

# ***Sub-Assembly Installation Instructions***

***for Models:***

***ACM4***

***ACM4CB***

***ACM8***

***ACM8CB***

***MOM5***

***PD4UL***

***PD4ULCB***

***PD8UL***

***PD8ULCB***

***PD16W***

***PD16WCB***

**SECURITY SECURITY SIGNALING**



**LISTED**



**LISTED**



**LISTED**

Rev. MS050913



**Altronix<sup>®</sup>**

**More than just power.™**

## Installation Instructions for Maximal:

1. Fasten standoffs onto metal pems A configuration or B configuration of enclosure depending on the sub assembly module (*Fig. 1, pg. 2*). ACM8 or ACM8CB modules can only be installed in the middle or bottom mounting positions of the Maximal enclosure.
2. Position sub assembly module over corresponding standoffs and secure module into enclosure with four (4) pan head screws supplied (*Fig. 1a, pg. 2*).
3. Refer to the Installation Instructions for *Maximal Access Power Controller* (Maximal3, Maximal5, Maximal7, Maximal3D, Maximal5D, Maximal7D, Maximal3F, Maximal5F, Maximal7F, Maximal3FD, Maximal5FD, Maximal7FD, Maximal11, Maximal33, Maximal55, Maximal75, Maximal77, Maximal11D, Maximal33D, Maximal55D, Maximal75D, Maximal77D, Maximal11F, Maximal33F, Maximal55F, Maximal75F, Maximal77F, Maximal11FD, Maximal33FD, Maximal55FD, Maximal75FD, Maximal77FD) or the *Maximal Expandable Power Systems* (Maximal11E, Maximal13E, Maximal33E, Maximal35E, Maximal37E, Maximal55E, Maximal75E, Maximal77E, Maximal11FE, Maximal13FE, Maximal33FE, Maximal35FE, Maximal37FE, Maximal55FE, Maximal75FE, Maximal77FE) and *Sub Assembly* (ACM4, ACM4CB, ACM8, ACM8CB, MOM5, PD4UL, PD4ULCB, PD8UL, PD8ULCB, PD16W, PD16WCB) Installation Guides for all other installation instructions.

### Sub Assembly Position Chart for the following models:

*Maximal Access Power Controller and Maximal Expandable Power Systems (refer to instruction #3 above).*

Sub Assembly Module	Mounting Position	Pem Mounting
ACM4, ACM4CB	Top, Middle & Bottom	B
ACM8, ACM8CB	Middle & Bottom	A
MOM5	Top, Middle & Bottom	B
PD4UL, PD4ULCB	Top, Middle & Bottom	B
PD8UL, PD8ULCB	Top, Middle & Bottom	B
PD16W, PD16WCB	Top, Middle & Bottom	B

Fig. 1

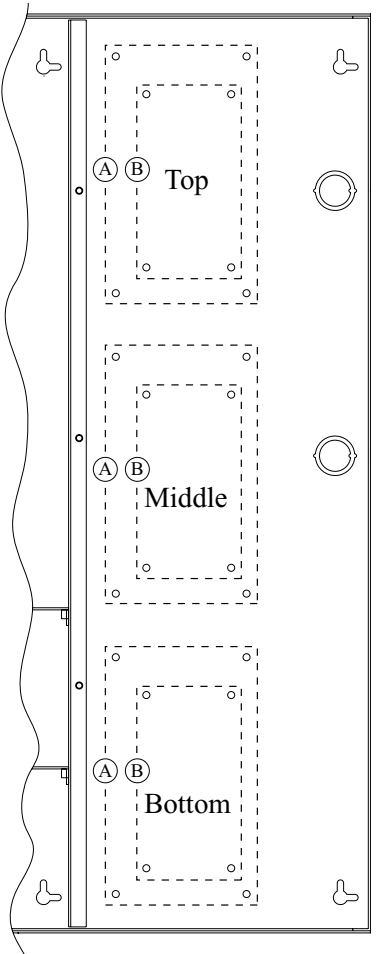
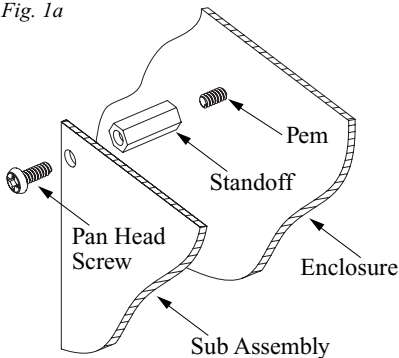


Fig. 1a



## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (Fig. 2a, pg. 3).

Fig. 2

Supervisory Connections  
(power-limited)

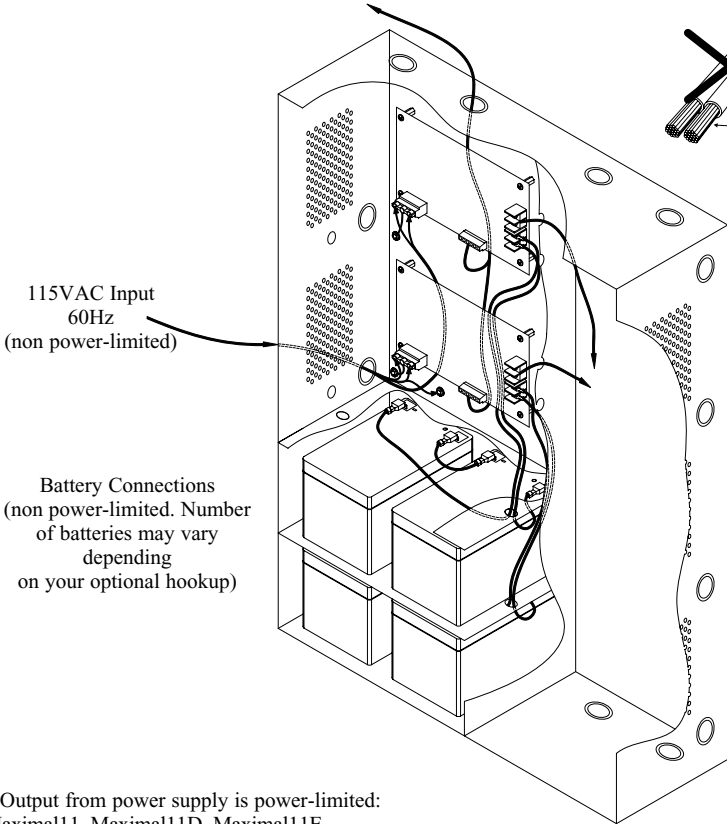
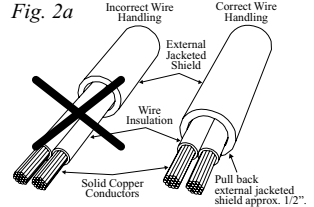


Fig. 2a



\* Output from power supply is power-limited:  
Maximal11, Maximal11D, Maximal11E.

\* Output from top power supply board is non power-limited and bottom power supply board is power-limited: Maximal13E.

Output from power supply is non power-limited: Maximal3, Maximal5, Maximal7, Maximal3D, Maximal5D, Maximal7D, Maximal11, Maximal33, Maximal55, Maximal75, Maximal77, Maximal11D, Maximal33D, Maximal55D, Maximal75D, Maximal77D, Maximal11E, Maximal13E, Maximal33E, Maximal35E, Maximal37E, Maximal55E, Maximal75E, Maximal77E.

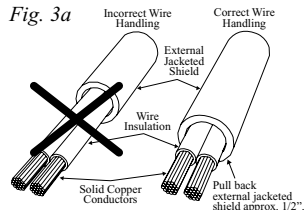
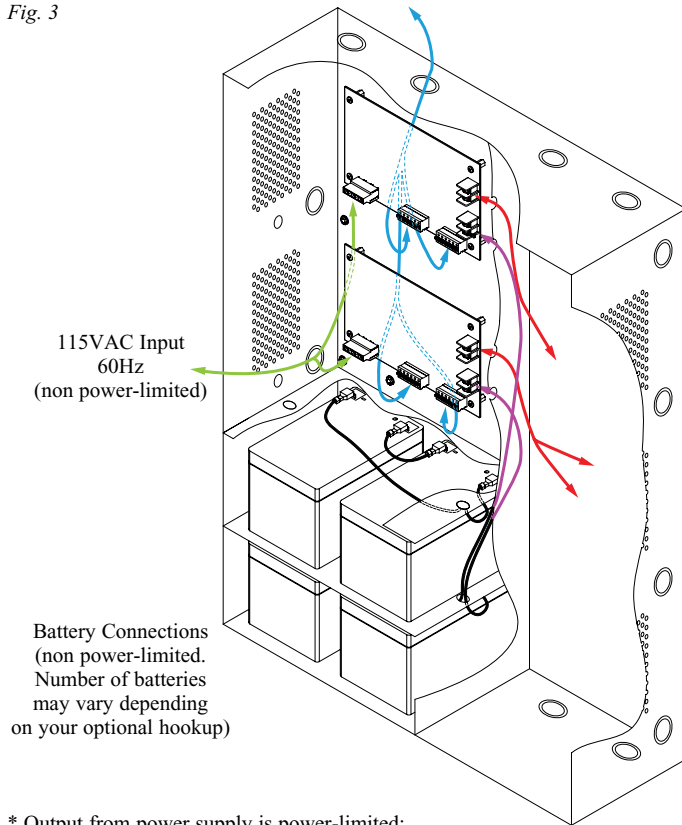
## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (*Fig. 3a, pg. 4*).

Supervisory, Fire Alarm Interface &  
Aux. output Connections (power-limited)

Fig. 3



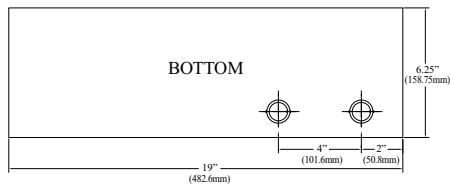
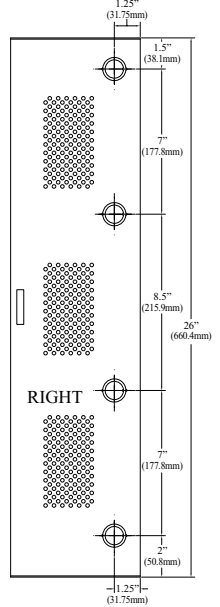
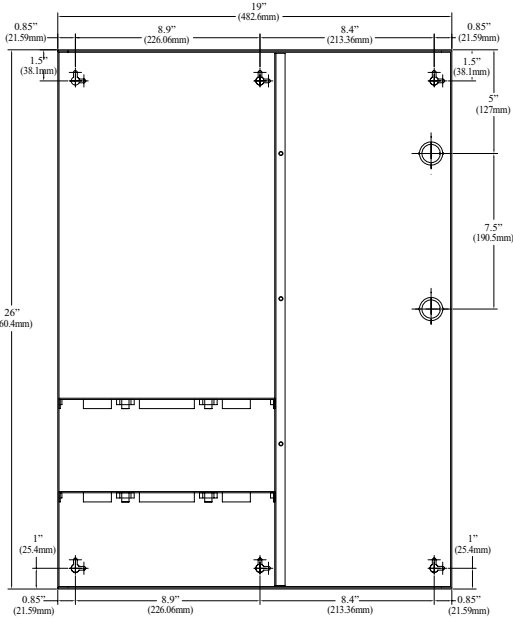
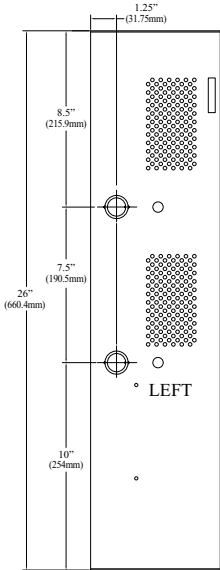
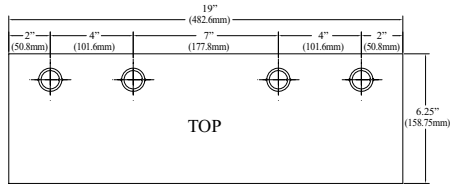
\* Output from power supply is power-limited:  
Maximal11F, Maximal11FD and Maximal11FE.

\* Output from top power supply board is non power-limited and  
bottom power supply board is power-limited: Maximal13FE.

Output from power supply is non power-limited: Maximal3F, Maximal5F, Maximal7F, Maximal3FD,  
Maximal5FD, Maximal7FD, Maximal33F, Maximal55F, Maximal75F, Maximal77F, Maximal33FD,  
Maximal55FD, Maximal75FD, Maximal77FD, Maximal33FE, Maximal35FE, Maximal37FE, Maximal55FE,  
Maximal75FE and Maximal77FE.

**Enclosure Dimensions (H x W x D approximate):**  
 26" x 19" x 6.25" (660.4mm x 482.6mm x 158.75mm)

Wiring Output to Devices  
 (power-limited or  
 non power-limited  
 depending on  
 Sub Assembly).



Enclosure for models:

Maximal3, Maximal5, Maximal7, Maximal3D, Maximal5D, Maximal7D, Maximal3F, Maximal5F, Maximal7F, Maximal3FD, Maximal5FD, Maximal7FD, Maximal11, Maximal33, Maximal55, Maximal75, Maximal77, Maximal11D, Maximal33D, Maximal55D, Maximal75D, Maximal77D, Maximal11E, Maximal13E, Maximal33E, Maximal35E, Maximal37E, Maximal55E, Maximal75E, Maximal77E, Maximal11F, Maximal33F, Maximal55F, Maximal75F, Maximal77F, Maximal11FD, Maximal33FD, Maximal55FD, Maximal75FD, Maximal77FD, Maximal11FE, Maximal13FE, Maximal33FE, Maximal35FE, Maximal37FE, Maximal55FE, Maximal75FE and Maximal77FE.

## **Installation Instructions for Power Supply/Chargers:**

1. Fasten standoffs onto metal pems A configuration of enclosure (Fig. 4, pg. 6).
2. Position sub assembly module over standoffs and secure module into enclosure with four (4) pan head screws supplied (Fig. 4a, pg. 6).
3. Refer to the corresponding Power Supply/Charger Installation Instructions (AL300ULX, AL300ULXR, AL400ULX, AL400ULXR, AL600ULX, AL600ULXR, eFlow3N, eFlow4N, eFlow6N, eFlow102N, eFlow104N) and *Sub Assembly* (ACM4, ACM4CB, MOM5, PD4UL, PD4ULCB, PD8UL, PD8ULCB, PD16W, PD16WCB) Installation Guides for all other installation instructions.

### **Sub Assembly Position Chart for the following models:**

AL300ULX, AL300ULXR, AL400ULX, AL400ULXR, AL600ULX, AL600ULXR, eFlow3N, eFlow4N, eFlow6N, eFlow102N, eFlow104N.

<b>Sub Assembly Module</b>	<b>Mounting Position</b>
ACM4, ACM4CB	Right of Power Supply
ACM8, ACM8CB	Not Applicable
MOM5	Right of Power Supply
PD4UL, PD4ULCB	Right of Power Supply
PD8UL, PD8ULCB	Right of Power Supply
PD16W, PD16WCB	Right of Power Supply

Fig. 4

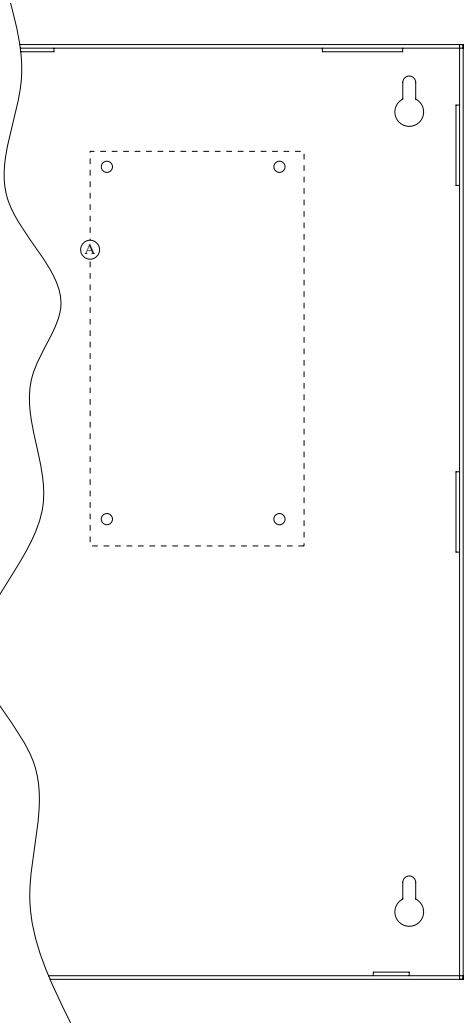
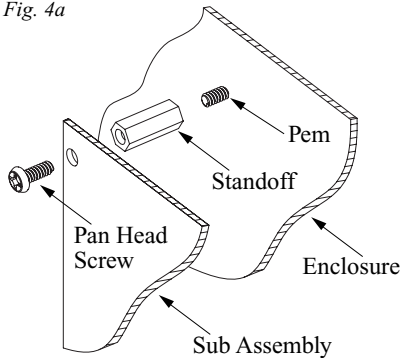


Fig. 4a

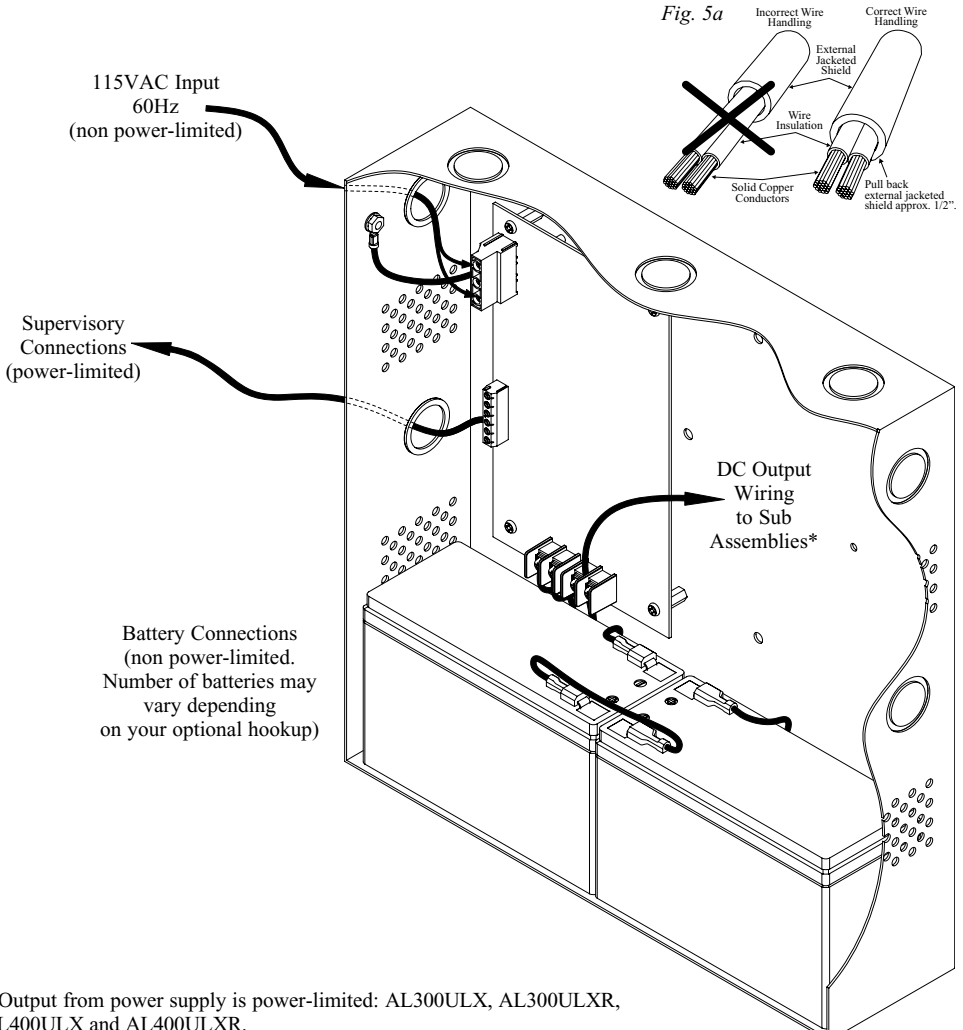


## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire, (Fig. 5a, pg. 7).

Fig. 5 - AL300ULX, AL300ULXR, AL400ULX, AL400ULXR

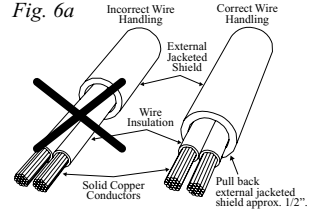
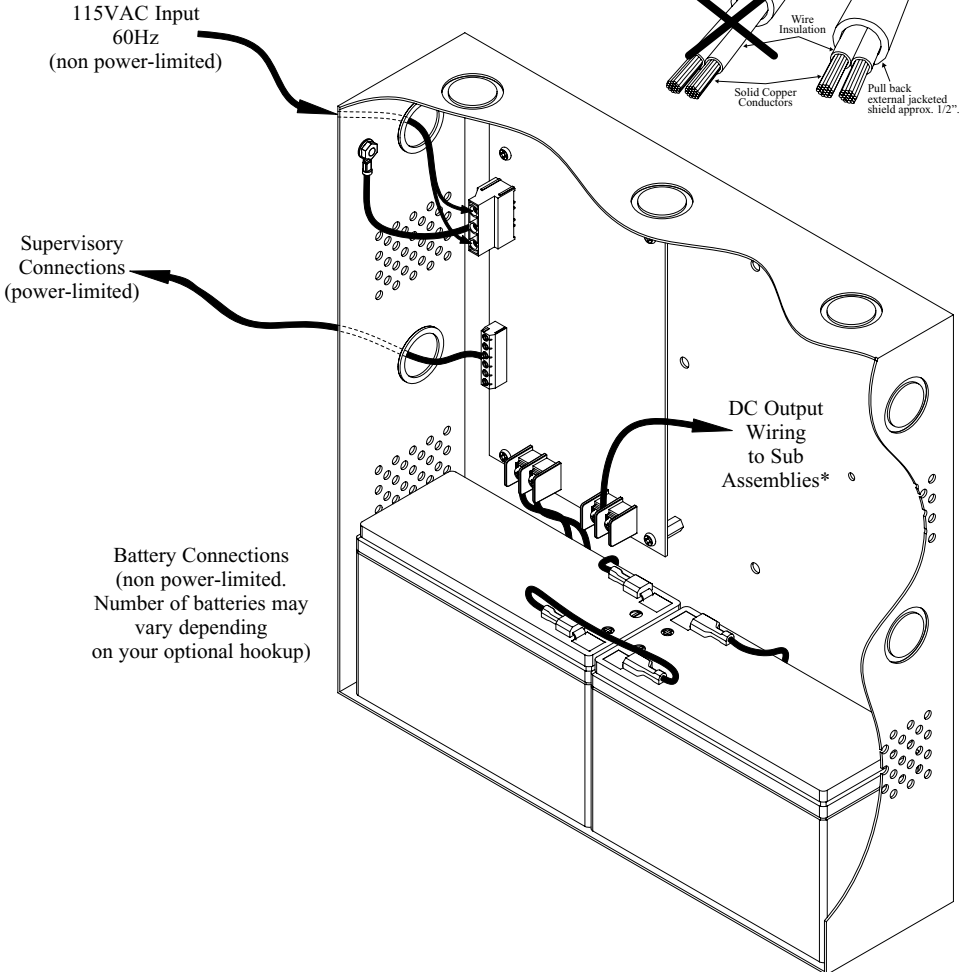


## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire, (Fig. 6a, pg. 8).

Fig. 6 - AL600ULX, AL600ULXR



\* Output from power supply is non power-limited: AL600ULX and AL600ULXR.

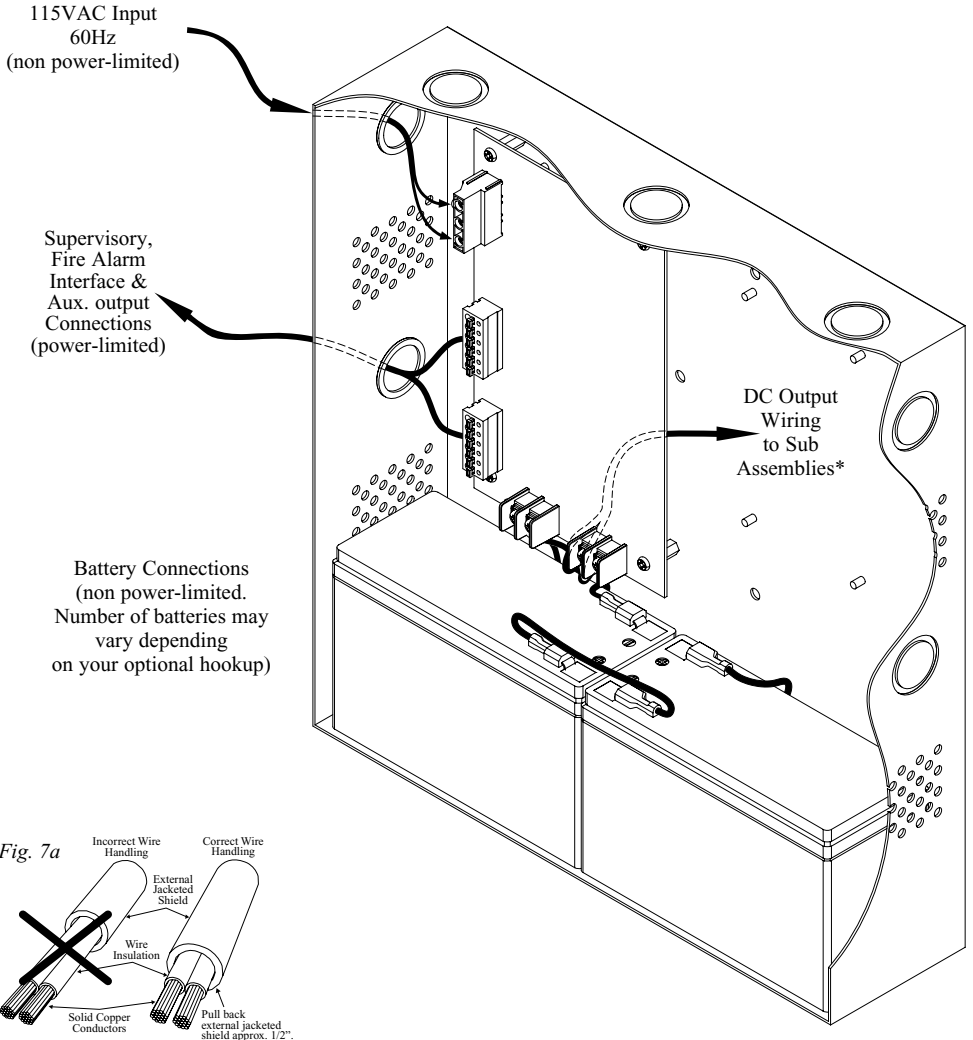


## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire, (Fig. 7a, pg. 9).

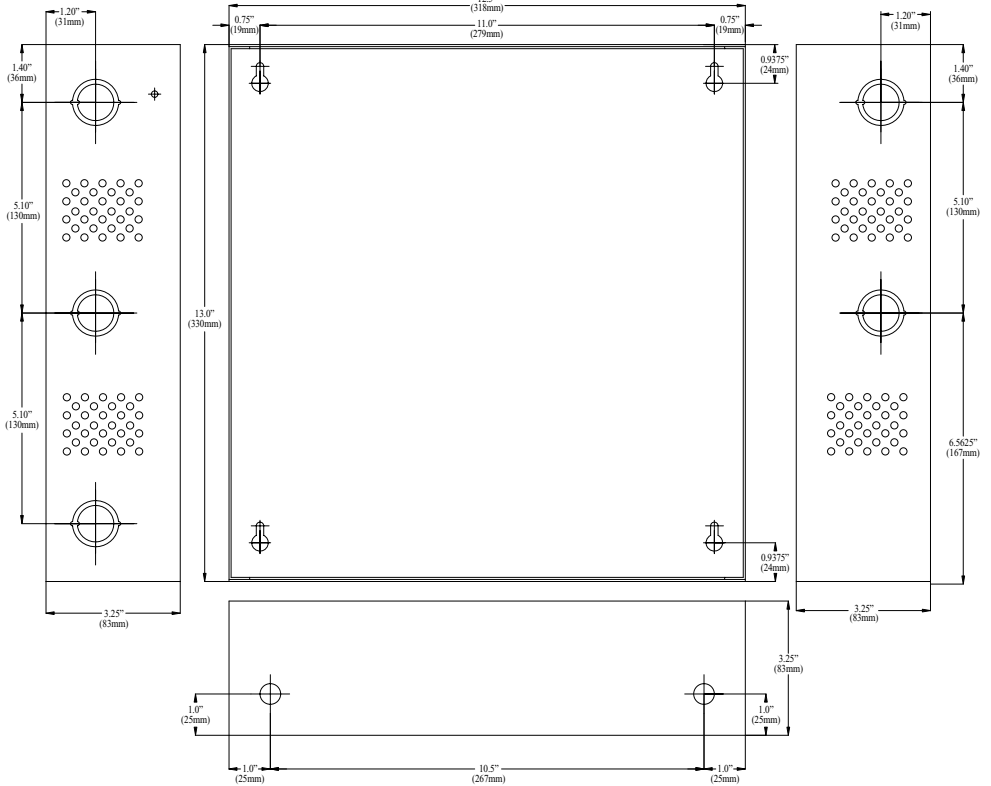
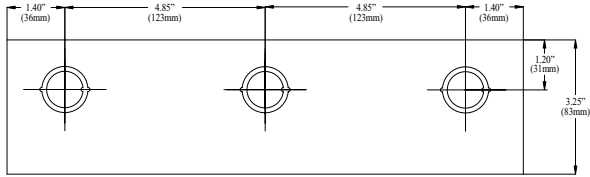
Fig. 7 - eFlow3N, eFlow4N, eFlow6N, eFlow102N and eFlow104N.



## **Enclosure Dimensions (H x W x D approximate):**

13.5" x 13" x 3.25" (342.9mm x 330.2mm x 82.55mm)

Wiring Output to  
Devices  
(power-limited or  
non power-limited  
depending on  
Sub Assembly).



Enclosure for models: AL300ULX, AL300ULXR, AL400ULX, AL400ULXR, AL600ULX, AL600ULXR, eFlow3N, eFlow4N, eFlow6N, eFlow102N, eFlow104N.

### Installation Instructions for Power Supply/Chargers:

1. Fasten standoffs onto metal pems A configuration of enclosure (*Fig. 8, pg. 11*).
2. Position sub assembly module over standoffs and secure module into enclosure with four (4) pan head screws supplied (*Fig. 8a, pg. 11*).
3. Refer to the corresponding Power Supply/Charger Installation Instructions (AL300ULXD, AL600ULXD, AL1012ULX, AL1024ULX, AL1024ULXR, eFlow3NX, eFlow4NX, eFlow6NX, eFlow102NX and eFlow104NX) and *Sub Assembly* (ACM4, ACM4CB, ACM8, ACM8CB, MOM5, PD4UL, PD4ULCB, PD8UL, PD8ULCB, PD16W, PD16WCB) Installation Guides for all other installation instructions.

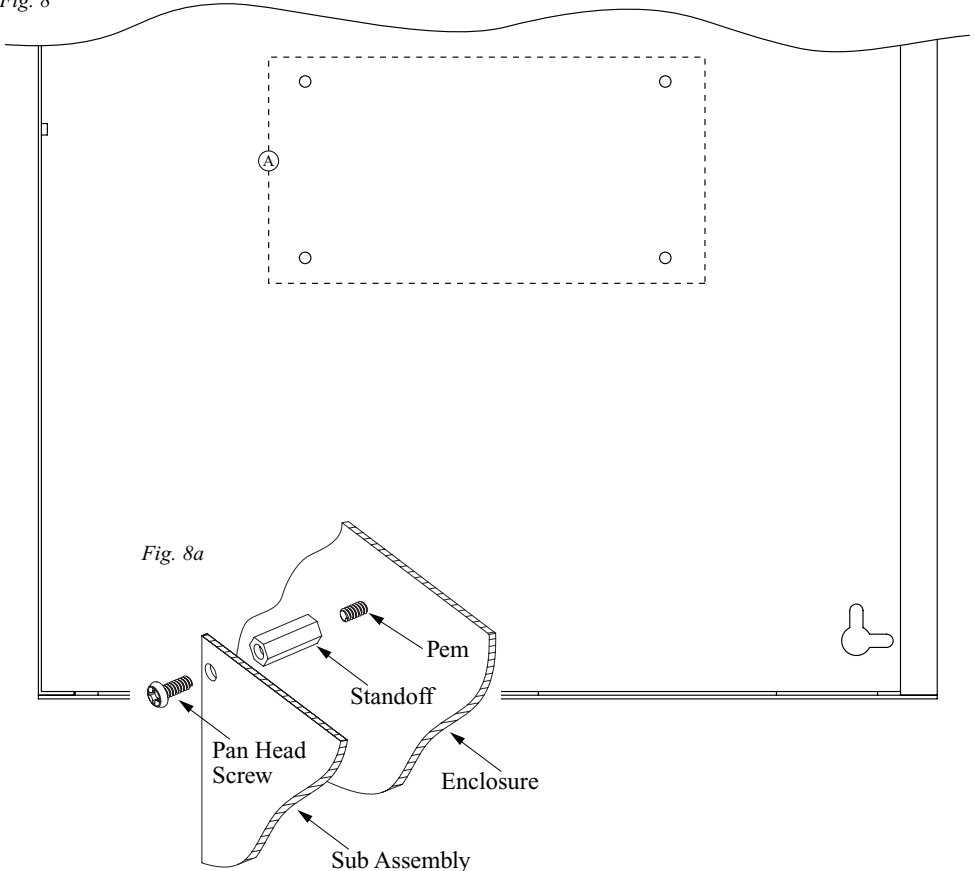
### Sub Assembly Position Chart for the Following Models:

AL300ULXD, AL600ULXD, AL1012ULX, AL1024ULX, AL1024ULXR, eFlow3NX, eFlow4NX, eFlow6NX, eFlow102NX and eFlow104NX.

Sub Assembly Module	Mounting Position
ACM4, ACM4CB	Below Power Supply
ACM8, ACM8CB	Below Power Supply
MOM5	Below Power Supply

Sub Assembly Module	Mounting Position
PD4UL, PD4ULCB	Below Power Supply
PD8UL, PD8ULCB	Below Power Supply
PD16W, PD16WCB	Below Power Supply

Fig. 8

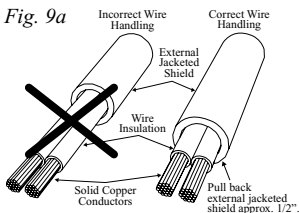
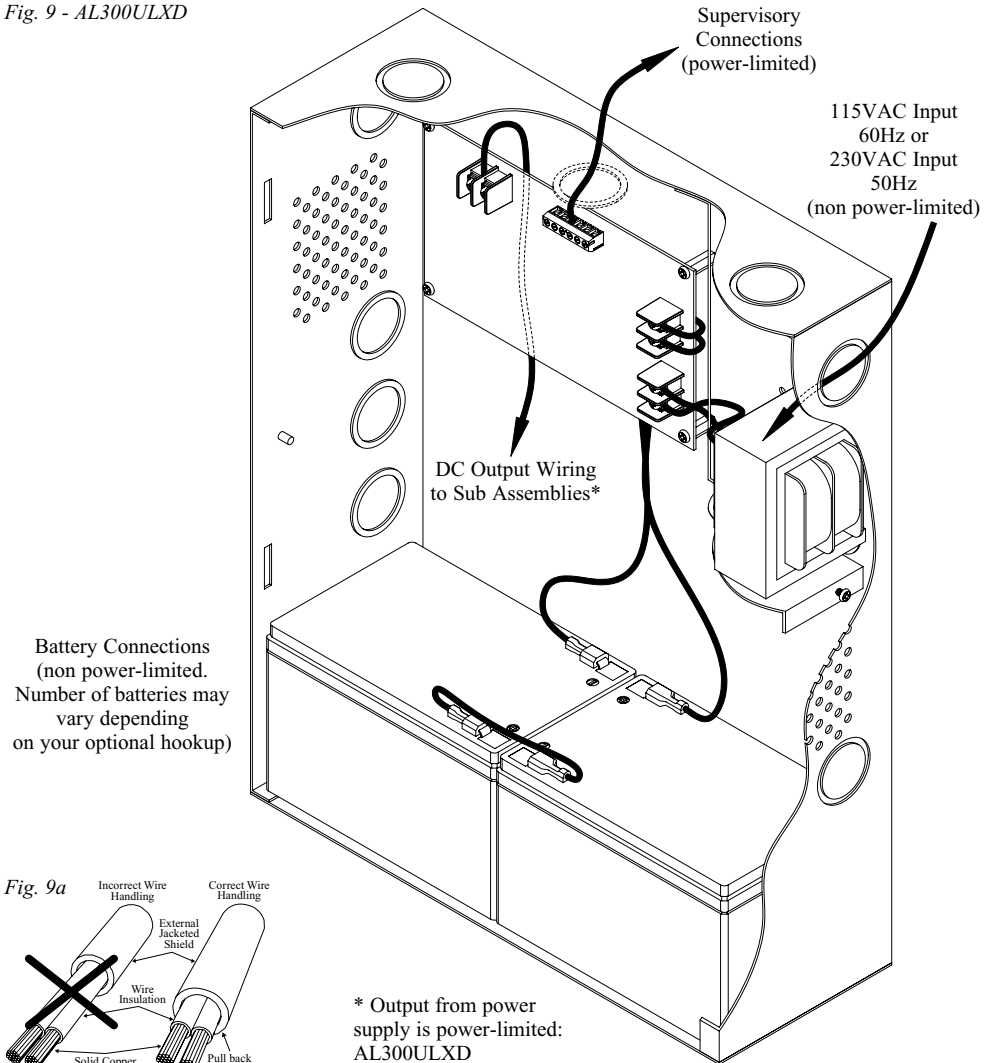


## **NEC Power-Limited Wiring Requirements:**

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications, use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (Fig. 9a, pg. 12).

Fig. 9 - AL300ULXD



\* Output from power supply is power-limited:  
AL300ULXD

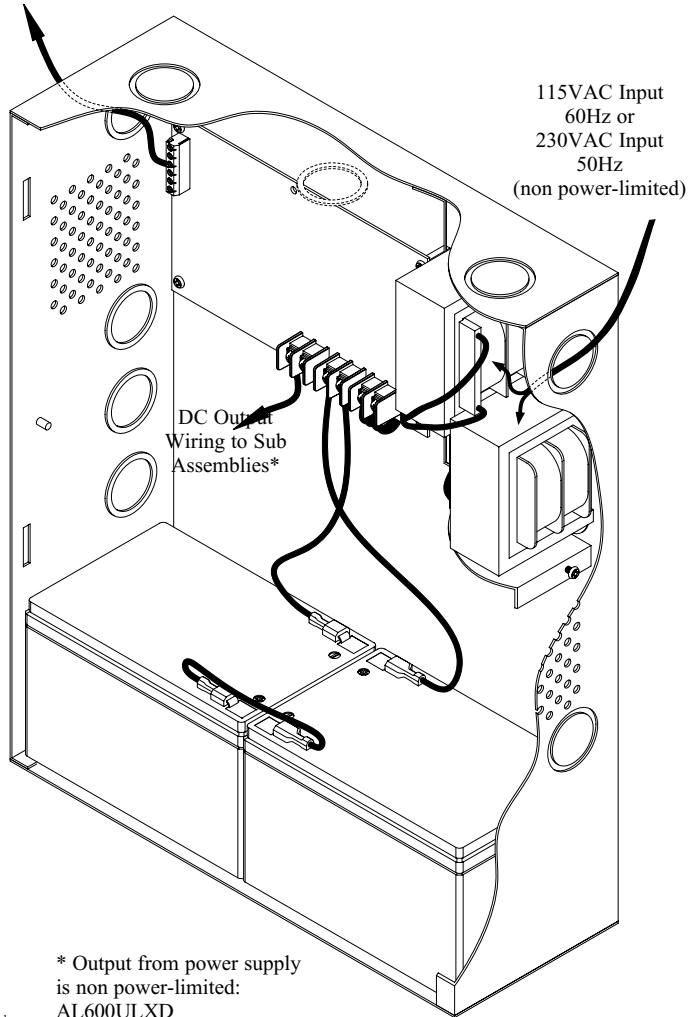
## **NEC Power-Limited Wiring Requirements:**

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications, use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (Fig. 10a, pg. 13).

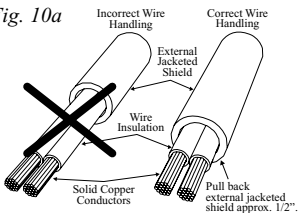
Fig. 10 - AL600ULXD

Supervisory Connections  
(power-limited)



Battery Connections  
(non power-limited.  
Number of batteries may  
vary depending  
on your optional hookup)

Fig. 10a



\* Output from power supply  
is non power-limited:  
AL600ULXD

## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications, use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire, (Fig. 11a, pg. 14).

Fig. 11 - AL1012ULX

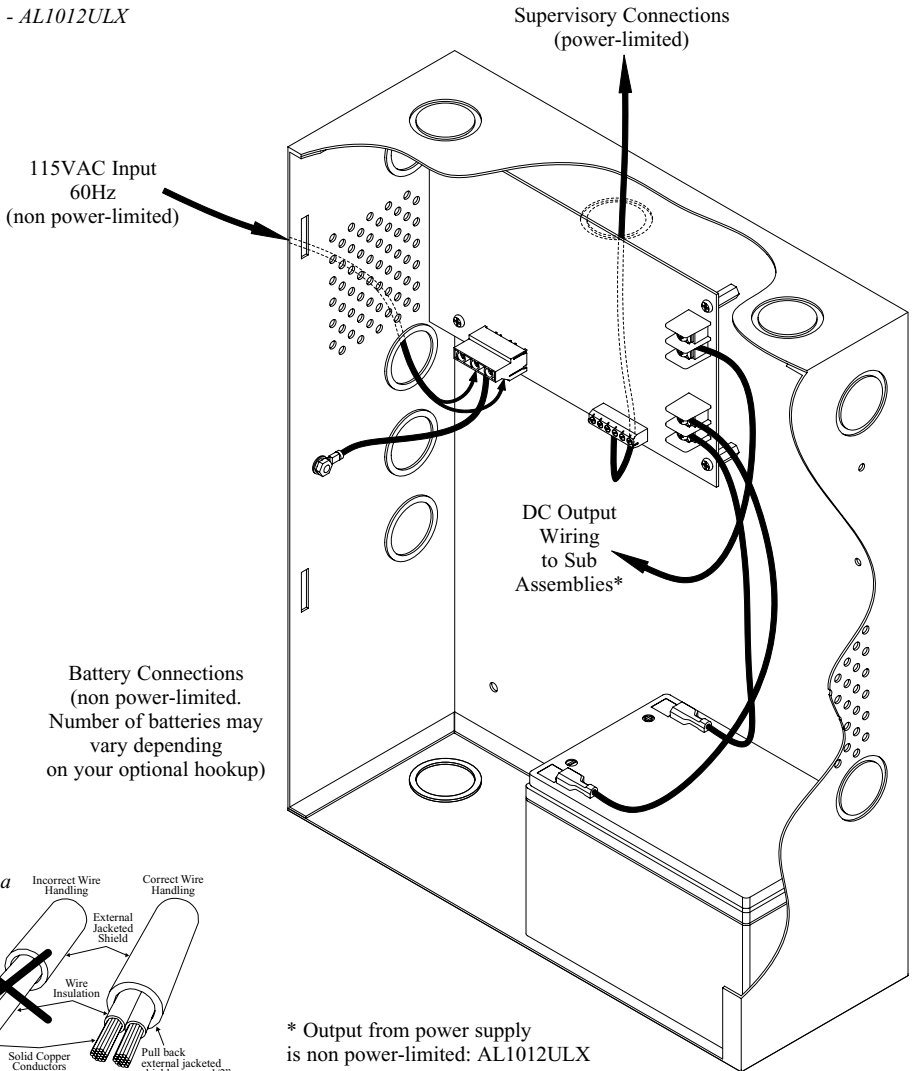
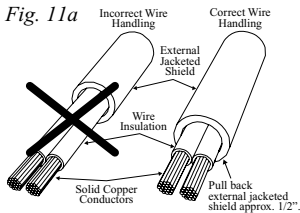


Fig. 11a



\* Output from power supply is non power-limited: AL1012ULX

## NEC Power-Limited Wiring Requirements:

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (Fig. 12a, pg. 15).

Fig. 12 - AL1024ULX, AL1024ULXR

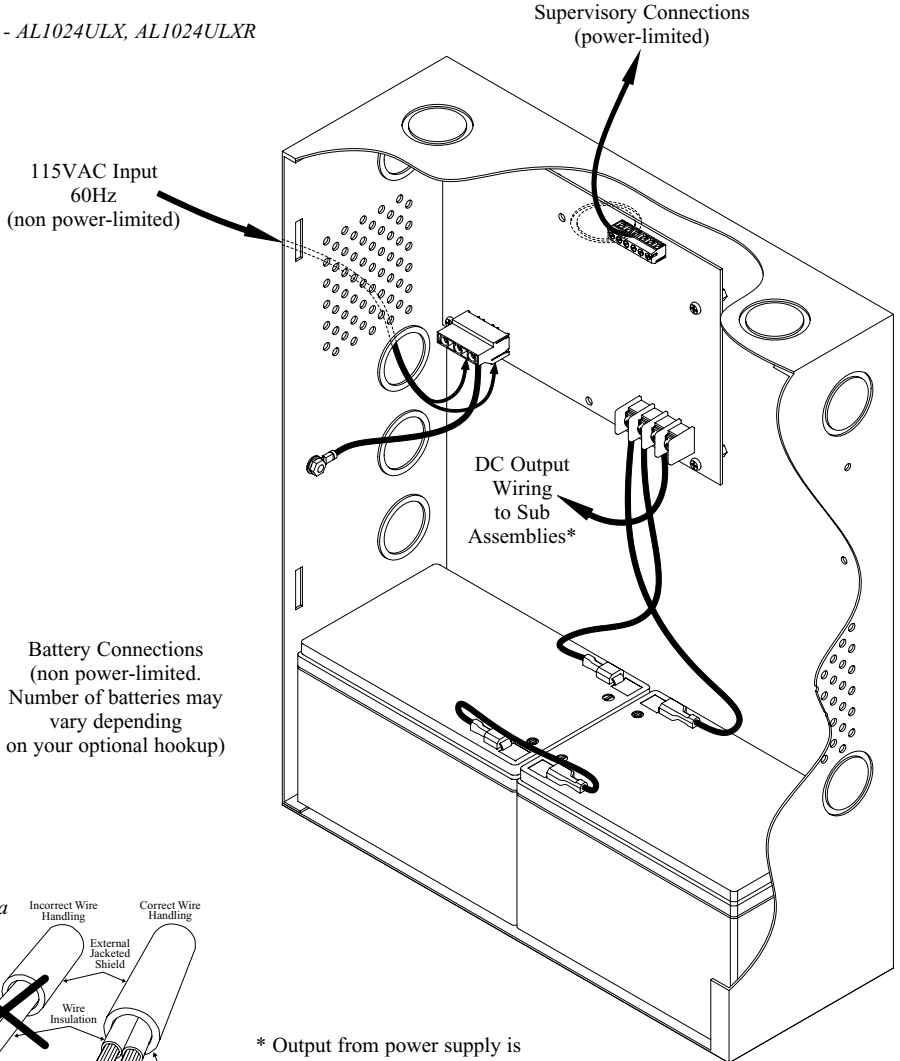
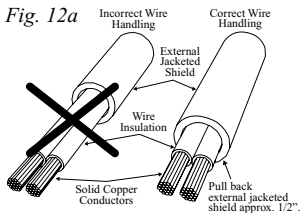


Fig. 12a



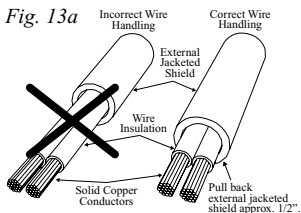
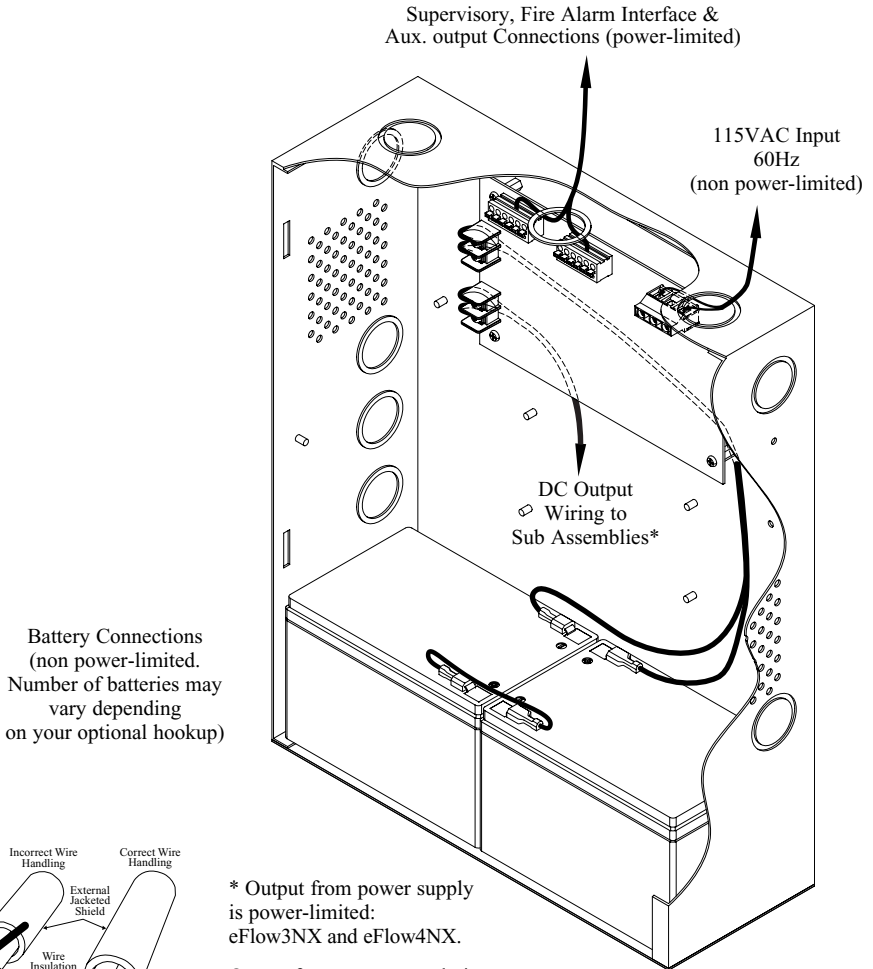
\* Output from power supply is non power-limited:  
AL1024ULX and AL1024ULXR

## **NEC Power-Limited Wiring Requirements:**

Power-limited and non power-limited circuit wiring must remain separated in the enclosure. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited circuit wiring. Furthermore, all power-limited circuit wiring and non power-limited circuit wiring must enter and exit the enclosure through different conduits. One such example of this is shown below. Your specific application may require different conduit knockouts to be used. Any conduit knockouts may be used. For power-limited applications, use of conduit is optional. All field wiring connections must be made employing suitable gauge CM or FPL jacketed wire (or equivalent substitute).

**Note:** Refer to wire handling drawing below for the proper way to install the CM or FPL jacketed wire (Fig. 13a, pg. 16).

Fig. 13 - eFlow3NX, eFlow4NX, eFlow6NX, eFlow102NX and eFlow104NX.



\* Output from power supply is power-limited: eFlow3NX and eFlow4NX.

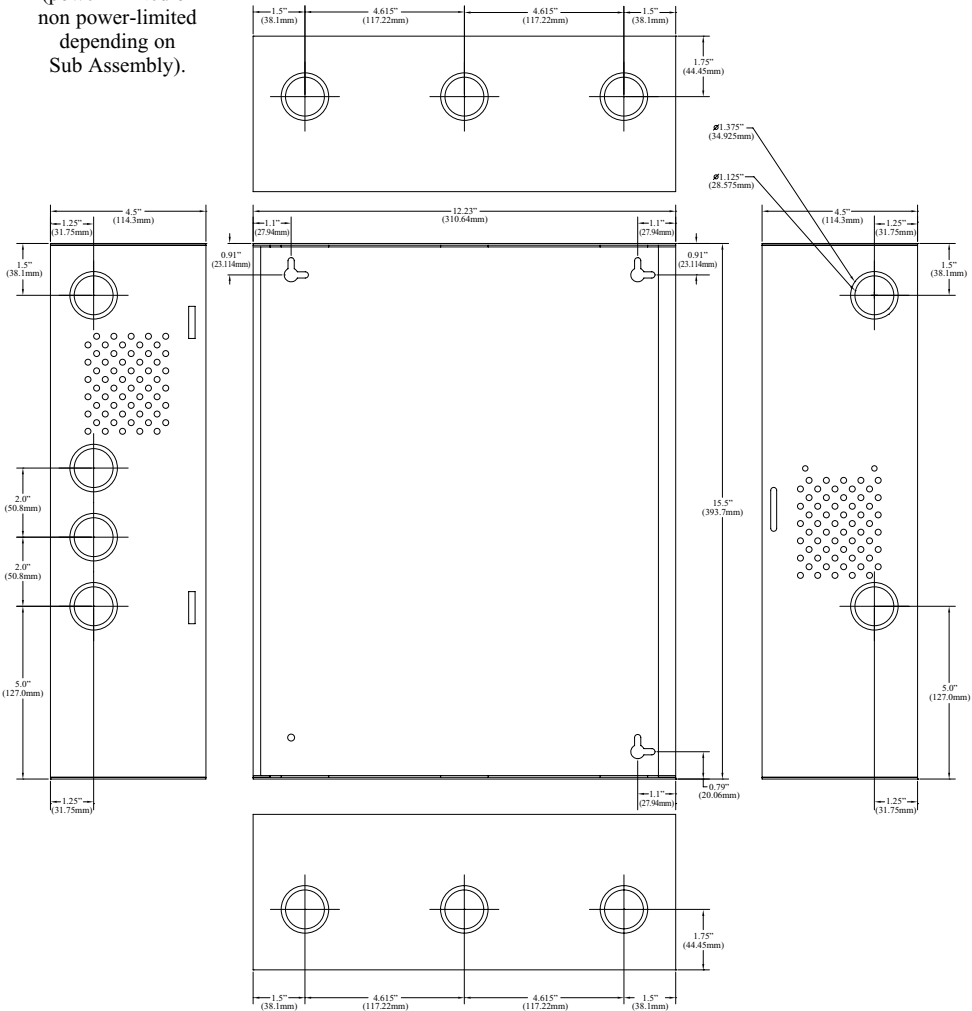
Output from power supply is non power-limited: eFlow6NX, eFlow102NX and eFlow104NX.



## **Enclosure Dimensions (H x W x D) (approximate):**

15.5"x 12.23"x 4.5" (393.7mm x 304.8mm x 114.3mm)

Wiring Output to Devices  
(power-limited or  
non power-limited  
depending on  
Sub Assembly).



Enclosure for models: AL300ULXD, AL600ULXD, AL1012ULX, AL1024ULX, AL1024ULXR, eFlow3NX, eFlow4NX, eFlow6NX, eFlow102NX, eFlow104NX.

**Notes:**

**Notes:**

## **Notes:**

Altronix is not responsible for any typographical errors.

140 58th Street, Brooklyn, New York 11220 USA, 718-567-8181, fax: 718-567-9056  
web site: [www.altronix.com](http://www.altronix.com), e-mail: [info@altronix.com](mailto:info@altronix.com), Lifetime Warranty, Made in U.S.A.  
IISubAssembly K17N

