

# **Alarm Programming Utility**

Version 3.1.3

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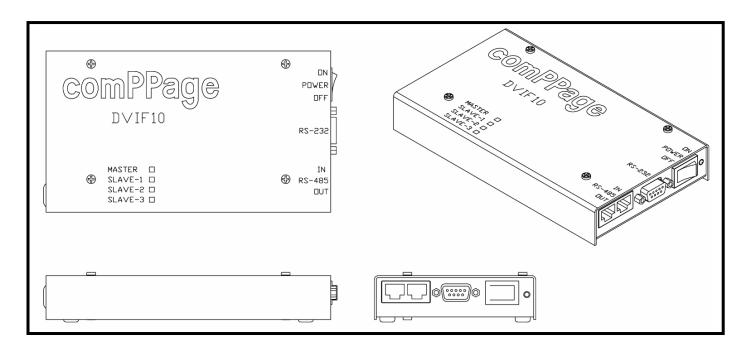
# DRY VOLTAGE INTERFACE 10

# DVIF10

The Dry Voltage Interface 10 (DVIF10) is an alarm contact input device with 10 inputs that is PC programmable by the user, using the supplied Microsoft Windows<sup>TM</sup> compatible software program. The DVIF10 will accept Dry (no voltage) contact closure or Voltage, high or low, input. Voltage input range is 1 to 24 volts AC or DC. Each input is fused to protect the inputs in case voltage is applied to a contact input that has been configured for no voltage.

Each contact can be configured for a different individual pager ID (cap code), Alert type (A, B, C, or D) and repeats ranging from none, 1-4, or until Change of State. Time interval between repeats can be select from 1 minute to 59 minutes. The paging protocol is a global setting of either Scope<sup>TM</sup> or Motorola<sup>TM</sup> COMP2. In addition the user can select to send either Alphanumeric or Numeric messages.

The DVIF10 can be daisy chained together via RS485 Cat 5 RJ45 cabling to support up to 40 contact inputs. The Dry & Voltage Interface program will run on Microsoft Windows™ XP home or professional and the new Vista.



comPPage's DVIF10 is a unit that was Designed, Developed and Manufactured in the **USA**. Each unit has a <u>Limited Lifetime Warranty</u>.

#### **INSTALLATION**

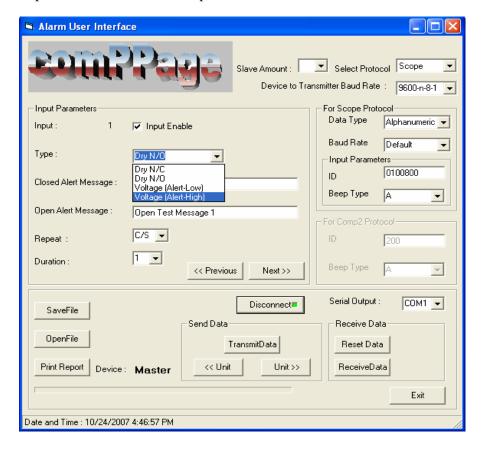
- 1. Insert CD into the CD-R or CD-RW drive, the CD will auto start.
- 2. If auto start does not function, Select [START], [RUN] type in {cd-rom drive letter and enter SETUP.EXE.
- 3. Press OK.

#### SETUP

- 1. Connect the DVIF10 to a computer using the supplied Null-modem cable.
- 2. Open the Alarm User Interface program
- 3. Turn on the DVIF10 unit.
- 4. Select the communication port the DVIF10 will be connected to. [Serial Output].
- 5. Select the baud rate of the port using the drop down menu [Devise to transmitter baud rate].
- 6. Select [Connect] the Red will turn Green when connected and the label will turn to [Disconnect]. If you have made a mistake and selected the wrong communication port, simply click on the word Disconnect and reselect the communication port. The program LED on unit will light.

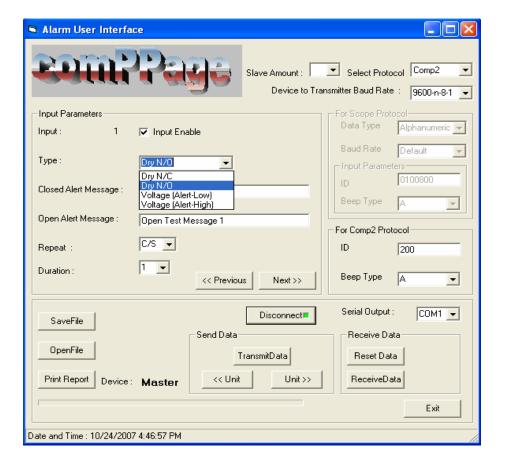
#### **Scope Protocol**

- 1. Select **Slave Amount** 0=None or 1,2,3.
- 2. Select **Scope** paging protocol and serial port baud rate and parity.(Device to Transmitter Baud rate)
- 3. Select **Data Type** and **Baud Rate** (pager -512, 1200. Default =1200)
- 4. Select [Input Enable] for input 1. You must do this for each input 1-10.
- 5. Select the type of input. Each input can be different. See [Type:].
- 6. Enter Closed message and pager ID, beep type for each input.
- 7. Enter Open message. The Pager ID, beep type will be the same for Open and Closed State.
- 8. Select the number of repeats and duration between each repeat or C/S (Change of State)
- 9. Select [Next].
- 10. Complete 2-6 for each contact input.



#### **COMP2 Protocol**

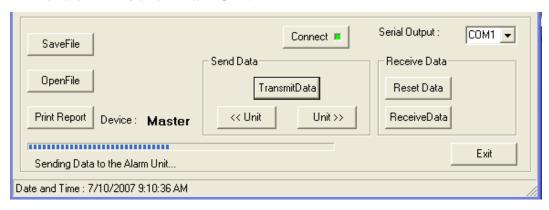
- 1. Select **Slave Amount**, 0=None, 1,2,3
- 2. Select **Comp2** paging protocol and serial port baud rate and parity.(Device to Transmitter Baud rate)
- 3. Select [**Input Enable**] for input 1. You must do this for each input 1-10.
- 4. Select the type of input. Each input can be different. See [Type:].
- 5. Enter Closed message and pager ID(three digits), beep type under [For Comp2 Protocol].
- 6. Enter Open message Pager ID, beep type will be the same for Open and Closed state.
- 7. Select the number of repeats and duration between each repeat.
- 8. Complete 2-6 for each contact input.



## **Writing Data to Unit**

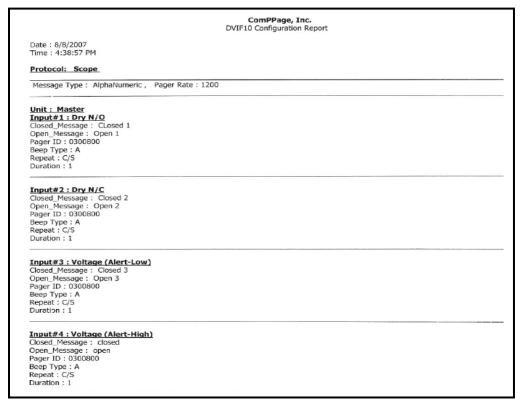
#### NOTE: WHEN WRITING or READING FROM THE DVIF10 ALWAYS USE A NULL MODEM CABLE

- 1. After programming of all contacts select [SaveFile] and enter a name for the file.
- 2. Select [TransmitData]. During writing to the unit a progress bar will appear at the bottom of the screen.(Sending Data to the Alarm Unit..).
- 3. The Green light will change to **Red** when transfer of data is complete and the **Green** program **LED** on the DVIF10 unit will turn **OFF**.



## **Print Report**

- 1. Select [Print Report].
- 2. Printer dialog box will appear. Select the printer.



- 3. Print Report.
- 4. Select [EXIT] to close Alarm Program.

# **Single Unit Installation**

- 1. Mount DVIF10 in selected location with supplied hardware.
- 2. Connect Alarm inputs to the DVIF10.
- 3. Connect DVIF10 to Transmitter using the cable supplied.

Note: All Scope equipment requires a Null Modem Cable. Other Equipment uses a Standard Serial Cable (straight through).

- a. When using the Scope ConneXions Transmitter No External Power is required.
- b. When using the following paging transmitters, External Power is required.
  - 1). Scope XLUSA
  - 2.) SPS5V7
  - 3.) TX125-EN
- 4. Turn on the DVIF10 alarm unit.

Note: It takes approximately 1:40 minutes after power up for the DVIF10 to initialize.

- 5. Test DVIF10 alarm unit by triggering an alarm.
- 6. Programming and installation complete.

#### **Reading Data from DVIF10**

- 1. Using the Null Modem DB9 to DB9 Female cable, connect the DVIF10 to a PC.
- 2. Open the Alarm Program.
- 3. Turn on the DVIF10.
- 4. Select the **COM Port** and click **Connect**.
- 5. The programming **LED** on the unit will turn **ON** and the connect button will turn **GREEN**.
- 6. Ensure the **contact counter is set to 1**. If not you will get an error message.
- 7. Click **Receive Data**.
- 8. During reading from the unit a progress bar will appear at the bottom of the screen, which informs user about the status of the data received, and the unit(master or which slave) it received data from.
- 9. At the completion, the programming **LED** on the unit will turn **OFF** and the program will request the user to **Save the Received Data** in a file. The user will give the file a name or select the name of a **Saved** file.
- 10. The User will be prompted to **Open** the file. Select the **same name used step 7.**.
- 11. The data will be displayed in the program.
- 12. The user can now make any changes.
- 13. If additional units are to be read, unplug the unit and connect the next unit to be read.
- 14. Follow steps 4-8 until all units have been read.

#### **Modify Data**

- 1. After reading data from the DVIF10 using steps described in **Reading Data from DVIF10**.
- 2. Enter new data.
- 3. **Cycle power** on the DVIF10.
- 4. Click the Connect button on the Alarm program.
- 5. Once connected, click Transmit Data.
- 6. When data transmit is complete, Power off the DVIF10.
- 7. Disconnect DVIF10 from the PC.
- 8. Exit Alarm Program.
- 9. Connect DVIF10 to paging transmitter.
- 10. Power ON DVIF10. Note: It will take approximately 1:40 minute for the DVIF10 to initialize.

### **Master and Slave Procedure**

Each unit must be programmed separately. The master will have contacts 1-10 and the first slave will have 11-20 and so on for each slave. Once you have selected the number of slaves in the software and programmed the master with all 10 inputs, disconnect the master unit and connect the first slave Continue programming following the below listed steps. Mark the top of each unit with its appropriate designation. (Master or Slave)

- 1. Programming using a Pre-Saved file. (1-Master, 1-Slave)
  - a. Connect the Master DVIF10 to the programming PC with the supplied Null Modem Cable.
  - b. Open Alarm Program
  - b. Turn [ON] power to Master Unit.
  - c. Select [Open File], click on file you want to use and select [Open].
  - d. Note at the top of the program screen, the [**Slave Amount**] should display the correct number of attached slave units you are programming.
  - e. Device should display [Master].
  - f. Select the communication port [Serial Output] and click the [Connect] button.
  - g. The programming **LED** on the master unit will light and the [**RED**] button will turn [**GREEN**]. **Ensure the Contact counter is on 1.**
  - h. Click [TransmitData].
  - i. During data transfer you will see a progress bar, when completed the programming [**LED**] on the unit being programmed will turn off and the [**Green**] button on the program will turn [**Red**].
  - j. Power off the Master and Unplug the unit. Connect the slave unit to be programmed.
  - k. Turn [**ON**] the slave.
  - 1. Select next [UNIT] and the display will show [SLAVE1].
  - m. Click the [Connect] button, it will turn [Green].
  - n. Click [TransmitData].
  - o. During data transfer you will see a progress bar, when completed the programming [**LED**] on the unit being programmed will turn off and the [**Green**] button on the program will turn [**Red**].

Note: If using additional Slave units, Unplug the unit programmed and connect the next Slave. Select Next Unit by clicking the Unit button. Follow steps g thru o for each unit to be programmed. If no more units are to be programmed continue.

- p. Disconnect the unit from the programming PC.
- q. Power off the unit.
- r. Exit the Alarm Program.

# **Installing Master and Slave Units for Paging**

Note: Ensure jumper settings are correct for the paging transmitter you are using. See jumper setting chart page 10.

- 1. Scope ConneXions 2 XLite Paging Transcoder SPS5V7
  - a. Mount Master and Slave Units.
  - b. Connect alarm inputs for all units.
  - c. Connect the DB9 Null Modem cable from the Master unit to the Paging Transmitter.
  - d. Power ON the Scope ConneXions transmitter.
  - e. Connect the **Cat 5 Cross Over Cable** from the **Ouput** RS485 RJ45 connector of the master to the **first Slav**e units, input RJ45 connector.(see diagram 1)
  - f. If additional slaves are installed connect using **standard Cat 5 cable**, from output to input RJ45 connectors.
  - g. Power on the **Slave unit(s)**, **then the Master**. If this procedure is not followed the units will not initialize. It will take approximately 1:40 minutes for the unit to initialize.
  - h. Test Units.
- 2. TX125EN Paging Transcoder
  - a. Mount Master and Slave Units.
  - b. Connect alarm inputs for all units.
  - c. Connect the <u>DB9 Serial Cable</u> from the Master unit to the Paging Transmitter.
  - d. Power **ON** the paging transmitter.
  - e. Connect the **Cat 5 Cross Over Cable** from the **Output** RS485 RJ45 connector of the master to the **first Slave** units, input RJ45 connector.(see diagram 1)
  - f. If additional slaves are installed connect using **standard Cat 5 cable**, from output to input RJ45 connectors.
  - g. Power on the **Slave unit(s)**, **then the Master**. If this procedure <u>is not</u> followed the units **will not initialize**. It will take approximately 1:40 minute for the unit to initialize.
  - h. Test Units.

#### **Inputs**

- 1. Dry Normally Closed (N/C).
  - a. Alarm Message **OPEN state**.
  - b. Reset Message Closed State.
  - c. Repeats will occur on **Open state**.
- 2. Dry Normally Open (N/O)
  - a. Alarm Message CLOSED state.
  - b. Reset Message OPEN state.
  - c. Repeats will occur on CLOSED state
- 3. Voltage Low (N/O)
  - a. Alarm Message when voltage (1-24 Volts AC/DC) is **Applied (closed Alarm)**.
  - b. Reset Message when voltage (1-24 Volts AC/DC) is **Removed (open Normal).**
  - c. Repeat will occur when voltage is **Applied.** (closed)
- 4. Voltage High (N/C)
  - a. Alarm Message when voltage (1-24 Volts AC/DC) is **Applied** (closed Normal).
  - b. Reset Message when voltage (1-24 Volts AC/DC) is **Removed (open Alarm).**
  - c. Repeat will occur when voltage is **Removed (open)**.

Note: See Diagram 2 Page 13.

# **Jumper Setting**

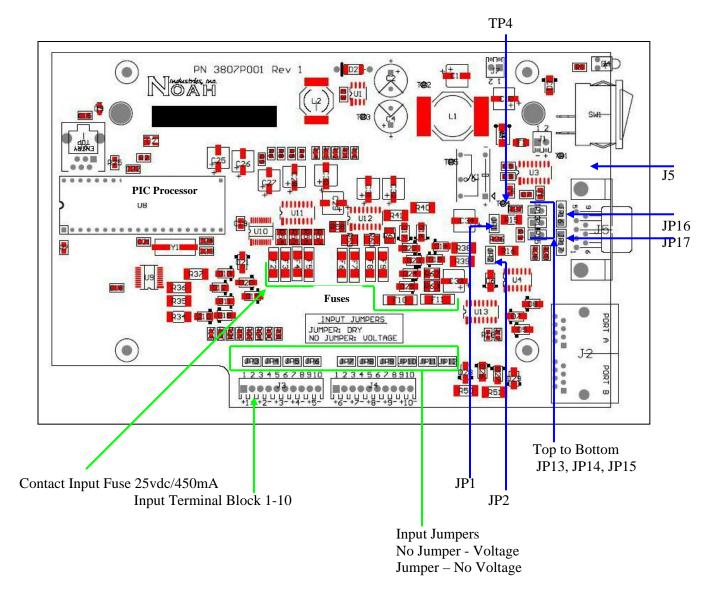
# **DVIF10** (Single or w/Slave) Scope Transmitters

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Cable	Null Modem	Cat 5 Standard LAN
Jumper - Shorted	JP1, JP2, TP4, J5, JP14	TP4 J5, JP14
Jumper – Removed	JP13, JP15	JP1, JP2, JP13, JP15
Jumper - Pins	1 & 2 , JP16, JP17	Same

DVIF10(Single or w/Slave) SPS5V7 and TX125-EN On Slave 2 & 3

Cable	Standard Serial Straight Through	Cat 5 Standard LAN
Jumper - Shorted	JP1, JP2,	
Jumper – Removed	TP4, J5, JP13, JP14, JP15	JP1, JP2, TP4, JP19, JP13,14,
		JP15
Jumper - Pins	1 & 2 , JP16, JP17	Same

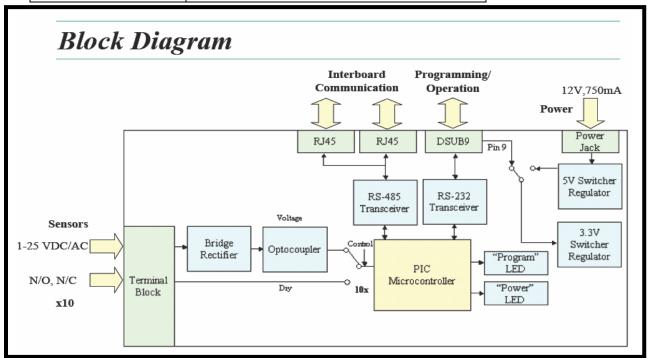


# **Specifications**

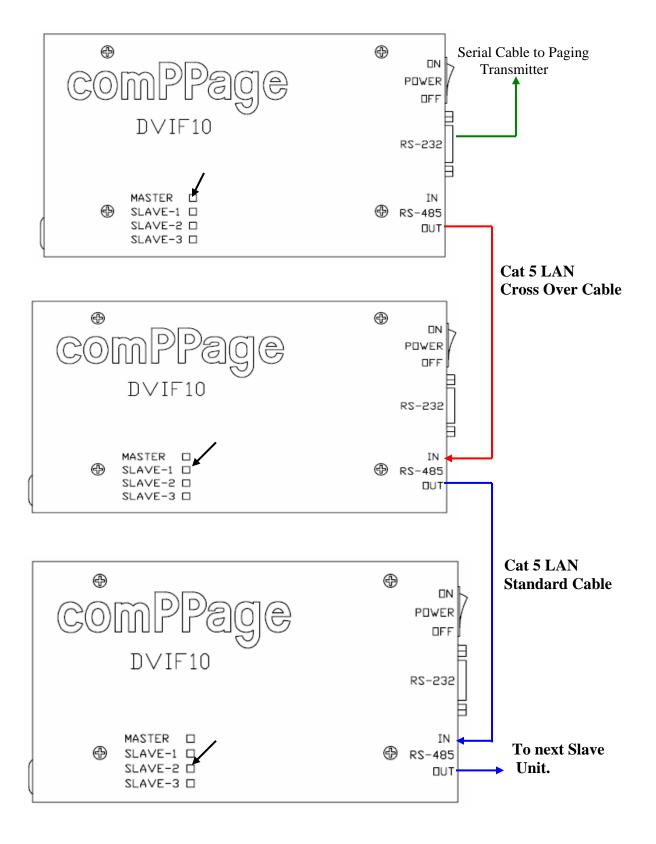
Input Voltage	12 Volts DC
Current	750 mA maximum, Normal – 425mA
Input Contacts	10 per unit, Maximum 40
Input Selection	No jumper Voltage
	Jumper <b>Dry</b>
	Fused Inputs – 125 Volts DC / 450mA
Input	No Voltage (dry)
	Voltage – AC or DC 1-24 Volts
	Inputs can be Mixed
Connection	RJ45 Cable using RS485 Total 4 Units
Protocol	Scope and Motorola Comp2
Programming	PC software via RS232 9 pin connector
Repeat Message	0-4 or Change of State, with intervals of 1-59
	minutes
Message	Open state and Closed state
Message Length	Each message has a maximum length of 80
	characters
Pager Cap Code	Each Contact has Individual Pager ID
Message Alert Type	A,B,C or D selectable for each Contact
Approval	FCC Part 15, RoHS Compliant
Size	7.10 in x 3.52 in x 1.17 in
Warranty	Life

## RS232 Cable Pin Out

10202 00010 1111 000	
Null Modem (Special)	1-nc, 2-3,3-2,4-6,6-4,5-5,7-8,8-7, 9-9
9-Pin F/F	
Serial Straight Through	1-1,2-2,3-3,4-4,5-5,6-6,7-7,8-8, 9-nc
9-Pin M/F	



# Diagram #1



# Diagram #2

