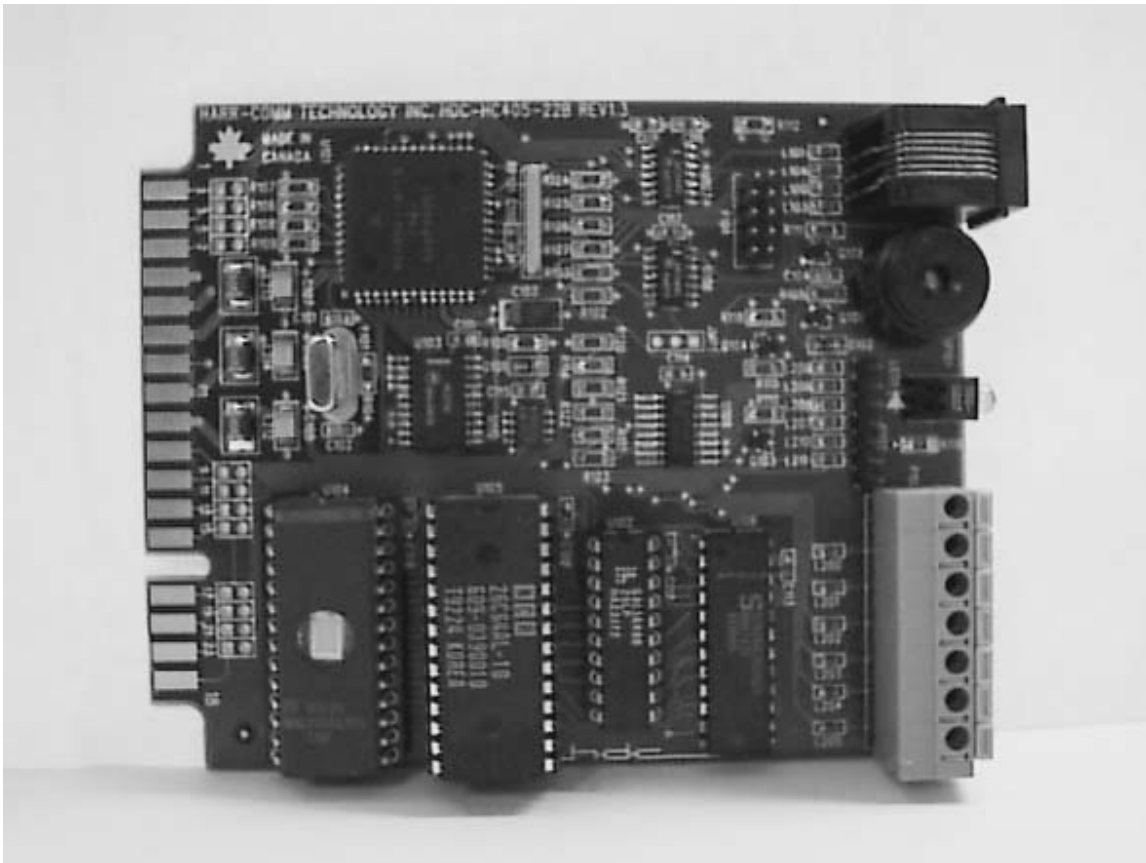


M-611  
Rev. Ó  
Datamate Printer Card

# RED SEAL MEASUREMENT

## 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

The information contained in this document is subject to change without notice. The authors of and contributors to this publication specifically disclaim all liabilities and warranties, expressed and implied (including warranties of merchantability and fitness for a particular purpose), for the accuracy, currency, completeness, and/or reliability of the information contained herein and/or for the fitness for any particular use and/or in reliance upon information contained herein. Selection of materials and/or equipment is at the sole risk of the user of this publication.

This document contains proprietary information which is protected by copyright. All rights are reserved. No part of this document may be reproduced without the prior written consent of the authors.

# Datamate Printer Card System

Ü^âÛ^æÁ^æ~!^ { ^} would like to thank you for purchasing the Datamate Printer Card System. The Datamate Printer Card easy installation offers a secure RS422 communications to the Datamate.

Ü^âÛ^æÁ^æ~!^ { ^} 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.

# CONTENTS

1. Datamate PRINTER CARD to Datamate Connections . . . . .	1
1.1 TB1/TB2 Connection for RS422 and Remote Start/Stop . . . . .	1
1.2 Datamate PRINTER CARD to TM295 Printer . . . . .	1
2. Operational Specifications and Printed Information . . . . .	2
3. Datamate Settings . . . . .	3
4. Datamate Operation . . . . .	4
5. Trouble Shooting . . . . .	5
6. Datamate PRINTER CARD Layout . . . . .	7
7. Automatic Temperature Compensation Kit . . . . .	8
8. Technical Specifications . . . . .	9
9. Ordering Information . . . . .	10

. . . . .



# 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
<b>Push-Lock Conn</b>			<b>DB25P</b>

**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**

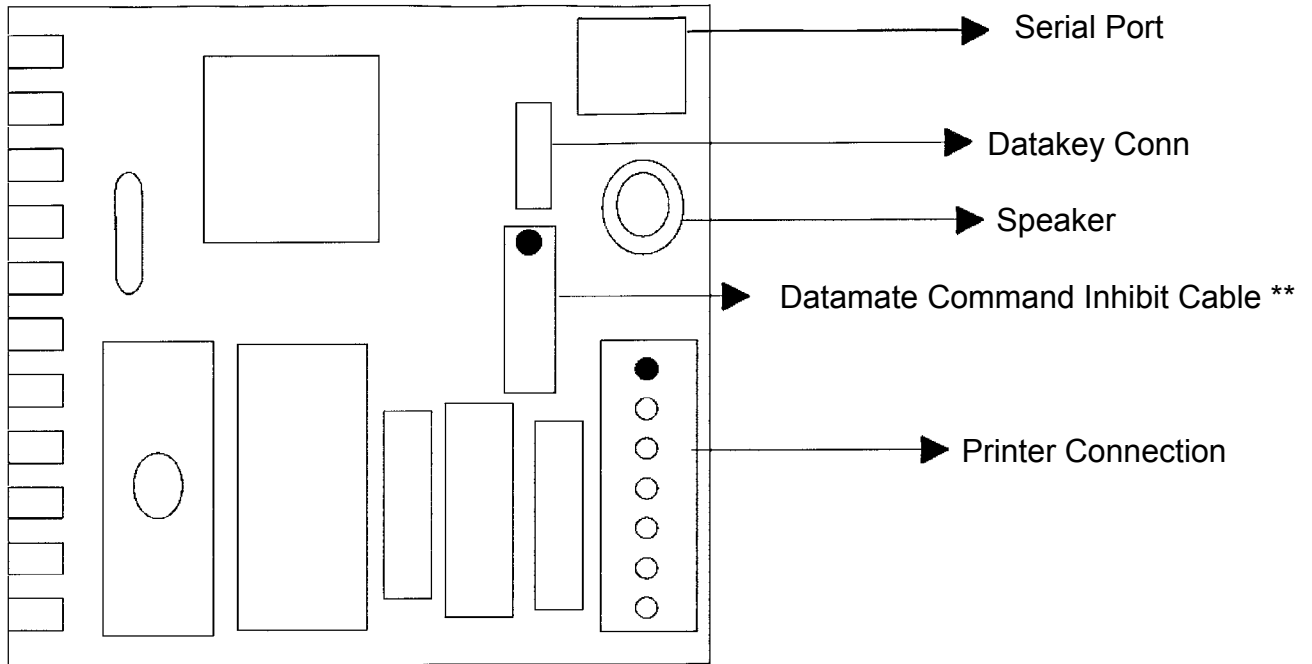
After the 5 second beep, the Datamate Printer Card will beep at 3 second intervals until the printer is put back On-line.

#### **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
							<b>API Tables</b>
			0				None
			1				U.S LPG (505)
							<b>Printer</b>
			0				None
			1				Epson TM295 (Slip Style)
							<b>Time Zone in Area of Use (Line 1)</b>
					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
							<b>Ticket Format (Line 2 and 3) See NOTE 1, 2</b>
						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**



**U.S.A./International**  
1310 Emerald Road  
Greenwood, SC 29646  
Tel.: Toll-Free (800) 833-3357  
(864) 223-1212  
Fax: (864) 223-0341

© 2005

Specifications subject to change without prior notification.

**RED SEAL**  
**MEASUREMENT**