



Application Note

Product: AnswerMan

NAME: Analog Threshold Limits

Date: 05/05/00

Introduction: This application note shows how to use the analog threshold limits to monitor a voltage with the use of only the AnswerMan.

Background: AnswerMan may be set up to automatically monitor any of the analog inputs and set corresponding digital outputs when a high or a low limit has been exceeded. With this feature the AnswerMan can exercise autonomy by not requiring the services of a central computer to react to local conditions.

How it works: To use the analog threshold limits the SL or the SLD commands are used to monitor voltages on the AnswerMan's analog inputs. The uses of these commands are explained in detail in the AnswerMan datasheet. The commands allow the user to set a minimum and a maximum voltage for the AnswerMan to monitor. The SL command stores these voltages in RAM whereas the SLD command stores the voltages in the EEPROM. When enabled the AnswerMan will set an output bit high if the voltage being monitored is not within specified limits. The output bit will stay in the high state until the voltage returns to specified range. The output bit is predetermined when the analog input channel is selected. When configuring the AnswerMan be sure to set both bit seven (twelve for 12-bit limit checking) and bit two, otherwise the limit checking will not work. The analog limit checking function can be used with either the 8-bit channels of the AnswerMan Jr. & Sr., or with the 12-bit channels of the AnswerMan Sr..

Schematic:

