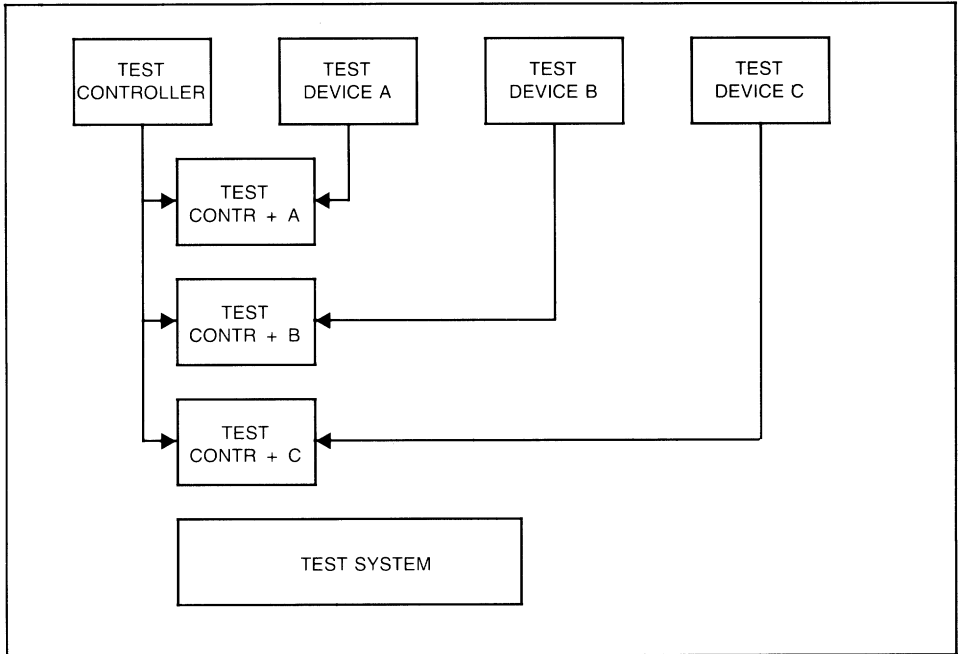


# SYSTEM BUILDING AND FAULT DIAGNOSIS

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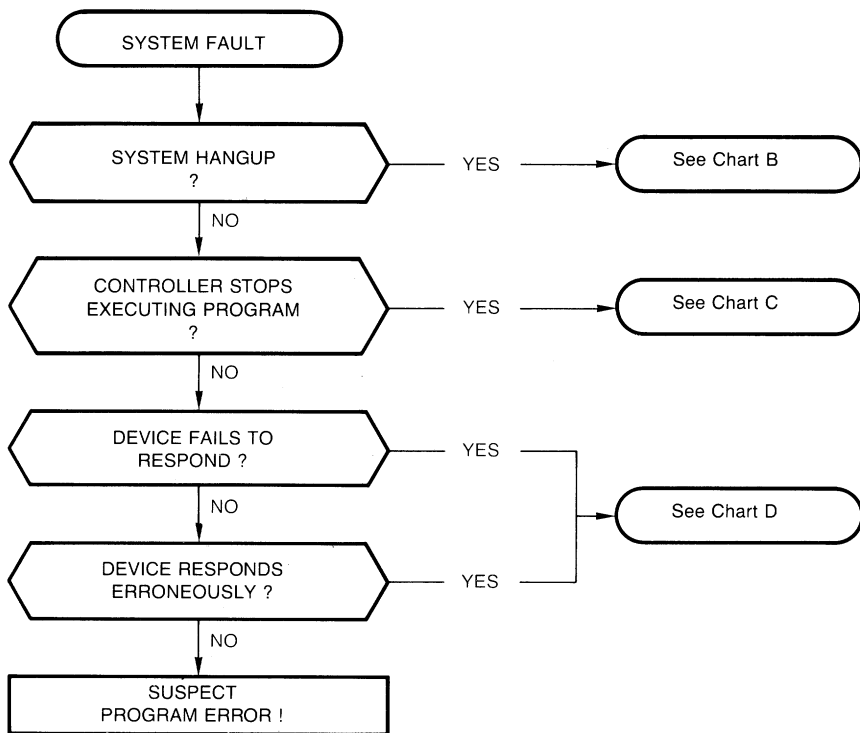
## TEST AND BUILD PROCEDURE FOR IEC-BUS SYSTEMS



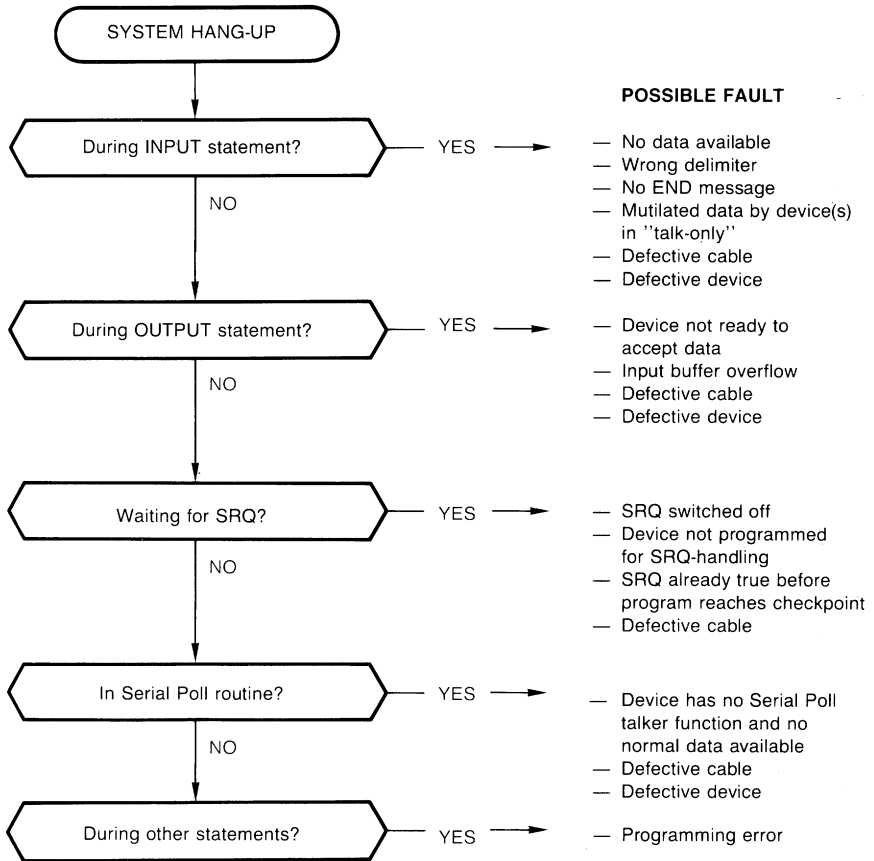
- Address setting correct?
- Delimiters correct?
- Talk only - Listen only switch correct?
- SRQ switch correct?

**After building-up, run a simple program to check the input and output!**

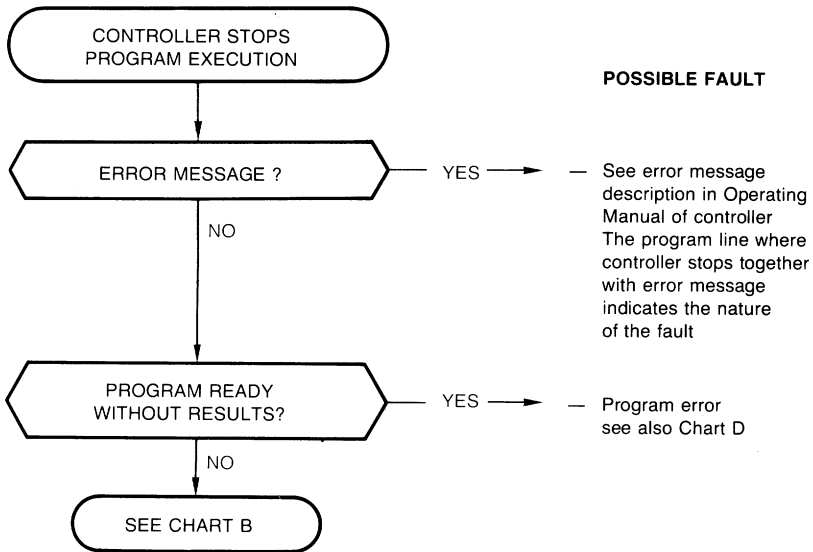
# FAULT-FINDING IN IEC-BUS SYSTEMS



# CHART B



# CHART C



*NOTE: A program stop and a system hang-up can be caused by the same phenomena. It is therefore not always possible to see the difference.*

# CHART D

DEVICE FAILS TO RESPOND OR RESPONDS ERRONEOUSLY

## POSSIBLE FAULT

DEVICE UNADDRESSED?  
(Often visible on the instruments)

YES →

- Wrong setting of address
- Incorrect programming (address not sent with ATN = 1, wrong address code, incorrect sequence, etc.
- Defective cable
- Defective device

NO

DEVICE IN "LOCAL"?

YES →

- REN '0' (Defective cable or not sent by the controller)
- "Return to local" switch in wrong position
- Defective device

NO

- {
- Incorrect programming
  - Alarm condition
  - Defective cable
  - Defective device

# PROGRAM ERRORS

Most frequent program errors are:

## I/O ERRORS

- False message coding
- Wrong delimiter
- Code and format errors
- Wrong address programmed
- Incorrect program/command sequence
- Input buffer overflow
- String overflow
- Handshake time out, when no data is available

## NON-I/O ERRORS

- Jump to wrong program part
- Incorrect calculations
- Incorrect SRQ handling
- Incorrect sequence
- Incorrect coding