

Relay **C**ontrol **S**ystem

Relay Control System Program

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Relay Control System Program

The Relay Control System Program (RCS) is used to interface the RCM2000 relay board(s) with host equipment to control the operation of the output relays. The RCS includes the ability to Match incoming data and send specific commands to the relay board or receive data from the Inovonics™ decode receiver and send specific commands to the relay board. The relay boards can be daisy chained to a total of 64 boards. Each board has 32 relays. Each relay can be controlled in three forms; Latching, Latching with a timer setting and Cleared.

Relays can be controlled by using direct commands and utilizing the Relay Control System software supplied. Direct command control will be discussed later in this document.

FEATURES

1. Control output relays using data from the Inovonics™ decode receiver.
2. Control output relays using matching data from any host system.

REQUIREMENTS

IBM compatible computer

MS-Window™ 2000, NT and XP pro Operating Systems

Serial port (2)

INSTALLATION

1. Insert CD-Rom into a CD-R or CD-RW drive.
2. Auto Run will activate.
3. If the Visual Basic files on your system are older than the ones being installed, the program will ask you if you want to update them. Answer YES. Reboot your system and start the install over.
4. After the installation is complete you must configure the system before it will operate properly.

SETUP

COMMUNICATION PORTS

1. Select Configure Ports tab.
2. Select Edit/Revert Record icon.
3. Set Receiving Port. (incoming data)
4. Set Sending Port (output to relay board). Unless informed by your dealer the setting will be 9600 bps, n-8-1.
5. If Verbose Mode is selected you will see all activity on the ports.

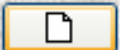


6. Select Save to save communications port settings.

6. Click on **OPEN PORTS** on the top menu bar.

Relay Control System Program

INOVONICS PROTOCOL

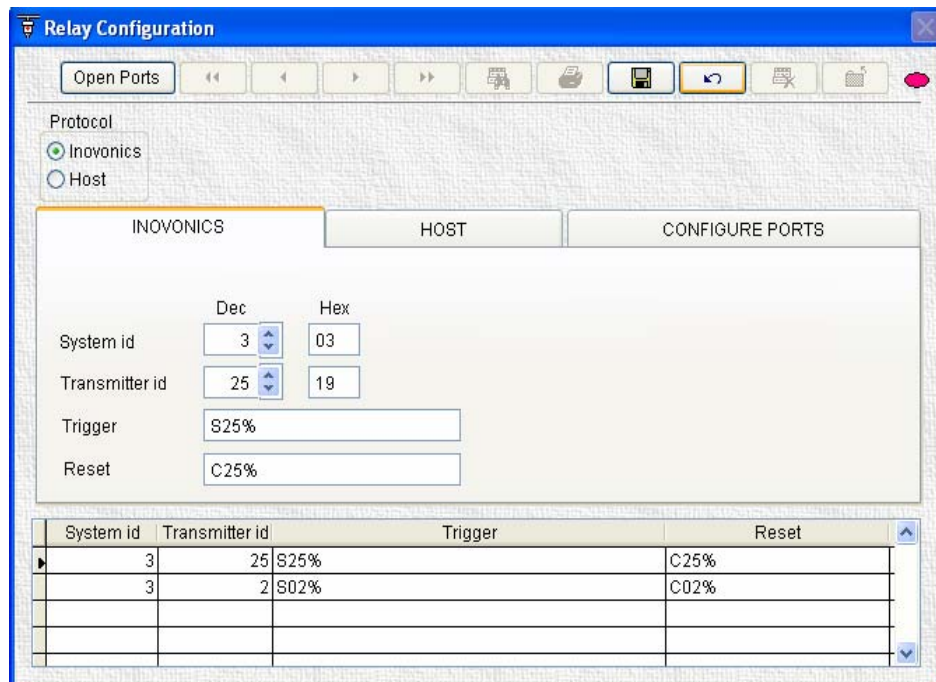
1. Select **Edit**, then select the **Inovonics** under Protocol, select **Save**.
2. Select **ADD**  .
3. Enter System ID in the field labeled **DEC**. System ID is the logical number programmed into the wireless transmitter. The program will automatically show the hex translation.
4. Enter the Transmitter ID in the field labeled DEC. Transmitter ID is the logical number programmed into the wireless transmitter. The program will automatically show the hex translation.
5. Enter the activation command in the **Trigger** field for the relay identified with the transmitter in step 4. (see chart of relay commands)
6. Enter the de-activation command in the **Reset** field for the relay identified with the transmitter in step 4. (see chart of relay commands)
7. **NOTE:** If timing is used on the trigger command, **DO NOT ENTER** data in the **Reset** field.
7. Select Save

8. Repeat steps 2 – 7 for additional input.

Relay Commands

a. Set relay x	Sxx%	S10% - Set relay 10
b. Timed set relay x	Txx,yyyy%	T10,4000% -Time set for relay 10 for 4000ms, 4 Seconds
c. Clear relay x	Cxx%	C10% - reset relay 10
d. Clear all relays	A%	Clear all relays

Where **xx** is the relay number, when **x** is between **1** and **32** it corresponds to a relay on the first RCB board. When it's 33 or above it corresponds to a relay further down the chain. For relay numbers higher than 32, the relay control board subtracts 32 from the relay number and sends the command on to the next RCB in the chain. **yyyy** is time in mSeconds.



Relay Control System Program

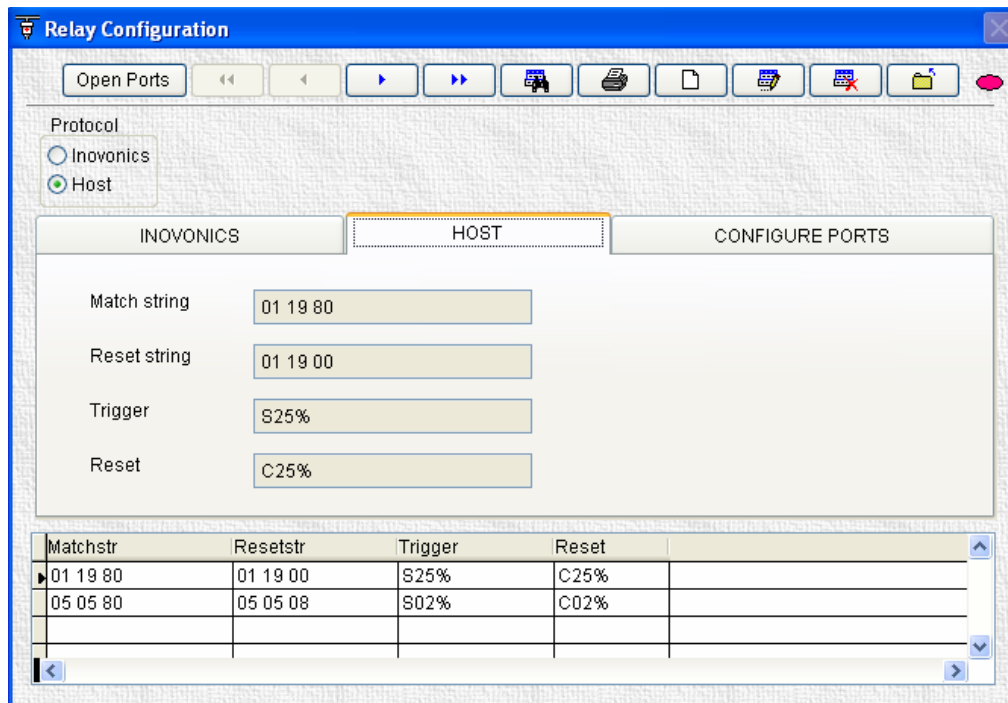
HOST PROTOCOL

1. Select **Edit**, then select the **Host** under Protocol, select **Save**.
2. Select **ADD**
3. Enter the data to be matched in the field labeled **Match String**. This information must be entered EXACTLY as it will appear on the communication port.
4. Enter the reset data to be matched in the field labeled **Reset String**. This information must be entered EXACTLY as it will appear on the communication port.
5. Enter the activation command in the **Trigger** field for the relay identified with the match string entered in step 3. (see chart of relay commands)
6. Enter the de-activation command in the **Reset** field for the relay identified with the reset string entered in step 4.(see chart of relay commands)
NOTE: If timing is used on the trigger command, **DO NOT ENTER** data in the **Reset** field.
7. Select Save

Repeat steps 2-7 for additional inputs.

Relay Commands

<ol style="list-style-type: none"> a. Set relay x b. Timed set relay x c. Clear relay x d. Clear all relays 	<p>Sxx% Txx,yyyy% Cxx% A%</p>	<p>S10% - Set relay 10 T10,4000% -Time set for relay 10 for 4000ms, 4 Seconds C10% - reset relay 10 Clear all relays</p>
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Relay Control System Program

PRINT DATABASE

1. Close the communication port.
2. Select the print icon from the menu bar.
3. The database will be displayed.

Register			
06/11/2006			
Transmitter id	System id	Trigger	Res et
1	1	s01%	c01%
2	1	s02%	c02%
3	1	s03%	C03%
4	1	S04%	C04%

4. Select Print. Retain this copy in case you need to read load your program.

EDIT DATABASE

1. Close the communication port.
2. Select the Search icon from the menu.
3. Enter the logical transmitter number or exact data stream you want to modify or delete.
4. In the AND field, enter the System ID if more that one transmitter has same number.
5. Select Search.

Search

Field: TRANSMITTERID Operator: equals Value: 5

And Case Sensitive

Or

Field: SYSTEMID Operator: equals Value: 1

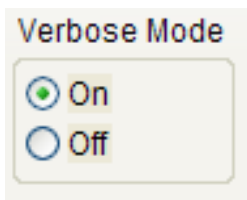
Search All Cancel

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MANUAL RELAY RESET

When a relay does not respond to the CLEAR command, you will need to manually reset the relay.

1. Click on the Configure Ports.
2. Click Verbose Mode. ON.



3. Enter the relay number you want to reset and click on Force Relay Reset.
4. When all relays need to be reset, select Reset All Relays.
Note; Reset All Relays should be an Emergency Solution.
5. Browse Database, click on Browse Data.

