1. Analog to ASCII Conversion
2. Modem Control Lease/Radio (RTS)
3. Calibrated Analog Output
4. Output Relay Control from Datatran D1 from Transverter D2
5. Communication Fault
6. Configure Data
7. 'CD'
8. 'RD'
9. Communication
10. Analog to Initial Valve
11. Control Feedback from Datatran
12. Send Digital Status to Datatran
13. Analog Output
   4/20mADC or any Specified
14. RS232 COMMUNICATION

Legend
- = 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

VOCABULARY LIST
DATATRAN
TRANSVERTER
DATE/TIME
DATA LOGGING

AGM Electronics, Inc.
Tucson, Arizona
Data Handler Operations

The Data Handler (SPM 9000-D2I) 'TRANSVERTER' model SPM 9000-D2I for current or (V) for voltage output, is designed to transfer two digital signals and output one analog signal from a local 'DATATRAN' model SPM 9000-D2N. The communication carrier is a leased line mode or radio modem. The digital inputs will be transferred to digital outputs on the opposite side at each communication interval. A communication failure is active when the communication carrier is interrupted and the analog output will be set to the initial value. During setup the operator can request the status of the analog/digital inputs and the digital outputs. The setpoints and calibration are operator adjustable through the RS232C communication port.

Active Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 VERS</td>
<td>Data handler version</td>
<td>Display Version of Data Handler</td>
</tr>
<tr>
<td>$1 CD</td>
<td>Configure Data</td>
<td>Enable Configure Routines</td>
</tr>
<tr>
<td>$1 RD</td>
<td>Read Data Format</td>
<td>Displays analog input and output</td>
</tr>
<tr>
<td></td>
<td>1=Close, 0=Open</td>
<td>'IN= Analog input = Filtered analog</td>
</tr>
<tr>
<td></td>
<td>D1 = 1 or 0</td>
<td>= Local digital input #1</td>
</tr>
<tr>
<td></td>
<td>D2 = 1 or 0</td>
<td>= Local digital input #2</td>
</tr>
<tr>
<td></td>
<td>R1 = 1 or 0</td>
<td>= Remote digital input #1</td>
</tr>
<tr>
<td></td>
<td>R2 = 1 or 0</td>
<td>= Remote digital input #2</td>
</tr>
</tbody>
</table>
To Access the super puk configuration, type ‘SCADA’ from the drive/directory installed with the software provided in this shipment. You can use any terminal program that supports serial ASCII communications and use the same active commands. The terminal program provided here with contains help notes on the super puk configurations. This program defaults to serial port COM1.

L=Lease Line, D=Dialup Phone lines, R=Radio

**Transmission Interval** (see): Enter the communication interval delay in seconds. At each interval the analog and digital information will be transferred between the two SPM units. TYPICAL: L=300, D=300, R=120.

**Comm Fail Delay** (see): Enter the communication fail delay in seconds. This value is used to control the analog output if communication are stopped or in error. If the communications are not continue for the length of the fail delay the analog output will be set to the Initial analog value, until communications is restored. TYPICAL: L=300, D=300, R=300.

**Modem Init String** : Enter an initialization string when a modem is used. The string can be 25 charters long and contain any type of charter. TYPICAL: L=ATA, D=ATE0V0, R=(none).

**CalInp (N)** : The default is ‘N’. If carriage return is pressed, the configuration will continue with the next line allowing changes 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 signals to the analog input. If you do not have a means to enter the raw signals at this time do not replay ‘Y’.

**ZeroInp(0.0000)** : This message will be displayed to prompt you to set the zero scale engineering units.

**FullInp(100.0000)** : Enter in the desired value for datalogging when the input is at full scale. This will complete the calibration process.

**ZeroOut(655)**: Enter a number between 0 and 4096. This is used by the digital to analog converter to generate the analog output (ie. 4/20 madc). Example an entry of 660 will produce an analog output of approximately 4madc.

**FullOut(3285)**: Enter a number between 0 and 4096. This is used by the digital to analog converter to generate the analog output (ie. 4/20 madc). Example an entry of 660 will produce an analog output of approximately 20madc.

**Initial Analog** (): Enter the engineering units for the analog output at power up or if communication fail occurs.

**Radio Communications ? (N)**: The default is NO. If “Y” is entered the RTS delay will need to be answered. POWER MUST BE RESET in order for the new configuration to take effect.

**RTSdly: X1.7msec**: Enter the RTS delay used in radio communications. This value should be set to zero if a radio modem is not used. The entered value is multiplied by 1.7 msec. The maximum entry for RTS delay is 255 (255 x 1.7 = 433.5 msec).