



# Speedtronic Mark IV Maintenance

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## **COURSE CONTENT**

### **Aim**

This site-specific course is designed to introduce operations and maintenance personnel to the routine preventative maintenance procedures of the turbine support systems required to attain high levels of availability and reliability from the gas turbine. This course does not cover the turbine-generator disassembly inspections required for major mechanical maintenance. Operating and maintenance personnel should attend this course together to develop a working relationship regarding the routine maintenance requirements of the unit.

The training includes detailed descriptions of the turbine support systems. This includes a functional description of the system as well as the routine maintenance requirements of the system. If the course is held at the customer's location it will include site visits to familiarise personnel with the location of the various system components and to allow personnel to correlate the system piping schematics to the system hardware.

### **Pre-requisites**

Control and Instrumentation Technicians and Engineers with a basic knowledge of turbine technology.

### **Course Duration**

The course is of 10 days in duration.

### **Optimum Number**

Maximum of 7 delegates per course.

### **Training Aids**

PowerPoint and Information hand-outs.

## **COURSE SYLLABUS**

- Mark IV Speedtronic Control Principles – Level 1  
Introduction to Mark IV Terminology  
Hardware  
Elementary Diagrams and Control Specifications  
System Support Software  
Mark IV Processor Structure

- Mark IV Speedtronic Control Principles – Level 2  
Sequencing Function  
Control Algorithm Representation  
Control Application Software  
Liquid Fuel Control System  
Gas Fuel Control System

- Mark IV Speedtronic Control Sequencing  
On-base Permissive Signals  
Input Signals  
Control System Sequencing

- Mark IV Speedtronic Control Calibration  
Introduction  
Speed Control Calibration  
Temperature Control Calibration  
Start Up/Shutdown Control  
Gas Fuel Control  
IGV Control  
Protection

- Mark IV Speedtronic Control Troubleshooting  
Introduction  
Recommended Practices  
Installation Procedures  
Troubleshooting  
Diagnostic Fault Techniques  
Hardware Test  
Using CRT Display

**Dates available on request**

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