

# Industrial Computer Source

## Product Manual

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### Model EMC-CH8

### Reference Manual

**MANUAL NO. 41417-151-01A**

**Industrial Computer Source** 10180 Scripps Ranch Blvd., San Diego, CA 92131 (619) 271-9340

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Industrial Computer Source (UK) Ltd. 0243-533900 Industrial Computer Source (Deutschland) GmbH (2234)



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## FORWARD

This instruction manual provides the necessary user information for the referenced product(s) manufactured or distributed by Industrial Computer Source for the user to install, operate and/or program the product properly. Please refer to the following pages for information regarding the warranty and repair policies.

Technical assistance is available at (619) 271-9340.

Manual Errors, Omissions and Bugs: A Bug Sheet is included as the last page of this manual. Please use it if you find a problem with the manual you believe should be corrected.

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## INDUSTRIAL COMPUTER SOURCE GUARANTEE, LIMITED WARRANTY AND RETURN POLICY

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**\*LIMITED WARRANTY:** One year limited warranty on all products sold with the exception of the "Performance Series" I/O products, which are warranted to the original purchaser for as long as they own the product, subject to all other conditions below, including those regarding neglect, misuse and acts of God. Within one year of purchase, we will repair or replace, at our option, any defective product sold by us. At any time after one year, we will repair or replace, at our option, any defective "Performance Series" I/O product sold by us. This does not include products damaged in shipment, or damaged through customer neglect or misuse.

The Return Procedure below must be followed to assure repair or replacement. We will normally return your replacement or repaired item via UPS Blue. Overnight delivery or delivery via other carriers is available at additional charge.

The limited warranty is void if the product has been subjected to alteration, neglect, misuse, or abuse; if any repairs have been attempted by anyone other than an Industrial Computer Source or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of Industrial Computer Source or the manufacturer. Neglect, misuse, and abuse shall include any installation, operation, or maintenance of the product other than in accordance with the owners' manual.

No agent, dealer, distributor, service company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner whatsoever. Industrial Computer Source reserves the right to make changes or improvements in any product without incurring any obligation to similarly alter products previously purchased.

**\*GUARANTEE:** Thirty day money-back guarantee on all standard products sold. Special order products are covered by our Limited Warranty, however they may not be returned for refund or credit.

**REFUNDS:** In order to receive a full refund of product purchase price, the product must not have been damaged by the customer or by the common carrier chosen by the customer to return the goods, and the product must be returned complete (meaning all manuals, software, cables, etc.) within 30 days of receipt and in as-new and resalable condition. **RETURN PROCEDURE** below must be followed to assure prompt refund.

**RESTOCKING CHARGES:** Product returns after 30 days, and before 90 days, after purchase will be subject to a minimum 20% restocking charge and any charges for damaged or missing parts.

Products not returned within 90 days of purchase, or products which are not in as-new and resalable condition, are not eligible for credit return and will be returned to the customer.

**RETURN PROCEDURE:** For any Limited Warranty or Guarantee return, every product returned to Industrial Computer Source for service or credit must be accompanied by a Return Material Authorization (RMA) Number, obtained from Industrial Computer Source Customer Service, (619) 271-9340, prior to its return. Freight on all returned items must be prepaid by the customer and customer is responsible for any loss or damage caused by common carrier in transit. Returns for warranty must include a failure report for each unit, by serial number as well as a copy of the original invoice showing date of purchase.

To reduce risk of damage, returns of product must be in an Industrial Computer Source shipping container. If the original container has been lost or damaged, new shipping containers may be obtained from Industrial Computer Source Customer Service at a nominal cost.

<b>SHIPMENTS NOT IN COMPLIANCE WITH THIS GUARANTEE AND LIMITED WARRANTY RETURN POLICY WILL NOT BE ACCEPTED BY INDUSTRIAL COMPUTER SOURCE.</b>
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**LIMITATION OF LIABILITY:** In no event shall Industrial Computer Source be liable for any defect in hardware or software or loss or inadequacy of data of any kind, or for any direct, indirect, incidental, or consequential damages in connection with or arising out of the performance or use of any product furnished hereunder. Industrial Computer Source liability shall in no event exceed the purchase price of the product purchased hereunder. The foregoing limitation of liability shall be equally applicable to any service provided by Industrial Computer Source or its authorized agent.

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\* Some sale items and custom systems are not subject to the guarantee and limited warranty above, however in these instances any deviations will be disclosed prior to sale and noted on the original invoice. We reserve the right to refuse returns or refunds on software or special order items.

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# CHASSIS SPECIFICATION

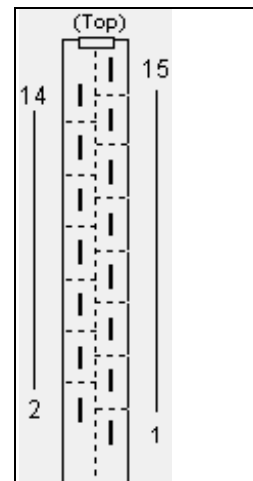
The EMC-CH8 chassis contains 8 EXM slots. It is designed for use with any of the Industrial Computer Source EPC CPU modules (in the EXM Form Factor) and up to 7 additional EXM expansion modules.

## SPECIFICATIONS

Maximum Input rating	+5VDC	10A	Weight		2.07 kg (4.56 lbs)
	+12VDC	0.85A	Humidity	Operating	5% to 95% non-cond.
	-12VDC	0.85A		Storage	5% to 95% non-cond.
Dimensions	Height	140 mm (5.5 in)	Vibration	Operating	.025" P-P
	Width	259 mm (10.2 in)		Storage	.030" P-P
	Depth	170 mm (6.7 in)	Shock	Operating	30G, 11 msec, 1/2 sine wave
Temperature	Operating	-15C to +60C		Storage	50G, 11 msec, 1/2 sine wave
	Storage	-62C to +85C			

## COOLING REQUIREMENTS

The EMC-CH8 is convection cooled, requiring no forced air in or around the unit. However, the system should be installed so that a minimum of 5" of air space is provided on all four sides.



## POWER CONNECTOR

The power connector is a 15-pin female T&B/Ansley 376-21530-095X (or equivalent). The mating male connector is a T&B/Ansley 371-21530-305X (or equivalent). The input signals are specified as follows:

Pin	Signal	Pin	Signal
1	ACF-	2	ACF+
3	IRO-	4	IRO+
5	RST-	6	RST+
7	(not used)	8	-12V
9	+12V	10	GND
11	GND	12	GND
13	+5V	14	+5V
15	+5V		

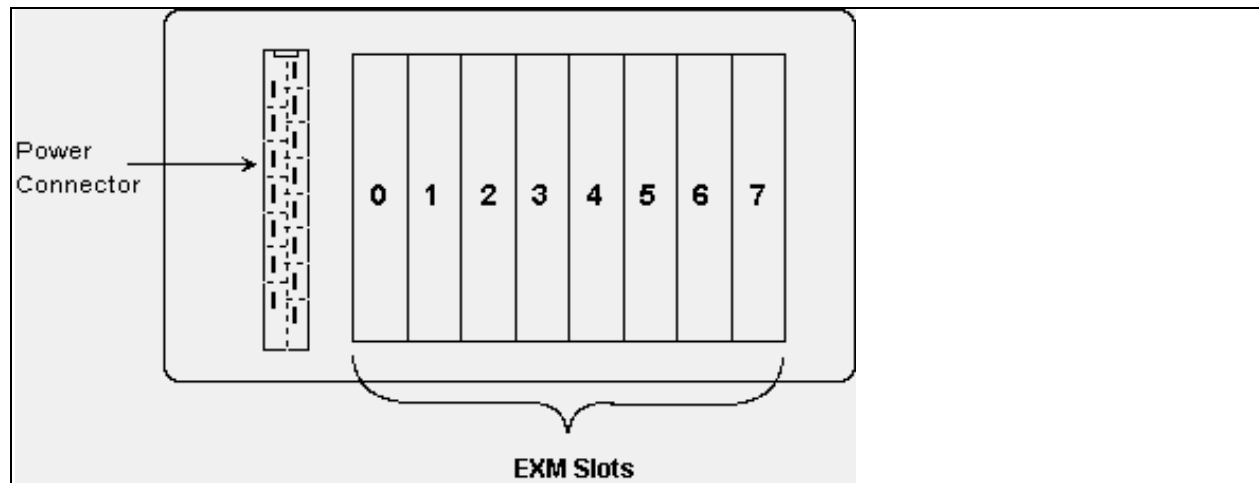
Connector signals IRO and RST (+ & -) are provided to pass the front-panel remote connector signals through to the backplane when using the EMC-PSSO power supply. These signals are defined as:

**IRO** INTERRUPT is an input signal which allows an external event to signal IROIS on the backplane. This is a buffered (inverted) input. Since IROs are positive edge-triggered (with pull-up resistors), to signal the interrupt, apply a voltage across these 2 lines for a minimum of 100 microseconds. This sets IROIS low. When the power is removed, the pull-up resistor returns the line to +5V causing a positive edge which triggers the interrupt.

**RST** RESET is an input signal that allows a remote hardware reset of the CPU on the backplane. In addition, when using the EMC-PSSO-AC power supply, ACF (AC Fail + & -) is provided to signal a processor when the AC input fails. ACF is tied to -I/O Channel Check on the backplane.

## EXM SLOT NUMBERING

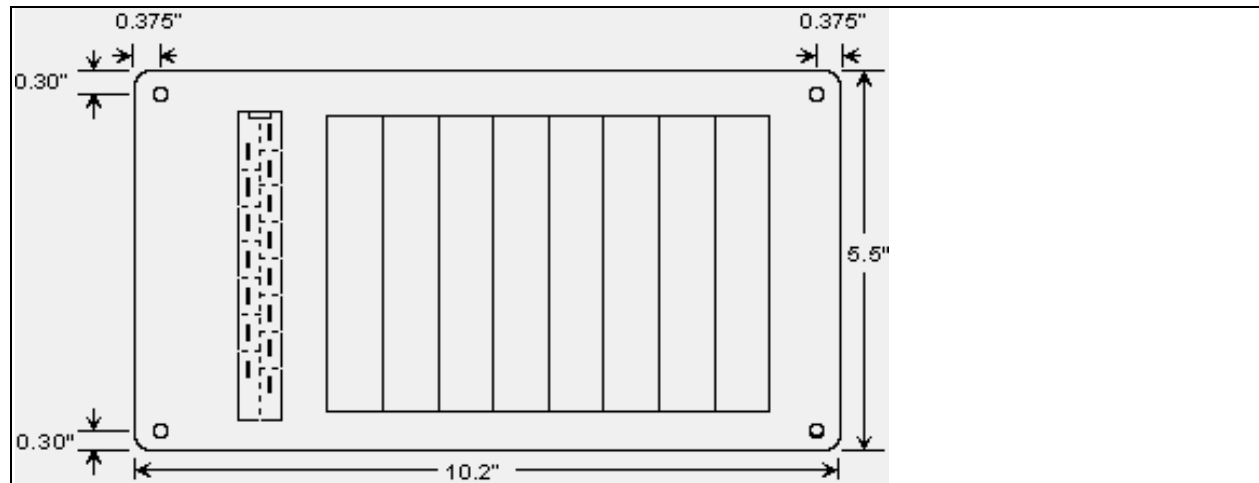
The EXM slot numbers are used in the BIOS Setup to configure each installed EXM module. The EXM slots are numbered 0 through 7 with EXM slot 0 on the left (next to the power connector) and slot 7 being the rightmost slot. See diagram below.



**MOUNTING REQUIREMENTS**

The EMC-CHB chassis may be mounted on any flat surface. It can be mounted via the DIN rail slot or by four mounting screws.

The DIN rail slot is designed for use with either of two mounting rails that meet the DIN EN50 022 specification.



The diagram below shows the location of the four mounting holes used when mounting the unit with screws. The mounting holes are 0.188" in diameter.

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## BUG REPORT

While we have tried to assure this manual is error free, it is a fact of life that works of man have errors. We request you to detail any errors you find on this BUG REPORT and return it to us. We will correct the errors/problems and send you a new manual as soon as available. Please return to:

### *Industrial Computer Source*

Attn: Documentation Department

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San Diego, CA 92193

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Company Name: \_\_\_\_\_

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Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

Product: **EMC-CH8**

Manual Revision: **41417-1S1-01A**

Please list the page numbers and errors found. Thank you!