

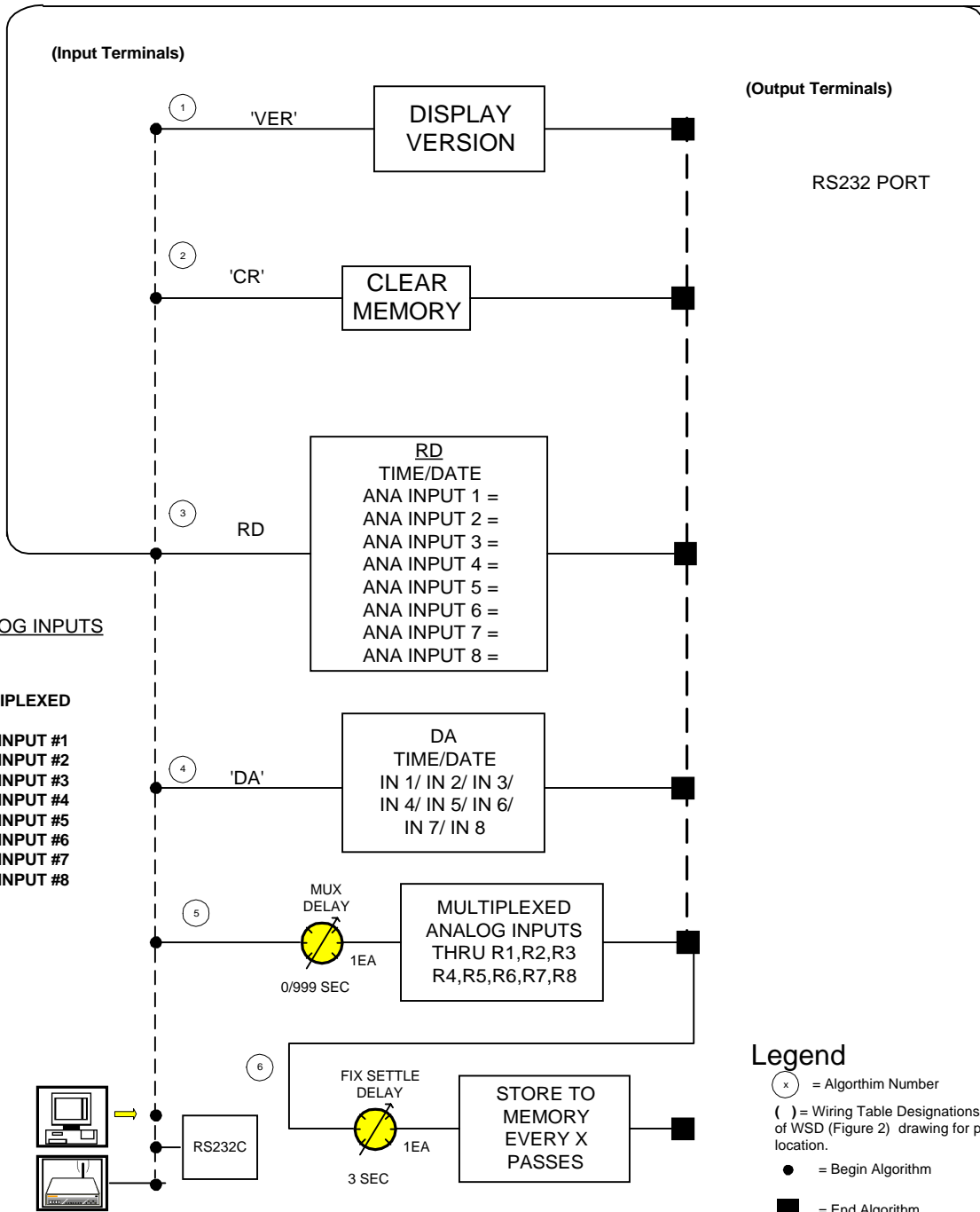
Algorithms

Field-Equipment

Monitor/Control Signals

(Input Terminals)

(Output Terminals)



ANALOG INPUTS

MULTIPLEXED

- ANA INPUT #1
- ANA INPUT #2
- ANA INPUT #3
- ANA INPUT #4
- ANA INPUT #5
- ANA INPUT #6
- ANA INPUT #7
- ANA INPUT #8

Legend

- (x) = Algorithm Number
- () = Wiring Table Designations. Refer to Page 2 of WSD (Figure 2) drawing for physical layout/connection location.
- = Begin Algorithm
- = End Algorithm

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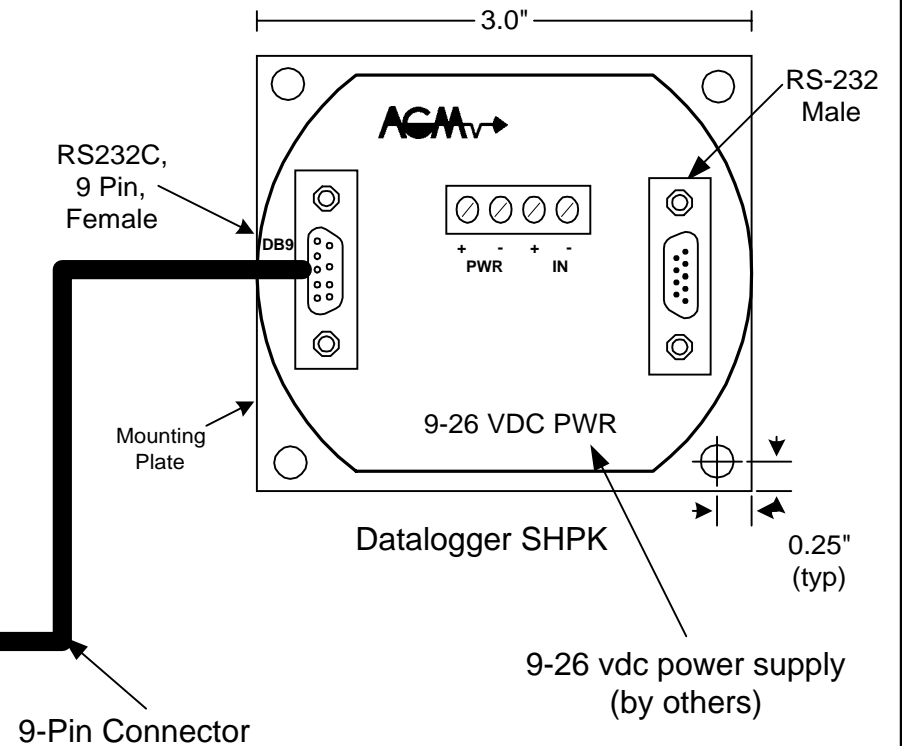
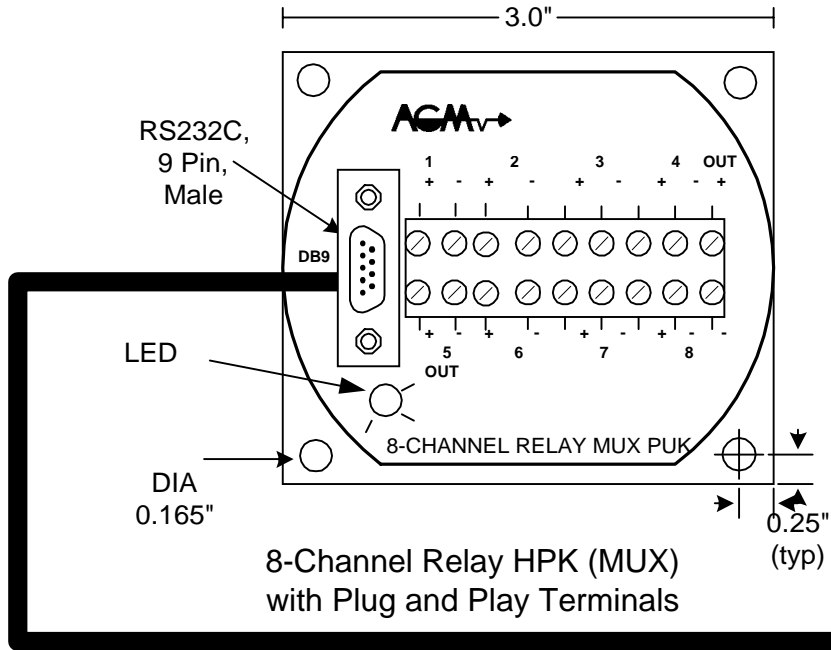
Knowledge Map

Mux Puk System

Signature	Date	Ref	Rev
Drawn By		SO#	NC
Checked By			Sheet
Cust Approval	__/__/__		_1_of_5

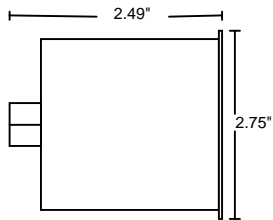
Relay Contacts

28 vdc/vac @ 500madc
non-inductive



Power note: 9-26 vdc
Max current = 50madc
Low power 12 vdc optional

NOTE: Use "AGM Datalogger Disk" for SHPK Configurations and Data Download.
Sub-assemblies Suitable for bulkhead mounting (Vertical or Horizontal)



Drawn by:	Date:	SO/PRO #		Rev NC
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Approved by:	Date:	File Name		Sheet 2 of 5

AGM Electronics, Inc. Tucson, Arizona
Front View
Mux Puk System

Configuration Instructions

To Access the Data Handler configuration use either the program SCADA.EXE provided with this shipment, or any terminal program that supports serial ASCII communications. Set terminal program for 9600 baud, no parity, 8 data bits and one stop bit. Connect the computer to the Super Puk using a straight through cable.

Enter "\$-1CD" (on "CD" if not addressed) followed by the "Enter" key to enter the configuration mode on the data handler. The data handler will respond with the following lines:

NOTE: To modify the current value, enter the new settings and press the "Enter" key. If you do not wish to modify the displayed settings just press the "Enter" key without entering any other text and the current setting will be retained. If you make an error entering any value, use the backspace key to edit the entry before pressing the "Enter" key.

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 (i.e. MM/DD/YY, example 03/13/90).

Time : HH:MM:SS : This message will display the current time as seen from the data handler. If different than the actual time then enter it as it is formatted above (i.e. HH:MM:SS, example 01:30:00). Please note this is a 24 hour clock so one second before midnight is 23:59:59.

NOTE: Year 2000 compatibility. The date and time are only used for data recording and not control. The only effect of the year 1999 to 200 transition is the recorded year will change from 99 to 00. It is up to the software using the recorded data to resolve any year 2000 ambiguity. Data will still be recorded and displayed sequentially.

Continue? (N): This is a prompt to determine if you wish to continue with the configuration. Answering "Y" will continue with the configuration.

Do you wish to recalibrate inputs? (N): This question is used to determine if the analog inputs will be recalibrated during this configuration. Answering "Y" will allow the inputs to be calibrated.

NOTE: You must have a signal source capable of supplying a calibrated zero and full scale input connected to the data handler before the inputs can be calibrated. **DO NOT ANSWER "Y" IF YOU DO NOT HAVE THIS SIGNAL SOURCE AVAILABLE. YOU DO NOT NEED TO RECALIBRATE IF YOU ARE ONLY CHANGING ZERO AND FULL SCALE ENGINEERING UNITS.**

Calibrate each input individually? (N): This question is only displayed after you answer "Y" to the above question. It is used to determine how the inputs will be calibrated.

If the zero and full scale input levels will be the same for all inputs, answer "N". The zero and full scale inputs will be measured for the first input only. All other inputs will use the same zero and full scale values.

If the zero or full scale input levels will be different for any of the inputs, then you must calibrate each input individually. Answer "Y" to this question if this is required. When prompted you must supply the zero and full scale levels for each input.

Enter Address (1): This prompt allows you to change the address of the data handler. Addressing is required when multiple data handlers are used in a RS-485 or radio system. Addressing may also be required when used with some types of control room software. To enable or change addressing, enter the new address here. Valid addresses are from 1 to 254. Enter a address of -1 to disable addressing.

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Front Panel Notes Mux Puk System

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Number of inputs (5): This message allows you to change the number of multiplexed inputs used by this data handler. Enter a number between 1 and 8 according to the number of inputs you will be using.

Settling time (3 sec.): The settling time is the time in seconds between the closing of the multiplexing relays and the time the input is measured. The value entered here should be long enough to allow the input to stabilize.

Storage interval (60 sec.): This message is used to set how often the multiplexed input values will be recorded.

NOTE: This and the following messages will be repeated for each input. The input to which the setting will be applied is displayed in place of the “#”.

Smoothing interval for input # (1 sec.): When reading the analog inputs you have the option of averaging the inputs over time.

The inputs are only read once per pass of the multiplexer. Any interval less than the time it takes to make one pass through all inputs will result in no averaging of the input as only one measurement will have been made during the specified interval.

To find the minimum time for a reading you must multiply the “Settling time” by the “Number of inputs”. This is the time it takes between measurements of a specific input. The “Smoothing interval” should be some multiple of this value depending on the number of reading you wish to average.

Enter High Alarm for input # (80.0000): This message prompts you for the high level alarm for the displayed input. Enter the value for a High Alarm in engineering units.

Enter Low Alarm for input # (20.0000): This message prompts you for the low level alarm for the displayed input. Enter the value for a Low Alarm in engineering units.

Enter Alarm Dead Band for input # (5.0000): The Dead Band specified the range in engineering units the input must change before the high or low alarm clears.

Alarm Example: If the high alarm is set for 80, low alarm is set for 20, and the dead band is set for 5. The high alarm will turn on when the input reaches 80 and off when the input drops below 75. The low alarm will turn on when the input drops below 20 and off when the input rises above 25.

NOTE: Both the High and Low Alarms do not effect the operation of the Data Handler. They are only used to set an internal variable for use by a Genie Puk or *TakeCharge* software.

Apply zero scale input then

Enter zero scale engineering units for input # (0.0000): This message allow you to change the zero scale engineering units and if the “Apply zero scale input then” message is displayed to calibrate the specified input.

IF THE “APPLY ZERO SCALE INPUT THEN” PROMPT IS DISPLAYED, THEN YOU WILL BE RECALIBRATING THE INPUT. YOU MUST SUPPLY THE ZERO SCALE INPUT SIGNAL TO THE DATA HANDLER BEFORE PRESSING THE “ENTER” KEY.

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Apply full scale input then

Enter full scale engineering units for input # (100.0000): This message allow you to change the full scale engineering units and if the "Apply full scale input then" message is displayed to calibrate the specified input.

IF THE "Apply full scale input then" PROMPT IS DISPLAYED, THEN YOU WILL BE RECALIBRATING THE INPUT. YOU MUST SUPPLY THE FULL SCALE INPUT SIGNAL TO THE DATA HANDLER BEFORE PRESSING THE "ENTER" KEY.

Continue? (Recorded data will be erased!) (N): This question indicates you are almost done with configuration. The only remaining configuration options effect the recorded data. These remaining configuration options can not be changed without clearing the recorded data. Answering "Y" will allow you to change the following options, then clear all recorded data when done. Answering "N" will end the configuration, without clearing the recorded data.

Date fmt (3) : Indicates how the date will be stored. 0 = No date, 1 = Date only, 2 = Month and Date, 3 = Month, Date and two digit Year.

NOTE: The year is a two digit year, it will simply roll over to 00 on 12/31/99. It is up to the software processing the recorded date to determine which century the data was recorded in. The date is not used for internal calculations and the data handler will continue to operate after the year rolls over.

Time fmt (3) : Indicates how the time will be stored. 0 = No time, 1 = Minutes only, 2 = Hour and Minutes, 3 = Hours, Minutes and Seconds.

Prec.(62): Precision of recorded data dump. Indicates the number of digits and the location of the decimal point when dumping recorded data. The first character is the number of digits and the second is the location of the decimal point. Enter 62 for 2 digits to the right of the decimal point, 61 for one digit, and 60 for no digits.

<EOT> This message indicates configuration has been completed. The data handler will resume normal operation after this message.

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