

ICP2-ISO(G3)

Galvanically Isolated Programmer with USB and RS-232 Interfaces

Quick Start

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1 Contents of the Base Package

- ICP2-ISO(G3) programmer unit



- Power supply 100-240VAC/12VDC
- USB cable
- Sub-D 15-pin mating connector
- Header-16 2.54mm mating connector

2 Host Computer Requirements

- PC Windows-7/8/10/11
- Free RS-232 or USB port

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3 Installation

3.1 Preliminary Installation

- Software Installation:
 - visit our site and get the latest software: <https://softlog.com/downloads/>
 - install "ICP for Windows" (default directory: C:\Softlog\IcpWin)
- Preliminary Hardware Installation
 - IMPORTANT:** don't connect ICP2-ISO(G3) unit to USB port until the USB driver is installed
 - connect the ICP2-ISO(G3) to power supply
 - install USB driver according to "USB Driver (FTDI) Installation.pdf" (located at C:\Softlog\IcpWin\)
 - NOTE: USB driver installation is not required for operation with RS-232 port
 - connect RS-232 or USB cable between PC and the programmer

3.2 Initial Software Setup

- Run "ICP for Windows"
 - This time only:** right-click "ICP_Win" icon and select "Run as administrator"
- Select Programmer
 - open "Programmer → Select Programmer" and select ICP2-ISO/LAN(**Single**)
 - press OK
- Select COM Port
 - open "Communication→RS-232/USB/LAN COM" and select COM port your programmer is attached to
 - press OK
 - press "Yes" if message "Newer firmware is available. Upgrade now?" appears and wait until the operation is done
- Save Configuration
 - open "File → Save Configuration"
 - press Alt-F4 to exit the software

4 Getting Started: Single Programmer

- Run "Programmer → Quick Start Wizard" and follow on-screen instructions
- Open your HEX: File → Open (Import)
- Execute programming

5 Getting Started: Chain Connection

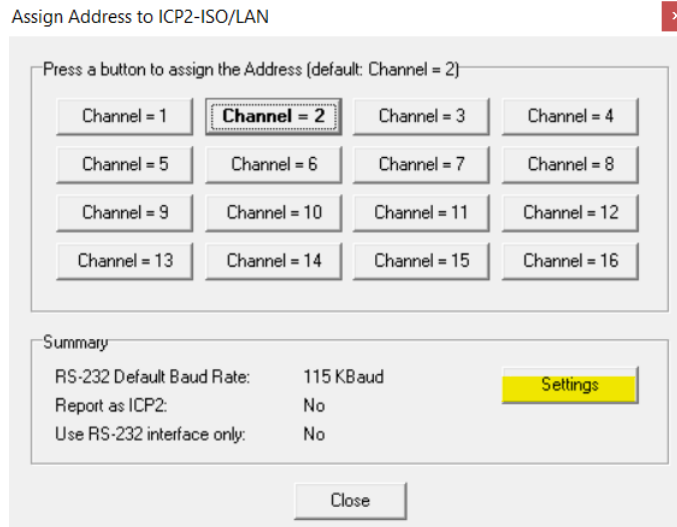
5.1 Assigning Address to Programmer

- Connect **one** programmer to the PC
- Run "ICP for Windows"
- Repeat COM port selection (see □) if communication error occurs.
NOTE: if programmer address is not 2 then communication error will occur during connection
- Open "Programmer → Assign Address and Baud Rate to ICP2-ISO/LAN unit"
- Change RS-232 baud rate and other settings if required

Notes:

- 460KBaud is required for LAN-based chain: 1st programmer = ICP2-LAN(G3)
- 115KBaud is required if the 1st channel is connected to physical RS-232 COM port

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- Press button “Channel = XX” to assign a new address to the connected programmer
- Place sticker with channel number on the programmer
- Connect the next programmer to be assigned to the PC
- Repeat steps above for more programmers
- Press Alt-F4 to exit the software

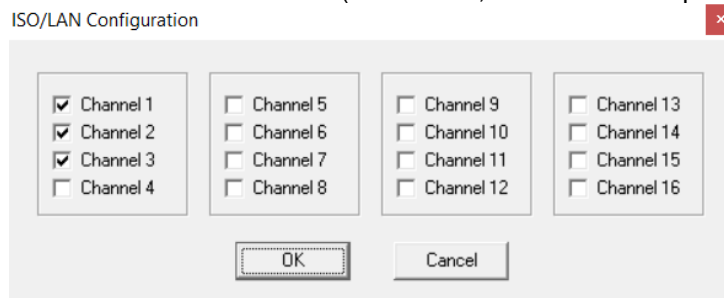
5.2 Final Hardware Installation

- Connect programmer **number 1** to the PC with USB or RS-232 cable
- Connect RS-232 **output** of the 1-st programmer to RS-232 **input** of the 2-nd programmer
- Connect RS-232 output of the 2-nd programmer to RS-232 input of the 3-nd programmer and so on

IMPORTANT: don't leave non-terminated output of RS-232 cable

5.3 Preparing Environment and Transferring Environment to Programmer

- Select “Programmer → ICP2-ISO/LAN(**Multi**)”
- Mark enabled channels (channels 1, 2 and 3 in example below)



- Load a HEX file: File → Open (Import)
- Save Environment:
 - open “Environment → Save Environment As...”
 - type in environment name, 16 characters max

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- press "Save"
- Transfer Environment to Programmer
 - open "Environment → Transfer Environment to Programmer", select your environment and press "Open"
 - wait until environment is transferred to all channels
- Switch to Standalone Mode: press "Standalone Mode" TAB on the Control Center

Control Center: ICP2-ISO/LAN(Multi), 3 Channels

PC-Driven Mode **Standalone Mode**

Channel	Env. No.	Hex File	Checksum
Channel 1	2	18f2420.hex	8292 (hex)
Channel 2	2	18f2420.hex	8292 (hex)
Channel 3	2	18f2420.hex	8292 (hex)
Channel 4	-	-	-
Channel 5	-	-	-
Channel 6	-	-	-
Channel 7	-	-	-
Channel 8	-	-	-
Channel 9	-	-	-
Channel 10	-	-	-
Channel 11	-	-	-
Channel 12	-	-	-
Channel 13	-	-	-
Channel 14	-	-	-
Channel 15	-	-	-
Channel 16	-	-	-

Step 2: double-click on a channel for details

Step 1: Get Environments Info

Program=GO (F5) Get Latest Results

Passed: 00000
Failed: 00000
Total: 00000

- Your system is ready for parallel programming

5.4 Programming Devices

- Connect devices to be programmed
- Press F5
- Repeat steps above for more devices

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6 Appendix A: “RS-232, CONTROL” Connector (Header-16 Male)

Pin No.	Pin Name	Pin Type	Description																																				
1	PC_RXD_ISO	Standard RS-232 output	RS-232 output to PC																																				
2	GND_ISO	-	Isolated GND																																				
3	PC_TXD_ISO	Standard RS-232 input	RS-232 input from PC																																				
4	GND_ISO	-	Isolated GND																																				
5	CHAIN_232_TXD_ISO	Standard RS-232 output	RS-232 output to chained ICP2-ISO																																				
6	GND_ISO	-	Isolated GND																																				
7	CHAIN_232_RXD_ISO	Standard RS-232 input	RS-232 input from chained ICP2-ISO																																				
8	GND_ISO	-	Isolated GND																																				
9	GO_ISO	CMOS input (0/Z) with weak pull-up	Programming activation (active low)																																				
10	PASS_ISO	CMOS output with in-series R=330Ω	Pass/busy indication																																				
11	FAIL_ISO	CMOS output with in-series R=330Ω	Fail/busy indication																																				
12	5V_ISO	5V reference source	Isolated 5V with in-series fuse 50mA, can be used to control ENV_SEL_A/B/C_ISO lines																																				
13	ENV_SEL_A_ISO	CMOS input (0/5V) with weak pull-down	Environment selection: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>...C...</th> <th>...B...</th> <th>...A...</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>Env. 1</td> </tr> <tr> <td>0</td> <td>0</td> <td>1</td> <td>Env. 2</td> </tr> <tr> <td>0</td> <td>1</td> <td>0</td> <td>Env. 3</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>Env. 4</td> </tr> <tr> <td>1</td> <td>0</td> <td>0</td> <td>Env. 5</td> </tr> <tr> <td>1</td> <td>0</td> <td>1</td> <td>Env. 6</td> </tr> <tr> <td>1</td> <td>1</td> <td>0</td> <td>Reserved</td> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> <td>Reserved</td> </tr> </tbody> </table>	...C...	...B...	...A...	Result	0	0	0	Env. 1	0	0	1	Env. 2	0	1	0	Env. 3	0	1	1	Env. 4	1	0	0	Env. 5	1	0	1	Env. 6	1	1	0	Reserved	1	1	1	Reserved
...C...	...B...	...A...		Result																																			
0	0	0		Env. 1																																			
0	0	1		Env. 2																																			
0	1	0		Env. 3																																			
0	1	1	Env. 4																																				
1	0	0	Env. 5																																				
1	0	1	Env. 6																																				
1	1	0	Reserved																																				
1	1	1	Reserved																																				
14	ENV_SEL_B_ISO	CMOS input (0/5V) with weak pull-down																																					
15	ENV_SEL_C_ISO	CMOS input (0/5V) with weak pull-down																																					
			Reserved combination selects Env. 1																																				
16	Reserved	CMOS input (0/5V) with weak pull-down	Future use																																				

7 Appendix B: USB Driver Latency

- ICP2-ISO(G3) programmer operates with FTDI USB driver. Default latency of the driver is set to 16ms which slows down the programmer operation. “ICP for Windows” automatically tries to set the latency to 2ms, but it may not work. In this case change the latency as follows:
- Option 1 - run “ICP for Windows” as Administrator
- Option 2 - change latency manually:
 - enter Control Panel → System → Device Manager → Ports (COM & LPT)
 - select USB Serial Port (COMx) → Port Settings → Advanced
 - change Latency Timer to 2ms (recommended), 4ms is allowed too, **don't** set 1ms
 - press OK
 - restart your PC if it was prompted

8 Warranty

Softlog Systems (2006) Ltd. warrants this product against defects in materials and workmanship for a period of 1 (one) year. This warranty will not cover programmers that, in the opinion of Softlog Systems, have been damaged due to abuse, improper use, disassembly, replacement of parts or attempted repair by anyone other than an authorized Softlog Systems service technician.

This product must be returned to the supplier for warranty service within the stated period. The buyer shall pay all shipping costs and other charges or assessments for the product by the supplier.

Softlog Systems shall not be liable for any indirect, incidental, or consequential damages, regardless of whether liability is based upon breach of warranty, negligence, strict liability in tort, or any other theory, Softlog Systems will never be liable in an amount greater than the purchase price of the products described by this express warranty. No agent, distributor, salesperson, or wholesale or retail dealer has the authority to bind Softlog Systems to any other affirmation, representation, or warranty concerning these goods.

9 Contact

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