



Model 691A80

Triax switch box with switched outputs, 10" x 8" x 6" NEMA 4X (IP66) fiberglass enc, 12 triax channels, terminal strip input, four-pin MIL connector output, no conn ports

Installation and Operating Manual

**For assistance with the operation of this product,
contact the PCB Piezotronics, Inc.**

Toll-free: 800-959-4464

24-hour SensorLine: 716-684-0001

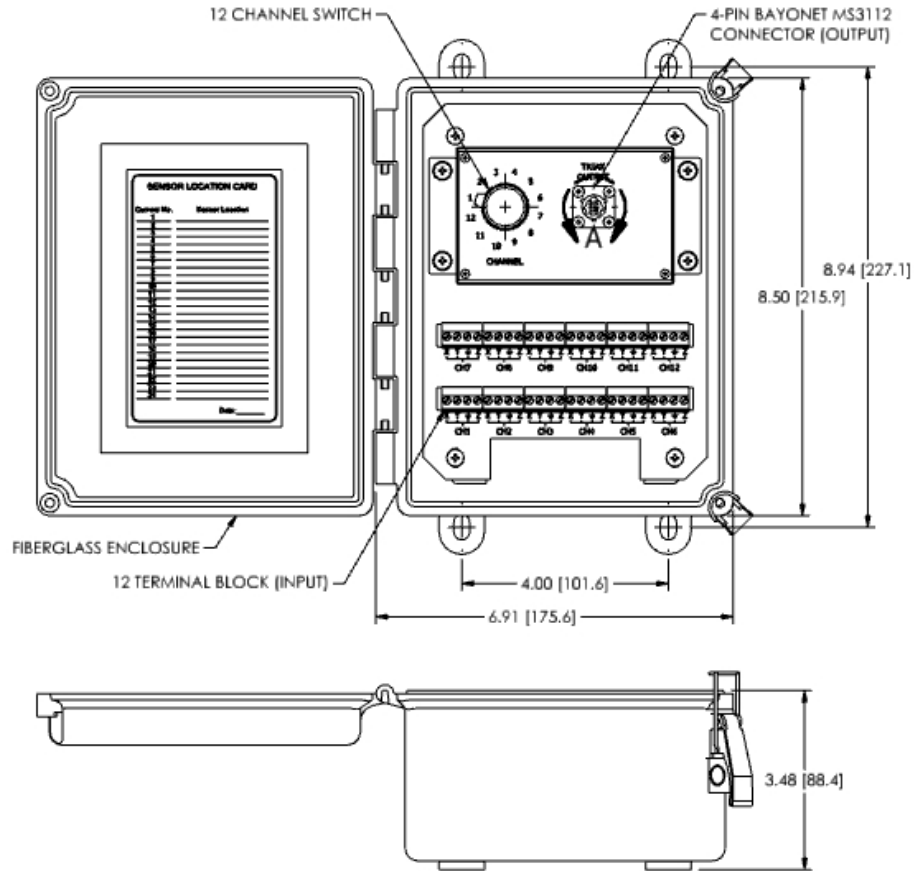
Fax: 716-684-3823

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Web: www.imi-sensors.com



The Model 691A80 36 Channel (12 Tri-Ax) Switch Box



Model 691A80 36 Channel (12 Tri-Ax) Switch Box

Operating Guide with Enclosed Warranty Information

3425 Walden Avenue, Depew, New York 14043-2495

Phone (716) 684-0003

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MANUAL NUMBER: 59497

MANUAL REVISION: **B**

ECO: 49870

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Introduction

The Model 691A80 is a 36 channel (12 Tri-Ax) switch box that provides terminal strip input with the convenience of 4-Pin Bayonet outputs. It is used in conjunction with commercially available data collectors and analyzers. It provides inputs and switched outputs for vibration tri-axial sensors. A few specifications are listed below for easy reference:

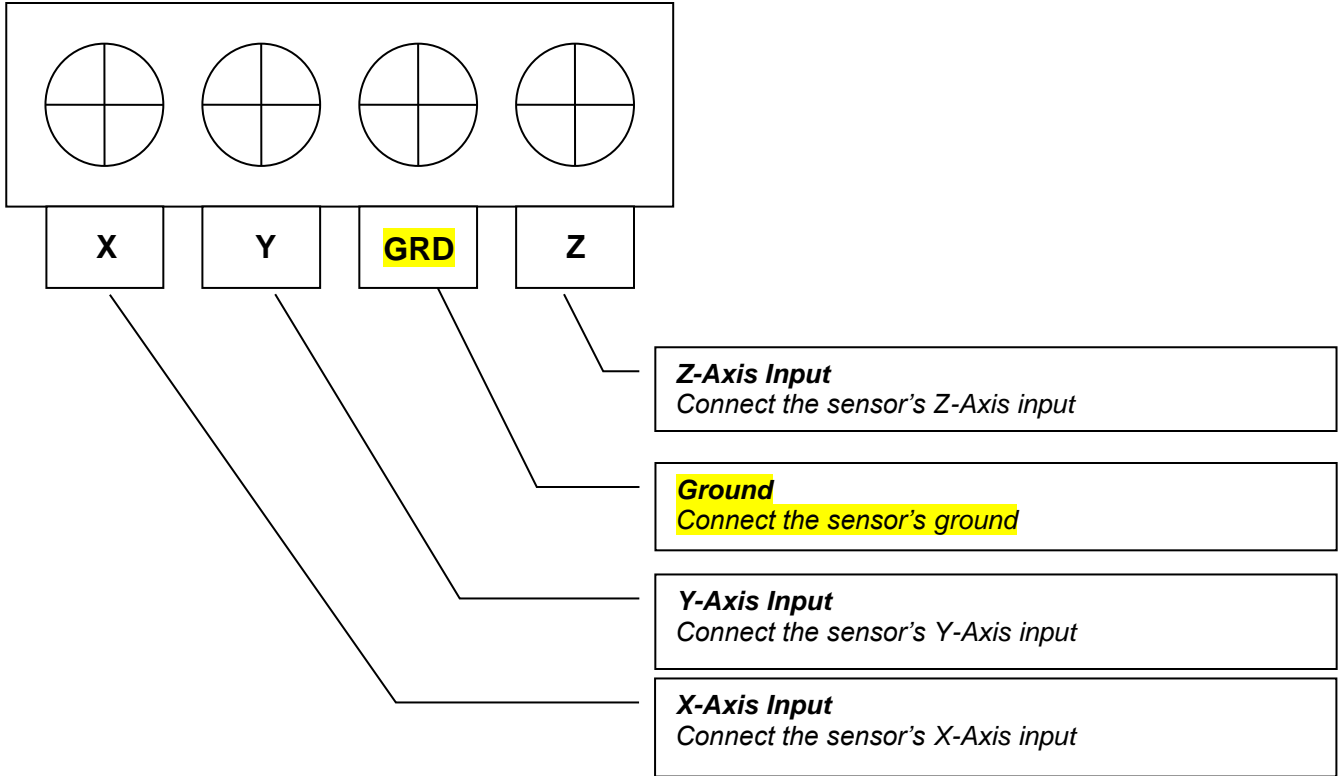
| | |
|--|--|
| <i>Tri-Ax Channels</i> | 12 |
| <i>Single Channels</i> | 36 |
| <i>Input Connectors</i> | 4-Socket Terminal Strip |
| <i>Output Connector: Tri-axial</i> | 4-Pin Bayonet |
| <i>Enclosure Type</i> | NEMA 4X (IP67) |
| <i>Size</i> | 8.50 x 6.93 x 3.46 in [216.0 x 176.0 x 87.9 mm] |

Installation

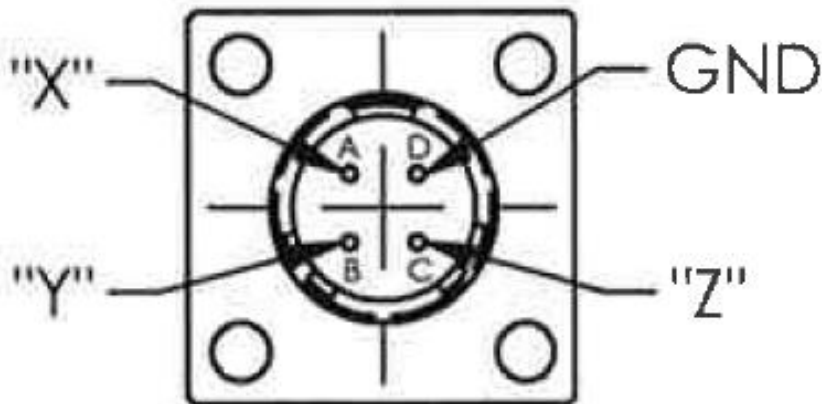
Establish an easily accessible location for installation and keep in mind that the cabling will be coming from the bottom panel of the enclosure. Use the supplied mounting feet to install the enclosure.

NOTE: *Be very careful when drilling the enclosure as to not damage the internal metal, terminal strips and printed circuit boards.*

Terminal strip wiring



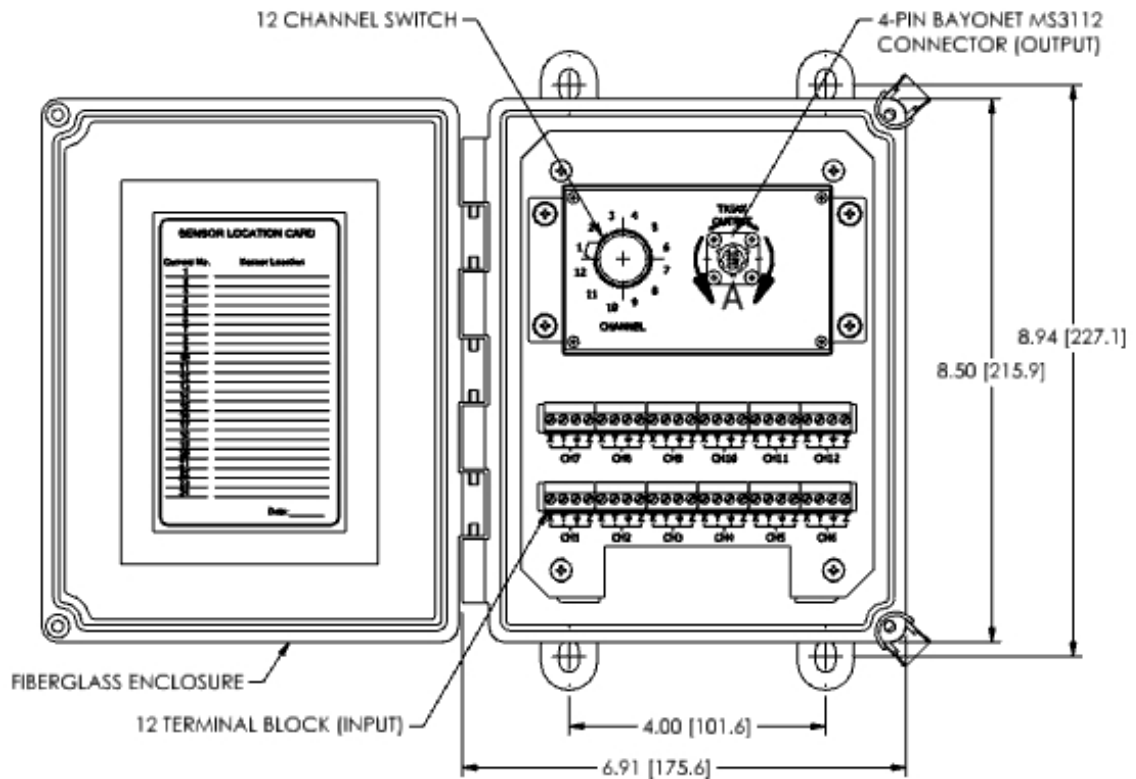
4-Pin Bayonet Wiring



Grounding

The enclosure itself cannot be grounded. To ground the sensor cables, the cable shields should be tied together and tied to an earth ground outside of the enclosure.

Figure 1 – 36 Channel (12 Tri-Ax) Switch Box



Calibration

The 691A80 does not need any calibration since it is only a switch box. If there are any questions concerning the products, please contact the factory.

Warning 1 – ESD sensitivity

The power supply/signal conditioner should not be opened by anyone other than qualified service personnel. This product is intended for use by qualified personnel who recognize shock hazards and are familiar with the safety precautions required to avoid injury.

Warning 2 – ESD sensitivity

This equipment is designed with user safety in mind; however, the protection provided by the equipment may be impaired if the equipment is used in a manner not specified by PCB Piezotronics, Inc.

Caution 1 – ESD sensitivity

Cables can kill your equipment. High voltage electrostatic discharge (ESD) can damage electrical devices. Similar to a capacitor, a cable can hold a charge caused by triboelectric transfer, such as that which occurs in the following:

- *Laying on and moving across a rug,*
- *Any movement through air,*
- *The action of rolling out a cable, and/or*
- *Contact with a non-grounded person.*



The PCB solution for product safety:

- *Connect the cables only with the AC power off.*
- *Temporarily “short” the end of the cable before attaching it to any signal input or output.*

Caution 2 – ESD sensitivity

ESD considerations should be made prior to performing any internal adjustments on the equipment. Any piece of electronic equipment is vulnerable to ESD when opened for adjustments. Internal adjustments should therefore be done ONLY at an ESD-safe work area. Many products have ESD protection, but the level of protection may be exceeded by extremely high voltage.

Warranty

IMI instrumentation is warranted against defective material and workmanship for 1 year unless otherwise expressly specified. Damage to instruments caused by incorrect power or misapplication, is not covered by warranty. *If there are any questions regarding power, intended application, or general usage, please consult with your local sales contact or distributor.* Batteries and other expendable hardware items are not covered by warranty.

Service

Because of the sophisticated nature of IMI instrumentation, field repair is typically **NOT** recommended and may void any warranty. If factory service is required, return the instrumentation according to the "Return Procedure" stated below. *A repair and/or replacement quotation will be provided prior to servicing at no charge.* Before returning the unit, please consult a factory IMI applications engineer concerning the situation as certain problems can often be corrected with simple on-site procedures.

Return procedure

To expedite returned instrumentation, contact a factory IMI applications engineer for a RETURN MATERIAL AUTHORIZATION (RMA) NUMBER. Please have information available such as model and serial number. Also, to insure efficient service, *provide a written description of the symptoms and problems with the equipment to a local sales representative or distributor, or contact IMI if none are located in your area.*

Customers outside the U.S. should consult their local IMI distributor for information on returning equipment. For exceptions, please contact the International Sales department at IMI to request shipping instructions and an RMA. For assistance, please call (716) 684-0003, or fax us at (716) 684-3823. You may also receive assistance via e-mail at imi@pcb.com or visit our web site at www.pcb.com.

Customer service


IMI, a division of PCB Piezotronics, guarantees **Total Customer Satisfaction**. If, at any time, for any reason, you are not completely satisfied with any IMI product, IMI will repair, replace, or exchange it at no charge. You may also choose, within the warranty period, to have your purchase price refunded.

IMI offers to all customers, at no charge, 24-hour phone support. This service makes product or application support available to our customers, day or night, seven days a week. When unforeseen problems or emergency situations arise, call the **IMI Hot Line at (716) 684-0003**, and an application specialist will assist you.



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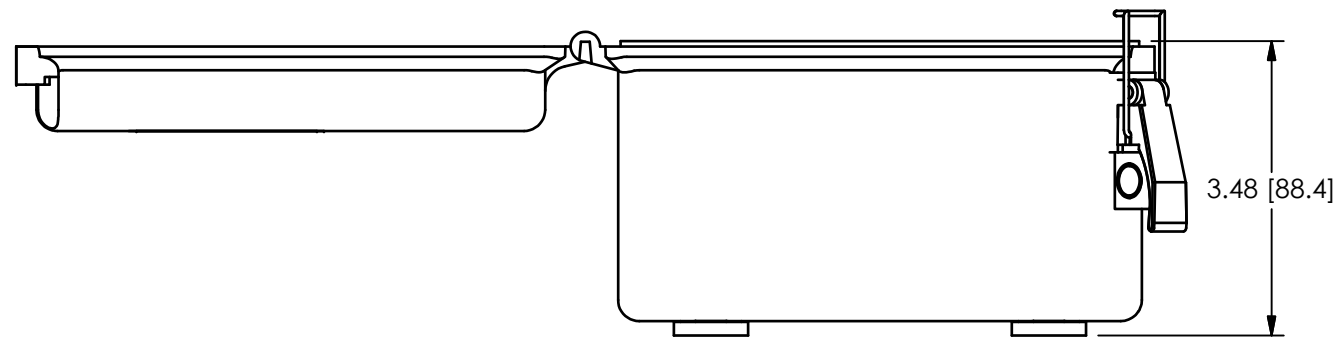
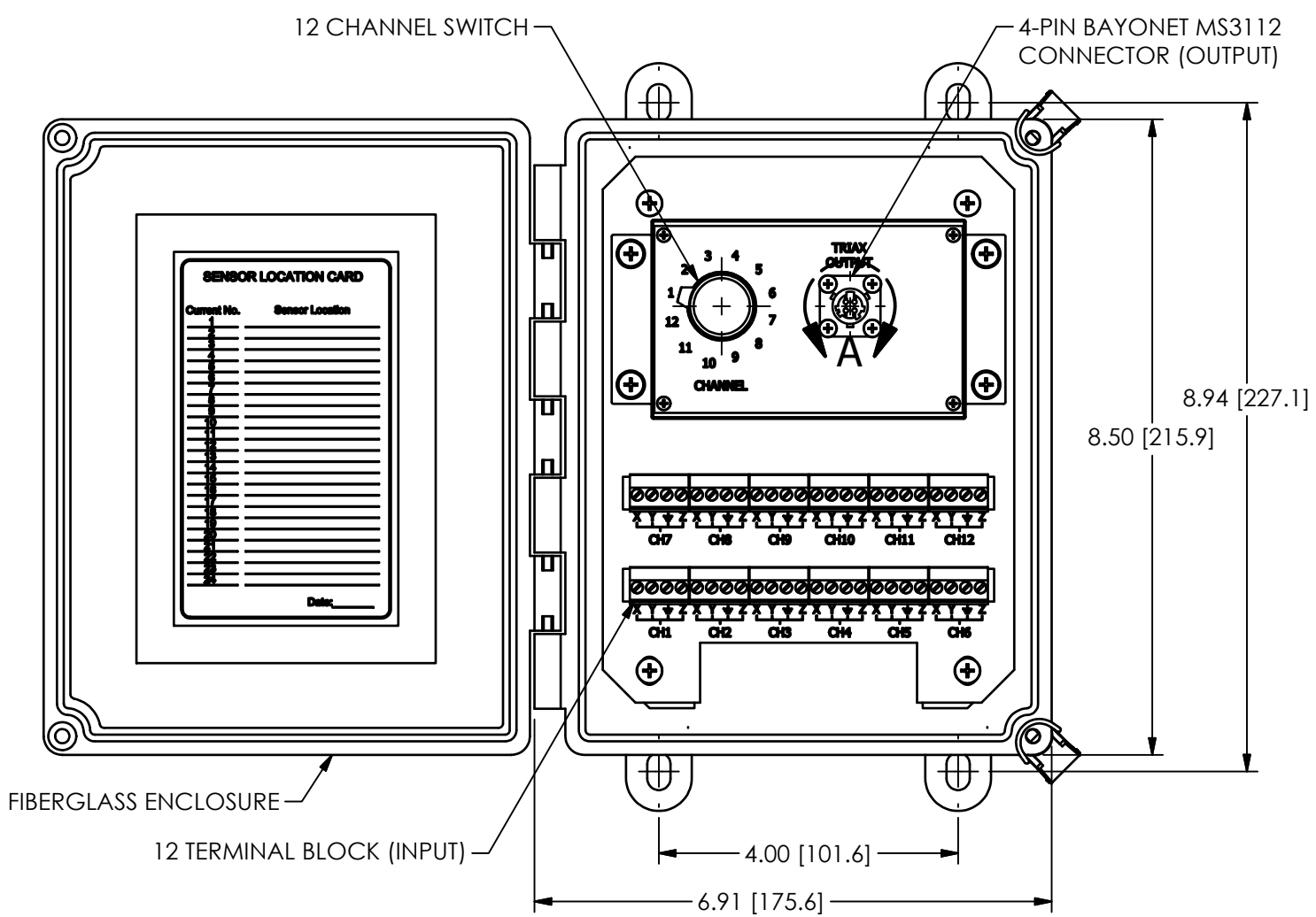
**ICP® is a registered trademark of PCB Piezotronics, Incorporated,
which uniquely identifies PCB sensors that incorporate built-in microelectronics.**

| | | | | |
|---|---|---|--|-----------------|
| Model Number 691A80 | <h1>36 CHANNEL (12 TRI-AX) SWITCH BOX</h1> | | Revision: A ECN #: 43264 | |
| Performance Channels(Tri-Ax) Channels(Single) Environmental Enclosure Rating Physical Electrical Connector(Output, Triaxial) Electrical Connector(Input) Housing Material Size (Height x Width x Depth) Weight <i>All specifications are at room temperature unless otherwise specified. In the interest of constant product improvement, we reserve the right to change specifications without notice. ICP® is a registered trademark of PCB Group, Inc.</i> | <u>ENGLISH</u> 12 36 Nema 4X 4-Pin Bayonet Terminal Block Fiberglass 8.50 in x 6.91 in x 3.48 in 5 lb | <u>SI</u> 12 36 IP66 4-Pin Bayonet Terminal Block Fiberglass 215.9 mm x 175.6 mm x 88.4 mm 2.3 kg | OPTIONAL VERSIONS Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used. | |
| | | | SUPPLIED ACCESSORIES: Model 080A192 4-socket terminal block (1) | |
| | | | Entered: AP | Engineer: gs |
| | | | Sales: EGY | Approved: BAM |
| | | | Date: 8/18/2014 | Date: 8/18/2014 |
| | | | Date: 8/18/2014 | Date: 8/18/2014 |
| | | | 59495 | |
| | | |  Phone: 800-959-4464 Fax: 716-684-3823 E-Mail: imi@pcb.com | |

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| REVISIONS | | |
|-----------|----------------------|-------|
| REV | DESCRIPTION | DIN |
| NR | RELEASED TO DRAFTING | 43192 |



| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: | | DRAWN | | CHECKED | | ENGINEER | | PCB PIEZOTRONICS™ | |
|--|---|---|---------|-------------------|---------|--------------------------|---------|--|--|
| DIMENSIONS IN INCHES | DIMENSIONS IN MILLIMETERS [IN BRACKETS] | JDM | 7/31/14 | ECB | 7/31/14 | GG5 | 7/31/14 | 3425 WALDEN AVE. DEPEW, NY 14043 (716) 684-0001 E-MAIL: sales@pcb.com | |
| DECIMALS XX ±0.03 XXX ±0.10 | DECIMALS X ±0.8 XX ±0.25 | TITLE OUTLINE DRAWING MODEL 691A80 VIBRATION INTERFACE ENCLOSURE | | | | | | | |
| ANGLES ± 2 DEGREES | ANGLES ± 2 DEGREES | | | | | | | | |
| FILLETS AND RADII .003 - .005 | FILLETS AND RADII 0.07 - 0.13 | CODE IDENT. NO. 52681 | | DWG. NO. 59496 | | SCALE: .44X SHEET 1 OF 1 | | | |

jmorawski 16:34 7/31/2014