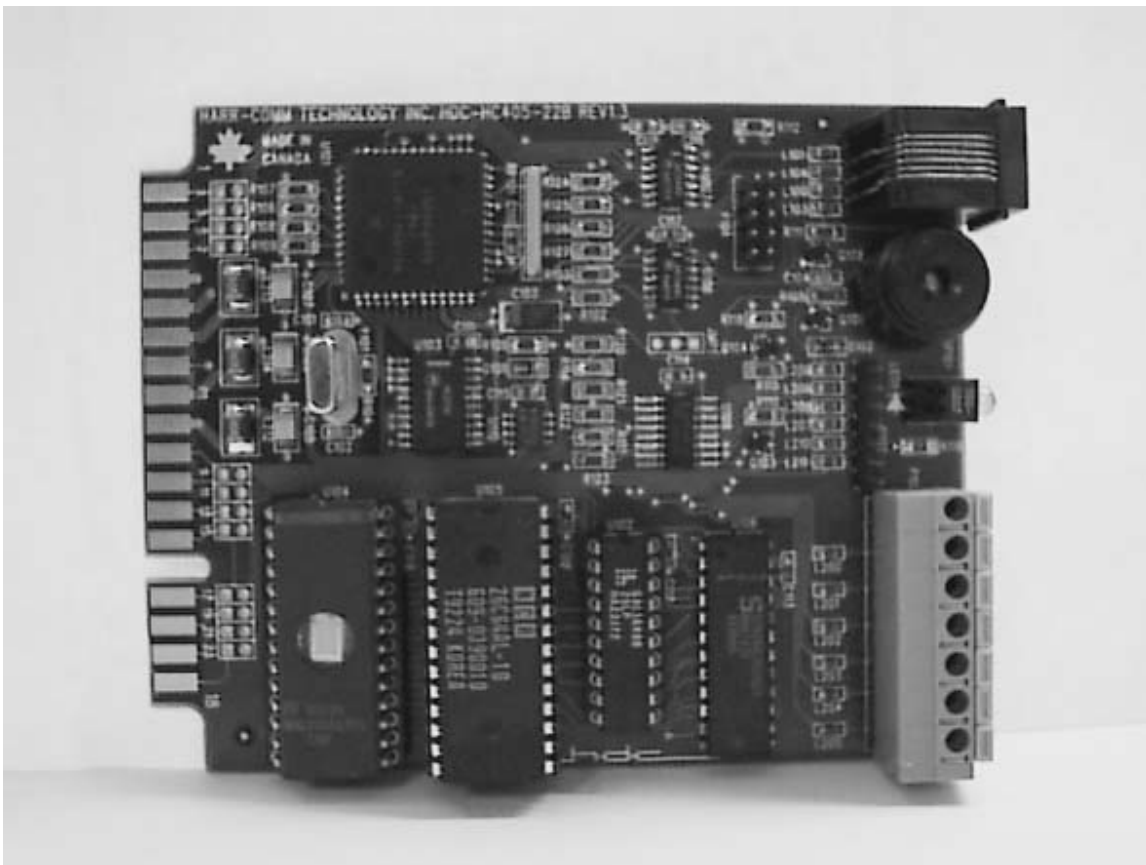


M-611
Rev. A
Datamate Printer Card



Datamate Printer Card Operations & Maintenance Manual



WARNINGS, CAUTIONS, AND NOTES

Throughout this manual you will see WARNINGS, CAUTIONS and NOTES. They are here for your benefit and warrant attention. By paying careful attention to them you can prevent personal injury and possible equipment damage.

Below are examples:

WARNINGS: **INFORM THE READER OF POSSIBLE BODILY INJURY IF PROCEDURES ARE NOT FOLLOWED EXACTLY.**

CAUTION: **Alert the reader to possible equipment damage if procedures are not followed correctly.**

NOTES: *Inform the reader of a general rule for a procedure or of exceptions to such a rule.*

NOTICE

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Datamate Printer Card System

Actaris and its employees would like to thank you for the purchasing of the Datamate Printer Card System. The Datamate Printer Card easy installation offers a secure RS422 communications to the Datamate.

Actaris offers a limited 1 year warranty on its products under normal use.

Please read this manual completely to understand the workings of the Datamate with the Datamate system as several assumptions are made with respect to the normal operation of the Datamate.

The Datamate PRINTER CARD includes:

- Datamate PRINTER CARD
- Printer (Slip)
- Printer Cable (25 foot standard)
- Operations and Maintenance Manual.

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1. Datamate PRINTER CARD To Datamate Connections

1.1 TB1 / TB2 Connection for RS422 and Remote Start / Stop

Datamate	Signal	TB1	TB2	Color
1	RxD (L)	2		Red
2	TxD (H)	3		Black
3	TxD (L)	4		Blue
4	RxD (H)	1		White
5	Stop		2	Green
6	Grnd (Comm)		3	Orange
7	Start		1	Brown

1.2 Datamate Pin-outs to TM295 Printer (Rev 1.3 Cards)

Conn. Position	Signal	Color	Printer
1	Signal Ground	White	7
2	RxD (in)	Red	2
3	TxD (out)	Black	3
4	RTS (out)	N.C	N.C
5	DSR (in)	N.C	N.C
6	DTR (out)	Orange	6
7	CTS (in)	Green	20
NC	Shield		1
Push-Lock Conn			DB25P

Note: make sure pin numbers match.

2. Operational Specifications and Printed Information

The Datamate PRINTER CARD will upon power up sound an audible alarm. This alarm will stop when the printer is powered on and the communications to the Datamate is established. *There are no printed error messages with the Slip type printers.*

Real Time Clock

Date (Day, Month, Year)

Time (Hours, minutes)

Interface

Polled over 4 wire RS422 line

RS232 to Printer

Audible Alarms

Datamate Off-Line

Printer Off-Line

Printer Fault

Out-of-paper

Print / Authorize

Remote Stop enable/inhibit

Print on Stop button

Print on End -of- Flow. Two (2) minute time-out if no Stop button activated

Audible until paper is fed into printer at the end of batch (Slip type)

Printer Types

Slip

Roll with Auto-cutter and Audit copy (Future Option)

Transaction Number

Date

Time

Sequential Print/Transaction Number

Optional Printed Information

Batch Totals: Mass

Volume (Net/Gross)

Temperature

Density

Grand Totalizers: Mass

Volume

3. Datamate Settings

To set the communications parameters perform the following:

1. Press the "MAIN MENU" to access the PROGRAM mode.
2. Enter your "Password" and press "ENTER"
3. Press the "PROG" key
4. Press the "COMM" key
5. Select a baud rate of "9600". This is done by pressing the "F2" key. Press "ENTER"
6. Select "EVEN" Parity. This is done by pressing the "F2" key. Press "ENTER"
7. Select the "PROG" Key
8. Select "BATCH" Press the ENTER key 4 times to get to the "RUN MODE EDIT" then press "F2" to toggle the select to "ON".
9. Exit the system by pressing "MORE" then "RUN"

4. Datamate Operation

Operating Functions

The Datamate PRINTER CARD is designed to work in Batch mode. The Datamate Printer Card disables the keypad on the Datamate by clamping the remote STOP button. This means that during a print cycle, a printer fault, or a power down of the controller, the keypad will be disabled.

Running and Setting Batches

WARNING: WITH THE DATAMATE “RUN MODE EDIT” SET TO ON, THE DATAMATE WILL NOT PROMPT FOR THE BATCH CUT-OFF AFTER EACH BATCH (CONTRARY TO THE NORMAL OPERATION OF THE DATAMATE WITHOUT THE PRINTER CARD). IF IT IS NECESSARY TO CHANGE THE PRESET BATCH SIZE AFTER A COMPLETED BATCH RUN, THEN FIRST PRESS THE “STOP” BUTTON AFTER THE BATCH HAS BEEN COMPLETED BUT BEFORE PRESSING THE “START” BUTTON TO BEGIN ANOTHER BATCH.

If a Batch is pre-maturely stopped before the cut-off limit, the Datamate system will wait until the no-flow timer (2 minutes) has expired. If flow is continued before the timer has expired, then the Datamate will continue to accumulate the Batch total until the Batch is completed due to a “Stop”, “Batch Complete” or the expiration of the no-flow timer. Only after this will the Datamate print a ticket. In either scenario, the user cannot adjust the preset batch without first pressing the “Stop” button.

5. Trouble Shooting

Fault: Datamate PRINTER CARD continually “Beeps” when plugged in

Possible Cause 1:

Printer Failure, Paper out or Printer off-line

Resolution:

Check power to printer
Paper supply or On-Line button
Cable condition and/or connection

Possible Cause 2:

Data Communication error to Datamate

Resolution:

Check Baud rate and Parity settings on the Datamate
Check cable condition and connection between Datamate and the Printer.

Fault: Start / Stop Key on the Datamate will not work.

Possible Cause:

Datamate PRINTER CARD is powered down

Resolution:

Restore power to the Datamate PRINTER CARD

Note... The Datamate PRINTER CARD has an inhibiting circuitry that disables the Start/Stop key from functioning unless power is applied to the Printer

5. Trouble Shooting - continued

Beeping Signals of the Datamate Printer Card

The Datamate Printer Card has various audible tones to indicate different conditions.

Upon power up, the Datamate Printer Card will sound 5 short beeps and 1 long beep. This is normal through its initialization stage. The single beeps are about 1 second in duration while the long one is about 5 seconds. If conditions are correct, the beeping will stop after the 5 second beep, then the printer should print the message <*** LOG PRINTER POWER UP
* * * * *

Error Beep Codes on Power-Up

Printer Off-Line

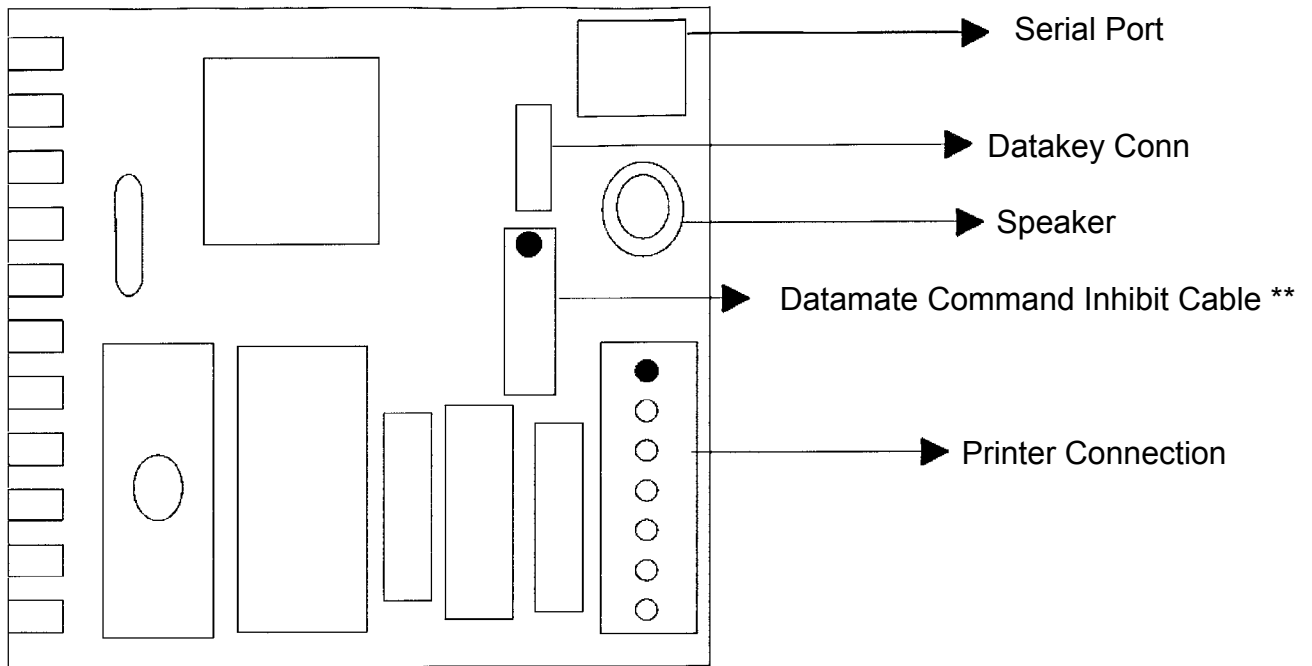
After the 5 second beep, the Datamate Printer Card will beep at 3 second intervals until the printer is put back On-line.

No Communications with the Datamate

After powering up the Datamate Printer Card will beep 5 times at 1 second intervals then it will continuously beep for 15 seconds. About 7 seconds into the 15 second beep, it will attempt to print on the printer the Log Printer Power-up message. About 10 seconds into the 15 second beep, the Datamate Printer Card will print the message <<<No Response From Datamate>>> and <<<WAITING>>>.

Following the 15 second long beep, it will then go into a pattern of 1 beep for about 1 second, then a short beep for 1/2 of a second, then a long beep of 4 seconds. This pattern will continue until the Datamate Printer Card can establish communications with the Datamate.

6. Datamate Printer Card Layout



● - Denotes Pin 1

** - Wired as per VII Appendix in the Datamate Manual for RS422 Communications

7. Automatic Temperature Compensation Kit (ATC)

The ATC Kit provides Net volume deliveries for the Mass flow meter which delivers compensated volume deliveries. The ATC Kit comes in two versions and is configurable for different product densities.

The ATC Kit can be configured for a variety of net volume tables. Currently, the only released table is LPG at densities of .510 for Canada and .505 for the US.

Net Volume Kit (Canadian Version). This version of the product comes with the remote display, remote temperature module, probe and thermal well as required by Canadian Weights and Measures. **(FUTURE OPTION)**

Net Volume Kit (US Version). This version of the product performs the same as the Canadian Version in terms of the temperature correction programs but does not require the remote display, temperature probe or temperature module but uses the temperature circuitry of the Datamate.

8. Technical Specifications of the Datamate Printer Card

Power Requirements

+5vdc @ 222.0ma

+12vdc @ 15.5ma

-12vdc @ 2.3ma

Total: 239.8ma

(provided through the Datamate card cage connectors)

Interface Specifications:

2 Serial Ports (RS232 Compatible)

1 Serial Port (RS422 Compatible)

Environmental

Operating Temperature: -40 to 65C

Storage : -10 to 50C

Humidity

Operating: 30 to 80% (non condensing)

Storage: 30 to 90% (non condensing)

EMI/RFI Standards

FCC Part 15, Class A; EN50082-1; EN55011

CE Marking (inclusive of the Datamate enclosure)

Safety Standards

CSA approved (inclusive of the Datamate enclosure)

9. Ordering Information

D P	X	X	X	X	X	Configuration
	C					Printer Card Internal to Datamate
API Tables						
		0				None
		1				U.S LPG (505)
Printer						
			0			None
			1			Epson TM295 (Slip Style)
Time Zone in Area of Use (Line 1)						
				A		Atlantic Standard
				E		Eastern Standard
				C		Central Standard
				M		Mountain Standard
				P		Pacific Standard
				X		Special Time Zone and Date in Area of Use
Ticket Format (Line 2 and 3) See NOTE 1, 2						
					0	None
					1	Batch Total (Mass or Gross Volume) Only
					2	Batch Total (Net Volume) Only
					3	Batch Totals (Net and Gross Volume)
					4	Batch Totals (Mass and Net Volume)
					5	Batch Totals (Mass and Gross Volume)

NOTE 1: Time, Date and Ticket Number are printed on Line 1

NOTE 2: Temperature and Density are printed on Line 4 and 5

10. Forms for Return Goods



RETURN MATERIAL AUTHORIZATION

Please complete Form and Fax to 1-800-833-6971

Section A

An Incomplete Form May Delay Processing of this RMA.

Dist/Rep Name and Address:

Account # _____

Contact Person: _____

Phone #: _____

Fax #: _____

SECTION C: Please Mark All Applicable Boxes with an "X"

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. Register Repair 2. Defective Flow Meter/Part 3. Defective Replacement Part 4. Reimburse Labor Hours 5. Shipped Incorrect Part Number | <ul style="list-style-type: none"> 6. Ordered Wrong Part Number 7. Non-Warranty (Evaluate/Repair) 8. Stock Return (On approval) 9. Order Entered Incorrectly |
|---|--|

SECTION D: Please Complete the Following Information

Actaris Order No. _____

Distributor P.O. #: _____

Date of Installation: _____

Flow Meter Serial # _____

Order Date: _____

P.O. # Date: _____

Size & Type of Meter: _____

Register Serial #: _____

Customer Name: _____

Address: _____

1) Describe Problem in Detail – (Attach Additional Sheet if Necessary)

2) Service Performed to Correct Problem – (Attach Additional Sheet if Necessary)

3) Location Where Service was Performed _____ 4) Labor Hrs. to Perform Service: _____
(Travel Time Not Included)

SECTION E: Please List the Material Involved in Your Claim: (Ship Material Pre-Paid Only)

QTY	PART NUMBER	DESCRIPTION	REPLACEMENT ORDER



ACTARIS metering systems 1310 Emerald Road Greenwood, SC 29646	RMA Certification Transmittal Form	Ph: (864) 223-1212 Fax: (864) 223-0341
MSDS INCLUDED: YES <input type="checkbox"/> NO <input type="checkbox"/>	Date: _____	RMA Number: _____
Company: _____		
Returned Materials: _____		
Model #: _____	Serial _____	#: _____
Fluid Identification: _____		

POLICY AND PROCEDURES FOR RETURNED MATERIALS

To ensure the safety of personnel and to prevent improper handling and disposal of materials including those listed in OSHA 1910, Subpart Z (Toxic and Hazardous Substance List), Actaris has adopted the following policy and procedure for the return of goods to be evaluated or repaired.

POLICY

It is the policy of Actaris that no returned materials would be accepted from any end user without a Return Material Authorization (RMA) number clearly visible on the exterior of the shipping container. Returned materials using the RMA number constitutes an agreement to comply with this policy and procedure. Goods received that are not in compliance will be returned to the end user and any cost incurred will be invoiced to the end user.

PROCEDURE

1. Prior to shipping, the end user will contact Actaris to request a RMA number. The request will identify the material(s) to be reviewed, and either state that the device(s) are empty and free of all process and cleaning substances or provide Material Safety Data Sheets (MSDS) for the substances in the device(s), unless Actaris agrees that a MSDS is not necessary for the process fluid.
2. The end user will contact Actaris for instructions on opening any closed cavity if a leak into the closed cavity is suspected.
3. Actaris will not accept any goods wetted with process or other fluid unless the MSDS has been submitted in advance for review and written approval.
4. The returned material(s) must be:
 - (a) fully and accurately described by the proper shipping name;
 - (b) properly classified, packed, marked and labeled, and;
 - (c) in proper condition for transport by highway according to applicable international and national government regulations, the laws and regulations of the State of South Carolina and all other applicable laws and regulations.

END USER CERTIFICATION

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that violation of the policies and procedures of Actaris will result in return of material(s) to the end user; and are subject to the possibility of penalties from the applicable international and national government regulations and the laws of the State of South Carolina; and agree to indemnify Actaris for any loss or expense resulting from violation in the policies of Actaris.

Upon compliance with the above steps, the shipper will place a signed copy of this form with the Actaris address and RMA number visible along with all appropriate MSDS and additional information requested.

Signature: _____ **Date:** _____

Print Name: _____

U.S.A./International

1310 Emerald Road
Greenwood, SC 29646

Tel.: Toll-Free (800) 833-3357
(864) 223-1212

Fax: (864) 223-0341

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