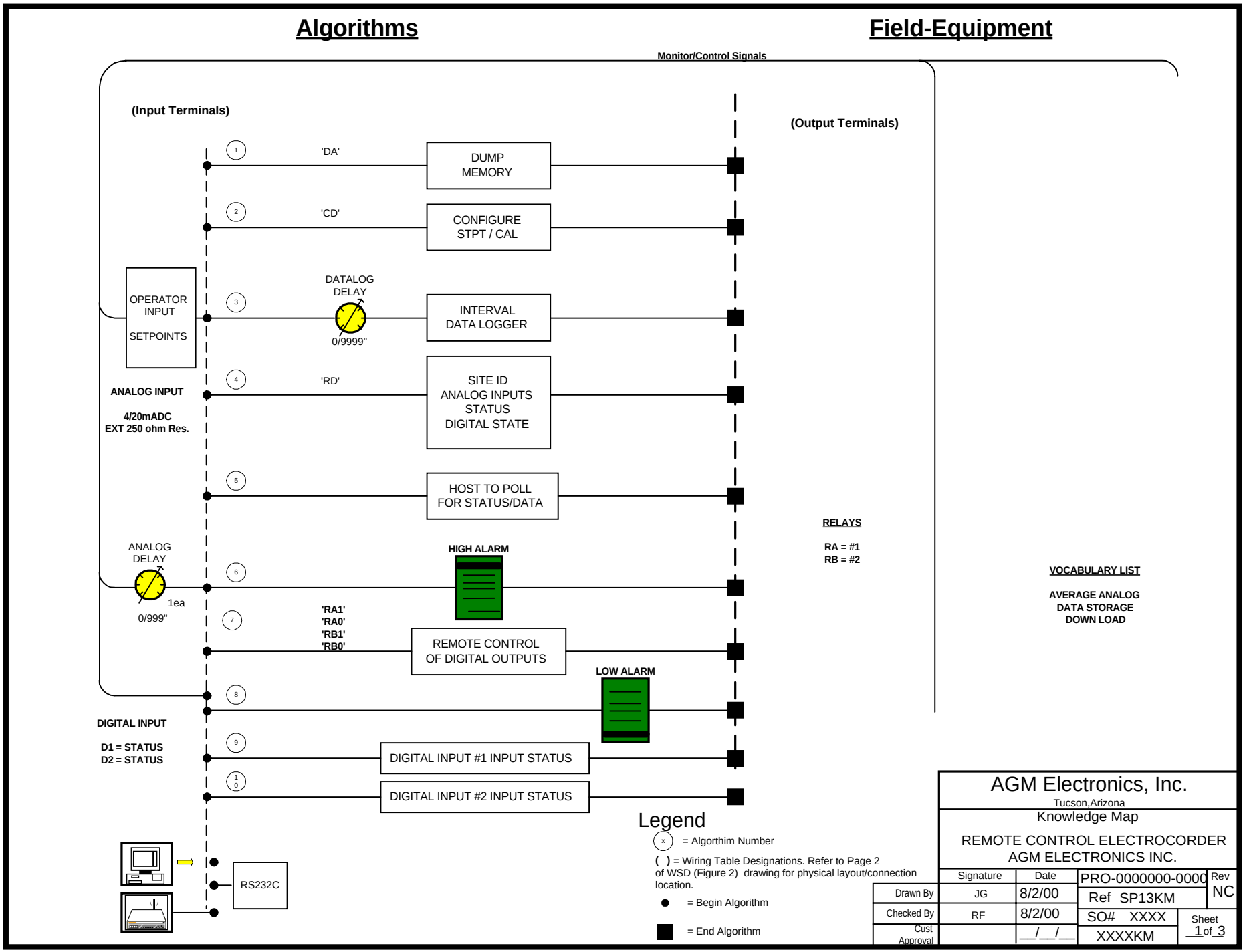
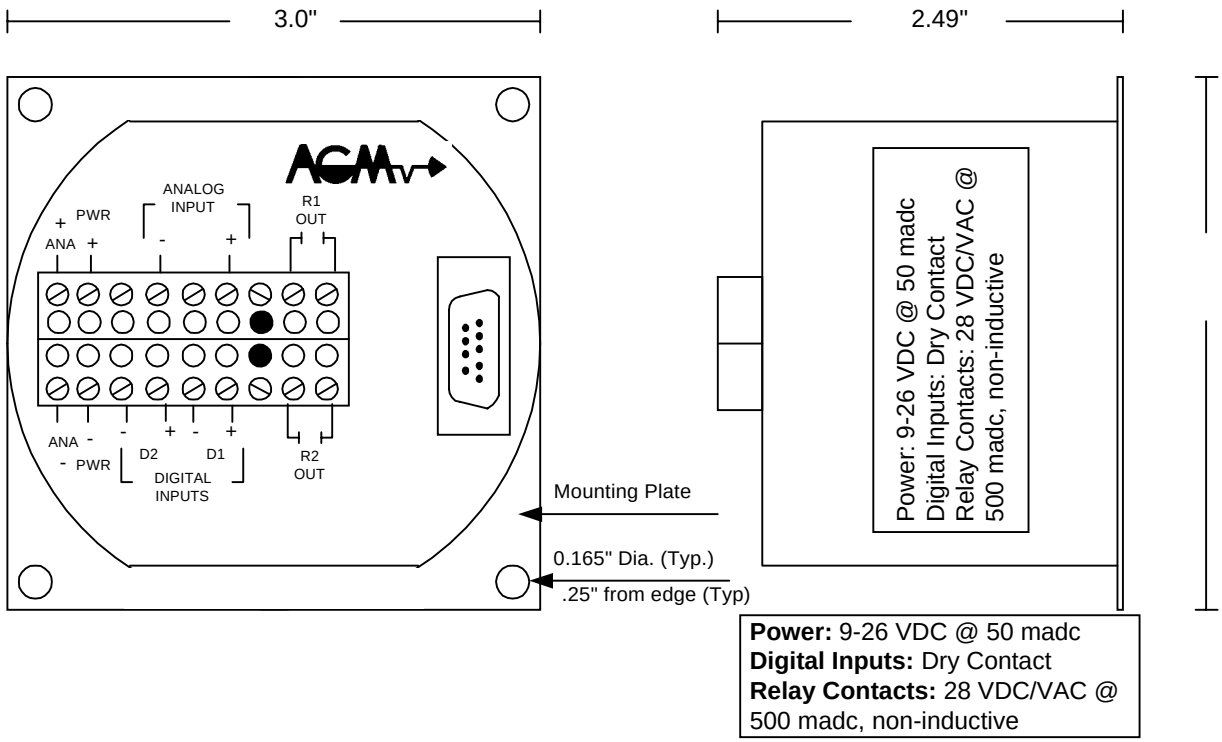



AGM Electronics, Inc.
Tucson,Arizona
Knowledge Map
REMOTE CONTROL ELECTROCORDER
AGM ELECTRONICS INC.

| | Signature | Date | | |
|---|---|---|---|---|
| Drawn By | JG | 8/2/00 | PRO-0000000-0000 | Rev NC |
| Checked By | RF | 8/2/00 | Ref SP13KM | |
| Cust Approval | | __/__/__ | SO# XXXX | Sheet 1 of 3 |
| | | | XXXXKM | |




**Power:** 9-26 VDC @ 50 madc
**Digital Inputs:** Dry Contact
**Relay Contacts:** 28 VDC/VAC @ 500 madc, non-inductive

**Data Handler Operations**

**The Data Handler (SPM 9000-D2N) is designed to filter and record an analog input and control two relays. The analog input can be scaled in engineering units and recorded with a time date stamp, based on a setpoint interval in seconds. The analog input is filtered based on a setpoint and displayed and recorded. The output relays can be controlled through a computer of through a modem using a terminal program.**

**The digital inputs can be polled for status with the analog average value. The site identification, analog status and digital status have a modifiable character string, up to 25 characters, that can be altered in the configuration mode. The datalogged memory can be downloaded through the terminal program for use in database or spreadsheet programs.**

**Active Commands**

| Command | Description | Results |
|---|---|---|
| **VERS** | **Data handler version** | **Display Version of Data Handler** |
| **CD** | **Configure Data** | **Enable Configure Routines** |
| **DA** | **Dump Data** | **Dumps stores data** |
| **RD** | **Read Data** | |
| | **Display site ID** | **"Site ID String"** |
| | **Display analog input** | **"Analog Print String"** |
| | **Displa digital input** | **"Digital Print String"** |
| **CM** | **Clear Memory** | **Clears all stored data** |
| **RA0** | **Control Relay A (R1)** | **Turn relay A (1) "OFF"** |
| **RA1** | **Control Relay A (R1)** | **Turn relay A (1) "ON"** |
| **RA-1** | **Setpoint control** | **Relay A (1) Setpoint control** |
| **RB0** | **Control Relay B (R2)** | **Turn relay B (2) "OFF"** |
| **RB1** | **Control Relay B (R2)** | **Turn relay B (2) "ON"** |
| **RB-1** | **Setpoint Control** | **Relay B setpoint control** |

| | Signature | Date | PRO-0000000-0000 | Rev |
|---|---|---|---|---|
| Drawn By | JG | 8/2/00 | Ref SP13KM | NC |
| Checked By | RF | 8/2/00 | SO# XXXX | Sheet |
| Cust Approval | | __/__/__ | XXXXFP | 2 of 3 |

AGM Electronics, Inc.
Tucson,Arizona
Front Panel Notes
AGM ELECTRONICS INC.
REMOTE CONTROL ELECTROCORDER

To access the configuration: First start either the SCADA.EXE program shipped with your Super Puk, or you may use your own terminal emulator program. You may use any terminal program that supports standard ASCII. Set the communications parameters to no parity, 8 data bits and one stop. Baud rates may be either 300, 1200, or 9600 baud.

When your terminal has been connected, enter "CD" or "$-1CD" without quotes and followed by the Enter key to get started. Use "$-1" or "$" followed by an address the "CD" when the Super PUk has been configured for it's addressable mode. The Super Puk will respond with the following prompts:

**Date:** MM/DD/YY: This message will display the current date as seen from the data handler, If different than the actual date then enter it as it is formatted above (ie MM/DD/YY, example 03/13/94). Then hit the Enter key to store the data. If the current date is correct then you can just hit the Enter key and the DATE will not be updated. If you make an error on data entry you may hit the backspace key to delete it.

**Time:** HH:MM:SS: This message will display the current time as seen from the data handler. If different than actual then enter it as it is formatted above (i.e. HH::MM:SS, example 01:03:01:) Please note this is a 24 hour clock so 11:59:59: midnight is 23:59:59:. Hit <Enter key to continue.

**ID:**= " Enter any message up to 25 characters to be displayed when status is requested.

**Analog Delay (sec):** Enter the delay for averaging the analog input in seconds.

**Analog Print** = Enter the message that should be printed before the analog status, max length 20 characters.

**Digital Print** = Enter the message that should be printed before the digital input status, max length 20 characters.

**DATA** (Datalog Delay: sec. High setpoint Low setpoint).

**Calinp** (N): This default is 'N' . If just the Enter key is pressed, the configuration will continue with the next line allowing change of the engineering units without physically putting in the 0% and 100% analog signal levels. If a 'Y' is entered, the actual relationship between the physical input and engineering units will be changed. This requires applying the raw input signal to the analog inp**t. If you do not have a means to enter the raw signal at this time do not reply 'Y'.**

**ZeroInp ( ):** This message will be displayed to prompt you to set the zero scale in engineering units.

**FullInp ( ):** This message will be displayed to prompt you to set the full scale in engineering units. This will complete the calibration process.

**Continue** ? (N) This message verifies that you want to continue. To continue past this point will erase all stored records, so you can quit now by just hitting the Enter key or type 'Y followed by the' Enter key to proceed.

**Config:**(-1) This entry is used to set addressing mode and specific RS232 line protocol. Refer to the help menu for additional information.

**Addr:**(-1) If addressing is used, enter the unit address. Valid addresses are integers between 0 and 255 Refer to help for additional information.

**Baud:**(-1) Set the baud rate 96 = 9600 baud; 3 = 300 baud; -1 or any other number = 1200 baud. The baud rate will not change until power is recycled. The baud rate of the terminal program will need to be changed to the appropriate baud rate.

**Date fmt (3):** this entry defines the amount of date information stored with each data point. Enter a number, 0-3, from the table below to set the date format. Memory allocation is also listed, the input reading used 2 bytes per record.

0 No date information recorded.
1 Day of month only recorded (add 2 bytes per record).
2 Mont/Day record (add 4 bytes per record).
3 Month/Day/Year recorded (add 6 bytes per record).

**Time fmt (3):**This entry is used to configure what time information will be stored. Enter a number 0-3 from the listing below.

0 No time information recorded.
1 Minutes only recorded (add 2 bytes per record).
2 Hour:Minute recorded (add 4 bytes per record).
3 Hour:Minute:Seconds recorded (add 6 bytes per record).

**Prec. (62):** This entry is used to set display precision. The first digit is the maximum field width and the second digit is the number of digits displayed to the right of the decimal.

| | Signature | Date | PRO-0000000-0000 | Rev |
|---|---|---|---|---|
| Drawn By | JG | 8/2/00 | Ref SP13 | NC |
| Checked By | RF | 8/2/00 | SO# XXXX | Sheet |
| Cust Approval | | __/__/__ | XXXXNO | 3 of 3 |

AGM Electronics, Inc.
Tucson,Arizona

Front Panel Notes
AGM ELECTRONICS INC.
REMOTE CONTROL ELECTROCORDER