

# REGCOM



## RS-485 Network System Slave

Operation Manual

March 2008





**CAUTION!**  
**RISK OF ELECTRICAL SHOCK!**  
**DO NOT OPEN!**



**TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE COVER. DO NOT EXPOSE THE EQUIPMENT TO RAIN OR MOISTURE. NO USER SERVICEABLE PARTS ARE INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.**

**WARNING!**

**THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE THE USER AT HIS/HER OWN EXPENSE WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.**



The lightning flash with the arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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## SPECIFICATIONS

### Electrical Characteristics

Operating Voltage.....	9 - 12VDC
Supply Current.....	< 200mA @ 12VDC
Data Ports.....	1 x RS-232 (DB-9), 2 x RS-485 (RJ45)

### Physical Characteristics

Size.....	130 x 125 x 32 mm / 5.1 x 4.9 x 1.3 in
Weight.....	600 g / 1.3 lbs
Case.....	Beige Metal

### RS-232 Input Parameters

Baud Rate.....	9600
Data Bits.....	8
Parity.....	None
Stop Bits.....	1

### Network Parameters

Standard.....	RS-485
Baud Rate.....	Dipswitch No. 7 OFF=9600 ON= 57.6K baud
Max Line Length.....	4000 ft
Cable Type.....	120 Ohm Terminated

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## INTRODUCTION

The Regcom is an interface device that allows the connection of up to 16 cash register terminals to a master unit called the Hydra for the purpose of transaction logging.

The Regcom receives RS-232 data at 9600 baud from a cash register, VSI-Pro, Interface Adapter, or ECR Interface card inside the cash register. It then stores this data in its buffer before sending it on to the master unit via the RS-485 network.

The Regcom Network Communication is programmable for either 9600 baud or 57.6K baud via Dipswitch 7. However the communication to the VSI-Pro or ECR Interface card is always 9600 baud and is fixed.

The Regcom is a "slave" device. One master device can be connected to a maximum of 16 slave devices. Only one master device can exist on a single network.

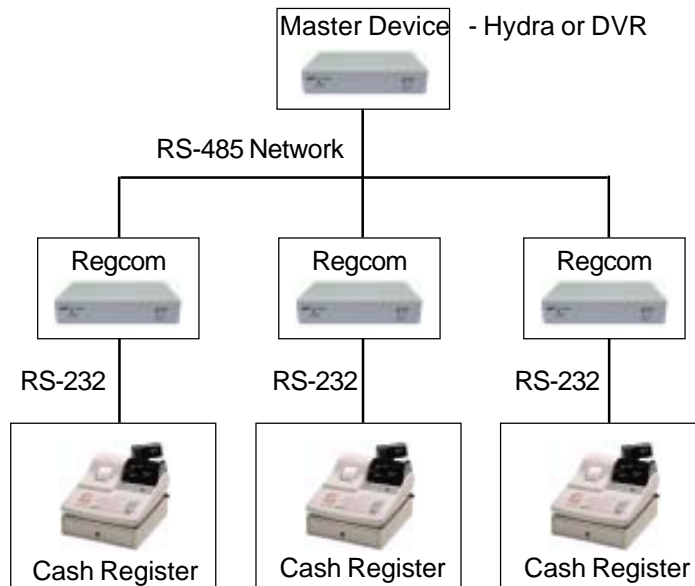


Figure 1: Network Diagram

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## CONNECTIONS

The Regcom uses a bi-directional 2-wire RS-485 data bus to communicate to the master device. The device at each end of the network must be terminated. An 8-DIP switch on the rear of the unit is used to set the termination. Switch No. 8 is the terminal switch. When set to ON, the device is terminated. When set to OFF, it will be un-terminated.



Figure 2: Regcom Rear Panel

PIN 1	
PIN 2	RX (RS-232)
PIN 3	TX (RS-232)
PIN 4	
PIN 5	GROUND
PIN 6	
PIN 7	
PIN 8	
PIN 9	

Table 1: DB-9 Pin-Out

PIN 1	
PIN 2	
PIN 3	
PIN 4	RS-485 (+)
PIN 5	RS-485 (-)
PIN 6	
PIN 7	
PIN 8	

Table 2: RJ45 Pin-Out

(120 Ohm impedance terminated)

RJ45	RJ45
PIN 4 (+)	PIN 4 (+)
PIN 5 (-)	PIN 5 (-)

Table 3: RS-485 Network  
Data Cable Wiring

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## ADDRESS SELECTION

Each Regcom unit on the RS-485 network must be set with a unique network address. The address is selected using Switches No. 1 - 5 from the bank of DIP switches on the rear of the unit. Switch No. 6 is not used, No. 7 if ON 57.6K OFF 9600 baud for network, No. 8 is the 120 ohm terminate switch.

The address must correspond to the DVR channel or camera number that the text is to be associated with.

The address must be set in binary code (see below), SW1 being the "least significant bit". SW1-5 ALL OFF is NOT ALLOWED.

Address No.	SW1	SW2	SW3	SW4	SW5
1	ON	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF
5	ON	OFF	ON	OFF	OFF
6	OFF	ON	ON	OFF	OFF
7	ON	ON	ON	OFF	OFF
8	OFF	OFF	OFF	ON	OFF
9	ON	OFF	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF
13	ON	OFF	ON	ON	OFF
14	OFF	ON	ON	ON	OFF
15	ON	ON	ON	ON	OFF
16	OFF	OFF	OFF	OFF	ON

Table 4: Address Selection

## LED STATUS INDICATION

Status light A illuminates whenever data is sent from the Regcom to the master unit. Status light B illuminates to indicate the Regcom is correctly connected via the RS-485 network to the master unit.

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## LIMITED WARRANTY

(Terms and Conditions)

For **2 years** from the date of shipment, Seller warrants to Buyer that the Product is free from defects in material or workmanship **under normal use and service**. Equipment manufactured by other than Seller but furnished by Seller carries the same warranty to Buyer as Seller receives from the other manufacturer, notwithstanding any provision to the contrary. If Buyer has specified a particular manufacturer's product which is not the brand standardly supplied by Seller, Buyer shall look only to the other manufacturer's warranty and Seller shall not warrant such item.

**EXCLUSIONS.** Seller's warranty does not cover the following:

- (1) in-transit damage claims, improper handling by carrier or post office (Note: only the consignee of the shipment can file a claim with the common carrier)
- (2) damages caused by incorrect use, modification, carelessness, improper storage, hostile operating conditions, or unauthorized service, installation or repairs without proper training from the Seller
- (3) damages caused by fire, flood, lightning, collision, acts of God or other events beyond the control of Seller
- (4) products or parts thereof that have had serial numbers removed, altered or defaced
- (5) products returned without an RMA number and sales or delivery receipt showing the date of original purchase
- (7) use of components that do not meet Seller's specifications
- (9) external parts such as cabinets or keypads
- (10) periodic maintenance and adjustments resulting from normal use

**WARRANTIES EXCLUDED. SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ANY EXPRESS OR IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEEDS OR IS INCONSISTENT WITH THE WARRANTY HEREIN EXPRESSLY SET FORTH.**

**NON-WARRANTY CLAIMS.** In the event Buyer makes a warranty claim and Seller's warranty does not apply, Buyer shall reimburse Seller for all reasonable expenses incurred by Seller in diagnosing the installation/repair problem.



**STRENGTH IN THE BUSINESS<sup>sm</sup>**

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