

CHANGE/ERRATA INFORMATION

ISSUE NO: 3 1/95

This change/errata contains information necessary to ensure the accuracy of the following manual:

MANUAL

Title: Helios Plus (2287A) System
Part Number: 865295
Print Date: February 1990
Rev.- Date: ---

C/E PAGE EFFECTIVITY

Page No.	Print Date
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ERRATA #1

Replace page 2-51, with the following:

Temperature Measurement Using RTDs (-165 A/D)

Hardware Used -165 Fast A/D Converter

Choice of Connector:

- 175 Isothermal Input
- 176 Voltage Input
- 164 Transducer Excitation Module
- 174 Transducer Excitation Connector
(with current excitation selected)

ACCURACY, CONTINUOUS MODE (DIFFERENTIAL INPUTS):

	90 DAYS (15 to 35)	1 YEAR (15 to 35)	1 YEAR (-20 to + 70)
100 Ohm Pt., User Defined* (usable range -200 C to probelimit)			
-200 to 125 C	0.4 C	0.43 C	0.66 C
125 to 600 C	0.54 C	0.62 C	0.97 C
100 Ohm Pt., 385 DIN (usable range: -200 C to probe limit)			
-200 to 125 C	0.4 C	0.43 C	0.66 C
125 to 600 C	0.54 C	0.62 C	0.97 C

ACCURACY, BURST MODE

Add to Continuous Mode Accuracy specifications: 0.13 C.

RESOLUTION (all 100 Ohm Pt. RTDs): 0.04 C

REPEATABILITY (all 100 Ohm Pt. RTDs): 0.1 C

* User defined RTDs allow the user to do an ice point initialization of R0 and an alpha correction, improving total system accuracy to:

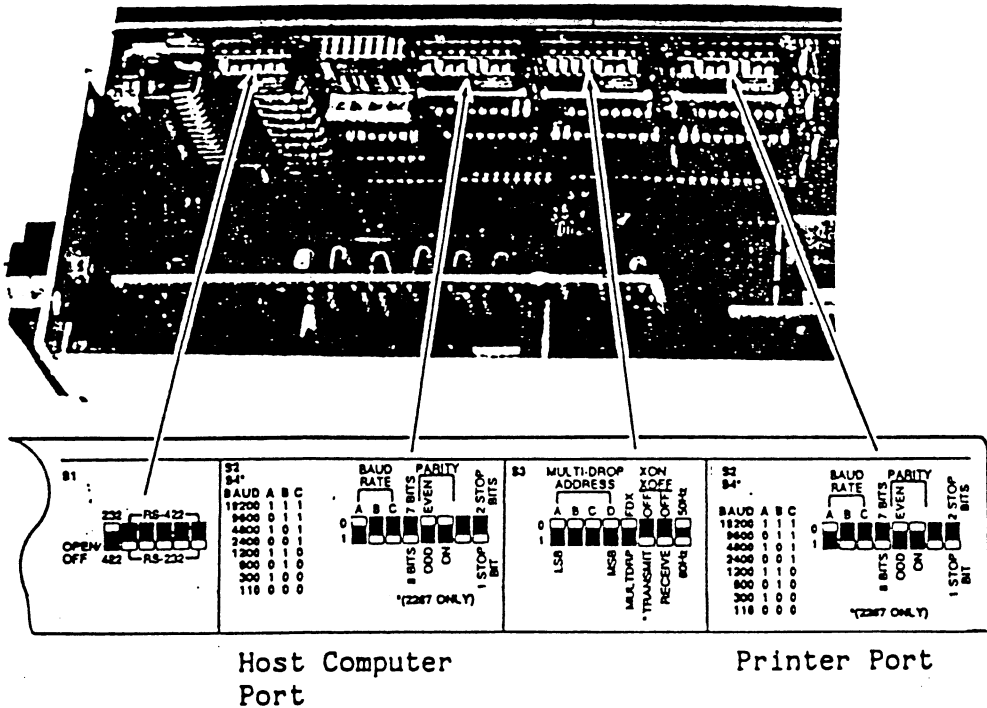
390, 392 Probes: +/- (repeatability + 0.05 C)

385 DIN Probes: +/- (repeatability + 0.05 C + probe conformity error).

ERRATA #2

On page 3A-11, replace Figure 3-5 with:

HELIOS PLUS



WHITE - SELECTED

Figure 3-5. Communications Parameter Selection Switches

On page 4-15, make the following changes:

FROM: STALL AND UNSTALL (<CTRL>/S AND <CTRL>/Q)

TO: STALL (XOFF) AND UNSTALL (XON) (<CTRL>/S AND <CTRL>/Q)

Replace the second paragraph under "STALL AND....." with:

The Front End also supports the capability of transmitting <CTRL>/S and <CTRL>/Q characters to the host computer to stall output from the host computer.

Both the reception and transmission of stall and unstash characters are enabled or disabled by the XON/XOFF switch settings on S3 of the Communication Switches. Refer to Figure 3-5 in Section 3 for the location of the communication parameter selection switches.

NOTE

Helios-I does not have the capability to stall the host computer. This was added to Helios Plus. However, to maintain strict compatibility with Helios-I, Helios Plus' transmit XON/XOFF switch on S3 can be set to the OFF position.

ERRATA #3

On page 5-77,

CHANGE:	R0	= 100.0
	Alpha	= 3.850E-3
	Delta	= 1.45
	C4	= 1.19619E-13
TO:	R0	= 100.0
	Alpha	= 3.850E-3
	Delta	= 1.507
	C4	= 8.2494E-12

ERRATA #4

On page 8-16, replace error message 67 with:

67 Cannot define a mix of channels from a Fast A/D and a high accuracy A/D

In a single DEF CHAN command for direct voltage channels (DVIN), the channels must all reside on a Fast A/D or a high accuracy A/D. More than one DEF CHAN command is required if channels on both A/Ds are to be defined.

ERRATA #5

On page 8-19, add the following after error message 73:

74 Parity error

A parity error was detected on data received on the host communication port. (Since a character was corrupted, it is likely that a syntax error will also be reported).

75 Overrun error

An overrun error was detected on data received on the host communication port. (Since one or more characters was lost, it is likely that a syntax error will also be reported).

76 Framing error

A framing error was detected on data received on the host communication port. (Since a character was corrupted, it is likely that a syntax error will also be reported).

77 Buffer overflow error

A buffer overflow error was detected on the input buffer which receives host data. This may have been caused by XOFF/XON input control being disabled (see switch S3). When XOFF/XON control is enabled, Helios Plus attempts to stall the host by sending an XOFF when the buffer was 75% full (60 characters). (Since one or more characters were lost, it is likely that a syntax error will also be reported).

ERRATA #6

Add the following safety information prior to Section 1.

OPERATOR SAFETY SUMMARY**SAFETY TERMS IN THIS MANUAL**

This instrument has been designed and tested in accordance with IEC Publication 348, Safety Requirements for Electronic Measuring Apparatus. This Operator Manual contains information, warnings, and cautions that must be followed to ensure safe operation and to maintain the instrument in a safe condition.

WARNING statements identify conditions or practices that could result in personal injury or loss of life.

CAUTION statements identify conditions or practices that could result in damage to equipment.

SYMBOLS MARKED ON EQUIPMENT



Attention -- refer to the manual. This symbol indicates that information about usage of a feature is contained in the manual. Refer to Section 3A of the System Manual for information about the following items on the Computer Interface Module (rear panel):

- Alarm Annunciator Connector
- Communication Parameter Selection Switches

POWER SOURCE

The instrument is intended to operate from a power source that will not apply more than 264V ac rms between the supply conductors or between either supply conductor and ground. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

LINE VOLTAGE

Before plugging in the instrument, verify that line voltage matches the voltage setting indicated on the instrument rearpanel.

GROUNDING THE INSTRUMENT

The instrument is a Safety Class I (grounded enclosure) instrument as defined in IEC 348. The enclosure must be grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired earth grounded receptacle before connecting anything else to any of the instrument connectors. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

USE THE PROPER POWER CORD

Use only the power cord and connector appropriate for the voltage and plug configuration in your country.

Use only a power cord that is in good condition.

Refer cord and connector changes to qualified service personnel.

DO NOT OPERATE IN EXPLOSIVE ATMOSPHERES

To avoid explosion, do not operate the instrument in an atmosphere of explosive gas.

DISCONNECT POWER WHEN INSTALLING OR REMOVING OPTION CARDS

Disconnect line cord before installing or removing an option card. Lethal voltages may be present within the Front End and on some option cards.

DO NOT REMOVE COVER

To avoid personal injury or death, do not remove the instrument top or bottom cover. Do not operate the instrument without the cover properly installed. Lethal voltages may be present within the Front End and on some option cards. Access procedures and the warnings for such procedures are contained in the Service Manual. Service procedures are for qualified service personnel only.

DO NOT ATTEMPT TO OPERATE IF PROTECTION MAY BE IMPAIRED

If the instrument appears damaged or operates abnormally, protection may be impaired. Do not attempt to operate it. When in doubt, have the instrument serviced.

DO NOT SERVICE UNLESS QUALIFIED TO DO SO

Do not perform internal service or adjustment of this product unless you are qualified to do so.

USE CARE WHEN SERVICING WITH POWER ON

High voltages exist at several points inside the instrument. To avoid personal injury, do not touch exposed connections and components while power is on.

Disconnect power before removing protective panels, soldering, or replacing components.

OPERATING SAFEGUARDS**WARNING**

It is possible to implement a control system using Helios-I or Helios Plus with a PC and appropriate software. It is also important to design safety considerations into such a system.

In particular, any control system based on a personal computer (including a system built with Helios-I or Helios Plus) is susceptible to sudden interruption. If sudden interruption could cause a safety hazard, it is your responsibility to build into the system separate hardware shutdown devices that will return the system to a safe state.

If a loss of control in your application does not pose a safety problem, these considerations may not be important. However, you should consider the issue early in the design of your system and make allowances for safety devices as appropriate.

ERRATA #7

On page 6m-3, step 3, delete any reference of the sentence below.

DELETE: ...For more information, see Fluke Application Bulletin Ab-20
(guarded signal measurements.)

ERRATA #8

On page 5-134, under FIELD 5, replace the table with:

TC	DVIN		Analog Output
Field 4= (8,9,10,11)	(Field 4=1)		(Field 2=2)
	A/D Converter		
	-161	-165	
0 JNBS	64 mV	64 mV differential	0 UNIPOLV
1 KNBS	512 mV	512 mV differential	1 BIPOLV
2 RNBS	8V	8V differential	2 DCOUT
3 SNBS	64V	10.5V differential	3 PVOUT
4 TNBS	n/a	64 mV single-ended	
5 BNBS	n/a	512 mV single-ended	
6 CHOS	n/a	8V single-ended	
7 ENBS	n/a	10.5V single-ended	
8 NNBS			
9 JDIN			
10 TDIN			
11 -			