



Channel – *Front illumination*

A letter shape or artform fabricated from plastic, metal, or other material recognized as suitable as an enclosure; depending on the face, to be used exposed, as a sign body or as an enclosure.



The installations in this section are either remote wired (transformer located behind installation surface), or direct wired (transformer located within letter).



CHANNEL LETTERS

Remote or Direct Wired

CHANNEL LETTER

Remote or Direct Wired

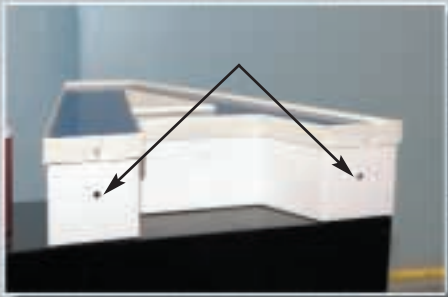
General Requirements



Letter must be caulked front and back



Through Wall / Building Seal



Sufficient drain holes



Transformers & High Volt Boxes – Damp or Dry



Bonding with wire – front (ground)

Bonding plastic conduit (N.E.C.)



Transformers & High Volt Boxes – Behind Wall Exposed



Building seal non-metallic (Gemini) letter



Transformer In Enclosure



Bonding methods for non-metallic (Gemini) channel letter
2 options shown, either one sufficient



Disconnect Switch

CHANNEL LETTER

REMOTE WIRED (Option 1)

No Face, Exposed Neon

LETTER



Channel

WIRING



Remote

FACE TYPE



Exposed/Open

LOCATION



Wet

Special Installation Instructions

- Sign Location Is Wet
- Connections Inside Channel Letter (Exposed) Must Be Listed As A "System" For Wet Locations
- Protected Connections On The Opposite Side Of The Wall Are Damp/Dry Rated

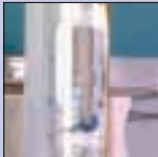


Wet Connections

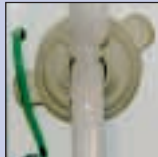
Wet Location — Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box (Masters shown)



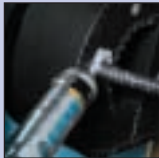
Boot & Sleeve (Masters-Watertite system shown)



Housing cap



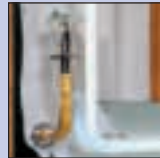
G cup with CPA (Absko shown)



Letter caulked front and back



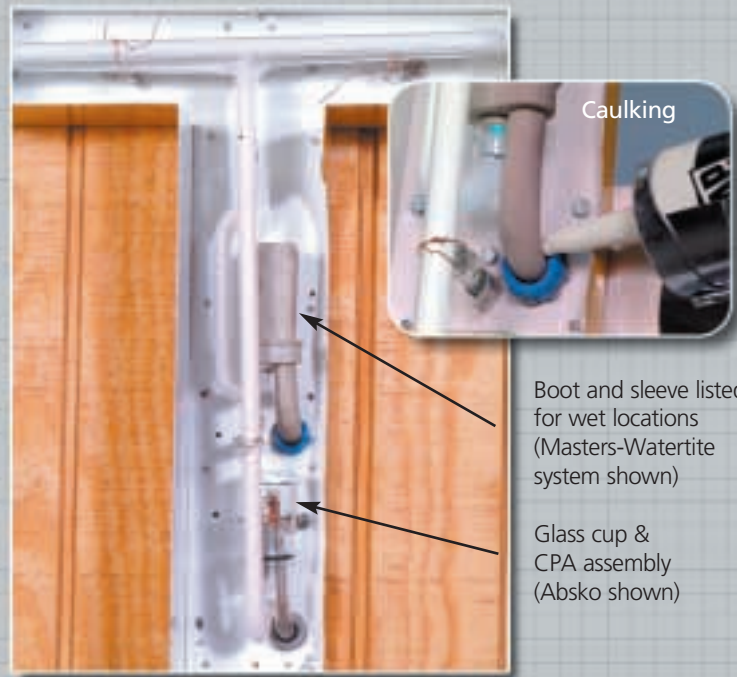
Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Caulking

Boot and sleeve listed for wet locations (Masters-Watertite system shown)

Glass cup & CPA assembly (Absko shown)



Damp/Dry Connections

Damp Location — Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobites high voltage connector



High volt box (Westrim shown)



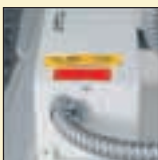
High volt box (Transco shown)



High volt box (Masters shown)



Take up box



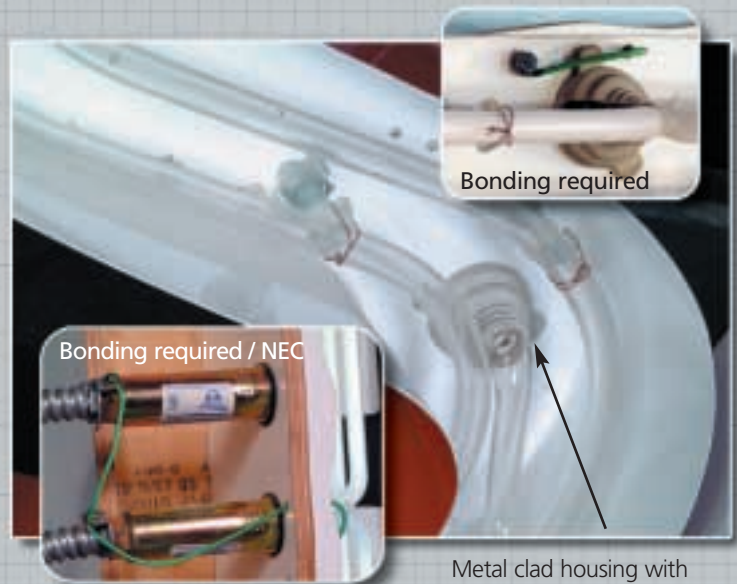
Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall



Bonding required

Bonding required / NEC

Metal clad housing with listed cap (PK shown)

CHANNEL LETTER

REMOTE WIRED (Option 2)

No Face, Exposed Neon

LETTER



Channel

WIRING



Remote

FACE TYPE



Exposed/Open

LOCATION



Wet

Special Installation Instructions

- Sign Location Is Wet
- Connections Inside Channel Letter (Exposed) Must Be Listed As A "System" For Wet Locations
- Protected Connections On The Opposite Side Of The Wall Are Damp/Dry Rated

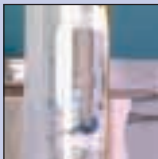


Wet Connections

Wet Location – Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box (Masters shown)



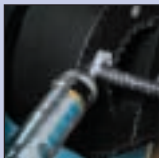
Boot & Sleeve (Masters-Watertite system shown)



Housing cap



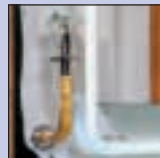
G cup with CPA (Absko shown)



Letter caulked front and back



Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Neon Power Pro / GG Cup & insulation glass



Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box (Westrim shown)



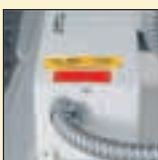
High volt box (Transco shown)



High volt box (Masters shown)



Take up box



Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall

Tube supports required within 6" of termination

Closeup of twisted connection

Seal openings with silicone

Conduit with internal raceway
Tube support required within 6" of termination

CHANNEL LETTER

REMOTE WIRED

No Face, Exposed Neon

LETTER



Channel

WIRING



Remote

FACE TYPE



Exposed/Open

LOCATION



Dry/Damp

Special Installation Instructions

- Sign Location Is Damp/Dry
- Connections Inside Channel Letter (Exposed) Must Be Listed For Damp/Dry Locations
- Protected Connections On The Opposite Side Of The Wall Are Damp/Dry Rated
- Connections Shown Here Cannot Be Used For Wet Locations



Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box (Westrim shown)



High volt box (Transco shown)



High volt box (Masters shown)



Take up box



Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall

Notes

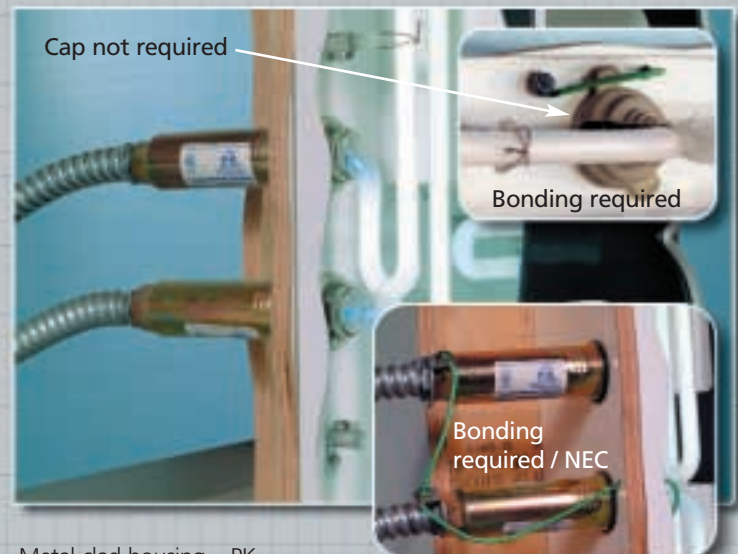
1/2" required / NEC



Example of Finished Installation



1/2" required / NEC



Metal clad housing – PK (Westrim shown) Listed cap not required in Damp/Dry Location

CHANNEL LETTER

REMOTE WIRED (Option 1)

Plastic Face (Sign Body)

LETTER



Channel

WIRING



Remote

FACE TYPE



Plastic

LOCATION



Wet

Special Installation Instructions

- Sign Location is Wet
- Channel Letter with Plastic Face Creates a Sign Body
- Connections Inside Channel Letters (Sign Body) Need Only Be Damp/Dry Rated

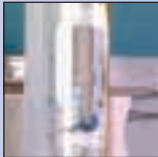


Wet Connections

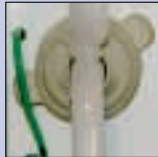
Wet Location – Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box (Masters shown)



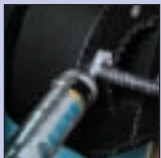
Boot & Sleeve (Masters-Watertite system shown)



Housing cap



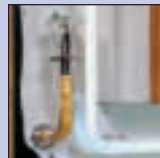
G cup with CPA (Absko shown)



Letter caulked front and back



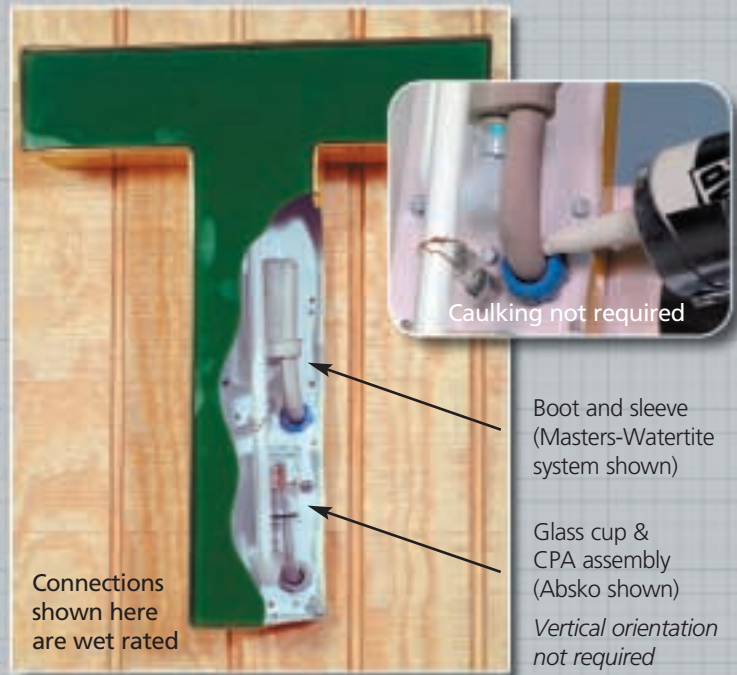
Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobites high voltage connector



High volt box (Westrim shown)



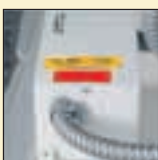
High volt box (Transco shown)



High volt box (Masters shown)



Take up box



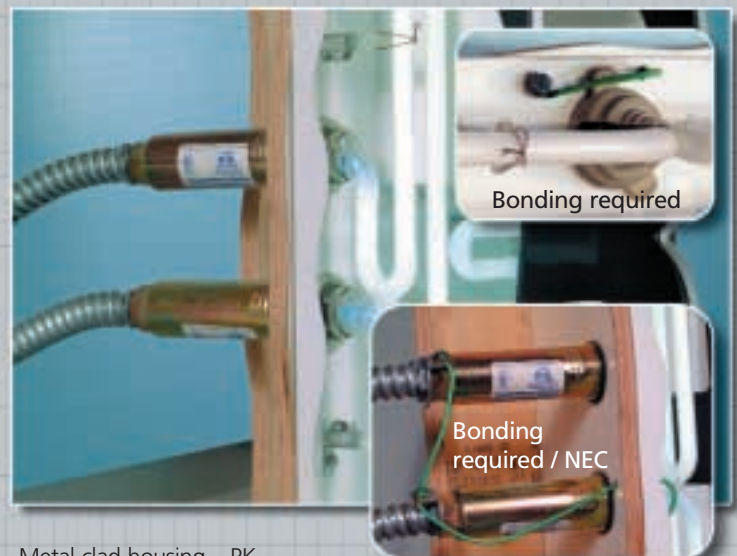
Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall



CHANNEL LETTER

REMOTE WIRED (*Option 2*)

Plastic Face (Sign Body)

LETTER



Channel

WIRING



Remote

FACE TYPE



Plastic

LOCATION



Wet

Special Installation Instructions

- Sign Location is Wet
- Channel Letter with Plastic Face Creates a Sign Body
- Connections Inside Channel Letters (Sign Body) Need Only Be Damp/Dry Rated



Wet Connections

Wet Location — Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box (Masters shown)



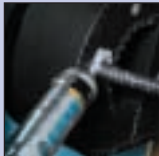
Boot & Sleeve (Masters-Watertite system shown)



Housing cap



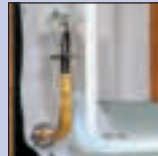
G cup with CPA (Absko shown)



Letter caulked front and back



Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Boot and sleeving (Electrobits shown)



Damp/Dry Connections

Damp Location — Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box (Westrim shown)



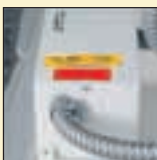
High volt box (Transco shown)



High volt box (Masters shown)



Take up box



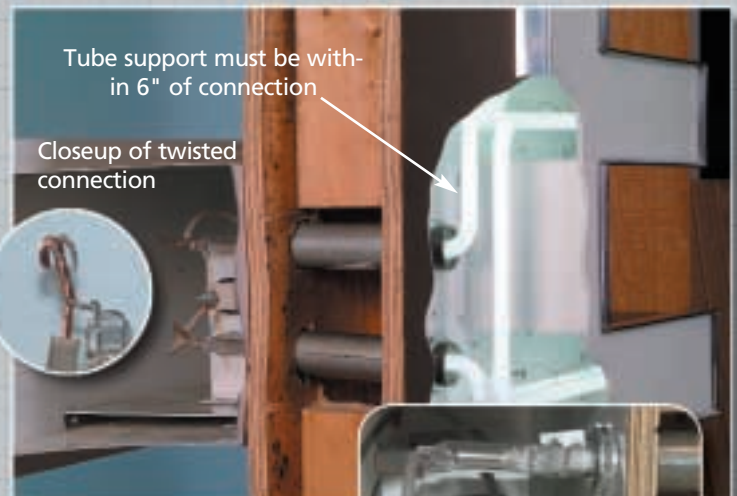
Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall



Tube support must be within 6" of connection

Closeup of twisted connection

Conduit with internal raceway

CHANNEL LETTER

REMOTE WIRED

Plastic Face (Sign Body)

LETTER



Channel

WIRING



Remote

FACE TYPE




Plastic

LOCATION



Dry/Damp

Special Installation Instructions

- Sign Location Is Damp/Dry 
- Connections Inside Channel Letter Need Only Be Damp/Dry Rated 
- Connections Shown Here Cannot Be Used For Wet Locations 



Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box (Westrim shown)



High volt box (Transco shown)



High volt box (Masters shown)



Take up box



Self contained transformer enclosure



Transformer box (Transco shown)



Metal conduit and through wall



Example of Finished Installation

All listed wet connections are acceptable for use in damp or dry locations.

Listed:

- (1) Masters
- (2) Glass cup without CPA
- (3) Metal clad housing – PK
- (4) Electrobits caps
- (5) Conduit with internal raceway

Notes

CHANNEL LETTER

REMOTE WIRED (Option 1)
with Recognized Component Face

LETTER



Channel

WIRING



Remote

FACE TYPE



Recognized

LOCATION



Wet

Special Installation Instructions

- Sign Location Is Wet
- Channel Letter With Enclosure Rated Face Creates An Enclosure
- Connections Inside Channel Letter Can Be Enclosure Rated, This Allows:
 - Twisted Connections With Appropriate Spacing
 - GTO Without Integral Or External Sleeving

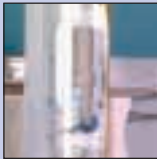


Wet Connections

Wet Location – Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box (Masters shown)



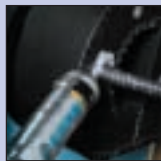
Boot & Sleeve (Masters-Watertite system shown)



Housing cap



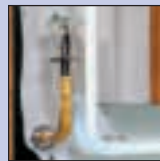
G cup with CPA (Absco shown)



Letter caulked front and back



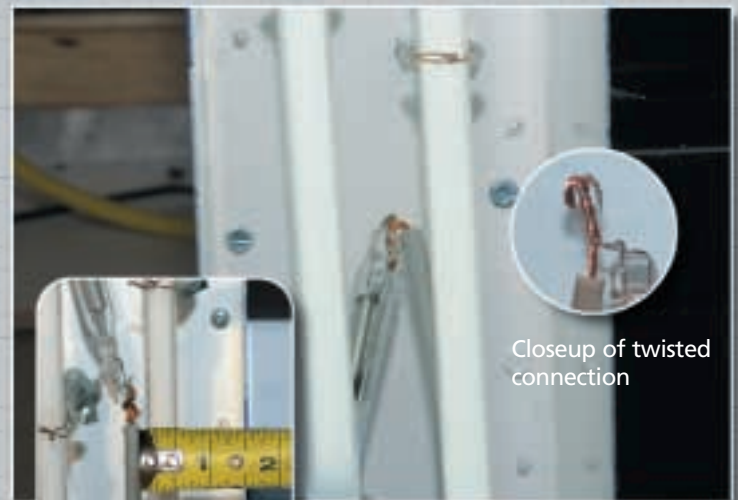
Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Closeup of twisted connection



Twisted connection with proper 1-1/2" clearance



Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box (Westrim shown)



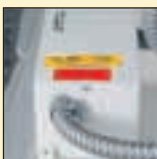
High volt box (Transco shown)



High volt box (Masters shown)



Take up box



Self contained transformer enclosure

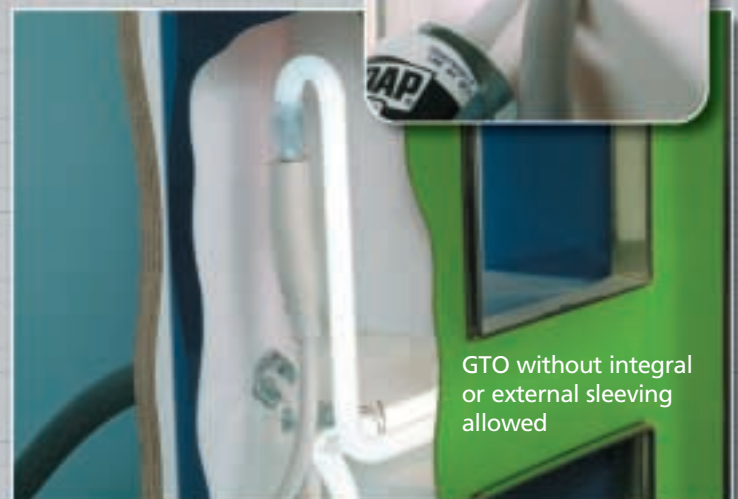


Transformer box (Transco shown)



Metal conduit and through wall

Electrobits shown

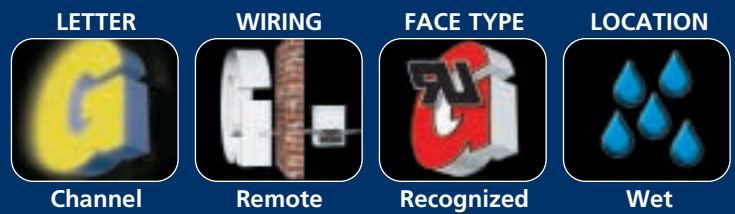


GTO without integral or external sleeving allowed

Note: Integral sleeving GTO not required with polycarbonate face

CHANNEL LETTER

REMOTE WIRED (Option 2)
with Recognized Component Face



Special Installation Instructions

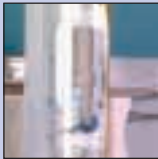
- Sign Location Is Wet
- Channel Letter With Enclosure Rated Face Creates An Enclosure
- Connections Inside Channel Letter Can Be Enclosure Rated, This Allows:
 - Twisted Connections With Appropriate Spacing
 - GTO Without Integral Or External Sleeving

Wet Connections

Wet Location – Installations subject to saturation with water or other liquids (such as vehicle washing areas), and unprotected locations exposed to weather.



Listed rain tight box
(Masters shown)



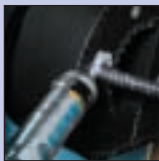
Boot & Sleeve
(Masters-Watertite system shown)



Housing cap



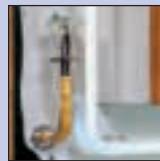
G cup
with CPA (Absco shown)



Letter caulked
front and back



Listed rain tight box (Power Pro shown)



Listed sign accessory (Power Pro shown)



Example of Finished Installation



Grounding lug
(Cap not required)

Metal clad housing (PK shown)

Green wire bonding with rings

Damp/Dry Connections

Damp Location – Partially protected locations under canopies, marquees, roofed open porches, and similar locations; as well as interior locations subject to moderate degrees of moisture, such as basements, barns, and cold storage warehouses.



Electrobits high voltage connector



High volt box
(Westrim shown)



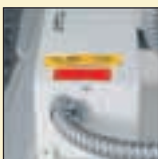
High volt box
(Transco shown)



High volt box
(Masters shown)



Take up box



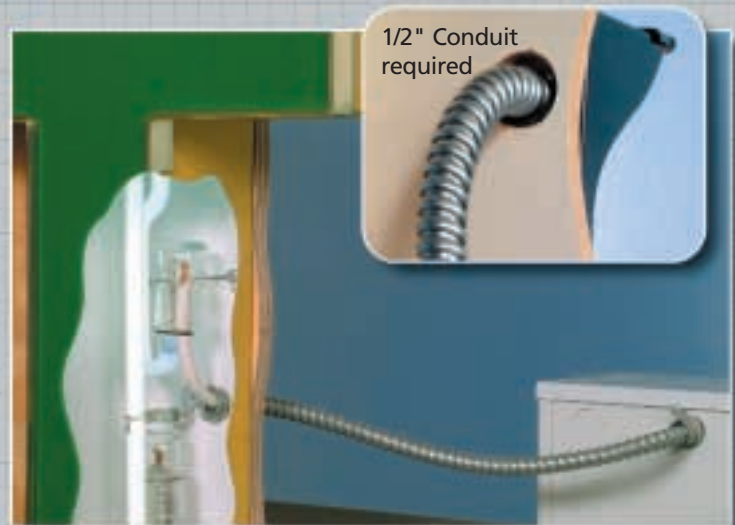
Self contained
transformer
enclosure



Transformer box
(Transco shown)



Metal conduit
and through wall



1/2" Conduit
required

Glass cup, CPA not required

CHANNEL LETTER

DIRECT WIRED With Plastic Face

LETTER



Channel

WIRING



Direct

FACE TYPE





Plastic

LOCATION



Wet

Special Installation Instructions

- Sign Location Is Wet 
- Channel Letter With Plastic Face Creates A Sign Body
- Connections Inside Channel Letter (Sign Body) Need Only Be Damp/Dry Rated 

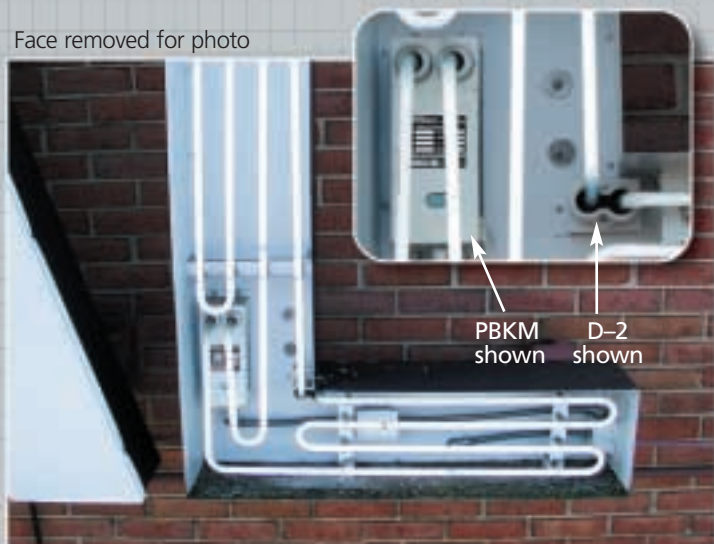
Notes



Example of Finished Installation



Electronic power supply (Ventex shown)



Face removed for photo

PBKM
shown

D-2
shown

Transformer with integral housing
No field connections allowed

CHANNEL LETTER

DIRECT WIRED With Plastic Face

LETTER



Channel

WIRING



Direct

FACE TYPE






Plastic

LOCATION



Dry/Damp

Special Installation Instructions

- **Sign Location Is Damp/Dry** 
- **Connections Inside Channel Letter Need Only Be Damp/Dry Rated** 
- **Connections Shown Here Cannot Be Used For Wet Locations** 

Notes



Example of Finished Installation



Low voltage through wall transformer (Transfotec TFT shown)
Front view



Low voltage through wall transformer (Transfotec TFT shown)
Back view