



SUBMITTAL COVER SHEET

To: Karen Lange
Waterleaf Architecture
419 SW 11th Ave. Suite 200
Portland, OR 97205

From: Matt Schulze
R&H Residential Construction Co.
2019 NW Wilson Street
Portland, OR 97209

Project: 2019.515. - Fuller Station

Submittal No. 260500-102 -- Floor Box Product Data

Specification Section: **Electrical Fixtures**
Subcontractor/Supplier: **Merit Electric of Spokane Inc**

Quantity Sent: **1**
Revision No.: **0**
Return to R&H by: **07/21/2021**

R&H Review Status: **No Exceptions Taken**

Comments: Submittal includes product data for the floor box per RFI 059 response in Community Room 124.

Consult owner for finish choice.
No other exception taken.

Denise Taylor, MFIA
07.13.2021

REVIEW IS ONLY TO VERIFY GENERAL CONFORMANCE AND COMPLIANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENTS. SUBCONTRACTOR OR SUPPLIER IS RESPONSIBLE FOR DIMENSIONS, ERRORS AND OMISSIONS IN THESE DRAWINGS OR LISTS WHICH HE SHALL CONFIRM AND CORRELATE AT THE JOBSITE WITH HIS WORK OR FABRICATION AND WITH THAT OF OTHER TRADES AFFECTED BY HIS WORK. HE SHALL BE RESPONSIBLE FOR ANY DEVIATION FROM THE CONTRACT DOCUMENTS OR THESE DRAWINGS OR LISTS UNLESS HE HAS OBTAINED WRITTEN APPROVAL TO DO SO, AND SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF HIS WORK.

By: Matt Schulze

Date: 7/7/21



Ratchet-Pro Series Floor Boxes provide access to power, A/V, and communication services to open-space areas.

Single & Dual-Service Round Floor Boxes

Wiremold® Ratchet-Pro™ Series Floor Boxes provide single- and dual-service capability in a variety of easy-to-install round floor boxes. These designs allow the flexibility for providing power, A/V or communication services to open-space areas in an aesthetic solution.

Applications include malls, shopping centers, department stores, airports, hospitals, and office buildings. Ratchet-Pro™ Series Floor Boxes are cULus Listed for use in both on grade and above grade concrete construction.

Features & Benefits

- **Ratchet adjusting ring.** Allows for quick and easy installation without gluing, as well as removal of cover to activate at a future date for dual service*. 10° of flexible adjustment allows cover to conform to the surface of the concrete pour, which significantly reduces labor costs.
- **Parallel conduit hubs.** Allows for conduit feeds to be parallel for both power and communication cables. Reduces labor and material costs by eliminating the need for 90° bends and allows for easier wire pulling for dual-service.
- **Graduated cubic inch markings on interior of the box.** Allows for quick and easy determination of cubic inch capacity – no need for calculations.
- **Complete line of brass, brushed aluminum, and polycarbonate activations.** Provides a wide selection of device and aesthetic options.
- **Corresponding graduated cubic inch markings on divider.** Labor savings provided by easy separation of services. Individual compartment capacities are indicated.
- **Individual conduit reducers & plugs.** Reduction in labor savings by providing a direct reduction to support smaller conduit feeds.
- **Multiple size conduit feeds.** Conduit feed ranging from 3/4" to 2" trade size openings to allow for more flexibility and capacity.
- **2" conduit hub.** By using 2HUB with the RPSFB and RPSFB-OG floor boxes (sold separately) a greater capacity of pre-terminated cables can be brought in shallower concrete pours.
- **Slab-on-grade versions.** Boxes offered in PVC and steel with a special fusion bonded epoxy corrosion resistant paint, enables the boxes to be installed in on-grade applications without the need for additional vapor barriers.
- **Streamlined design of divider.** Labor savings from ease of cutting using a utility knife, no hacksaw or tape measure needed. Also allows for more room to splice wires.
- **"Dead-Front" protection with the RP Series Covers.** Slide covers snap back into place when receptacle is not in use to prevent dirt and debris from entering device.
- **Durable mudcap.** High impact mudcap protects box from damage when heavy equipment such as scissor lift trucks come in contact with the box during installation.
- **TopGuard protection.** An integral design which keeps out water, dirt, and debris from the power or communication compartment. Whenever you see the TopGuard protection icon applied to any Wiremold product, you will know that the product meets and exceeds the new UL scrub water exclusion requirement.
- **UL Listed to U.S. and Canadian safety standards for tile, terrazzo, and the new UL requirements under UL514A and UL514C for scrub water exclusion test for carpet and wood floors.**

Vertical Markets

- Commercial
- Education
- Healthcare
- Retail
- Hospitality
- Financial

Compliance



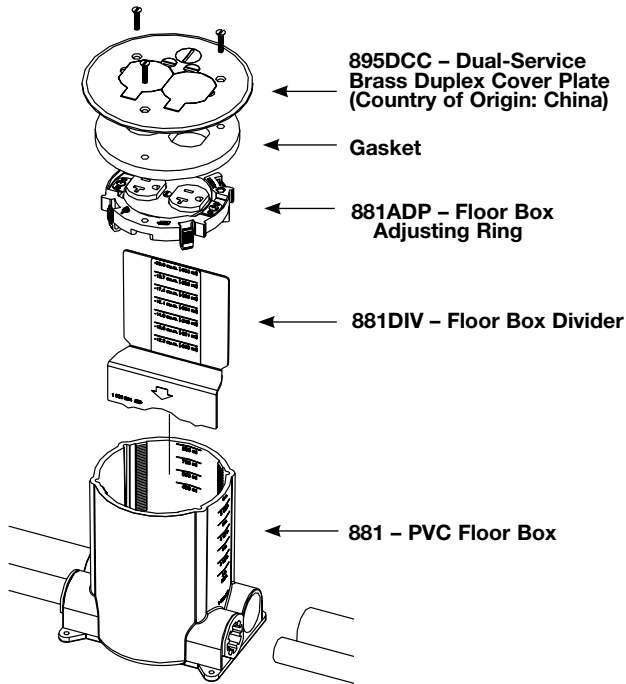
cULus Listed Nonmetallic Outlet Boxes. File E110748 Guide QCMZ.

cULus Listed Metallic Outlet Boxes. File E2961 Guide QCIT.



Protection from water, dirt, and debris.

Ratchet-Pro Series Floor Box Components



Ratchet-Pro 881 Series Floor Box Volume Capacities					
To calculate the total box volume, use displacement of the largest uncut section remaining.					
BOX HEIGHT		Single Service 895 & 896 Activations		Dual Service 895DCC Activations	
Inches	[mm]	WIRING VOLUME		WIRING VOLUME (with Divider)	
		Cu. Inches	[mm]	Cu. Inches	[mm]
6	[152.0]	65.0	[1065.0]	15.0	[738.0]
5 1/2	[140.0]	58.0	[950.0]	39.3	[644.0]
5	[127.0]	51.0	[835.0]	33.6	[551.0]
4 1/2	[114.0]	44.0	[720.0]	27.9	[457.0]
4	[102.0]	37.0	[605.0]	22.2	[364.0]
3 1/2	[89.0]	30.0	[490.0]	16.5	[270.0]
3	[76.0]	23.0	[377.0]	10.8	[177.0]

NOTE: To calculate total box volume, use the displacement of the largest uncut section remaining. Do not use in concrete pours less than 4 1/2" [114mm] deep. Installation must comply with NEC and local code conductor volume requirements. Not for use when concrete is the finished floor. Use only for tile, carpet, or wood covered floors.



Ratchet-Pro Series Floor Box shown with available accessories and covers.

Ratchet-Pro Series Floor Box Wire Fill Capacity Charts

Wire Fill Calculations for RPSFB & RPSFB-OG Floor Boxes							
Minimum Box Height (Measured inside from top of cut box – Disregard excess height)		Volume – Cat. No. RPSFB (Each Gang)		RP7CTC & RP4FFCTC (Available Volume for Conductor Calculations)		RPAV3CTC & RP4CTC (Available Volume for Conductor Calculations)	
3 1/2"	89mm	55 cu.in.	901 ml.	Not recommended for pours less than 4" [102mm]			
4"	102mm	60 cu.in.	983 ml.	56 cu.in.	918 ml.	45 cu.in.	738 ml.
4 1/2"	114mm	65 cu.in.	1065 ml.	61 cu.in.	1000 ml.	50 cu.in.	820 ml.
5"	127mm	70 cu.in.	1147 ml.	66 cu.in.	1082 ml.	55 cu.in.	901 ml.
5 1/2"	140mm	75 cu.in.	1229 ml.	71 cu.in.	1164 ml.	60 cu.in.	983 ml.
6"	152mm	80 cu.in.	1311 ml.	76 cu.in.	1246 ml.	65 cu.in.	1065 ml.

Wire Fill Calculations for RPNFB Floor Boxes							
Minimum Box Height (Measured inside from top of cut box – Disregard excess height)		Volume – Cat. No. RPNFB (Each Gang)		RP7CTC & RP4FFCTC (Available Volume for Conductor Calculations)		RPAV3CTC & RP4CTC (Available Volume for Conductor Calculations)	
3 1/2"	89mm	35 cu.in.	574 ml.	Not recommended for pours less than 4" [102mm]			
4"	102mm	40 cu.in.	656 ml.	36 cu.in.	590 ml.	25 cu.in.	410 ml.
4 1/2"	114mm	45 cu.in.	738 ml.	41 cu.in.	672 ml.	30 cu.in.	492 ml.
5"	127mm	50 cu.in.	820 ml.	46 cu.in.	754 ml.	35 cu.in.	574 ml.
5 1/2"	140mm	55 cu.in.	901 ml.	51 cu.in.	836 ml.	40 cu.in.	656 ml.
6"	152mm	60 cu.in.	983 ml.	56 cu.in.	918 ml.	45 cu.in.	738 ml.

For single service activations – RPAVD4CTC, RPAMD8CTC and RP9AM2CTC, combine both gangs to determine available wire fill.

881 with 895 Cover



~~RPSFB-OG with RP4CTC Cover~~



Ratchet-Pro Series Floor Box Ordering Information

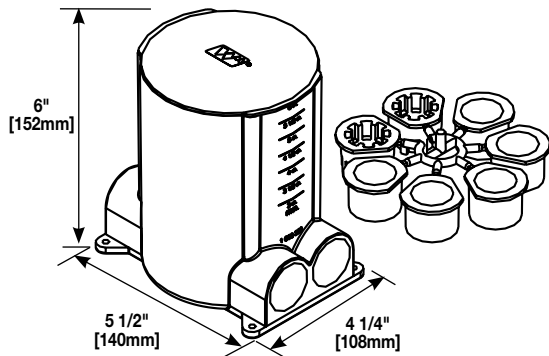
881

Round Nonmetallic Concrete Floor Box – Round single service nonmetallic concrete floor box. Floor box has four (4) parallel conduit hubs, internal and external graduated markings indicating wiring volume and concrete pour depth respectively.

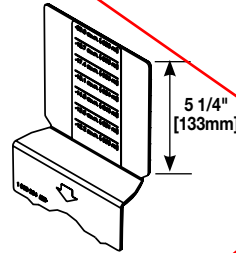
Box Includes:

- (1) Durable/reusable protective cap.
- (1) Adapter ring (881ADP).
- (1) Reducing ring to allow hub to be reduced down to 3/4" and 1/2" trade size openings or blanks to close off any unused openings.

Country of Origin: USA



881DIV

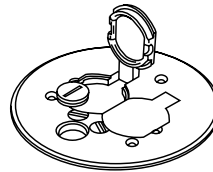


PVC Floor Box Divider Plate –

Used to isolate power and communication compartments. Graduated cubic inch markings are marked clearly on the divider and correspond directly to the cubic inch markings on the interior of the box. Cuts easily with a utility knife. Supplied with a receptacle plate that completes separation of power and communication services. One divider required for **dual-service** activation.

Country of Origin: USA

895DCC



Dual-Service Brass Duplex Cover Plate –

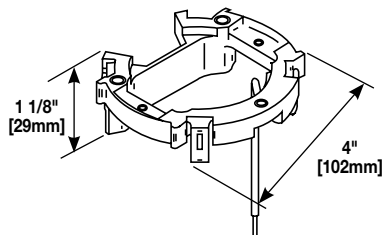
With flip lids. Supplied with 1/2" [12.7mm] screw plug for accessing communication cables. 5 1/2" [140mm] diameter for **carpet applications only**. Used in conjunction with the 881DIV to complete dual-service activation.

Country of Origin: China

881ADP

PVC Floor Box Ratchet Adjusting Ring – Used to attach wiring devices and cover plates to PVC Box. Locks into place without using glue or mechanical fasteners. Compensates for up to 10° of tilt if box is not level. Ground wire is factory attached to the adjusting ring.

Country of Origin: USA



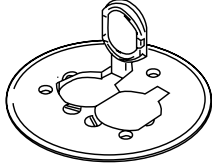
NOTE: One ring required per box, single- or dual-service.



Ratchet-Pro Series Floor Box can be used in both on grade and above grade concrete construction.

North American Made Ratchet-Pro Series Floor Box Cover Plates Ordering Information

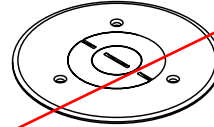
895P-BLK
895P-BRN
895P-BRZ
895P-AL



Polycarbonate Duplex Cover Plate –
With flip lids, 5 1/2" [140mm] diameter for carpet. Available in black 895P-BLK, brown 895P-BRN, bronze 895P-BRZ, and aluminum 895P-AL.

Country of Origin: USA

~~895PCK-BLK
895PCK-BRN
895PCK-BRZ
895PCK-AL~~

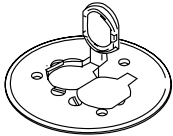


~~**Polycarbonate Communication or Power Cover Plate –** 5 1/2" [140mm] diameter. Available in black 896PCK-BLK, brown 896PCK-BRN, bronze 896PCK-BRZ and aluminum 896PCK-AL.~~

~~Country of Origin: USA~~

Ratchet-Pro Series Floor Box Cover Plate Ordering Information

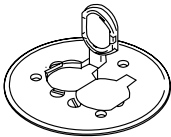
895



Brass Duplex Cover Plate – With flip lids, 5 1/2" [140mm] diameter for carpet.

Country of Origin: China

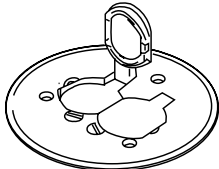
895TCAL



Brushed Aluminum Duplex Cover Plate – With flip lids, 5 1/2" [140mm] diameter for carpet.

Country of Origin: China

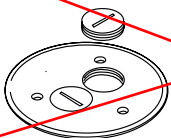
895TCAL-BK
895TCAL-BS
895TCAL-GY
895TCAL-NK
895TCAL-BZ



Aluminum Duplex Power Plate – With flip lids, 5 1/2" [140mm] diameter for carpet. Available in black 895AL-BK, brass 895AL-BS, gray 895AL-GY, nickel 895AL-NK and bronze 895AL-BZ.

Country of Origin: China

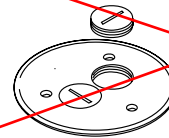
~~895SP~~



~~**Brass Cover Plate –** With two screw plug openings, 5 1/2" [140mm] diameter for carpet. Screw plug openings are 1 1/2" [38mm] – 16 tapped openings.~~

~~Country of Origin: China~~

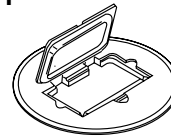
~~895SPCAL~~



~~**Brushed Aluminum Cover Plate –** With two screw plug openings, 5 1/2" [140mm] diameter for carpet. Screw plug openings are 1 1/2" [38mm] – 16 tapped openings.~~

~~Country of Origin: China~~

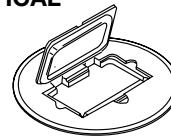
895GFI



Brass GFI Receptacle Cover Plate – 5 1/2" [140mm] diameter for carpet.

Country of Origin: China

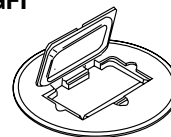
895GFICAL



Brushed Aluminum GFI Receptacle Cover Plate – 5 1/2" [140mm] diameter for carpet.

Country of Origin: China

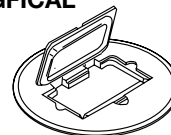
895TGFI



Brass GFI Receptacle Cover Plate – 4 1/4" [108mm] diameter for tile.

Country of Origin: China

895TGFICAL

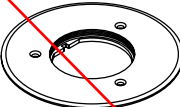


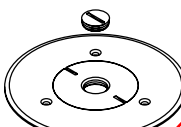
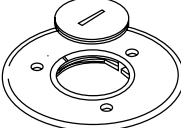
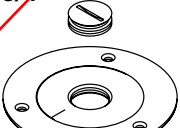
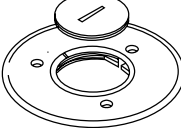
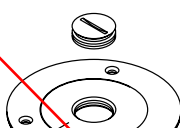
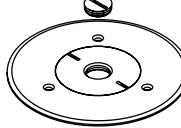
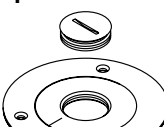
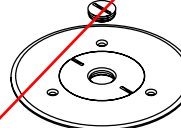
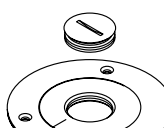


Brushed Aluminum GFI Receptacle Cover Plate – 4 1/4" [108mm] diameter for tile.

Country of Origin: China

NOTE: 1. All cover plates are furnished with gasket and three screws.
2. The 895P Polycarbonate Series Cover Plates must be field modified for dual-service.

Ratchet-Pro Series Floor Box Cover Plate Ordering Information

<p>896</p> 	<p>Brass Communication or Power Cover Plate – With 2 5/8" [67mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>	<p>896TCK-1/2</p> 	<p>Brass Cover Plate – With 1/2" [12.7mm] threaded opening, 4 1/4" [108mm] diameter for tile.</p> <p>Country of Origin: China</p>
<p>896T</p> 	<p>Brass Communication or Power Cover Plate – With 2 5/8" [67mm] threaded opening, 4 1/4" [108mm] diameter for tile. Abandon plug not included.</p> <p>Country of Origin: China</p>	<p>896TCKAL-1/2</p> 	<p>Brushed Aluminum Cover Plate – With 1/2" [12.7mm] threaded opening, 4 1/4" [108mm] diameter for tile.</p> <p>Country of Origin: China</p>
<p>896CK</p> 	<p>Brass Communication or Power Cover Plate – With 2 1/4" [57mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>	<p>896CK-3/4</p> 	<p>Brass Cover Plate – With 3/4" [19.1mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>
<p>896TCK</p> 	<p>Brass Communication or Power Cover Plate – With 2 1/4" [57mm] threaded opening, 4 1/4" [108mm] diameter for tile.</p> <p>Country of Origin: China</p>	<p>896TCK-3/4</p> 	<p>Brass Cover Plate – With 3/4" [19.1mm] threaded opening, 4 1/4" [108mm] diameter for tile.</p> <p>Country of Origin: China</p>
<p>896CK-1/2</p> 	<p>Brass Cover Plate – With 1/2" [12.7mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>	<p>896CK-1</p> 	<p>Brass Cover Plate – With 1" [25mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>
<p>896CKAL-1/2</p> 	<p>Brushed Aluminum Cover Plate – With 1/2" [12.7mm] threaded opening, 5 1/2" [140mm] diameter for carpet.</p> <p>Country of Origin: China</p>	<p>896TCK-1</p> 	<p>Brass Cover Plate – With 1" [25mm] threaded opening, 4 1/4" [108mm] diameter for tile.</p> <p>Country of Origin: China</p>

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