ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *OMRON / Delta Tau ACC-E1* at our website: ***Click HERE***

^1 USER MANUAL

Accessory E1

^3 UMAC POWER SUPPLY

^4 31E-603269-10x

^5 July 7, 2006

CE

DELTA TAU
Data Systems, Inc.
NEW IDEAS IN MOTION ...

Copyright Information

Single Source Machine Control *Power // Flexibility // Ease of Use*
21314 Lassen Street Chatsworth, CA 91311 // Tel. (818) 998-2095 Fax. (818) 998-7807 // www.deltatau.com

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

© 2006 Delta Tau Data Systems, Inc. All rights reserved.

This document is furnished for the customers of Delta Tau Data Systems, Inc. Other uses are unauthorized without written permission of Delta Tau Data Systems, Inc. Information contained in this manual may be updated from time-to-time due to product improvements, etc., and may not conform in every respect to former issues.

To report errors or inconsistencies, call or email:

Delta Tau Data Systems, Inc. Technical Support
Phone: (818) 717-5656
Fax: (818) 998-7807
Email: support@deltatau.com
Website: http://www.deltatau.com

Operating Conditions

All Delta Tau Data Systems, Inc. motion controller products, accessories, and amplifiers contain static sensitive components that can be damaged by incorrect handling. When installing or handling Delta Tau Data Systems, Inc. products, avoid contact with highly insulated materials. Only qualified personnel should be allowed to handle this equipment.

In the case of industrial applications, we expect our products to be protected from hazardous or conductive materials and/or environments that could cause harm to the controller by damaging components or causing electrical shorts. When our products are used in an industrial environment, install them into an industrial electrical cabinet or industrial PC to protect them from excessive or corrosive moisture, abnormal ambient temperatures, and conductive materials. If Delta Tau Data Systems, Inc. products are directly exposed to hazardous or conductive materials and/or environments, we cannot guarantee their operation.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

REVISION HISTORY				
REV.	**DESCRIPTION**	**DATE**	**CHG**	**APPVD**
1	ADDED CE DECLARATION	06/08/06	CP	S.FIERRO
2	MARKED FOR FULL RELEASE	07/07/06	CP	S.FIERRO

Table of Contents

INTRODUCTION **1**

SAFETY INSTRUCTIONS **3**
Power Disconnect 3

ACC-E1 SPECIFICATIONS **5**
Environmental Specifications 5
Physical Specifications 5
Power Supply Input Specifications 5
Power Supply Output Specifications 6
EMC and Safety 6
Mechanical Specifications 7
ACC-E1 Layout *7*
AC Input Connector 8
POWER SUPPLY COOLING 8
ACC-E1 Indicators 8

ACC-E1 PINOUTS **9**
TB1 – Power Supply Output Tap 9
P1 – UBUS Backplane Connector 9
P2 – AC Input Connector 9

DECLARATION OF CONFORMITY **11**

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

INTRODUCTION

The ACC-E1 power supply module is an accessory card that provides the UMAC backplane with system operating power.

This ACC-E1 has an AC input connector to the switching power supply and provides DC outputs to the UMAC control system via the UBUS backplane. The ACC-E1 also has a terminal block connector that provides the regulated +5Vdc and ±15Vdc that can be used for general purpose DC power to other components in the system

The ACC-E1 power supply also comes pre-configured for remote voltage sense on the 5Vdc bus: A function that has been installed on the UMAC backplanes since their inception. LED's on the front panel indicate the presence of +5Vdc, +15Vdc, and –15Vdc.

The ACC-E1 power supply consists of a commercially available power supply mounted to a motherboard that connects the DC power to the UBUS backplane board.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

SAFETY INSTRUCTIONS

Qualified personnel must transport, assemble, install, and maintain this equipment. Properly qualified personnel are persons who are familiar with the transport, assembly, installation, and operation of equipment. The qualified personnel must know and observe the following standards and regulations:

IEC 364 resp. CENELEC HD 384 or DIN VDE 0100
IEC report 664 or DIN VDE 0110
National regulations for safety and accident prevention or VBG 4

Incorrect handling of products can result in injury and damage to persons and machinery. Strictly adhere to the installation instructions. Electrical safety is provided through a low-resistance earth connection. It is vital to ensure that all system components are connected to earth ground.

This product contains components that are sensitive to static electricity and can be damaged by incorrect handling. Avoid contact with high insulating materials (artificial fabrics, plastic film, etc.). Place the product on a conductive surface. Discharge any possible static electricity build-up by touching an unpainted, metal, grounded surface before touching the equipment.

Keep all covers and cabinet doors shut during operation. Be aware that during operation, the product has electrically charged components and hot surfaces. Control and power cables can carry a high voltage, even when the motor is not rotating. Never disconnect or connect the product while the power source is energized to avoid electric arcing.

After removing the power source from the equipment, wait at least 10 minutes before touching or disconnecting sections of the equipment that normally carry electrical charges (e.g., capacitors, contacts, screw connections). To be safe, measure the electrical contact points with a meter before touching the equipment.

The following text formats are used in this manual to indicate a potential for personal injury or equipment damage. Read the safety notices in this manual before attempting installation, operation, or maintenance to avoid serious bodily injury, damage to the equipment, or operational difficulty.

WARNING:

A Warning identifies hazards that could result in personal injury or death. It precedes the discussion of interest.

Caution:

A Caution identifies hazards that could result in equipment damage. It precedes the discussion of interest

Note:

A Note identifies information critical to the user's understanding or use of the equipment. It follows the discussion of interest.

Power Disconnect

A power disconnect should be installed by the user between the input power service and the ACC-E1 power supply for a fail–safe method to disconnect power.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

ACC-E1 SPECIFICATIONS

Please note that these are design specifications. Performance may differ slightly from these design specifications.

Environmental Specifications

Description	Unit	Specification
Operating Temperature	ºC	0˚C to 45˚C, 41˚C to 70˚C derate to 50%
Storage Temperature	ºC	-25˚C to 70˚C
Humidity	%	10% to 95 % non-condensing

Physical Specifications

Item	Specification
Dimensions	Length: 16.256 cm (6.4 in.) Height: 10 cm (3.94 in.) Width: 6.1 cm (2.4 in.)
Weight (max)	480g
Terminal Block	MSTBW 1.5/6-G-5.08 from Phoenix Contact UL 94V-0 rating
The width is the width of the front plate. The length and height are the dimensions of the PCB.	

Power Supply Input Specifications

Description	Unit	Specification
AC Input	V	100V to 120V and 200V to 240V (auto-ranging)
Power Supply Efficiency	%	82%
Input Frequency	Hz	50 Hz to 60 Hz
Input Current Max	Arms	2.9 Arms
Inrush Current	A	40A

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Power Supply Output Specifications

Description	Unit	Specification
Power Output	W	80W without fan 130W with fan
DC Output	A	+5V @ 14A with fan +16.3V @ 1.5A with fan -16.3V @ 1.5A with fan
Overload Protection	W	195W, +35W

The power supply has an in line slow-blow fuse rated at 250V @ 3.5A. If this fuse fails, please send unit back to Delta Tau.

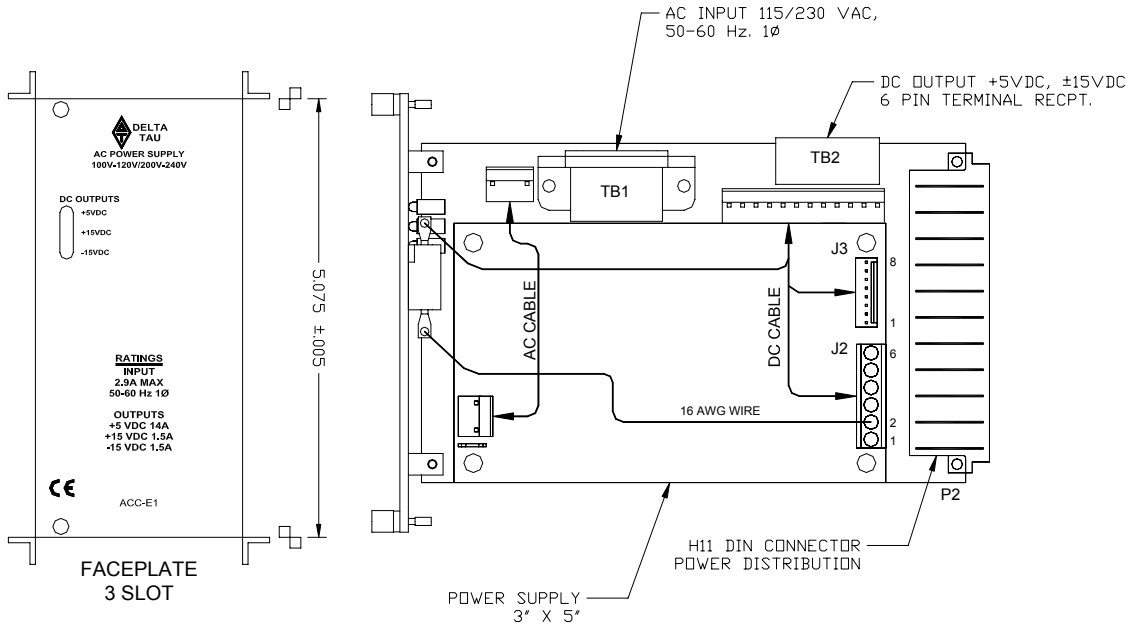
EMC and Safety

Item	Description
CE Mark	Full Compliance
EMC	EN55011 Class A Group 1 EN61000-3-2 Class A EN61000-3-3 EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-11
Safety	EN 61010-1
Flammability Class	UL 94V-0

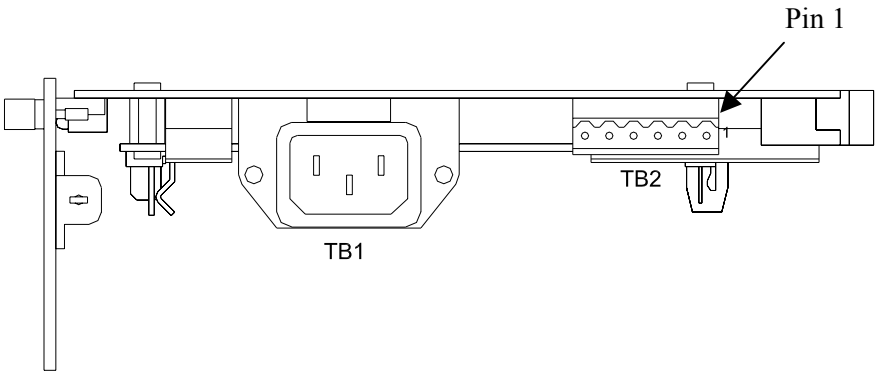
Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Mechanical Specifications

ACC-E1 Layout



ACC-E1 Top View



Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

AC Input Connector

The AC input plug on the power supply unit is an IEC male type meant to meet the globally accepted IEC publication 320, Class 1 industry standard AC input.

AC Connector Input Specifications

Item	Specification
Connector Rated Voltage	250 VAC
Connector Rated Current (UL/CSA)	15A
Dielectric Strength (one minute)	2000V between pins
Flammability Class	UL 94V-0

POWER SUPPLY COOLING

A small 12V fan has been mounted to the side of the UMAC rack to provide cooling for the AC supply. The fan provides 14.0 CFM at 12V. The fan is needed to supply cooling the power supply to operate at its rated specifications.

ACC-E1 Indicators

The ACC-E1 has three red LED indicators to inform the user that the 5V, +15V, and –15V supplies are operational.

LED	Description
D1	`+5V power indicator`
D2	`+15V power indicator`
D3	`-15V power indicator`

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

ACC-E1 PINOUTS

TB1 – Power Supply Output Tap

This is a 6 pin Phoenix Combicon connector. This is a supply output connector which has 10A rated Contacts and has a UL 94V0 flammability rating.

PIN#	Name	Description
1	+15V dc	+15V DC Power
2	+5V dc	+5V DC Power
3	+5V dc	+5V DC Power
4	AGND	0V Reference for ± 15V
5	GND	0V Reference for +5V
6	-15V dc	-15V DC Power

P1 – UBUS Backplane Connector

This is an 11-pin connector that plugs into the UBUS backplane

PIN#	Name	Description
2	Chassis GND	Chassis GND
5	Sense-	5V DC Sense- input
8	Sense+	5V DC Sense+ input
11	Spare	-
14	GND	0V reference for 5V
17	+5V	+5V DC Power
20	-15V	-15V DC Power
23	+15V	+15V DC Power
26	AGND	0V Reference for ± 15V
29	+5V	+5V DC Power
32	GND	0V reference for 5V

P2 – AC Input Connector

This is an IEC 3-pin AC connector providing power to the power supply.

PIN#	Name	Description
1	Line	AC Line
2	Chasis Ground	Ground
3	Neutral	AC Neutral

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

DECLARATION OF CONFORMITY

Application of Council Directive: 89/336/EEC, 72/23/EEC

Manufacturers Name: Delta Tau Data Systems, Inc.

Manufacturers Address: 21314 Lassen Street
Chatsworth, CA 91311
USA

We, Delta Tau Data Systems, Inc. hereby declare that the product
Product Name: ACC-E1
Model Number: 603269
conforms to the following standards:

EN61326: 1997	Electrical equipment for measurement, control, and laboratory use- EMC requirements
EN55011: 1998	Limits and methods of measurements of radio disturbance characteristics of information technology equipment
EN61010-1	Electrical equipment for measurement, control, and laboratory use- Safety requirements
EN61000-3-2 :1995 A14:1998	Limits for harmonic current emissions. Criteria A
EN61000-3-3: 1995	Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16A. Criteria B.
EN61000-4-2:1995 A1: 1998	Electro Static Discharge immunity test. Criteria B
EN61000-4-3: 1995 A1: 1998	Radiated, radio-frequency, electromagnetic field immunity test. Criteria A
EN61000-4-4: 1995	Electrical fast transients/burst immunity test. Criteria B
EN61000-4-5: 1995	Surge Test. Criteria B
EN61000-4-6: 1996	Conducted immunity test. Criteria A
EN61000-4-11: 1994	Voltage dips test. Criteria B and C

Date Issued: 11 May 2006
Place Issued: Chatsworth, California USA

Yolande Cano anager

Mark of Compliance

CE

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP