1993 ABB launched the protection and control device SCU (later REF542) on the market which combined the functions of a protection relay and of a control device. Since the introduction of the device it has been used in a lot of switchgear for power distribution worldwide.

As ABB products are designed for continuous evolution, it is ABB’s goal to protect our customers’ investment beyond the life-cycles of the underlying platform products.

Findings and advanced requirements, e.g. in the area of the connection to the scada-system, resulted in a revised and improved type of protection and control device, the REF542plus. Despite a significant increase in functionality and a more modern design, it is functional compatible to its predecessor in nearly all aspects. Therefore ABB has defined REF542plus as a recommended replacement solution for SCU/REF542.

Smooth exchange process
Even though the mechanical design of the REF542plus is different, there is a replacement kit available for the SCU/REF542. This kit makes it possible to mount the REF542plus at the same place where the REF542/SCU has been without the need for changes at the panel door. Furthermore the connection of the REF542/SCU and REF542plus are largely the same, so the existing wiring harness can be continued to use with only minor adaptations. Thus, the exchange is feasible with only a short downtime.

The operational concept of the REF542plus is based on the REF542/SCU and represents a consistent further development. This will facilitate the operating and maintenance personnel the change to the new generation of protection and control devices.
Advantages:
– REF542plus control and protection device is based on same base design as the SCU/REF542 and therefore it will enable a comprehensive solution because of similarities in hardware and software.
– REF542plus is having most comprehensive functional hardware and software coverage for replacement of SCU/REF542 on the market.
– REF542plus is in active lifecycle phase and under active development. New functionality is developed for customer projects and design activities for securing lifecycle care are continuously done.
– As SCU/REF542 units have been delivered in ABB switchgear, ABB has best capabilities to design and deliver the replacement solution.

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