

Product note

DCS800-R TYRAK L upgrade kit

ABB TYRAK L Drive

ABB's TYRAK DC drives have a huge installed base. The TYRAK brand covers many different types. The L type was the first TYRAK with digital control. The thyristor stack 950 A ... 3000 A is equipped with disc thyristors and very reliable. In 2012, the control and interface boards entered the obsolete phase according to ABB life cycle management model. The supply of such boards can be very difficult and is no longer guaranteed.

The DC motors are in good shape and do not need to be replaced. The rolling mill drive equipment motors and power stack are very reliable and the customer wants to keep the equipment together with new control boards.

Unexpected downtime and production losses due to obsolete control equipment must be avoided by cyclical upgrading. The customer decided to revamp the DC drive by installing a new DCS800 control. The required downtime for 4 mill drives can be in total 6 days. A complete replacement of all 4 DC drives would entail much longer downtime.

DCS800-R solution

The DCS800-R rebuild kit is a product for revamping old power stacks up to 4 thyristors in parallel. DCS800-R firing boards (SDCS-PIN-48) and measurement boards (SDCS-PIN-51) can be directly connected to original stack hardware. The new field exciter and I/O interface boards replace the original and obsolete boards.

ABB offered a special TYRAK L mechanical upgrade kit. The TYRAK L kit prepares the original cabinets for the new DCS800 boards. A preparation of fixing points reduces the mechanical work on site substantially and reduces the power downtime to a minimum.

The new boards are located in an optimum position, which minimizes the cabling work involved. The DCS800 commissioning assistant and autotuning help the commissioning engineer to restore production as soon as possible. The control interface PE1354B provides the connection from the original AC450 master fieldbus control to the DDCS optical DCS800 control input. The optical connection to the DriveWindow monitor PC tool is used for commissioning and maintenance.



TYRAK-L, complete converter

Basic Rebuildkit control board mounted on new door
DCS800 Rebuild Set TYRAK L (2Q) 3ADT220164R0001
DCS800 Rebuild Set TYRAK L (4Q) 3ADT220164R0002



TYRAK L Control Door, front



TYRAK L Control Door, rear side



Location of new field exciter
DCF503B0050



Location of SDCS-PIN-51



Location of SDCS-PIN-48

TYRAK L upgrade kit

for drives 950 A ... 3000 A

	Explanation	DCS800 Rebuild Set TYRAK L (2Q) 3ADT220164R0001 (single bridge)	DCS800 Rebuild Set TYRAK L (4Q) 3ADT220164R0002 (double bridge)
SDCS-CON-4	control board	1	1
SDCS-POW-4	powersupply board	1	1
SDCS-DSL-4	communication board	1	1
DCS800 Control Panel		1	1
TYRAK L Control Door		1	1
SDCS-PIN-51 + cardholder	measurement board	1	1
SDCS-PIN-48 + cardholder	firing board	1	2
X12 + X13 + firing cable	connection cable	1	1

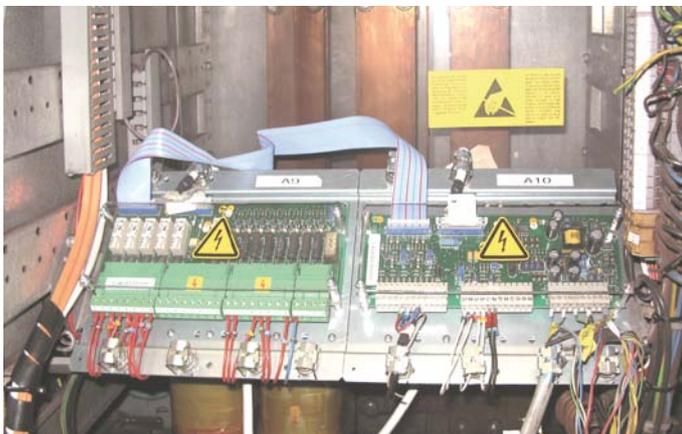
Options

- Field exciter
- Fieldbus adapter PE1354B
- TYRAK L mounting panels
 - TYRAK L cubicle profile
 - TYRAK L mounting panel for field exciter supply
 - TYRAK L mounting panel PIN-51/ PIN-48/ NDBU
 - TYRAK L mounting panel field exciter DCF8030035 or galvanic isolation measurement

Customer benefits

- latest technology of serial communication
- interface to classic field bus and control products
- DriveWindow PC tool for all drives
- minimum downtime
- powerstack can remain
- cost effective refurbishment of existing TYRAK L
- many ready made mounting panels
- easy installation and start-up reduces total project costs

Further documentation see TYRAK L upgrade and installation manual (3ADW000416R0101).



Location of I/O interface

For more information please contact:

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