

TO: Ag Mechanics Team Coaches

FROM: Ag Mech Curricular Code Committee

RE: Electrical Board Requirements

As per the minutes of the Curricular Code Meeting held last June during the CATA Summer Conference, a committee was appointed (Darrell Hirschler, Tom Boyes, Toby Sheehan, Mike Spiess, Ryan Patterson, Dick Piersma, and Tim Reid) to do the following:

1. Make the needed changes to the Tool ID section of the contest.
2. Determine the model # of the load center and breakers to use on the official electrical board used in the contest.

Here is the information regarding the Electrical Boards:

I. Option 1

1. Purchase the needed load centers and breakers through the Home Depot website using the following links:
  - i. The SEP: [http://www.homedepot.com/p/Square-D-by-Schneider-Electric-Homeline-70-Amp-2-Space-4-Circuit-Indoor-Surface-Mount-Main-Lugs-Load-Center-with-Cover-HOM24L70SCP/100202333?N=bm2wZ1z0x9jo#.Ula\\_FVBzF8E](http://www.homedepot.com/p/Square-D-by-Schneider-Electric-Homeline-70-Amp-2-Space-4-Circuit-Indoor-Surface-Mount-Main-Lugs-Load-Center-with-Cover-HOM24L70SCP/100202333?N=bm2wZ1z0x9jo#.Ula_FVBzF8E)
  - ii. The Quad-breaker: [http://www.homedepot.com/p/Square-D-by-Schneider-Electric-Homeline-2-15-Amp-Single-Pole-1-20-Amp-Two-Pole-Quad-Circuit-Breaker-HOMT1515220CP/100150477?N=bm16Z1z0x9jo#.Ula\\_vVBzF8E](http://www.homedepot.com/p/Square-D-by-Schneider-Electric-Homeline-2-15-Amp-Single-Pole-1-20-Amp-Two-Pole-Quad-Circuit-Breaker-HOMT1515220CP/100150477?N=bm16Z1z0x9jo#.Ula_vVBzF8E)
2. The load center is currently priced at \$14.34 and is manufactured by Square D for the Home Depot "Homeline" brand. The breaker is priced at \$17.43 and is also made by Square D.
3. You can order these and have them shipped to your nearest Home Depot store for free, or you can have them shipped to home or school for free if your order is over \$45

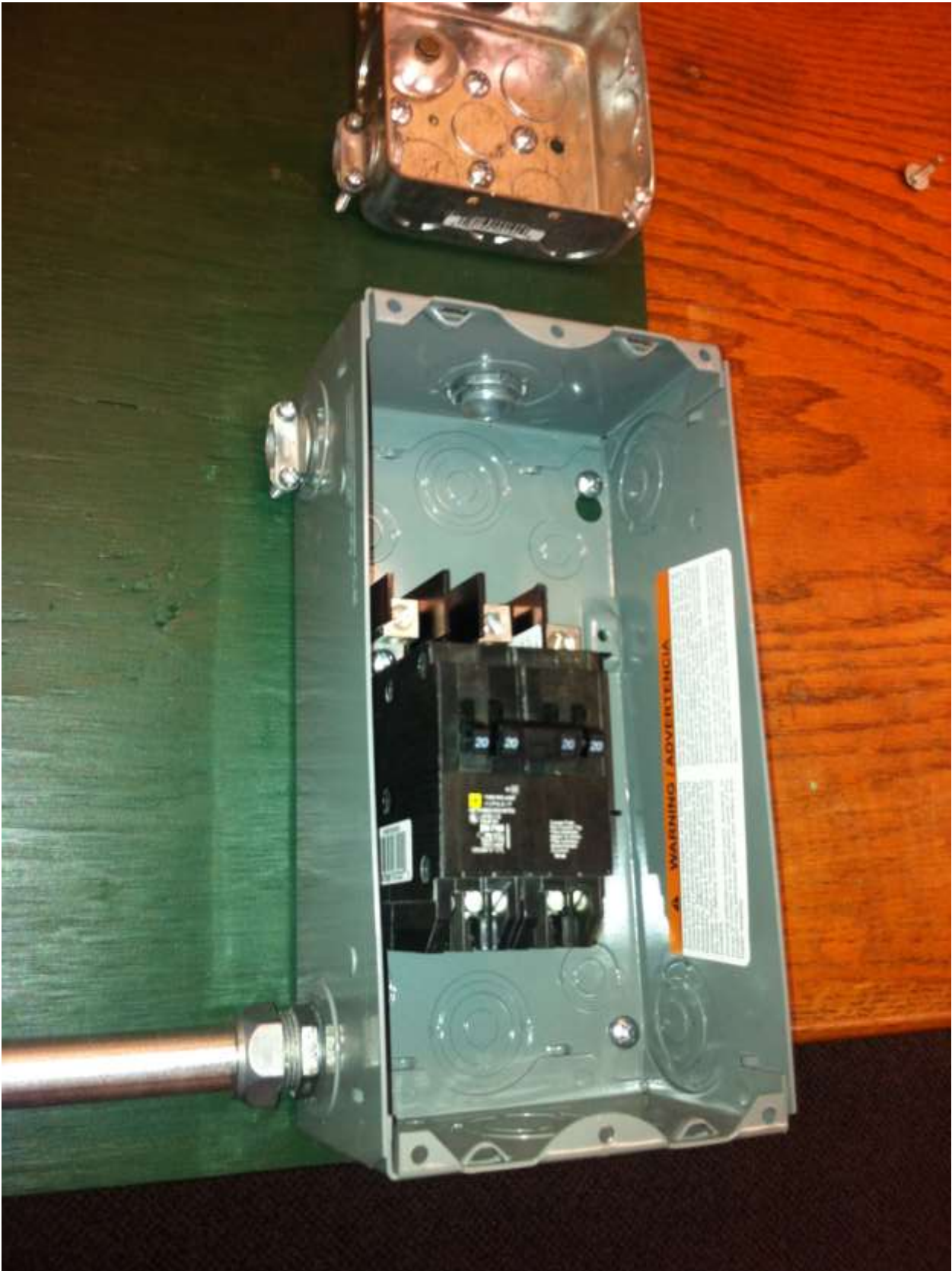
II. Option 2

1. We can purchase a large quantity (150-200) for the following prices:
  - i. Eaton BQC2202115 Quadplex Breaker (15 amp single pole-outer, and 20 amp center common trip) for \$14.59 each.
  - ii. Eaton BR24L70SGP Load Center for \$9.09 each.
2. If enough of you are interested, Dick Piersma will purchase these and then we will have to figure out a way to distribute them to the various coaches.
3. This option would be good for those coaches that are fairly close to Hilmar and who want to order 10 or more units (saves about \$8 per board)
4. Let Dick Piersma know how many of these you want by October 31, 2013. Contact him at [dwpiersma@att.net](mailto:dwpiersma@att.net) or 209-985-6556.

III. Option III

1. Some of you may have a local electrician that may be willing to donate the needed equipment to you. If that is the case, the committee would like the model to be as similar in physical size and amperage capacity to those listed above as possible. The breaker should have the capacity to wire two independent 120 V 15 amp circuits, and one 240 V 20 amp circuit.





# Curricular Code Committee Minutes

(Must be typed)

Contest: Ag Mechanics

Chairperson: Darrell Hirschler

Secretary: Toby Sheehan, Daniel Fishman, Dick Piersma

Action:

Call to order by Darrell Hirschler at 8:05 AM

1. Proposal by Chris McKenna to increase the minimum number of qualifying contests teams must go to from 3 to 4 contests was not passed.
2. Proposals from Mike Spiess:
  - a. Tool ID changes – referred to a committee made up of Darrell Hirschler, Tom Boyes, Toby Sheehan, Mike Spiess, Ryan Patterson, Dick Piersma, and Tim Reid to make needed changes. Motion passed, VV.
  - b. All Tool ID additions proposed were approved by VV.
  - c. Plumbing reference proposal was accepted.
  - d. Surveying reference proposal was accepted.
  - e. Proposal 1.1 – prewiring the ground wires to boxes only was approved.
  - f. Proposal 1.2 – allow source to come in from any location was approved.
  - g. Proposal 1.3 – withdrawn.
  - h. Proposal 1.4 – approved.
  - i. Proposal 1.5 – allowed contestants to have pigtails and NM cable not longer than 10” in their box.
  - j. Proposal 1.6 – not approved.
  - k. Proposal 2 – not approved.
3. Proposals from Dick Piersma:
  - a. Proposal #3 - NEC Proposal was withdrawn.
  - b. Proposal #4 - allow source to come in from any location was approved.
  - c. Proposal #2 – approved (model # of box TBD by Tool ID Committee)
  - d. Proposal #1 – Rotation schedule Option 2 approved.

Note: Request that the Ag Mechanics Contest be opened in 2014 for review of the electrical skills rotation only.

Adjourned at 9:54 AM

Respectfully submitted,

Toby Sheehan, Daniel Fishman, Dick Piersma, Larry Dinis

## Eaton BR24L70SGP 70A, 120/240V, 1P, 2/4, ML Loadcenter, NEMA 1



**Cat:** BR24L70SGP

**Mfg:** Eaton

(0) [Write a review](#)  
What's your trade slang? 

[Catalog Page](#)

**Item:** 347203

**UPC:** 786676001946

**\$33.41** EA

**In Stock** 6

Qty:

[Add to Cart](#)

### Associated (2) [Add](#)



Neutral/ Ground Lug for BR and CH Series Loadcenters,...

Qty



Isolated Neutral Assembly, Computer Circuits, Used W...

Qty

### Details

### Reviews (0)

70 AMP, 120/240V AC, 1-Phase, Main Lug Loadcenter, 2-Space, 4-Pole, Aluminum Bus, Cover: Surface with No Door, NEMA 1- Indoor. Includes: GBK5 Ground Bar.

**Platt Cat:** CUTBR24L70SGP  
**Platt Item:** 347203  
**Mfg:** [Cutler-Hammer](#), [Eaton](#), [Westinghouse](#)  
**UPC:** 786676001946  
**Category:** [1-Phase Main Lug](#)  
**Familystyle:** BR  
**Mounting:** Surface  
**Amps:** 70

**Volts AC:** 120, 240  
**NEMA Rating:** 1  
**Circuits:** 4  
**Phase:** 1  
**Type:** Main Lug, Aluminum Buss  
**Spaces:** 2

### Others Also Bought (25) [Add](#)



20 Amp, 1-Pole, BR Plug-On Circuit Breaker, 10 kAIC,...

Qty



30 Amp, 2-Pole, BR Plug-On Circuit Breaker, 10 kAIC,...

Qty



20 Amp, 2-Pole, BR Plug-On Circuit Breaker, 10 kAIC,...

Qty

[More \(22\)](#)

### Substitutes (0)

- **Category:** [Power Distribution](#) > [Load Centers / Panelboard...](#) > [Aluminum Buss Load Center...](#) > [1-Phase Main Lug](#)
- **Products related to** [BR24L70SGP 70A, 120/240V, 1P, 2/4, ML Loadcenter, NEMA 1](#) or visit the [Eaton](#) site.
- **For help** with [70A, 120/240V, 1P, 2/4, ML Loadcenter, NEMA 1](#) from [Eaton](#), **call Platt at 800-257-5288** from 4a - 8p (pst) 7 days.
- Click "**Add to Cart**" to buy Eaton BR24L70SGP 70A, 120/240V, 1P, 2/4, ML Loadcenter, NEMA 1.
- **Also known as:** 786676001946, CUTBR24L70SGP, Eaton, BR24L70SGP, 1-Phase Main Lug, Aluminum Buss Load Centers, Load Centers / Panelboards, Power Distribution, Cutler-Hammer, Westinghouse



## Eaton BQC2202115 15/20A, 120/240V, 10 kAIC, CTL Quad CB



**Cat:** BQC2202115

**Mfg:** Eaton

(0) [Write a review](#)

[What's your trade slang?](#)

[Catalog Page](#)

**Item:** 354629

**UPC:** 786676371971

**\$48.97** EA

**In Stock** 8

Qty:




[Add to Cart](#)

### Associated (5)

-  [Add](#) Qty
-  Qty
-  Qty

[More \(2\)](#)

### Others Also Bought (25)

-  [Add](#) Qty
-  Qty
-  Qty

[More \(22\)](#)

### Substitutes (0)

### Details

### Reviews (0)

CTL Quadplex Breaker with Rejection Tab, 2-Pole and 1-Pole, 10 kAIC, (2) 15 Amp 1-Pole Outer and 2-Pole 20 Amp Center Common Trip, Requires (2) 1-inch spaces, Wire Size #14-4, 120/240 VAC. \*\*\*For BR Series Loadcenters\*\*\*

<b>Platt Cat:</b>	CUTBQC2202115
<b>Platt Item:</b>	354629
<b>Mfg:</b>	<a href="#">Cutler-Hammer, Eaton, Westinghouse</a>
<b>UPC:</b>	786676371971
<b>Category:</b>	<a href="#">Quadplex Circuit Breakers</a>
<b>Familystyle:</b>	BR
<b>Mounting:</b>	Plug-On

<b>Amps:</b>	15, 20
<b>Volts AC:</b>	120, 240
<b>Poles:</b>	4
<b>Type:</b>	Miniature, Quadplex
<b>Interrupt Rating AC:</b>	10000

- **Category:** [Power Distribution](#) > [Circuit Breakers](#) > [Circuit Breakers - Reside...](#) > [Quadplex Circuit Breakers](#)
- **Products related to** [BQC2202115 15/20A, 120/240V, 10 kAIC, CTL Quad CB](#) or visit the [Eaton](#) site.
- **For help** with [15/20A, 120/240V, 10 kAIC, CTL Quad CB](#) from [Eaton](#), call **Platt at 800-257-5288** from 4a - 8p (pst) 7 days.
- Click "**Add to Cart**" to buy Eaton BQC2202115 15/20A, 120/240V, 10 kAIC, CTL Quad CB.
- **Also known as:** 786676371971, CUTBQC2202115, Eaton, BQC2202115, Quadplex Circuit Breakers, Circuit Breakers - Residential, Circuit Breakers, Power Distribution, Cutler-Hammer, Westinghouse

BOX B

BOX A

1/2" PVC Conduit

NOTES:

1. Install NM Cable Clamps in every Junction Box, in every direction, for NM Cable applications.
2. Install junction boxes 8" apart.
3. Use 4" x 4" Junction Boxes with 1/2" knock-outs.

NOTES:

1. Install NM Cable Clamp at the bottom of the SEP for NM Cable applications.
2. Leave a 1/2" knock-out open at the top of the box for a power source.

BOX C

1/2" EMT

SEP