



www.741solutions.com
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741 PES will offer ABB ACS800 AC drive services in its Houston facility starting July 31, 2014

We will be servicing nearly all ACS800 systems; however, we are setting up an express program for repairing the following type codes of R8i and D4 modules used in the drilling industry:

ACS800-104-0580-...

ACS800-104LC-0580-...

ACS800-704-...

The objective of our repair process is simply to render as smooth of a repair process as possible, with outstanding value and turnaround times.

Customers may send malfunctioning equipment to our facility and elect one of the following repair processes:

1. Standard method of diagnostics, consultation, and repair following customer approval
2. **741express** method: pre-authorization is granted for **ASAP** diagnosis & repair, with repair cost not to exceed a customer-defined amount without further approval from customer. This method covers most small failures (circuit boards, wiring harnesses, blowers) as well as minor power core & capacitor failures.

**** 741express requires approval and signed service agreement ****

SPECIFIC REPAIR OFFERINGS

REPAIR group 7SE.R8i.10

Control Board Failure

Prescription is for identification and replacement of failed circuit board.

Basic inspection of power core also is performed; if successful, the repaired module undergoes a 15-minute run test at 10% current to verify

- a. Communication between AINT and RDCU
- b. Blower operation
- c. Balance of output current
- d. Control of output current

REPAIR group 7SE.R8i.20

Blower Failure

For full-voltage blowers, the blower assembly and contactor are inspected and repaired/replaced as necessary.

For speed-controlled blowers, the blower assembly and fan inverter board are inspected and repaired/replaced as necessary.



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The repaired module undergoes a 5-minute run test at 0-60Hz output to verify proper automatic operation of blower

REPAIR group 7SE.R8i.30 Power Core Failure

Failed component is replaced with a bench component for basic testing (to check for cascading failures to other DC-connected parts)
 Failed IGBT packs are replaced, along with snubbers, driver boards, and ribbon cables

Repaired module undergoes a 2-hour run test at 50% current to verify

- Communication between AINT and RDCU
- Blower operation
- Balance of output current
- Control of output current
- Uniform heatsink temperature rise

REPAIR group 7SE.R8i.40 Capacitor Failure

- After visual inspection, damaged electrolytic capacitors are removed
- Individual capacitors are disconnected; ESR and C are measured
- Cells with >5% deviation from mean values are removed
- New cells are installed in place of all removed cells.

Repaired module undergoes a 1-hour run test at 10% current to verify

- Balance of output current

REPAIR group 7SE.R8i.49 Capacitor Storage (re-forming)

For stored units which must soon be placed in service, the module is charged with a current-controlled voltage source with a ramp limit per the guidelines published by ABB Oy.

After recharge, the supervising engineer assigns a pass/fail rating to the unit based on

- the ability of the recharging process to follow a predictable current ramp and decay
- the presence of excessive overheating of any specific capacitor cell(s)

A failed unit will likely be recommended to enter the capacitor repair process (group R8i.40). Customer may elect to take delivery of a re-charged unit with a failing test, but all warranties maintained by 741 solutions will be void upon shipment.

QC label is affixed to note the date and current profile of the recharging process, as well as Pass/Fail status.

Symptoms and problems not addressed by the standard categories will be assigned into MISC category, and their repair times are dependent upon diagnostic process and part availability.

For more information please contact:

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