Service note

UNITROL® F Control Upgrade
Extend your system's lifetime with minimal cost

The UNITROL F system is in the limited phase of its life cycle. ABB's Control Upgrade is a time- and cost-effective way to improve the performance and extend the life cycle of operational equipment. As the leader in excitation technology, ABB offers competence and experience needed for a successful system upgrade.

Legacy control platforms and related issues

An excitation system's control platform comprises complex hardware and software, both of which are subjected to rapid development that constrains the system's life cycle.

In many cases, a step-by-step modernization containing remote access, HMI, field circuit breaker or crowbar upgrades, will enhance the reliabiliy and safety of operations.

Control Upgrade is applicable to the following UNITROL system types:

- UNITROL F
- UNITROL 5000
- UNITROL P
- UNITROL M
- UNITROL D

Control Upgrade process

The content of the original control cabinet is replaced by a new controller and its related devices. A standardized control upgrade plate is available, which is pre-assembled, wired and tested in the factory. The plate is installed and connected to the terminals within the existing control cabinet.

In the converter cabinets the firing electronics are replaced with the latest technology. The thyristors, busbars, snubbers and fans are retained.

The new UNITROL standard software is adapted to support previous converter types, thereby reducing engineering time. To ensure full functionality ABB has tested the new firing electronics in combination with previous converter types. As long as the equipment remains in good condition, field circuit breakers, transformers, cooling and bus ducts are unchanged. See the process described below:

System status check

Contact your local ABB organization

Create engineering solution with ABB support

Installation and commissioning

Continue efficient operation

Benefits

- Extremely fast, state-of-the-art control platform with optical communication between boards and standardized software development environment
- Long-term spare parts availability with lower price for the control part
- New interfaces for enhanced functionality (control terminals or control and converter cabinet)
- Long-term availability of engineering and support competences
- Possibility to integrate excitation system in modern power plant control systems

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