

# The Robot Training Centre, Milton Keynes

## Course Outline



## S4C Plus Electrical Maintenance

**Duration:** 4 days

**Participants:** Supervisors, Team Leaders, and Service Personnel

**Pre-requisites:** Students attending should be employed by their companies as maintenance technicians with electrical bias or hold relevant electrical qualifications. PC Knowledge and file handling would be useful. Previous attendance of the S4 Programming & Operation course or the S4 Operator course is strongly recommended. The course objectives are unlikely to be met if students do not fulfil these requirements.

### Subject Areas:

#### **Safety Instructions**

Common sense & pinch points  
Emergency stops & the enabling device  
Teach velocity  
Static precautions

#### **System Description**

Robot mechanical unit & control system overview  
Circuit diagrams

#### **System block diagram**

Mains connections  
Power supply  
Customer connections  
Motors on chain  
Power unit

#### **Computer system description**

Main computer  
I/O computer  
Axis computer

#### **System Parameters**

#### **Setting system time & date**

Please contact the Training department

Tel No: 0044 (0)1908 350499

Fax No. 0044 (0)1908 350301

<http://www.abb.co.uk/product/seitp327/980d1e9bcdbb9aa1c125719c002e705d.aspx>



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## S4C Plus Electrical Service (Cont)

**Error logs**

**Using the trouble shooting guides**

**Input / Output connections**

**The 'Cold Boot' procedure**

**System Calibration**

Motor offsets

Revolution counter updating

**The servo system**

Rectifier, servo drive boards & resolver feedback

Motor removal and set up

Serial measurement system

Cable connections

**Preventative maintenance procedures**

Oil quantities

Battery replacement

Greasing

## Objectives

On completion of this course the participants will be able to perform:

- Electrical repair and preventative maintenance
- System parameter set-up and editing
- Trouble shooting and component replacement
- Installation of robot operating system software
- Calibration of the robot system

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