/cabinet door to close fully and be locked, after ALVIN reclosers are fitted. (See Figure 1a).

WHAT YOU NEED TO DO

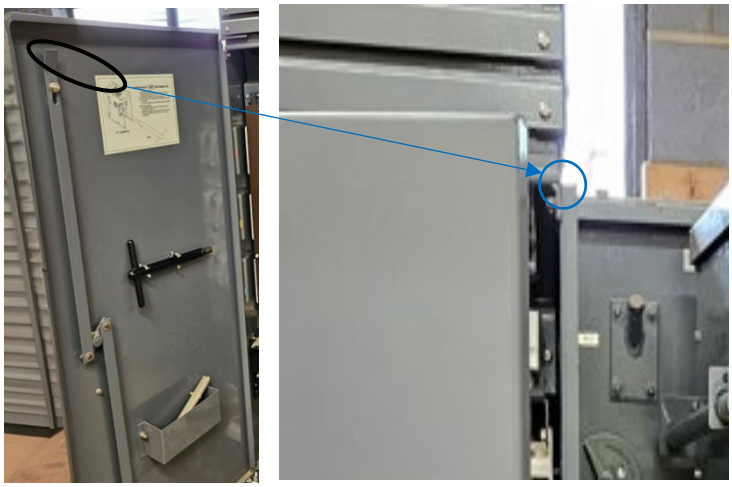
For instances where the LV pillar/cabinet door cannot be closed fully after fitting ALVIN reclosers:

- It is permissible to leave the LV pillar/cabinet door open **provided** that the LV pillar/cabinet is within a: **GRP** or **Fully Enclosed Brick-Built Distribution Substation with a Roof.**
- Place a cable tie between the door latch and the edge of the pillar/cabinet frame to keep the LV pillar/cabinet door slightly ajar (See Figure 1b).
- Place a warning label outside the GRP or enclosed brick-built substation door to warn operational staff that they will be faced with an open LV pillar/cabinet once the substation door is opened (See Figure 2).
- Ensure that the external lock on the GRP or substation door is an L3 lock (or equivalent); see table 1.
- Ensure that the doors to the GRP or enclosed brick-built substation are locked before you leave site.

Figure 1a. Door slightly ajar.



Figure 1b. Cable tie to hold door latch against cabinet frame.



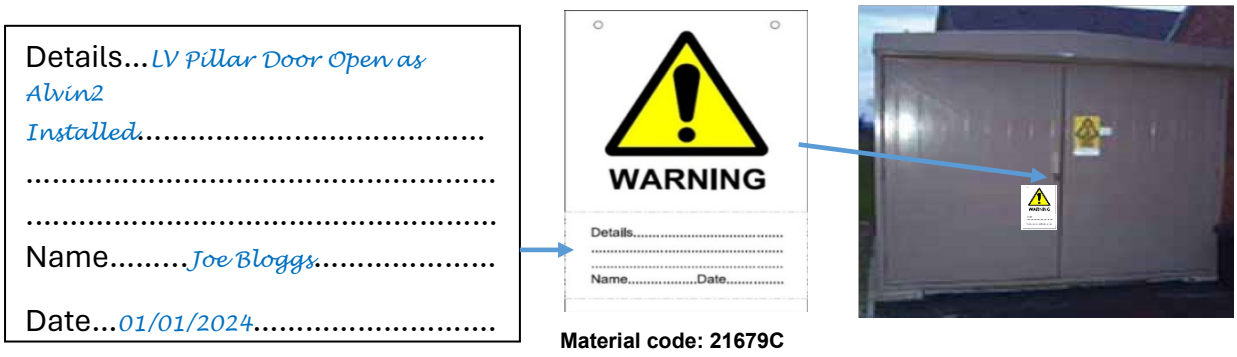
For scenarios where these pillars/cabinets are in outdoor distribution substations, ALVIN reclosers **shall NOT** be installed unless there is an alternative solution, for example a retrofitted deeper door, which can be fully closed and locked off.

For scenarios where these pillars/cabinets are within a **GRP** or **Fully Enclosed Brick-Built Distribution Substation with a Roof:**

- It is permissible to leave the LV pillar/cabinet door open considering that it is within a lockable building/structure.
- Place a **cable tie** between the door latch and the edge of the pillar/cabinet frame to keep the LV pillar/cabinet door slightly ajar (See Figure 1b).
  - Any of the **cable ties** with the following **material codes** may be used: "**01667V"** and **"02234P".**
- Place a warning label outside the GRP or fully enclosed brick-built substation door to warn operational staff that they will be faced with an open LV pillar/cabinet once the GRP or substation door is opened (see Figure 2).
  - The **warning sign** with the **material code "21679C"** in the stores catalogue shall be used.
  - Inscribe the following on the sign "LV pillar door open as Alvin 2 installed" as well as their **Name** and **Date.**
- Ensure that the external lock on the GRP or substation door is an L3 lock or equivalent, **if not, swap the lock for an L3 lock or equivalent**; see Table 1 for the different key/lock access levels.
- Ensure that the doors to the GRP and fully enclosed brick-built substation are locked before you leave site.

Table 1. Key/lock for different access levels as per EOS 07-3120

Access area for level	New UKPN locks for site access levels 1,2,3, and 4	Equivalent EPN legacy lock	Equivalent LPN legacy lock	Equivalent SPN legacy lock
Can only be accessed using a unique key(s) that match the specific lock.	L1 - Mechanical	N/A	BY 806 SA & YA	N/A
Sites with no exposed live equipment	L2 - Mechanical	ARXS P	BY 806 Y	ZENI D
Sites with exposed live equipment	**L3 -** Mechanical	**ARXS S**	**BY 806 S**	**ZENI C**
Sites requiring a higher level of Access Security	L4 - Mechatronic	ARXS O	BY 806 O	ZENI B



Material code: 21679C

Figure 2. Warning labels to be fitted with string and looped through the lock on the GRP or fully enclosed brick-built substation door.

Primary communication via Line Manager complete by 31/05/2024	**X**	1 week		2 weeks		1 month
Additional communication	**X**	**Fortnightly VisNet review calls from 10/06/2024 onwards**		1st 15		Team Brief Slide
Line management must ensure appropriate employees understand the content of this document within the timescale shown. This document is subject to compliance audits after the communication deadline.						