

# **DVIF10**

Dry or Voltage Input  
Interface

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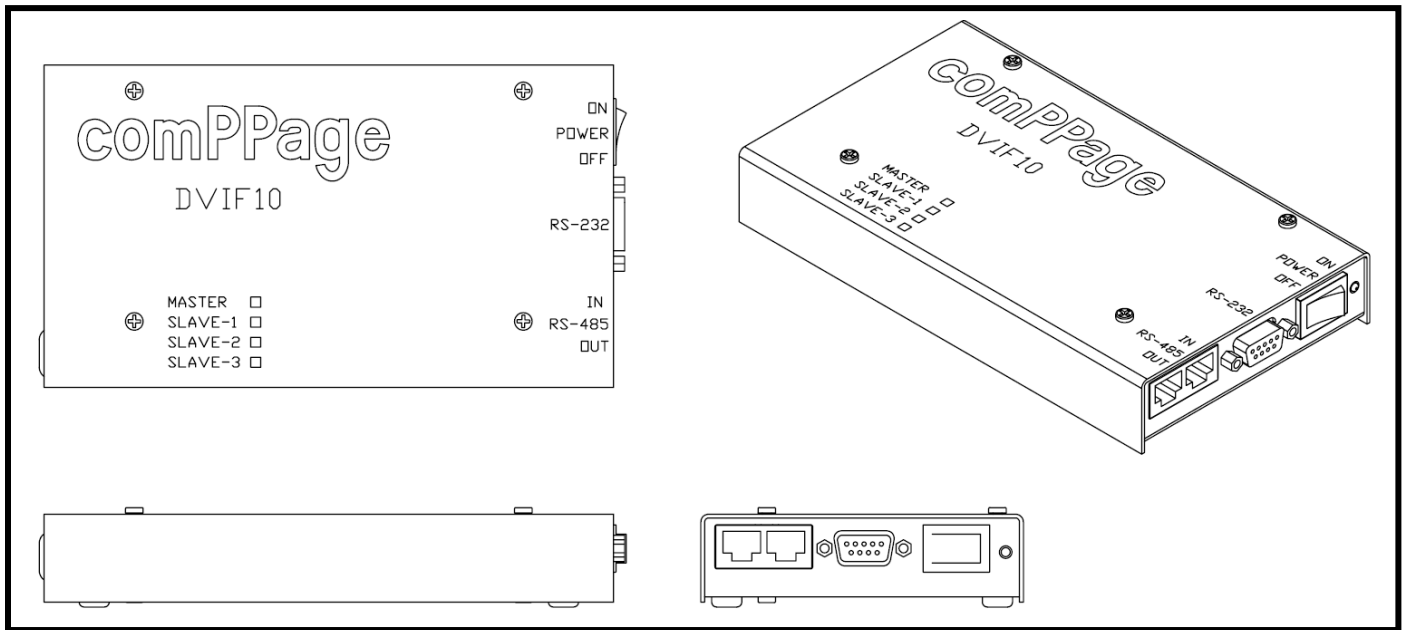
## DRY VOLTAGE INTERFACE 10

### 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™ 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™ or Motorola™ 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.



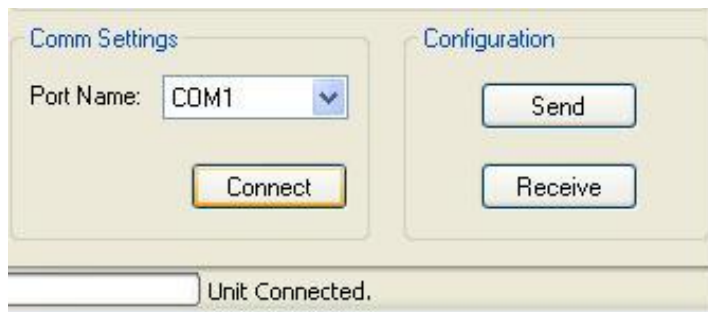
comPPage's DVIF10 is a unit that was Designed, Developed and Manufactured in the **USA**. Each unit has a **Limited Lifetime Warranty**.

## INSTALLATION

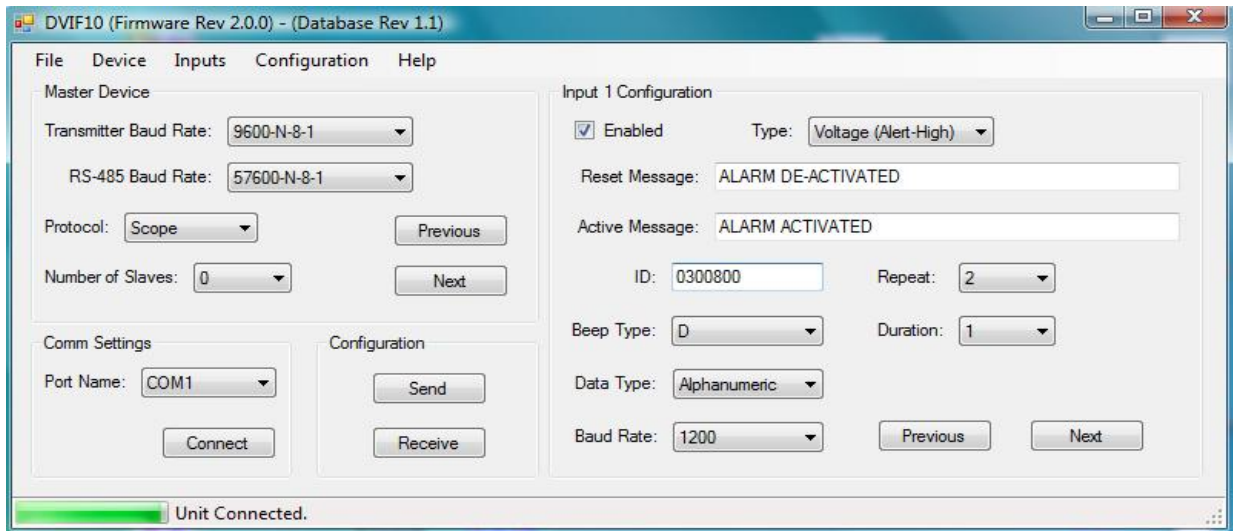
1. Insert CD into the CD-R or CD-RW drive, the CD will auto start.
2. If auto start does not function, Select [**START**], [**RUN**] type in {cd-rom drive letter and enter SETUP.EXE.
3. Press OK.

## SETUP

1. Connect the DVIF10 to a computer using the supplied Null-modem cable.
2. Open the DVIF10 Configure program
3. Turn on the DVIF10 unit.
4. Select the communication port the DVIF10 will be connected to. [**Comm Settings**].
5. Select the baud rate of the port using the drop down menu [**Transmitter baud rate**].
6. Select [**Connect**]. Next to the word Connect will appear [**Unit Connected**]  
Under Configuration the **Send** and **Receive** button will be open.

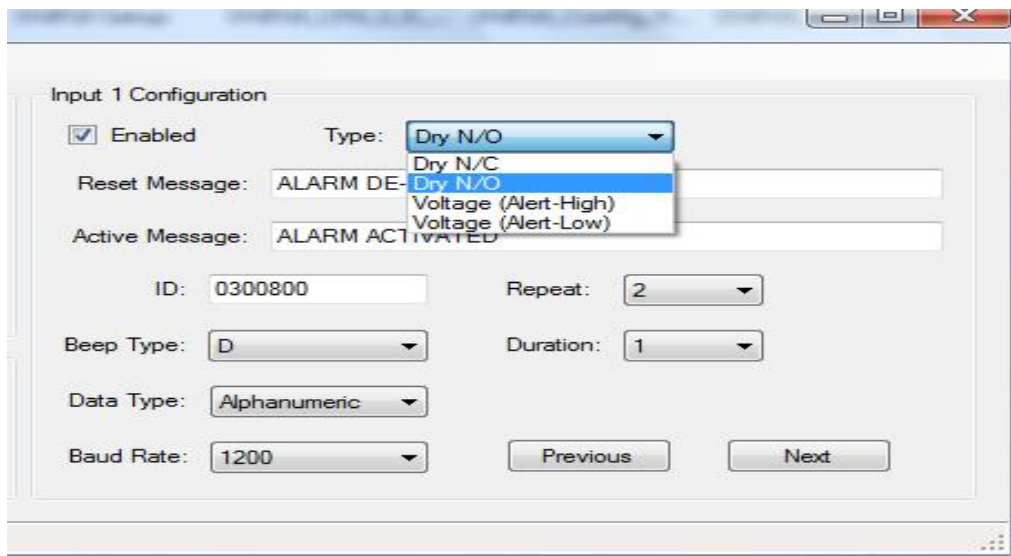
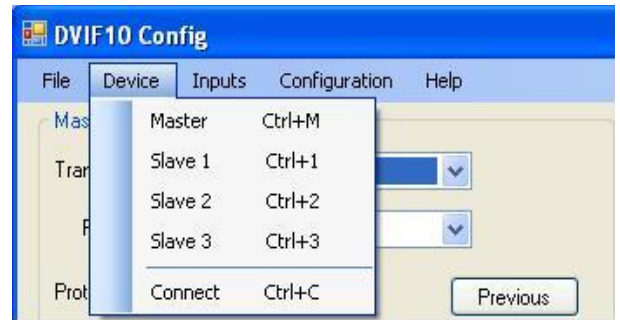


7. Select the Paging Protocol from the drop down menu. Scope or Comp2.
8. If the configuration will have slaves attached select the number of slaves from the drop down menu.
9. Do not change RS485 setting unless notified by comPPage technical support.

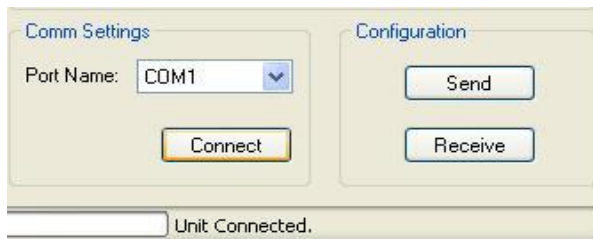


## Programming Master Unit

1. From the top menu select **Devise - Master**
2. At the top left of the screen the word Master will appear.
3. On the right side of the screen Input 1 Configuration will be shown.
4. Ensure the Input is checked **Enabled**. Select the type of Input from the **Type** drop down menu.
5. Complete all fields. When completed select the **Next** Button.
6. Continue unit all 10 inputs have been programmed.



7. When all inputs have been programmed, select the **Send** button

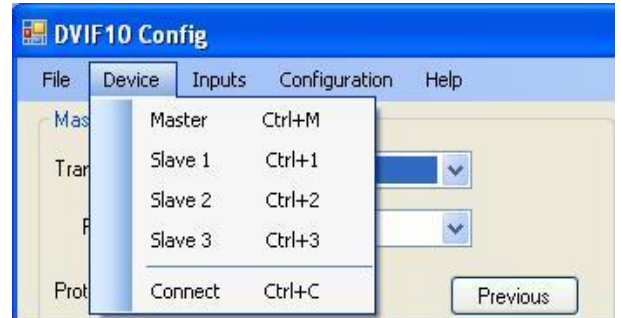


8. Remove Null Modem Cable and power down the DVIF10. The unit is now ready for service.

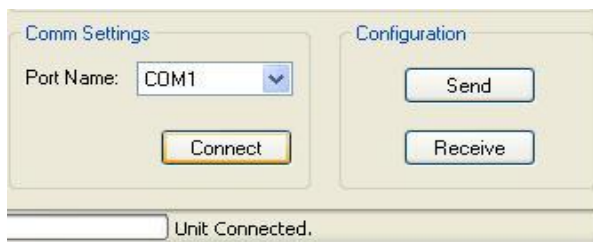
### Programming Slave Unit(s)

Follow the same procedure setting up the Slave unit(s) for programming as for the Master Unit. After connecting to the unit follow the programming procedure below.

1. From the top menu select **Devise – Slave 1-3.**
2. At the top left of the screen the word **Slave 1** will appear.
3. On the right side of the screen Input 1 Configuration will be shown.
4. Ensure the Input is checked **Enabled**. Select the type of Input from the **Type** drop down menu.
5. Complete all fields. When completed select the **Next** Button.
6. Continue unit all 10 inputs have been programmed



7. When all inputs have been programmed, select the **Send** button



8. Remove Null Modem Cable and power down the DVIF10. The unit is now ready for service.

### Connecting Master / Slave Unit(s)

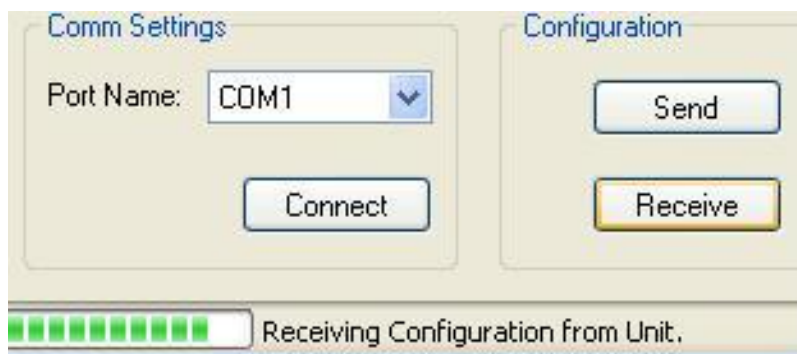
1. Connect input wiring to the Master Unit.
2. Connect input wiring to the Slave Unit(s).
3. Connect the Master to the 1<sup>st</sup> Slave using a standard RJ45 Cross Over Cable. Out on the Master and In on the 1<sup>st</sup> Slave.
4. If additional Slave units are installed use a standard RJ45 Patch Cable to connect the remaining slaves to the 1<sup>st</sup> Slave.
5. Using a Null Modem Cable connect the RS232 output from the Master Unit to the Paging Transmitter.

### Power Up Sequence

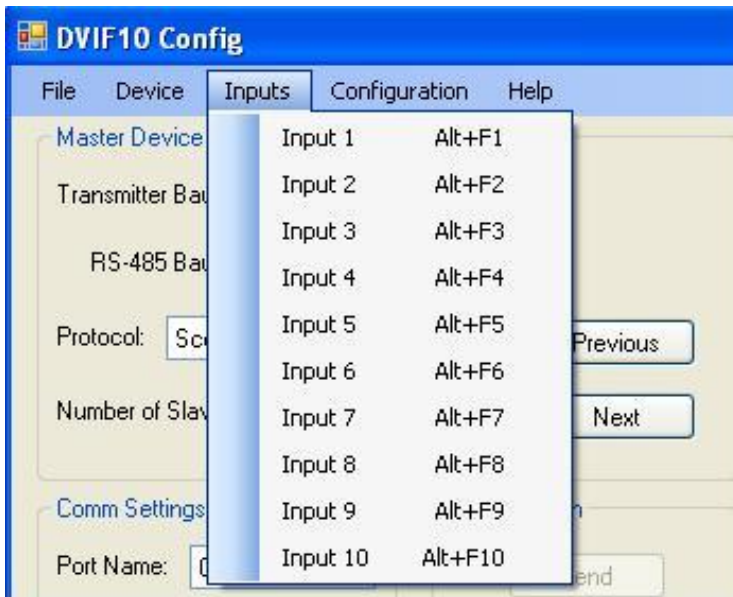
1. Turn the power on in the following sequence.
  - a. Master Unit
  - b. Slave 1 – 3
2. It will take approximately 30 Second to 1 minute for the units to initialize.
3. Units will be fully operational.

### Reading and Modifying DVIF10 Data

1. Connect the RS232 output of the DVIF10 to the computer using a 9 Pin Null Modem cable.
2. Activate the DVIF10 Configuration program.
3. Turn the DVIF10 power on.
4. From the top menu select Master or Slave 1-3 according to the unit to be programmed.
5. Select Connect.
6. Select Receive
7. When completed the program data will appear on the screen from the unit.

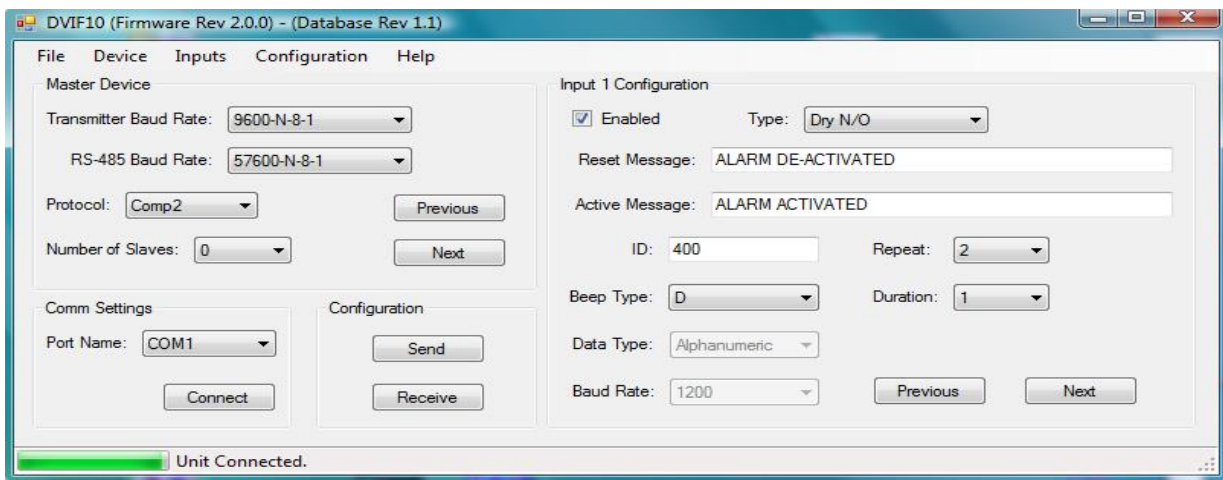


- From the top menu select **Inputs** and select the input to be modified.
- When completed ensure Input 1 is showing before writing data back to the DVIF10.



### COMP2 Programming

When programming the DVIF10 for Comp2 Paging Protocol only 3 digit pager IDs are used with or without the Beep type. Data Type and Baud Rate is not required.



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

### 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 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 is not followed the units will not initialize. It will take approximately 30 Seconds to 1 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 DB9 Serial Cable 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 **is not** followed the units **will not initialize**. It will take approximately 30 Seconds to 1 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
  - a. Alarm Message when voltage (1-24 Volts AC/DC) is **Removed**
  - b. Reset Message when voltage (1-24 Volts AC/DC) is **Applied**
  - c. Repeat will occur when voltage is **Removed**.
  
4. Voltage High
  - a. Reset Message when voltage (1-24 Volts AC/DC) is **Removed**
  - b. Alarm Message when voltage (1-24 Volts AC/DC) is **Applied**
  - c. Repeat will occur when voltage is **Applied**

**Jumper Setting**

<b>DVIF10 (Single or w/Slave) Scope Transmitters</b>		<b>On Slave 2 &amp; 3</b>
Cable	Null Modem	<b>Cat 5 Standard LAN</b>
Jumper - Shorted	JP1, JP2, JP18, JP19, JP14	<b>JP18 JP19, JP14</b>
Jumper – Removed	JP13, JP15	<b>JP1, JP2, JP13, JP15</b>
Jumper - Pins	1 & 2 , JP16, JP17	<b>Same</b>

<b>DVIF10(Single or w/Slave) TX125-EN and SPS5v7</b>		<b>On Slave 2 &amp; 3</b>
Cable	Standard Serial Straight Through	<b>Cat 5 Standard LAN</b>
Jumper - Shorted	JP1, JP2,	
Jumper – Removed	JP18, JP19, JP13, JP14, JP15	<b>JP1, JP2, JP18, JP19, JP13,14, JP15</b>
Jumper - Pins	1 & 2 , JP16, JP17	<b>Same</b>

**Note: If connecting directly to a computer serial port, Use the Cable and Jumper settings as shipped.**



**Specifications**

Input Voltage	12 Volts DC
Current	750 mA maximum, Normal – 425mA
Input Contacts	10 per unit, Maximum 40
Input Selection	No jumper <b>Voltage</b> 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

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

Diagram #1

