

Bell & TayMac Hour

Topic: NEC Extra Duty

April 22, 2020

NOTE: For those who are unable to attend we will be recording this training session for future reference and review....



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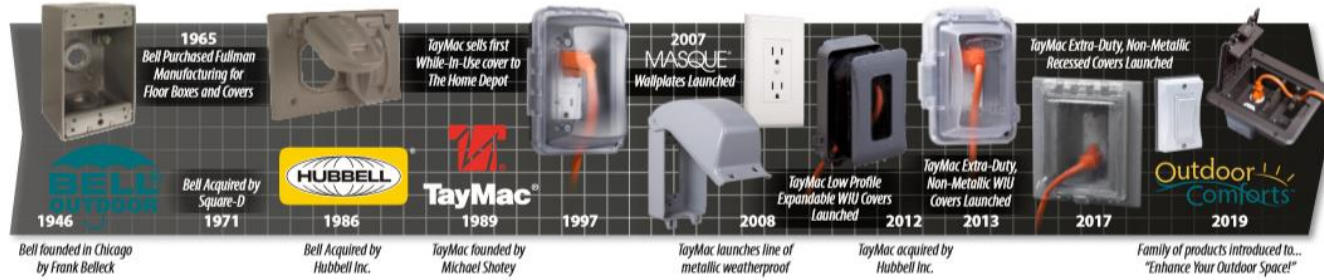




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Brand Overview



Founded 1989
In Phoenix, AZ
By Michael Shotey
30 Years
Over 180+ Patents
#1 Brand in Weatherproof While-In-Use Covers
Invented the 1st While-In-Use Weatherproof Cover



Founded 1946
In Chicago, IL
By Frank Belleck
73 Years
Invented the 1st W.P Box & Cover
#1 Brand in Weatherproof Boxes & Covers
"Bell Box" = "Kleenex"



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NEC – National Electric Code

What is the NEC?

- *The NEC is the National Electrical Code. The NEC's mission is to provide practical safeguards from the hazards that arise from using electricity. It is the most widely adopted safety code United States and the world, and it is the benchmark for safe electrical installations. The NEC is an evolving document, developed through an open consensus process.*
- *A new edition is issued every three years.*

Notable:

- In the United States and around the world, NFPA 70[®], National Electrical Code[®] (NEC[®]), published by the National Fire Protection Association (NFPA), sets the foundation for electrical safety in residential, commercial, and industrial occupancies.
- Enforcement efforts, status, and the support of the Electrical Code Coalition, which works to increase focus and emphasis on electrical safety for persons and property through direct and full adoption, application and uniform enforcement of the latest edition of the NEC.



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2020 Major Code Changes

National Electrical Code® 2020



Major Changes to the Code

The National Electrical Code®, which has been **adopted by all 50 states**, sets the minimum standard for safe electrical design, installation, and inspection to keep people and property protected from electrical hazards. The NEC® is **revised every three years** using public input, commentary, and technical sessions. With the introduction of the 2020 code, there have been 15 NEC® revisions since 1977, the year the median American home was built.

1 Surge Protection is Required for Dwelling Units **NEW**



New and replaced service equipment supplying dwellings are now required to be protected by listed **Type 1 or Type 2 Surge-Protective Devices**. These protect electrical devices and appliances that may not be protected by point-of-use SPDs. It is estimated that the average home has **\$15,000** worth of equipment that can be damaged by surges.

Type 1 SPD

Permanently connected SPDs intended for installation between the **secondary of the service transformer** and the **line side of the service disconnect overcurrent device**.

Type 2 SPD

Permanently connected SPDs intended for installation on the **load side of the service disconnect overcurrent device**, including SPDs located at the branch panel.

2 Ground Fault Circuit Requirements **NEW**

GFCI protection is now required in all 125-volt through 250-volt receptacles supplied by single-phase branch circuits rated 150-volt or less to ground in eleven* locations of a dwelling. Dryer and range receptacles, common 250-volt receptacles in homes, require GFCI protection.

*Locations listed in NEC section 210.8(A)(1) through (A)(11)



New GFCI requirements include protection in non-dwelling locations and marinas. For more information on new 2020 NEC® requirements visit ESFI.org.

3 Outdoor Emergency Disconnects for Dwelling Units **NEW**



Outdoor emergency disconnects are now required for new construction, home undergoing renovation, and homes having their service replaced. This **allows first responders to respond to emergencies**, such as a house fire, without potential electrical hazards. Emergency disconnects may be a service disconnect, a meter disconnect, or listed disconnect switches or circuit breakers on the supply side of each device disconnect suitable for use as service equipment.



www.facebook.com/ESFI.org www.twitter.com/ESFIdotorg www.youtube.com/ESFIdotorg

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2020 NEC Extra Duty Standard

2014/2017 NATIONAL ELECTRIC CODE (Adoption by State)

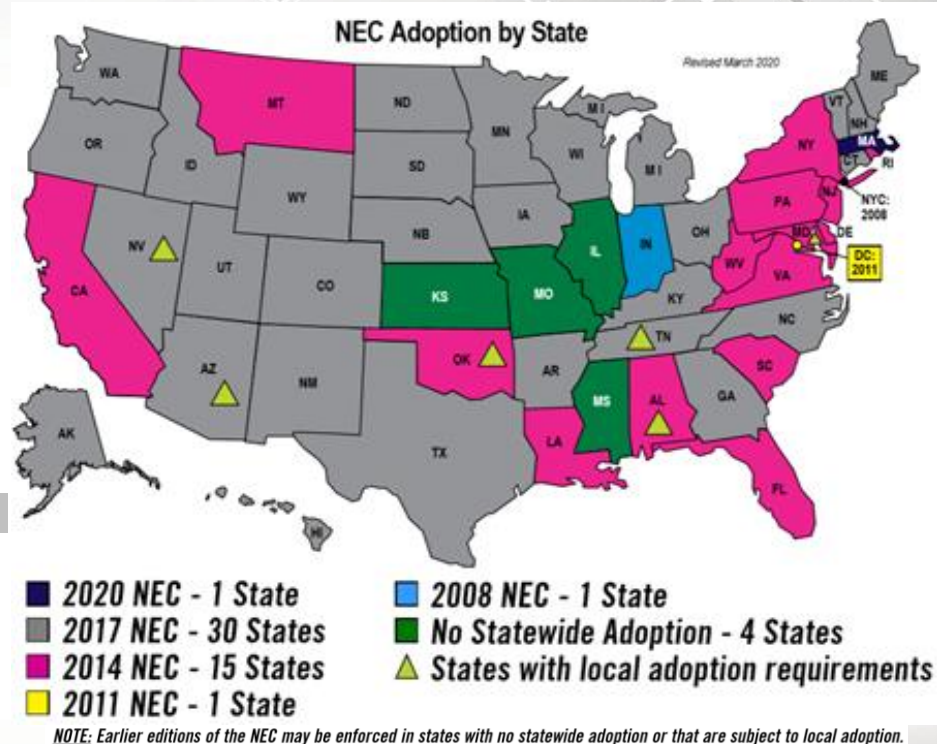
406.9 Receptacles in Damp or Wet Locations

(b) Web Locations. (1) Receptacles of 15 and 20 Amperes in Wet Locations.

(1) Receptacles of 15 and 20 Amperes in a Wet Location

Receptacles of 15 and 20 amperes, 125 and 250 volts installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. An outlet box hood installed for this purpose shall be listed and shall be identified as “extra duty”. Other listed products, enclosures, or assemblies providing weatherproof protection that do not utilize an outlet box hood need not be marked “extra duty”

Informational Note: “extra duty” identification and requirements are not applicable to listed receptacles, faceplates, outlet boxes, enclosures or assemblies that are identified as either being suitable for wet locations or rated as one of the outdoor enclosure-type numbers of NEC



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YouTube Extra Duty Overview



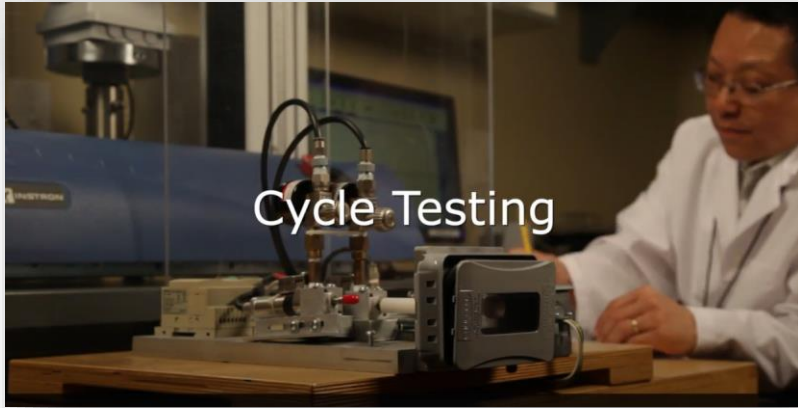
URL Extra Duty YouTube Link: <https://www.youtube.com/watch?v=lTye--sB55w>



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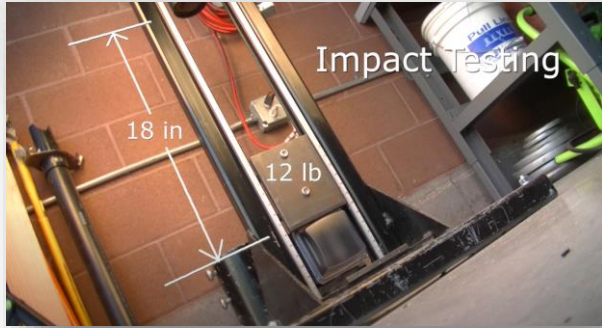
Extra Duty Testing Methods Summary



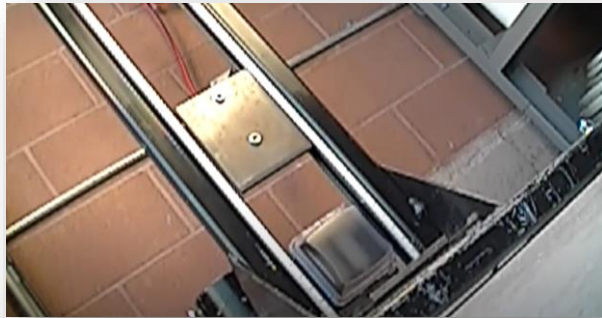
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Extra Duty Testing Methods Summary



Cover/Hinge must pass a 12 LB weight dropped at a height of 18 IN



Cover is then rotated 90 degrees and the test is repeated (side impact)



Hinge must withstand a 40 LB weight suspended from one of the hinges and is held for a period of 5 seconds



Test is repeated on the secondary hinge



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Resources/Colleterial Available

TayMac "Get Tough With Extra Duty Weatherproof Covers!" Brochure



EXTRA DUTY

Get Tough With Extra Duty Weatherproof Covers!






Meet Extra Duty Standards/Requirements! 2014/2017 & Now 2020!

TayMac Extra Duty In-use Cover Features:

- More room for electrical cords
- Heavy Duty die-cast aluminum construction
- High-impact polycarbonate construction provides maximum durability
- Premium finish corrosion protection
- UL, NEC and NEMA 3R compliant



EXTRA DUTY EXTRA DUTY EXTRA DUTY

Get ahead of the Code with TayMac!
See how our Extra Duty covers are UL, NEC and NEMA 3R compliant!

2014/2017 NATIONAL ELECTRICAL CODE
NEC 408.10(D) In-use covers shall be listed for the intended application.
NEC 408.10(E) In-use covers shall be listed for the intended application.
NEC 408.10(F) In-use covers shall be listed for the intended application.
NEC 408.10(G) In-use covers shall be listed for the intended application.



Product Class	Standard Code	Code Description
164	164	164
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

EXPANDABLE NONMETALLIC IN-USE COVERS

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
164	164	164
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

NONMETALLIC IN-USE COVERS

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
164	164	164
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

METAL IN-USE COVERS

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
84	84	84
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

LOW PROFILE METALLIC IN-USE COVERS

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
84	84	84
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

RECEPTACLE/COVER COMBO AND COMPLETE KITS

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
84	84	84
554	554	554

EXTRA DUTY EXTRA DUTY EXTRA DUTY

FLAT PROFILE EXCEEDED NONMETALLIC IN-USE ENCLOSURE

• High impact polycarbonate construction provides maximum durability
• Heavy duty die-cast aluminum construction provides maximum durability
• Premium finish corrosion protection



Product Class	Standard Code	Code Description
64	64	64
554	554	554



Q & A Session

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