

Bell & TayMac Hour

Topic: Bell Weatherproof Box Portfolio

June 16, 2020

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

PLEASE MUTE YOUR PHONES....



COMMERCIAL CONSTRUCTION



Weatherproof Bell Outlet Box Portfolio

Weatherproof Boxes

- Single Gang Boxes



5320-0 to 5320-9 5320-1 5320-2

- 2-Gang Boxes



5333-0, 5341-0 5335-0, 5343-0

- 3-Gang Boxes



5390-0

- 4" Round Splice Boxes



5361-0 to 5372-0

5361-1

5361-2

Weatherproof Non-metallic Boxes

- Single Gang Boxes
- 2-Gang Boxes
- 4" Round Splice Boxes



PSB37550GY

PSB37550WH

PDB77550GY

PDB77550WH

PRB57550GY

PRB57550WH

Weatherproof Box Extension & Adapters

- Single Gang Extensions



5406-0

5399-0, 5403-0

5400-0 to 5400-5

5412-0, 5413-0

5414-0, 5415-0

- 2-Gang Extensions



5407-0

- 4" Round Extensions & Adapters



5363-0

UL 514B
Conduit, Tubing, and Cable Fittings |

UL 514C
Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers

UL 514D
Cover Plates for Flush-Mounted Wiring Devices



JL 514A

Metallic Outlet Boxes

This standard applies to metallic OUTLET BOXES, flush-DEVICE BOXES, FLOOR BOXES, CONCRETE BOXES, EXTENSION RINGS, covers, CONDUIT BODIES, BAR HANGERS, bar-hanger assemblies, and all accessories whose principal function is for support of boxes. The products covered by this standard are intended for installation in accordance with the National Electrical Code (NEC), NFPA 70, the Canadian Electrical Code (CEC).



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Weatherproof Boxes



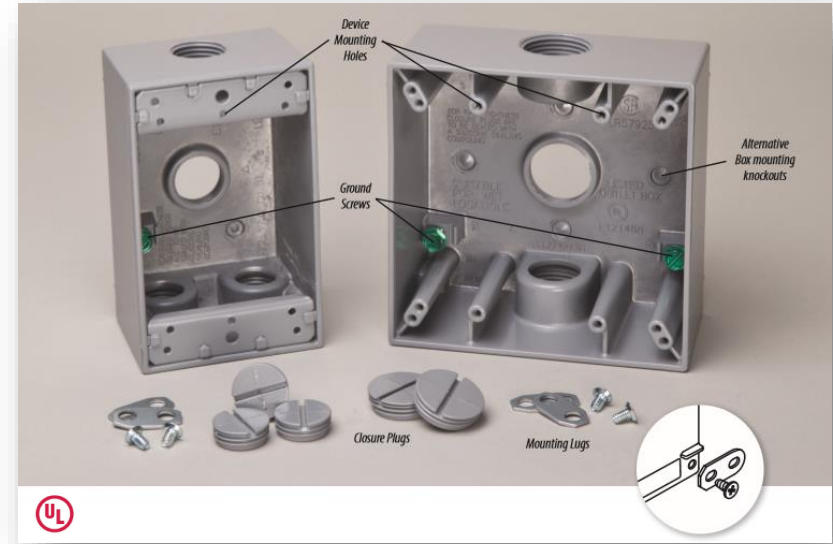
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Weatherproof Bell Box

General Information

- Made of die cast aluminum in a one piece, seamless construction
- Electrostatic baked epoxy enamel paint provides corrosion protection
- Threaded conduit hubs for a weatherproof connection
- Detachable mounting lugs provide the end user with 8 mounting options (except round box)
- Boxes are tapered to allow water run-off
- Available in 1, 2, 3 gang and round with various hole configurations/sizes
- Ground screw installed (not included on non-metallic models)
- NEMA 3R Rated
- UL Listed



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Product Line Summary

Single Gang Boxes

1-gang boxes are used in branch circuit wiring as junction boxes or device boxes for housing receptacles, switches and GFCI's. Deeper boxes are more commonly used when additional box fill capacity is needed especially when using a GFCI. They can also be used with BELL® rectangular cluster covers and single gang Lampholder combinations for weatherproof outdoor security and utility lighting.

2" Deep - Metallic

- 18.3 cu. in. capacity
- Three, four or five hubs - 1/2" or 3/4"
- Contains 2 closure plugs
- 2 "knock-out" mounting holes on the back of the box
- All available in Gray, some configurations available in White and Bronze



5320-0

2-5/8" Deep - Metallic

- 20.5 cu. in. capacity
- Three hubs - 1/2" or 3/4"
- Contains 2 closure plugs
- 2 "knock-out" mounting holes on the back of the box
- All available in Gray



5385-0

2" Deep - Non-metallic

- 16.5 cu. in. capacity
- Three hubs - 1/2" or 3/4"
- Contains 2 closure plugs and 3 reducing bushings
- 4 molded mounting lugs
- All available in Gray or White
- **UL Marine Listed**



PSB37550GY

NOTABLE: Weatherproof boxes cannot be installed directly into wet cement. Recommend using either a steel masonry box or apply tar to the outside of the box to keep the cement from corroding the box.

UL MARINE LISTED: Addresses hazards that can occur as a result of exposure to harsh marine environments such as vibration, shock (impact), exposure to volatile gasses E.g. from gasoline (ignition protection), water ingress, and salt-spray corrosion.



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Product Line Summary

2-Gang Boxes

2-gang boxes are used in branch circuit wiring as junction boxes or device boxes for housing 2 receptacles, switches or GFCI's, or larger single receptacles. Deeper boxes are more commonly used when additional box fill capacity is needed especially when using (2) GFCI's.

2" Deep - Metallic

- 31.0 cu. in. capacity)
- Three, four, five or seven hubs - 1/2" & 3/4"
- Contains 2 closure plugs
- 4 "knock-out" mounting holes on the back of the box
- All available in Gray



5333-0

2-5/8" Deep - Metallic

- 36.0 cu. in. capacity
- Five hubs - 3/4" or 1"
- Contains 2 closure plugs
- 4 "knock-out" mounting holes on the back of the box
- All available in Gray



5388-0

2" Deep - Non-metallic

- 26.5 cu. in. capacity
- Seven hubs - 1/2" & 3/4"
- Contains 6 closure plugs and 5 reducing bushings
- 4 molded mounting lugs
- All available in Gray or White
- **UL Marine Listed**



P0877550GY



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Product Line Summary

3-Gang Boxes

3-gang boxes are commonly used in branch wiring as junction boxes or device boxes for housing 3 receptacles, switches or GFCI's

2-5/8" Deep - Metallic

- 55.0 cu. in. capacity
- Seven hubs - 3/4"
- Contains 4 closure plugs
- 2 "knock-out" mounting holes on the back of the box
- All available in Gray



5390-0



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Product Line Summary

4" Round Splice Box

Round outlet boxes are typically used in branch circuit wiring as junction boxes or may be used with BELL® round cluster covers and round lamp holder combinations for weatherproof outdoor security and utility lighting

1-1/2" Deep - Metallic

- 16.0 cu. in. capacity
- Five hubs - 1/2" or 3/4"
- Contains 4 closure plugs
- All available in Gray, some configurations available in White and Bronze



5361-0

1-1/8" Deep – Non-metallic

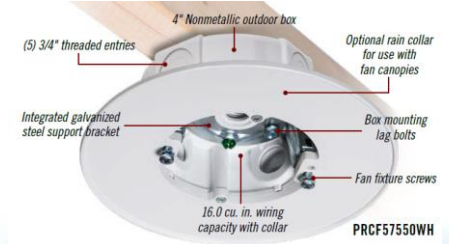
- 13.5 cu. in. capacity
- Five hubs – 1/2" and 3/4"
- Contains 4 closure plugs and 3 reducing bushings
- Attached mounting lugs
- All available in Gray and White



PRBS7550G

1-1/8" Deep Dual Application – Non-metallic

- 16.0 cu. in. capacity
- Supports fans up to 70lbs and luminaires up to 150lbs
- Integrated galvanized steel support bracket
- Five hubs – 1/2" and 3/4" with 4 closure plugs and 3 reducing bushings
- All hardware included including #6, #8 and #10-32 screws
- All available in Gray, White & Bronze



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Outlet Box Sizing Steps

#1 – Determine how many and what size are the conductor equivalents within the box?

#2 – Determine the conductor volume equivalents from the chart - See 314.16(B)

#3 – Size the box

Table 314.16(B)
Volume Allowance Required per Conductor

Size of Conductor	Free Space Within Box for Each Conductor	
(AWG)	cm ³	in. ³
18	24.6	1.50
16	28.7	1.75
14	32.8	2.00
12	36.9	2.25
10	41.0	2.50
8	49.2	3.00
6	81.9	5.00



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Point to Remember/Conclusion

- No matter how many ground wires come into a box, they only count as one conductor within the box
- Any wire running unbroken through the box counts as one wire
- Each wire coming into a splice device (crimp or twist-on type) is counted as one wire
- Each wire coming into the box and connecting to a device counts as one wire of that size
- Where devices are mounted in the box, the total conductor count must be increased by two for each mounting strap



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Weatherproof Box Extensions & Adapters



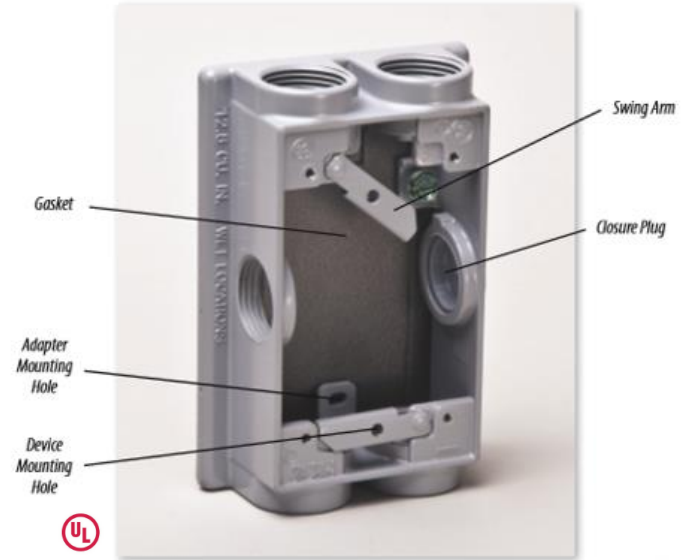
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Weatherproof Bell Box Extensions & Adapters

General Information

- Made of die cast aluminum in a one piece, seamless construction
- Electrostatic baked epoxy enamel paint provides corrosion protection
- Threaded conduit hubs for a weatherproof connection
- Available in 1, 2 gang and round
- NEMA 3R Rated
- UL Listed



NOTABLE: Unique swing arm feature speeds up installation. Rotates to avoid obstruction when mounting the adapter to the box, then rotates back for device installation.



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Product Line Summary

Single Gang Extensions & Adapters

1-gang extensions and adapters are typically used when additional box fill capacity is needed, or when adding GFCI receptacles. Adapters are also used in branch wiring when “take-offs” are added for additional boxes/devices.

1" Deep Extension - Metallic

- 9.5 cu. in. capacity
- No Threaded Hubs
- No Ground Screw
- Available in Gray



1-1/2" Deep Adapter - Metallic

- 11.0 cu. in. capacity (may vary depending on configuration 9.5 min)
- Available with either 2 or 6 threaded hubs 1/2" or 3/4"
- Contains Closure plugs (2 hole – 1 plug, 6 hole – 3 plugs)
- Available in Gray



1-1/2" Deep Swing Arm Adapter – Metallic

- 13.8 cu. in. capacity (may vary depending on configuration 12.8 min)
- Swing arm speeds installation
- Available with either 2 or 6 threaded hubs 1/2" or 3/4"
- Contains Closure plugs (2 hole – 1 plug, 6 hole – 3 plugs)
- Available in Gray



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Product Line Summary

2-Gang Extensions & Adapters

2-gang extension are typically used when additional box fill capacity is needed, or when adding GFCI receptacles

1-1/32" Deep Extension - Metallic

- 16 cu. in. capacity
- No Threaded Hubs
- No Ground Screw
- Available in Gray



4" Round Extensions Adapter

Used in branch wiring when "take-offs" are added for additional boxes/devices or when additional box fill capacity is needed

4" 1-1/2" Deep Extension - Metallic

- 16.3 cu. in. capacity
- Four hubs – 1/2"
- Contains 4 closure plugs
- No Ground Screw
- Available in Gray



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Weatherproof Bell Box Quick Reference Guide



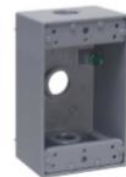
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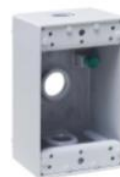
Bell Weatherproof Quick Reference Guide

	(2) Threaded Outlets (Extensions & Adapters)	(3) Threaded Outlets	(4) Threaded Outlets	(5) Threaded Outlets	(6) Threaded Outlets (Extensions & Adapters)	(7) Threaded Outlets	Size	Q-t In (Cm *)
DIE-CAST ALUMINUM 1-GANG BOXES								
1/2" NPT	-	5320-0**	5321-0*	5322-0 / 5323-0	-	-	4 - 1/2" x 2 - 3/4" x 2" Deep	18.3 in ³
3/4" NPT	-	5324-0*	5330-0	5331-0 / 5332-0	-	-	4 - 1/2" x 2 - 3/4" x 2" Deep	18.3 in ³
1" NPT	-	-	-	-	-	-	4 - 1/2" x 2 - 3/4" x 2" Deep	-
1/2" NPT	-	5385-0	-	-	-	-	4 - 1/2" x 2 - 3/4" x 2 - 5/8" Deep	22.5 in ³
3/4" NPT	-	5386-0	-	-	-	-	4 - 1/2" x 2 - 3/4" x 2 - 5/8" Deep	22.5 in ³
1" NPT	-	5387-0	-	-	-	-	4 - 1/2" x 2 - 3/4" x 2 - 5/8" Deep	22.5 in ³
DIE-CAST ALUMINUM 1-GANG EXTENSIONS & ADAPTERS								
5406-0 No Threaded Outlets							4 - 1/2" x 2 - 3/4" x 1" Deep	9.5 in ³
1/2" NPT	5399-0	-	-	-	5400-0*	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	9.5 in ³
3/4" NPT	5403-0	-	-	-	5405-0	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	11.0 in ³
DIE-CAST ALUMINUM 1-GANG EXTENSIONS ADAPTERS (SWING ARM)								
1/2" NPT	5412-0	-	-	-	-	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	13.8 in ³
3/4" NPT	5413-0	-	-	-	-	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	13.8 in ³
1/2" NPT	-	-	-	-	5414-0	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	12.8 in ³
3/4" NPT	-	-	-	-	5415-0	-	5 - 1/4" x 3 - 1/2" x 1 - 1/2" Deep	12.8 in ³

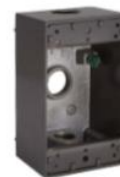
* Denotes available in Gray, White & Bronze
 + Denotes available in Shrink & Carded Versions
 ~ Denotes available in Bulk Shipping



5320-0 to 5320-9
5324-0 to 5324-5



5320-1



5320-2



5412-0, 5413-0
(Includes one closure plug)



5414-0, 5415-0
(Includes three closure plugs)

	(2) Threaded Outlets (Extensions & Adapters)	(3) Threaded Outlets	(4) Threaded Outlets	(5) Threaded Outlets	(6) Threaded Outlets (Extensions & Adapters)	(7) Threaded Outlets	Size	Q-t In (Cm *)
DIE-CAST ALUMINUM 2-GANG BOXES								
1/2" NPT	-	5333-0 (32.0 in ³)	5335-0 (31.0 in ³)	5337-0** (31.0 in ³)	5340-0 (30.2 in ³)	-	4 - 1/2" x 4 - 1/2" x 2" Deep	See Model #
3/4" NPT	-	5341-0 (32.0 in ³)	5343-0 (31.0 in ³)	5345-0 (31.0 in ³)	5348-0 (30.2 in ³)	-	4 - 1/2" x 4 - 1/2" x 2" Deep	See Model #
1" NPT	-	-	-	-	5346-0 (31.0 in ³)	-	4 - 1/2" x 4 - 1/2" x 2" Deep	-
1/2" NPT	-	-	-	-	-	-	4 - 1/2" x 4 - 1/2" x 2 - 5/8" Deep	-
3/4" NPT	-	-	-	-	5388-0	-	4 - 1/2" x 4 - 1/2" x 2 - 5/8" Deep	36.0 in ³
1" NPT	-	-	-	-	5389-0	-	4 - 1/2" x 4 - 1/2" x 2 - 5/8" Deep	36.0 in ³
DIE-CAST ALUMINUM 3-GANG BOXES								
1/2" NPT	-	-	-	-	-	-	4 - 1/2" x 6 - 3/8" x 2 - 5/8" Deep	-
3/4" NPT	-	-	-	-	5390-0	-	4 - 1/2" x 6 - 3/8" x 2 - 5/8" Deep	55.0 in ³
DIE-CAST ALUMINUM MULTI-GANG EXTENSIONS								
5407-0 No Threaded Outlets							4 - 21/32" x 4 - 21/32" x 1 - 1/32" Deep	16.0 in ³

W Denotes available in Gray & White
 + Denotes available in Shrink & Carded Versions



5340-0, 5348-0



5338-0, 5346-0



5390-0



5407-0



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Bell Weatherproof Quick Reference Guide

	(2) Threaded Outlets	(3) Threaded Outlets	(4) Threaded Outlets	(5) Threaded Outlets	(6) Threaded Outlets	(7) Threaded Outlets	Size	Cu. In. (Cm ³)
DIE-CAST ALUMINUM ROUND SPLICE BOX								
1/2" NPT	-	-	-	5361-0**	-	-	4" Round / 1 - 1/2" Deep	16.0 in ³
3/4" NPT	-	-	-	5372-0	-	-	4" Round / 1 - 1/2" Deep	16.0 in ³
DIE-CAST ALUMINUM ROUND SPLICE BOX ADAPTERS								
1/2" NPT	-	-	5363-0	-	-	-	4" Round / 1 - 1/2" Deep	16.3 in ³

* Denotes available in Gray, White & Bronze

+ Denotes available in Shrink & Carded Versions

~ Denotes available in Bulk Shipping



5361-0 to
5361-7, 5372-0

5361-1

5363-0

	(3) Threaded Outlets	(5) Threaded Outlets	(7) Threaded Outlets
Non-Metallic Outlet Boxes			
1/2" or 3/4" NPT	PSB37550GY/WH	PRB57550GY/WH	PDB77550GY/WH
Description	1-Gang	Round Outlet Box	2-Gang
Cu. In. (Cm³)	16.5 in ³	13.5 in ³	26.5 in ³



PSB37550GY



PSB37550WH



PRB57550GY



PRB57550WH



PDB77550GY



PDB77550WH



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Q&A Session

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