

3 Supported Connections to Bailey DCS

The table below lists all of the Bailey DCS connections that are supported by the Driver. Further details regarding each of the supported connections may be found in the following sections within this appendix.

Support for communications to additional devices may be added. If you need support for devices not mentioned here, please contact us.

Supported Bailey DCS Connections							
Connection Method	Bailey DCS		Data Highway			Support	Ref. Section
	Net 90	INFI 90	Plant Loop	Super Loop	INFI Net		
CIC01 ¹						YES	4
NCIU01	X		X			YES ²	5
NCIU02	X		X			YES	6
NCIU03	X		X			YES	7
NCIU04	X	X		X	X	YES	8
INICI01/INICT01		X		X	X	YES	9
INPCI02		X	X			YES	10
INMCP01	X	X	X	X	X	YES	11
INMCP02		X		X	X	YES ³	11
INICI03/INICT03		X			X	YES ⁴	12
INICI13/INICT13		X			X	YES	13
INICI12/INICT12	X	X	X	X	X	YES	14
INPCI01		X	X			YES ⁵	-
IMCPM01/02/03						NO	

¹ This Loop Command Series product provides a connection to Bailey Module Bus rather than to data highway

² CIU01 data acquisition functions are supported. There are limitations for STATION type tags.

³ INMCP02 support includes serial & SCSI communications. Previs SCS hardware kit required for SCSI communications.

⁴ INICI03/INICT03 support includes serial & SCSI communications. Previs SCS hardware kit required for SCSI communications. Section 13 provides details of supported firmware versions.

⁵ INPCI01 communications have not been tested, but we believe all required support is present. If INPCI01 communications are required, please call for assistance.

13 INICI13 / INICT13 Connection

Overview

INICI13 / INICT13 Overview	
Supported Connections	INFI-Net and the Super Loop in Bailey INFI 90 DCS.
Maximum Tag Capacity	INICI13 supports to 30,000 tags. Driver supports to 30,000 tags
Bailey Document References	ABB Instruction Manual 3BUA000354R0001 Harmony Series Cnet-to-Computer Communication Interface INICI03

Module Structure

The ICI13 consists of the following modules:

- INNIS21 (Network Interface Slave module)
- INICT13 (INFI-NET to Computer Transfer module)
- P-HC-BRC-PBA20000 Symphony Processor Bus Adapter
- NKTU01 cable
- NTPM01 terminator.

The INICT13 occupies one slot. The INNIS21 is a slave to the INICT13, which acts as a bus master module. The ICT13 communicates to the NIS over the expander bus. These two modules form a node on the INFI-NET.

The INICT13 is connected to a NTPM01 termination unit. This termination unit provides the physical wiring connections that allow the Driver to be connected to the INICT13 master module. The NTPM01 provides two RS232C serial ports for communication to the INICT13 module. The Driver can use one of these serial ports, communicating at 19,200 Baud.

The INICT13 is designed with a SCSI interface. This interface is the preferred connection to the host computer and should be used in most applications.

Cabling for Serial Communications to INICT13

At the INICT13:

Connect the serial RS-232 cable to the 25 pin D connector labeled “Printer”. The wiring of the connector is defined in the CIU driver’s instruction manual.

At the Driver:

Connect the serial cable to the selected COM port.

Cabling for SCSI Communications to INICT13

A **SCSI Connection Kit** containing the required cables and certified SCSI interface adapter must be purchased from Previs (or your supplier). This kit contains:

- SCSI Adapter for connect to PC computer (PCI or PCIX card slot)¹¹
- Cable required to connect between SCSI adapter and INICI13¹²
- Installation instructions



NOTE: The SCSI standard employed is an old 8 bit SCSI-1 standard. Maintenance of warranty requires purchase of SCSI kit mentioned above.

At the INICT13:

Connect the standard 50 pin flat cable connector to INICT13. Appropriate SCSI termination hardware, provided in the kit, must be installed according to the accompanying instructions.

At the Driver:

Install the provided SCSI adapter and connect the SCSI cable provided within the SCSI kit to the connector on the SCSI adapter.



NOTE: The SCSI channel used for DCS communications must be a dedicated SCSI channel with no other devices on the same SCSI Adapter.

INNIS21 Setup

Configure INNIS21 per instructions in ABB Instruction Manual 3BUA000354R00O1 - Harmony Series - Cnet-to-Computer Communication Interface INICI03. Must be configured correctly for your specific DCS configuration.

¹¹ Previs offers a SCSI Adapter kit, consisting of SCSI adapter card and SCSI cable. To order you must specify (a) whether the SCSI adapter card must insert into PCI or PCI-X or PCI Express card slot within the PC and (b) 6, 8, 10, or 12 feet cable length. It is your responsibility to ensure this is correctly specified to Previs.

¹² The SCSI cable length, between impedance termination at either end, MUST not exceed 6 meters (19 feet). Recommended SCSI cable length is 6, 8, 10 or 12 feet, provided that overall length between terminations < 6 meters maintained.

INICT13 DIP Switch Description

INICT13 DIP Switch Description			
Switch	Pole	Description	Switch Settings / Range
SW2 RS232 Speed	1-4	Port 0 baud rate	1111 = 19200, 0111 = 9600
	5-8	Port 1 baud rate	1111 = 19200, 0111 = 9600
SW3 Diagnostics	1	Emulator Running in RAM	0 = Disabled 1 = Enabled
	2	ROM checksumming	0 = Enabled 1 = Disabled
	3	INNIS21 handshake timeout	0 = Enabled – Normal Operation 1 = Disabled
	4	INNIS module diagnostics	0 = Disabled – Normal operation 1 = Enabled
	5	Cnet/Infi-Net diagnostics	0 = Disabled – Normal operation 1 = Enabled
	6-8	Not used	-
SW4	1	SCSI port	0 = Disabled 1 = Enabled
	2-4	SCSI address ¹³	0/0/0 = 0; 0/0/1 = 1; 0/1/0 = 2; 0/1/1 = 3; 1/0/0 = 4; 1/0/1 = 5; 1/1/0 = 6; 1/1/1 = 7;
	5	SCSI parity check enabled	0 = Disabled 1 = Enabled
	6-8	Cache Mode	0/0/0 = Disabled; 0/0/1 = Instruction; 0/1/0 = Data; 0/1/1 = Data, Instruction 1/0/0 = Branch; 1/0/1 = Branch, Instruction 1/1/0 = Branch, Data 1/1/1 = Branch, Data, Instruction
SW5	1	Hardware diagnostics	0 = Disabled 1 = Enabled
	2-3	Serial Port Parity settings (ports 0 and 1)	00 = 8 d, 1s, no parity 01 = 8 d, 1s, even parity 10 = 8 d, 1s, odd parity 11 = 8 d, 2s, no parity
	4	Serial Port 1 Mode	0 = Serial Port to Host computer 1 = Utility operation
	5	Modem Password protection	0 = Disabled 1 = enabled
	6	Port addressing mode	0 = Disabled 1 = enabled
	7	Checksumming Option	0 = Disabled 1 = Enabled
	8	Security	1 = Enabled (Port 1 key required) 0 = Disabled (Port 1 is 2nd command port)
INICT13 Switch Settings for Serial Communications			
Switch SW2		LSB 11111111 MSB	
Switch SW3		LSB 01000xxx MSB	
Switch SW4		LSB 0100x111 MSB	
Switch SW5		LSB 00000010 MSB	
INICT13 Switch Settings for SCSI Communications			
Switch SW2		LSB 11111111 MSB	
Switch SW3		LSB 01000xxx MSB	
Switch SW4		LSB 11000111 MSB	
Switch SW5		LSB 00010010 MSB	
NOTE: 0 = CLOSED or ON, 1 = OPEN or OFF, x = don't care			

¹³ Recommended SCSI port address is 3 or 4.