# **BATTERIES** AND ACCESSORIES





# BATTERIES FOR ALL APPLICATIONS

Consider John Deere your one-stop shop for batteries. We offer choice when it comes to batteries. John Deere StrongBox™ Original Equipment is our premiumquality battery that meets the original factory specifications for all John Deere equipment. John Deere StrongBox Standard-Duty is an alternative lower-specification battery that is comparable to most competitive brands in the market today. We also offer a full line of accessories including cables, terminals, corrosion-prevention products, and more. And, when a battery wears down, our battery chargers will have you up and running in no time.



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# JOHN DEERE BATTERY LINEUP

Whether you need a John Deere Original Equipment or a Standard-Duty battery, we have the battery for every need.





#### **COMMERCIAL BATTERIES**

Ideal for ag, construction, and off-road, these commercial-grade designs feature heavy-duty poly case and cover, plate anchoring, and plate protection to prevent vibration damage and extend performance and life.



#### LAWN AND GARDEN BATTERIES

Top cranking performance for engines up to 40 horsepower with reliability that lasts from season to season. Outdoortough poly case and cover, advanced grid alloy and maintenance-free design combines convenience with a power that you can depend on start-after-start.



#### **AUTOMOTIVE BATTERIES**

High performance starting power in all climates and conditions. Superior plate and grid design withstand high under-hood temperatures and the brutal cold – all while providing long-lasting maintenance-free battery life.



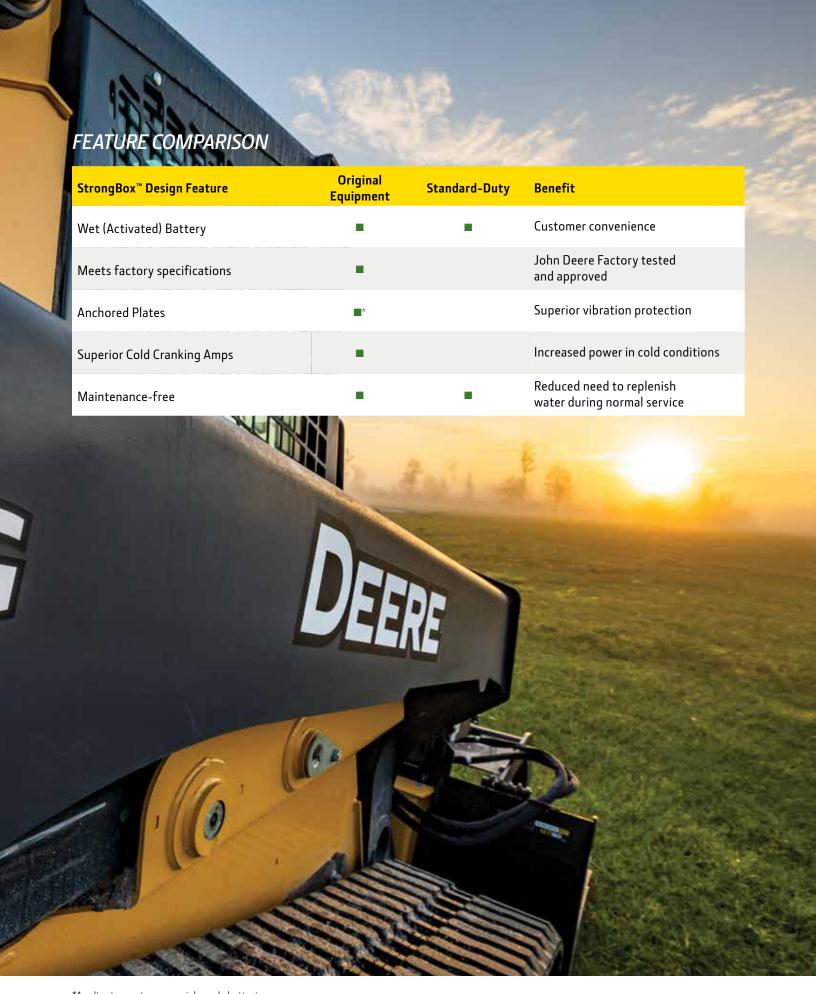
#### **MARINE BATTERIES**

Available for Deep Cycle applications with features such as thick, reinforced plates designed for deep discharges, cycling, and long hours of trolling. Dual terminals with stainless steel connections allow multiple hook-ups and resist power-robbing corrosion.



#### **GOLF CART AND ELECTRIC VEHICLE BATTERIES**

Experience more power on the green and less maintenance in-between with high-density plates and reinforced grid design to maximize continual deep cycle performance. Special manufacturing features significantly reduce timeconsuming battery maintenance and frequent watering while delivering the industry's most trusted performance.



\*Applies to most commercial-grade batteries.

# **STRONGBOX**™ ORIGINAL EQUIPMENT

Advanced, maintenance-free technology perfect for heavy- and light-duty farm, ranch, construction, utility, and lawn and garden equipment. Maintenance-free Original Equipment batteries are designed and tested for high heat and intense vibration in offroad conditions.

Tested in John Deere equipment by our engineers to meet the demanding machine specifications of your equipment.



Backed by the John Deere Warranty.

# John Deere Factory Tested

to ensure batteries withstand rigorous off-road and harsh conditions.

Faster starts and power flow efficiencies by an intentional radial plate design.

**Increased durability** through a positive punched-grid design which prevents corrosion and electrical shorts.

Extended life created by small grid windows to improve active material retention.

Withstands vibration and prolongs life with a heavy-duty polypropylene case and cover, and with anchored plates in most commercial grade batteries.

**Maintenance-free** — no need to add water during normal service for customer convenience.

Tested to the extreme, to handle the extreme.

# **STRONGBOX™** STANDARD-DUTY

For all makes of agricultural, commercial, automotive, light truck, SUV, lawn and garden, utility vehicle, golf cart, electric vehicle, and marine equipment.

Standard-Duty batteries offer customers an economical alternative in lighter-use situations.

**Industry Tested** to meet minimum specifications for all-make applications.

Withstands vibration and prolongs life with a heavy-duty polypropylene case and cover.

Prevents corrosion and electrical **shorts** with envelope plate separators.

Extended life created by small grid windows to improve active material retention.



Backed by the John Deere Warranty.

# STRONGBOX™ TIERED PORTFOLIO

#### With the updated portfolio, John Deere still offers a tiered option for batteries.

The StrongBox™ Original Equipment brand replaces what was the StrongBox™ brand, while the StrongBox™ Standard-Duty line replaces the Performance brand. The same features and benefits of each still apply with changes to CCA and warranty, offering customers a tangible difference between the batteries.

StrongBox™ Origin	al Equipment
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## StrongBox™ Standard-Duty

John Deere factory specifications (Meets specification, fit, form, function)	Industry standard specifications
Higher CCA	Industry CCA
Longer Warranty*	Industry Warranty* *in most cases
Heavy-duty equipment	Light-duty / older equipment
Premium battery	Economical alternative
Previously StrongBox™	Previously Performance

BCI	Brand	Part Number	Volts	CCA	RC	Ref. AH	Warranty	Core Units	Length	Width	Height
U1	Original Equipment	TY25221B	12	350	38	30	6	0.5	7 ³/4 in. (197 mm)	5 ³/16 in. (132 mm)	7 <sup>5</sup> /16 in. (186 mm)
U1	Standard-Duty	TY25878B	12	300	34	25	6	0.5	7 <sup>3</sup> / <sub>4</sub> in. (197 mm)	5 ³/16 in. (132 mm)	7 <sup>5</sup> /16 in. (186 mm)
3ET	Original Equipment	TY24341B	12	620	120	72	12	1.5	19 <sup>5</sup> / <sub>8</sub> in. (491 mm)	4 <sup>3</sup> / <sub>8</sub> in. (111 mm)	9 <sup>13</sup> /16 in. (249 mm)
3ET	Standard-Duty	TY27794B	12	460	120	70	9	1.5	19 <sup>5</sup> /8 in. (491 mm)	4 <sup>3</sup> / <sub>8</sub> in. (111 mm)	9 <sup>13</sup> /16 in. (249 mm)
4D	Original Equipment	TY23020B	12	1400	410	190	12	3.0	20 ½ in. (521 mm)	8 1/2 in. (216 mm)	10 in. (254 mm)
4D	Original Equipment	TY21754B	12	1050	290	135	12	3.0	20 ½ in. (521 mm)	8 1/2 in. (216 mm)	10 in. (254 mm)
4DLT	Original Equipment	TY24381B	12	1000	220	132	12	1.5	20 in. (508 mm)	8 ½ in (206 mm)	8 in. (203 mm)
4DLT	Standard-Duty	TY27829B	12	860	235	120	9	1.5	20 in. (508 mm)	8 ½ in (209 mm)	8 in. (203 mm)
5D	Original Equipment	TY23025B	6	1000	300	180	12	1.5	13 <sup>3</sup> / <sub>4</sub> in. (349 mm)	7 ½ in. (181 mm)	9 <sup>3</sup> / <sub>8</sub> in. (238 mm)
5D	Standard-Duty	TY27793B	6	880	250	130	6	1.5	13 ½ in. (343 mm)	7 ½ in. (181 mm)	9 <sup>3</sup> / <sub>8</sub> in. (238 mm)
22NF	Original Equipment	TY26498B	12	500	75	45	12	1.0	9 ½ in. (241 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	9 1/2 in. (241 mm)
22NF	Standard-Duty	TY27798B	12	360	58	35	6	1.0	9 ½ in. (241 mm)	5 ½ in. (140 mm)	9 in. (229 mm)
31	Original Equipment	TY25879B	12	950	175	90	20	1.5	13 in. (330 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	9 ½ in. (241 mm)
31	Standard-Duty	TY27796B	12	925	170	90	18	1.5	13 in. (330 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	9 ½ in. (241 mm)
31	Original Equipment	TY25803B	12	760	170	85	18	1.5	13 in. (330 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	9 ½ in. (241 mm)
31T	Original Equipment	TY24546B	12	950	175	90	20	1.5	13 in. (330 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	9 ⅓ in. (241 mm)
31T	Standard-Duty	TY27795B	12	925	170	90	18	1.5	13 in. (330 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	9 ½ in. (241 mm)
34	Original Equipment	TY26442B	12	800	115	65	15	1.0	10 ³/4in. (273 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	8 in. (203 mm)
34	Standard-Duty	TY27797B	12	690	110	60	12	1.0	10 ³/4in. (273 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	8 in. (203 mm)
51	Original Equipment	TY25876B	12	500	75	45	18	1.0	9³/s in. (238 mm)	5 in. (127 mm)	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)
51	Standard-Duty	TY27806B	12	425	70	40	15	1.0	9³/8 in. (238 mm)	5 in. (127 mm)	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)



# STRONGBOX™ ORIGINAL EQUIPMENT

#### **HEAVY-DUTY COMMERCIAL**

















Part Number	TY21737B	TY24341B	TY21734B	ТҮ23020В	TY21754B	TY24381B	TY23025B	TY21764B
BCI	ЗЕН	3ET	4	4D	4D	4DLT	5D	24
Volts	6	12	6	12	12	12	6	12
CCA	850	620	975	1400	1050	1000	1000	550
RC	250	120	250	410	290	220	300	90
Ref. AH	168	72	125	190	135	132	180	50
Terminal Type*	Α	А	А	A	А	А	А	А
Length	191/4in. (489 mm)	19 <sup>5</sup> / <sub>8</sub> in. (491 mm)	121/2 in. (318 mm)	20 ½ in. (521 mm)	20 ½ in. (521 mm)	20 in. (508 mm)	13³/4 in. (349 mm)	10 <sup>3</sup> / <sub>4</sub> in. (273 mm)
Width	41/4 in. (108 mm)	4 <sup>3</sup> / <sub>8</sub> in. (111 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	8 ½ in. (216 mm)	8 ½ in. (216 mm)	81/8 in. (206 mm)	7½ in. (181 mm)	6³/4 in. (171 mm)
Height	10 in. (254 mm)	9 <sup>13</sup> / <sub>16</sub> in. (249 mm)	9 1/ <sub>2</sub> in. (241 mm)	10 in. (254 mm)	10 in. (254 mm)	8 in. (203 mm)	9³/8 in. (238 mm)	9 in. (229 mm)
Core Units*	1.5	1.5	1.5	3.0	3.0	1.5	1.5	1.0
Warranty (month)	12	12	12	12	12	12	12	18

<sup>\*</sup>Recycling credit units

Terminal Type

Warranty Code:

A = SAE automotive Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

All of our batteries are built to tough John Deere specifications, but they fit most any brand of vehicle or equipment. And, they're backed by an excellent John Deere warranty.

**BCI group size:** Battery dimensions and terminal configuration

*CCA:* Amp rating at 0 degrees F

**RC:** Reserve capacity in minutes at a 25 amp load

Built and tested for real conditions. Yours.

#### **TERMINALS**

Use a variety of terminals according to the demands of each battery application. The various types are shown here:



A = SAE Automotive



T = Threaded Post



= U1 Lug Post



S = Side Terminal



# STRONGBOX™ ORIGINAL EQUIPMENT

#### HEAVY-DUTY COMMERCIAL



















Part Number	TY25272B	TY21741B	TY24546B	TY25803B	ТҮ25879В	TY26442B	TY21748B	ТҮ26773В	TY26782B
BCI	27	30H	31T	31	31	34	8D	D1	D4
Volts	12	12	12	12	12	12	12	12	12
CCA	675	650	950	760	950	800	1400	800	1150
RC	120	150	175	170	175	115	440	180	300
Ref. AH	65	65	90	85	90	65	195	110	154
Terminal Type*	Α	Α	T	A	Α	Α	Α	Α	Α
Length	12 in. (305 mm)	13 in. (330 mm)	13 in. (330 mm)	13 in. (330 mm)	13 in. (330 mm)	10³/4 in. (273 mm)	20 <sup>3</sup> / <sub>4</sub> in. (527 mm)	161/4 in. (413 mm)	20 in. (508 mm)
Width	6³/4 in. (171 mm)	6³/4 in. (171 mm)	6³/4 in. (171 mm)	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	6³/4 in. (171 mm)	67/8 in. (175 mm)	11 in. (279 mm)	6 <sup>13</sup> /16 in. (175 mm)	7 <b>7</b> /16 in. (189 mm)
Height	9 in. (229 mm)	9 ½ in. (241 mm)	9 ½ in. (241 mm)	9 ½ in. (241 mm)	9 1/2 in. (241 mm)	8 in. (203 mm)	10 in. (254 mm)	8 <sup>11</sup> / <sub>16</sub> in. (220 mm)	8 <sup>13</sup> / <sub>16</sub> in. (224 mm)
Core Units	1.0	1.5	1.5	1.5	1.5	1.0	3.0	1.5	3.0
Warranty (month)	18	18	20	18	20	15	12	6	12

**Terminal Type** 

Warranty Code:

A = SAE automotive Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

Vibration is a leading cause of battery failure. That's why extensive testing of John Deere StrongBox™ Original Equipment batteries simulate rough, real-life situations. Stick with the John Deere factory tested and approved battery to keep you running.





#### WHY DO BATTERIES FAIL?

The top three reasons are:

- 1. Continuous use in extreme heat applications
- 2. Vibration due to rough off-road conditions causes broken welds
- 3. Lack of seasonal maintenance such as storing a battery in the winter months without a maintainer

#### DID YOU KNOW?

Over 60% of batteries submitted on a warranty claim, are discharged batteries that just need a boost.

#### TO PROLONG BATTERY LIFE:

- Check batteries every spring and fall for leakage, state-of-charge, and loose or frayed wires. Ensure terminals are clean of corrosion.
- Always use the right battery type for the application at hand.
- Disconnect the battery ground cable if equipment will not be used for a long time. This will reduce power drainage and help prolong battery life.
- Use of a John Deere battery maintainer safely charges most batteries that require long storage periods.

See page 42 for battery maintainer options.

13 12 TY25803B



# STRONGBOX™ ORIGINAL EQUIPMENT HEAVY-DUTY COMMERCIAL





Part Number	ТҮ26783В	TY25881B
BCI	D5	45
Volts	12	12
CCA	1400	480
RC	380	65
Ref. AH	180	30
Terminal Type*	A	Α
Length	20 in. (508 mm)	9³/8 in. (238 mm)
Width	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)	5½ in. (140 mm)
Height	8 <sup>13</sup> / <sub>16</sub> in. (224 mm)	9 in. (229 mm)
Core Units	3.0	1.0
Warranty (month)	12	12

A = SAE automotive

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

#### Warranty Code:

Number of months for free replacement

# STRONGBOX™ ORIGINAL EQUIPMENT TURF & UTILITY













TY27472B	TY26498B	TY25876B	TY27831B	TY25221B	TY27365B
47/H5	22NF	51	51R	U1	GC2H
12	12	12	12	12	6
650	500	500	500	350	N/A
100	75	75	75	38	255 Ah
60	45	45	45	30	Ref. 20HR Ah 255
Α	Α	Α	Α	Χ	U
9 <b>9</b> /16 in. (243 mm)	9 1/2 in. (241 mm)	9³/8 in. (238 mm)	9³/8 in. (238 mm)	7³/4 in. (197 mm)	10½ in. (260 mm)
6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	5 in. (127 mm)	5 in. (127 mm)	5³/16 in. (132 mm)	71/8 in. (181 mm)
7 ½ in. (191 mm)	9 ½ in. (241 mm)	8³/4 in. (222 mm)	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)	75/16 in. (186 mm)	11 <b>7/8</b> in. (302 mm)
1.0	1.0	1.0	1.0	0.5	1.5
20	12	18	18	6	6

Our line of lawn and garden batteries include an option for every budget. Choose the Original Equipment versions for heavy-duty use, such as commercial mowing or our Standard-Duty options for lighter use applications.



# STRONGBOX™ STANDARD-DUTY

















Part Number	TY21731B	TY27794B	TY27829B	ТҮ27793В	TY6192B	ТҮ27798В	TY27800B	TY27805B
BCI	1	3ET	4DLT	5D	22F	22NF	26R	27
Volts	6	12	12	6	12	12	12	12
CCA	640	460	860	880	425	360	540	600
RC	130	120	235	250	65	58	80	150
Ref. AH	90	70	120	130	35	35	50	80
Terminal Type*	Α	Α	Α	A	Α	Α	Α	A,T
Length	9 in. (229 mm)	19 5/8 in. (491 mm)	20 in. (508 mm)	13 1/2 in. (343 mm)	9³/8 in. (238 mm)	9 ½ in. (241 mm)	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)	12 <sup>3</sup> / <sub>4</sub> in. (323 mm)
Width	6	4³/8in. (111 mm)	8 ¼ in. (209 mm)	7 1/8 in. (181 mm)	6³/4 in. (171 mm)	5 ½ in. (140mm)	6³/4 in. (171 mm)	6³/4 in. (171 mm)
Height	8 <sup>3</sup> / <sub>4</sub> in. (222 mm)	9 <sup>13</sup> /16 in. (249 mm)	8 in. (203 mm)	9³/ <sub>8</sub> in. (238 mm)	81/4 in. (210 mm)	9 in. (229mm)	8 in. (203 mm)	9 3/8 in. (238 mm)
Core Units	1.0	1.5	1.5	1.5	1.0	1.0	1.0	1.0
Warranty (month)	12	9	9	6	12	6	20	12

**Terminal Type**A = SAE automotive

**Warranty Code:** Number of months for free replacement

A&S = both pillar and side posts

T = threaded post



TY27829B





TY27793B



# STRONGBOX™ STANDARD-DUTY













Part Number	TY27795B	ТҮ27796В	ТҮ27797В	TY27474B	TY27806B	TY25878B
BCI	31T	31	34	49/H8	51	Ul
Volts	12	12	12	12	12	12
CCA	925	925	690	900	425	300
RC	170	170	110	150	70	34
Ref. AH	90	90	60	80	40	25
Terminal Type*	T	А	Α	A	А	Χ
Length	13 in. (330 mm)	13 in. (330 mm)	10 <sup>3</sup> / <sub>4</sub> in. (273 mm)	13 <sup>15</sup> /16 in. (354 mm)	9 ³/8 in. (238 mm)	7¾ in. (197 mm)
Width	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	6 ³/4 in. (171 mm)	67/8 in. (175 mm)	6 <sup>7</sup> / <sub>8</sub> in. (175 mm)	5 in. (127 mm)	5³/16 in. (132 mm)
Height	9 ½ in. (241 mm)	9 ½ in. (241 mm)	8 in. (203 mm)	7 ½ in. (191 mm)	8 ¾ in. (222 mm)	75/16 in. (186 mm)
Core Units	1.5	1.5	1.0	1.0	1.0	0.5
Warranty (month)	18	18	12	20	15	6

Terminal Type

Warranty Code:

A = SAE automotive

Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

To simplify the battery warranty, StrongBox™ Standard-Duty battery warranty claims can now be submitted through the John Deere warranty system.





# STRONGBOX™ TRUCK & SUV















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Part Number	ТҮ27799В	TY24394B	TY27473B	TY24932B	TY24944B	TY24937B	TY27804B
BCI	24F	27F	48/H6	65	75	78DT	94R/H7
Volts	12	12	12	12	12	12	12
CCA	700	710	730	850	650	800	790
RC	120	120	115	150	90	115	130
Ref. AH	70	65	70	80	58	65	80
Terminal Type*	Α	Α	Α	A	S	A,S	Α
Length	10 <sup>3</sup> / <sub>4</sub> in. (273 mm)	12 <sup>3</sup> / <sub>8</sub> in. (314 mm)	11 in. (279 mm)	12 in. (305 mm)	9 ¾ in. (248 mm)	10 ¾ in. (273 mm)	127/16 in. (316 mm)
Width	6 <sup>3</sup> / <sub>4</sub> in. (171 mm)	6 ³/4 in. (171 mm)	6 7/8 in. (175 mm)	73/s in. (187 mm)	7 in. (178 mm)	7 in. (178 mm)	6 % in. (175 mm)
Height	9 in. (229 mm)	9 in. (229 mm)	7½ in. (191 mm)	75/s in. (194 mm)	7 ¼ in. (184 mm)	8 in. (203 mm)	7 ½ in. (191 mm)
Core Units	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Warranty (month)	30	30	30	30	30	30	30

Terminal Type

**Type**Warranty Code:

utomotive
Number of months for free replacement

A = SAE automotive No A&S = both pillar and side posts

rias som pinar and side pe

T = threaded post

X = U-1 lug post

S = side terminal



# Did you know a lead acid battery is 99% recyclable?

But remember Lithium Ion batteries CANNOT be placed in the core pick-up pile. Lithium ion batteries MUST be recycled separately.

# BATTERIES BY BCI GROUP LISTING

BCI	Part Number	Volts	CCA	RC	Ref. AH	Terminal Type	StrongBox™ Label		Size (in.)			Size (mm)		Core Units	Waranty (month)
								L	W	Н	L	W	Н	_	
1	TY21731B	6	640	130	90	А	Standard-Duty	9	67/8	8 3/4	229	175	222	1.0	12
3EH	TY21737B	6	850	250	168	А	Original Equipment	19 1/4	41/4	10	489	108	254	1.5	12
3ET	TY24341B	12	620	120	72	А	Original Equipment	19 <sup>5</sup> /8	43/8	9 <sup>13</sup> /16	491	111	249	1.5	12
3ET	TY27794B	12	460	120	70	Α	Standard-Duty	19 5/8	43/8	9 <sup>13</sup> /16	491	111	249	1.5	9
4	TY21734B	6	975	250	125	А	Original Equipment	121/2	67/8	91/2	318	175	241	1.5	12
4D	TY21754B	12	1050	290	135	Α	Original Equipment	20 1/2	81/2	10	521	216	254	3.0	12
4D	TY23020B	12	1400	410	190	А	Original Equipment	20 1/2	81/2	10	521	216	254	3.0	12
4DLT	TY24381B	12	1000	220	132	Α	Original Equipment	20	81/8	81/8	508	206	203	1.5	12
4DLT	TY27829B	12	860	235	120	Α	Standard-Duty	20	81/4	8	508	209	203	1.5	9
5D	TY23025B	6	1000	300	180	Α	Original Equipment	13 1/2	71/8	93/8	343	181	238	1.5	12
5D	TY27793B	6	880	250	130	А	Standard-Duty	13 3/4	71/8	93/8	349	181	238	1.5	6
8D	TY21748B	12	1400	440	195	Α	Original Equipment	20 3/4	11	10	527	279	254	3.0	12
22F	TY6192B	12	425	65	35	А	Standard-Duty	9 3/8	63/4	81/4	238	171	210	1.0	12
22NF	TY26498B	12	500	75	45	Α	Original Equipment	91/2	67/8	91/2	241	175	241	1.0	12
22NF	TY27798B	12	360	58	35	Α	Standard-Duty	91/2	5½	9	241	140	229	1.0	6
24	TY21764B	12	550	90	50	Α	Original Equipment	10 3/4	63/4	9	273	171	229	1.0	18
24F	TY27799B	12	700	120	70	А	Truck/SUV	10 3/4	63/4	9	273	171	229	1.0	30
26R	TY27800B	12	540	80	50	Α	Standard-Duty	8 3/4	63/4	8	222	171	203	1.0	20
27	TY25272B	12	675	120	65	А	Original Equipment	12	63/4	9	305	171	229	1.0	18
27	TY27805B	12	600	150	80	A,T	Standard-Duty	123/4	63/4	93/8	323	171	238	1.0	12
27F	TY24394B	12	710	120	65	Α	Truck/SUV	123/8	63/4	9	314	171	229	1.0	30
30H	TY21741B	12	650	150	65	Α	Original Equipment	13	63/4	9 1/2	330	171	241	1.5	18
31	TY25803B	12	760	170	90	А	Original Equipment	13	63/4	9 1/2	330	171	241	1.5	18
31	TY25879B	12	950	175	90	Α	Original Equipment	13	63/4	91/2	330	171	241	1.5	20
31	TY27796B	12	925	170	90	Α	Standard-Duty	13	63/4	9 1/2	330	171	241	1.5	18
31T	TY24546B	12	950	175	90	Т	Original Equipment	13	63/4	9 1/2	330	171	241	1.5	20
31T	TY27795B	12	925	170	90	Т	Standard-Duty	13	63/4	9 1/2	330	171	241	1.5	18
34	TY26442B	12	800	115	65	А	Original Equipment	10 3/4	6 <b>7/8</b>	8	273	175	203	1.0	15
34	TY27797B	12	690	110	60	Α	Standard-Duty	10 3/4	6 <b>7/8</b>	8	273	175	203	1.0	12
45	TY25881B	12	480	65	30	Α	Original Equipment	93/8	5 <b>½</b>	9	238	140	229	1.0	12

**Terminal Type**A = SAE automotive

**Warranty Code:** Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

# BATTERIES BY BCI GROUP LISTING

BCI	Part Number	Volts	CCA	RC	Ref. AH	Terminal Type	StrongBox™ Label		Size (in.)			Size (mm)		Core Units	Waranty (month)
								L	W	Н	L	W	Н	_	
47/H5	TY27472B	12	650	100	60	А	Original Equipment	9 <b>9</b> /16	6 <sup>7</sup> /8	71/2	243	175	191	1.0	20
48/H6	TY27473B	12	730	115	70	Α	Truck/SUV	11	6 <b>7</b> /8	71/2	279	175	191	1.0	30
49/H8	TY27474B	12	900	150	80	Α	Standard-Duty	13 <sup>15</sup> /16	6 <b>7</b> /8	71/2	354	175	191	1.0	20
51	TY25876B	12	500	75	45	Α	Original Equipment	93/8	5	83/4	238	127	222	1.0	18
51	TY27806B	12	425	70	40	Α	Standard-Duty	93/8	5	83/4	238	127	222	1.0	15
51R	TY27831B	12	500	75	45	Α	Original Equipment	93/8	5	83/4	238	127	222	1.0	18
65	TY24932B	12	850	150	80	Α	Truck/SUV	12	73/8	75/8	305	187	194	1.0	30
75	TY24944B	12	650	90	58	S	Truck/SUV	93/4	7	71/4	248	178	184	1.0	30
78DT	TY24937B	12	800	115	65	A,S	Truck/SUV	103/4	7	8	273	178	203	1.0	30
94R/H7	TY27804B	12	790	130	80	Α	Truck/SUV	127/16	6 <b>7</b> /8	71/2	316	175	191	1.0	30
D1	TY26773B	12	800	180	110	Α	Original Equipment	161/4	6 <sup>13</sup> /16	8 11/16	413	175	220	2.0	6
D4	TY26782B	12	1150	300	154	Α	Original Equipment	20	7 7/16	8 13/16	508	189	224	3.0	12
D5	TY26783B	12	1400	380	180	Α	Original Equipment	20	83/4	8 13/16	508	222	224	3.0	12
GCH2	TY27365B	6	N/A	255 Ah	Ref. 20HR Ah 255	U	Original Equipment	101/4	71/8	117/8	260	181	302	1.5	6
U1	TY25221B	12	350	38	30	Χ	Original Equipment	73/4	5³/16	7 5/16	197	132	186	0.5	6
Ul	TY25878B	12	300	34	25	Χ	Standard-Duty	73/4	5³/16	7 5/16	197	132	186	0.5	6
Motorcycle / Powersport / AGM	TY27801B	12	50	N/A	Ref. 10HR Ah 3	А	N/A	43/4	27/8	311/16	120	73	94	0.5	6
Powerfit / AGM	TY27802B	12	N/A	N/A	Ref.20HR Ah 12	Α	N/A	6	37/8	33/4	152	98	95	0.5	6

#### Terminal Type

Warranty Code: Number of months for free replacement

A = SAE automotive

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

S = side terminal

U = dual post

#### **BATTERY SAFETY**

When handling batteries, always wear proper eye, face, and hand protection. Remember, never remove a damaged vent cap or lean over a battery when charging or testing.

#### TY24341B

Very popular seasonal-use battery.



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# BATTERIES BY PHYSICAL SIZE

	Size (in.)			Size (mm)								5.6.411	6. B. W. I. I.		c	
L	W	Н	L	W	Н	Part Number	BCI	Volts	CCA	RC		Ref. AH	StrongBox™ Label	Terminal Type	Core Units	Waranty (month)
43/4	2 <b>7</b> /8	3 <sup>11</sup> /16	120	73	94	TY27801B	Motorcycle / Powersport / AGM	12	50	N/A	'A	Ref.10HR Ah 3	N/A	А	0.5	6
6	3 <b>7</b> /8	33/4	152	98	95	TY27802B	Powerfit / AGN	<sup>1</sup> 12	N/A	N/A	'A	Ref.20HR Ah 12	N/A	Α	0.5	6
7 3/4	5 <sup>3</sup> / <sub>16</sub>	7 5/16	197	132	186	TY25221B	U1	12	350	38	}	30	Original Equipment	Χ	0.5	6
7 3/4	5 <sup>3</sup> /16	7 5/16	197	132	186	TY25878B	U1	12	300	34	+	25	Standard-Duty	X	0.5	6
8 3/4	6 3/4	8	222	171	203	TY27800B	26R	12	540	80	)	50	Standard-Duty	Α	1.0	20
9	6 <b>7</b> / <b>8</b>	8 3/4	229	175	222	TY21731B	1	6	640	130	0	90	Standard-Duty	Α	1.0	12
9 3/8	6 3/4	8 1/4	238	171	210	TY6192B	22F	12	425	65	· )	35	Standard-Duty	Α	1.0	12
9 3/8	5 1/ <b>2</b>	9	238	140	229	TY25881B	45	12	480	65	· )	30	Original Equipment	Α	1.0	12
9 3/8	5	8 3/4	238	127	222	TY25876B	51	12	500	75		45	Original Equipment	Α	1.0	18
9 3/8	5	8 3/4	238	127	222	TY27806B	51	12	425	70	1	40	Standard-Duty	Α	1.0	15
9 3/8	5	8 3/4	238	127	222	TY27831B	51R	12	500	75		45	Original Equipment	Α	1.0	18
9 1/2	6 <b>7</b> /8	9 1/2	241	175	241	TY26498B	22NF	12	500	75		45	Original Equipment	Α	1.0	12
9 1/2	5 ½	9	241	140	229	TY27798B	22NF	12	360	58	}	35	Standard-Duty	Α	1.0	6
9 3/4	7	7 1/4	248	178	184	TY24944B	75	12	650	90	)	58	Truck/SUV	S	1.0	30
9 <b>9</b> /16	6 <b>7</b> / <b>8</b>	7 1/2	243	175	191	TY27472B	47/H5	12	650	100	0	60	Standard-Duty	Α	1.0	20
10 1/4	7 1/8	]] <sup>7</sup> /8	260	181	302	TY27365B	GCH2	6	N/A	N/A	<b>′</b> Α	Ref. 20HR Ah 255	Original Equipment	U	1.5	6
10 3/4	6 3/4	9	273	171	229	TY21764B	24	12	550	90	)	50	Original Equipment	Α	1.0	18
10 3/4	6 3/4	9	273	171	229	TY27799B	24F	12	700	120	0	70	Truck/SUV	Α	1.0	30
10 3/4	6 <b>7</b> / <b>8</b>	8	273	175	203	TY26442B	34	12	800	115	5	65	Original Equipment	Α	1.0	15
10 3/4	6 <b>7/8</b>	8	273	175	203	TY27797B	34	12	690	110	)	60	Standard-Duty	Α	1.0	12
10 3/4	7	8	273	178	203	TY24937B	78DT	12	800	115	5	65	Truck/SUV	A,S	1.0	30
11	6 <b>7</b> / <b>8</b>	7 1/2	279	175	191	TY27473B	48/H6	12	730	115	5	70	Truck/SUV	Α	1.0	30
12	6 3/4	9	305	171	229	TY25272B	27	12	675	120	0	65	Original Equipment	Α	1.0	18
12	7 3/8	7 5/8	305	187	194	TY24932B	65	12	850	150	0	80	Truck/SUV	Α	1.0	30
12 3/8	6 3/4	9	314	171	229	TY24394B	27F	12	710	120	0	65	Truck/SUV	Α	1.0	30
12 <b>7</b> /16	6 <sup>7</sup> / <sub>8</sub>	7 1/2	316	175	191	TY27804B	94R/H7	12	790	103	3	80	Truck/SUV	Α	1.0	30
12 1/2	6 <sup>7</sup> /8	9 1/2	318	175	241	TY21734B	4	6	975	250	0	125	Original Equipment	Α	1.5	12

**Terminal Type**A = SAE automotive

**Warranty Code:** Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

S = side terminal

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# BATTERIES BY PHYSICAL SIZE (CONT.)

	Size (in.)			Size (mm)			n.c.		554	200	D ( A))	C. B. W. I. I.		6 11 11	
L	W	Н	L	W	Н	— Part Number	BCI	Volts	CCA	RC	Ref. AH	StrongBox™ Label	Terminal Type	Core Units	Waranty (month)
12 3/4	6 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>8</sub>	323	171	238	TY27805B	27	12	600	150	80	Standard-Duty	A,T	1.0	12
13	6 3/4	9 1/2	330	171	241	TY21741B	30H	12	650	150	65	Original Equipment	А	1.5	18
13	6 3/4	9 1/2	330	171	241	TY24546B	31T	12	950	175	90	Original Equipment	T	1.5	20
13	6 3/4	9 1/2	330	171	241	TY27995B	31T	12	925	170	90	Standard-Duty	T	1.5	18
13	6 3/4	9 1/2	330	171	241	TY25803B	31	12	760	170	90	Original Equipment	А	1.5	18
13	6 3/4	9 1/2	330	171	241	TY25879B	31	12	950	175	90	Original Equipment	А	1.5	20
13	6 3/4	9 1/2	330	171	241	TY27996B	31	12	925	170	90	Original Equipment	А	1.5	20
13 ³/4	7 1/8	9 3/8	349	181	238	TY23025B	5D	6	1000	300	180	Original Equipment	А	1.5	12
13 1/2	7 1/8	9 3/8	343	181	238	TY27793B	5D	6	880	250	130	Standard-Duty	А	1.5	6
13 <sup>15</sup> /16	6 <sup>7</sup> / <sub>8</sub>	7 1/2	354	175	191	TY27474B	49/H8	12	900	150	80	Standard-Duty	А	1.0	20
16 1/4	6 <sup>13</sup> / <sub>16</sub>	8 <sup>11</sup> /16	413	175	220	TY26773B	D1	12	800	180	110	Original Equipment	А	2.0	6
19 1/4	4 1/4	10	489	108	254	TY21737B	3EH	6	850	250	168	Original Equipment	А	1.5	12
19 5/8	4 3/8	9 13/16	491	111	249	TY24341B	3ET	12	620	120	72	Original Equipment	А	1.5	12
19 5/8	4 3/8	9 13/16	491	111	249	TY27794B	3ET	12	460	120	70	Standard-Duty	А	1.5	9
20	8 1/8	8	508	206	203	TY24381B	4DLT	12	1000	220	132	Original Equipment	А	1.5	12
20	8 1/4	8	508	209	203	TY27829B	4DLT	12	860	235	120	Standard-Duty	А	1.5	9
20	7 7/16	8 <sup>13</sup> / <sub>16</sub>	508	189	224	TY26782B	D4	12	1150	300	154	Original Equipment	А	3.0	12
20	8 3/4	8 13/16	508	222	224	TY26783B	D5	12	1400	380	180	Original Equipment	А	3.0	12
20 1/2	8 1/2	10	521	216	254	TY23020B	4D	12	1400	410	190	Original Equipment	А	3.0	12
20 1/2	8 1/2	10	521	216	254	TY21754B	4D	12	1050	290	135	Original Equipment	А	3.0	12
20 3/4	11	10	527	279	254	TY21748B	8D	12	1400	440	195	Original Equipment	А	3.0	12

**Terminal Type**A = SAE automotive

Warranty Code: Number of months for free replacement

A&S = both pillar and side posts

T = threaded post

X = U-1 lug post

## TESTING EQUIPMENT

Quick testing can determine if a battery needs to be replaced, or if the problem is a simple one such as a loose cable, corroded terminal, or low electrolyte levels. Too often, batteries that are simply "rundown" are replaced. Through diagnosis at the parts counter, this common mistake can be avoided without unnecessary stress on your wallet.

# Battery testing — right at our parts counter.

- BVA handheld testers can test battery, starter, and the alternator system in 82 seconds
- Advanced DPL technology for true-load results
- Tests most battery and electrical systems
- 64-character backlit LCD screen
- Stores previous 188 tests/easy review
- Customer communication with optional infrared printer or PC cable
- Reverse polarity protected

Specifications	SWBCT-200J	SWBVA-200S
Battery Types & Voltage	6 & 12 Volt, Flooded & AGM	6 & 12 Volt, Flooded & AGM
Batttery CCA Range	200-1600 CCCA	100-1600 CCA
Automated Load	120 Amp	120 Amp
Alternator Test	12 & 24 Volt	12 & 24 Volt
Stator Diode Test	Yes	Yes
Starter Draw Test	V-Drop	Yes
Voltage Drop Test	Automated	No
Load Lads	4FT 6 Gauge	30", 6FT Gague Adapter Required for GM Side Post
Field Replaceable Leads	Yes	Yes
Communications to PC	RS-232 via Optional AC-10 Cable	RS-232 via Optional AC-10 Cable
Memory	120 Test	188 Test
Language	English & Spanish	English & Spanish
Operational Temperature	0-120°F	0-120°F
Operational Humidy	0-85%	0-85% - Non Condensing
Internal Battery	9V - DC	9V - DC
Dimesions and Weight	5.9" x 9.6" x 2.1" - 4 lbs	5.9" x 9.6" x 2.1" - 4 lbs
Rubber Boot	Yes	Yes





 $\textbf{IMPORTANT:} \ \mathsf{Not} \ \mathsf{for} \ \mathsf{use} \ \mathsf{with} \ \mathsf{deep-cycle} \ \mathsf{batteries}.$ 

\*Limitations: The tester can make determinations on batteries that have low charge within an accuracy rate of 95 percent. However, the deeper a battery is discharged, the more the ability for the tester to make a determination decreases. If a determination cannot be made, recharging is necessary.

# This printer is one smart accessory.



#### INFRARED PRINTER AND PROTECTIVE CARRYING CASE

#### SWAC-20S

This printer is designed specifically to work with all Auto Meter® handheld battery testers:

- New improved printer head
- Portable infrared printer for use with all Auto Meter handheld testers
- Includes AC power adapter
- Uses standard 58-mm thermal paper
- Dimensions 6 x 4.5 x 3.5 inch
- Includes cigar lighter power adapter
- Includes SWAC-19S protective plastic carrying case



# PROTECTIVE PLASTIC CARRYING CASE

#### SWAC-19S

- Fits all Auto Meter handheld testers
- Includes room for the PR-12 Printer, wall transformer, and other accessories

#### WARRANTY

The Auto Meter battery tester warranty is provided by the supplier. The tester, printer, and case are covered for 12 months against defects and workmanship, and includes parts and labor with an exception for the lead and clamps which are warrantied for 90 days.

#### WARRANTY PROCEDURE

- Call Auto Meter customer service at 866-883-8378. A service technician will determine if an on-site solution is possible, or will provide a Return Goods Authorization (RGA) number and instructions on returning the unit to the Auto Meter Service Center.
- Write the RGA number on the outside of the shipping box and the explanatory paperwork.
- Box the unit carefully with sufficient packing, and include an explanation of the problem and circumstance, RGA number, and return address.
- The unit will be repaired or replaced within two working days and returned prepaid to the address provided.



#### DIGITAL TESTER FOR 12-VOLT BATTERIES/STARTER SYSTEMS/ CHARGING SYSTEMS

#### SWBT175

- Three testers in one (battery, charging, and starting)
- Digital display guides you through the testing process and shows voltage and CCA
- LED display states:
  - OK and recharge
  - · Recharge and retest
- Weak
- Bad battery
- Error
- For 12-volt SLI and VRLA/AGM/GEL batteries
- Accepts rating types: CCA, CA, EN, IEC, DIN, and SAE
- Operating range: 100–1200 CCA (SAE)
- Testing voltage: 7–15 volt
- One-year warranty

#### WARRANTY INFORMATION

#### JOHN DEERE AFTERMARKET BATTERIES — U.S. AND CANADA

John Deere warrants to the original purchaser of each new battery bearing the name John Deere or the John Deere trademark as follows:

**Replacement battery limited warranty** — This limited warranty is applicable to John Deere replacement batteries with a part number beginning with the letters "TY".

The limited warranty on replacement batteries begins on the date that the battery is activated and/or sold for replacement purposes.

Note: Dealers should remove date-code circles or placard tabs (depending on the type of battery) from the battery top plaque to indicate the warranty starting date.

For an installation of November 2020:

Punch N and 0

N=November

0= last digit of the year



Any battery that becomes unserviceable due to defects in material or workmanship, not merely discharged, will be replaced free of charge according to the specific warranty code for each battery. This does not include installation costs.

When submitting the battery warranty claim, the dealer must submit the failed battery part number, not the replacement battery part number.

To obtain warranty service the purchaser must request warranty service from a John Deere dealer authorized to sell John Deere-branded batteries. At the same time, the purchaser must present the battery with the top placard intact and the original sales receipt. The purchaser must also tell the dealer what appears to be wrong with the

battery. Upon completion of warranty service, the purchaser must, at purchaser's expense, either pick up the merchandise or arrange for delivery.

#### Conditions of non-coverage —

This warranty does not cover:

- Breakage of the container, cover, or terminals
- Depreciation or damage caused by normal wear, accident, or lack of reasonable and necessary maintenance
- Use of an electrolyte not recommended by the company
- Transportation, mailing, or service-call charges for warranty performance
- Batteries that are merely discharged

Neither John Deere nor any affiliated companies make any warranties, representations, or promises as to the quality or performance of its batteries other than those set forth herein.

Implied or statutory warranties or conditions of merchantability and fitness for a particular purpose to the extent applicable shall be limited in duration to the free replacement period. The only remedies a purchaser has in connection with the breach or performance of any warranty on John Deere batteries are those set forth herein. In no event will the dealer, John Deere, or any company affiliated with John Deere be liable for incidental or consequential damages.

Note: Some states or provinces may not allow limitations on how long an implied warranty lasts or on the exclusion of or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to the purchaser.

The selling dealer makes no warranty of his own on any battery warranted by John Deere unless he provides the purchaser a separate written certificate specifically warranting the battery.

The dealer has no authority to make any representation or promise on behalf of John Deere or to modify the terms or limitations of this warranty in any way.

Note: The warranty gives a purchaser specific legal rights, and he/she may also have other rights that may vary by jurisdiction.

Use the chart below to determine warranty coverage. Coverage varies based on the specific battery you purchased.

#### $Warranty\ for\ overseas-produced\ batteries\ -$

If a foreign-made battery in a foreign-produced piece of equipment fails, the dealer must refer to the battery information in the electronic parts catalog or through PartsEXPERT to find the appropriate replacement battery.

When submitting the battery warranty claim, the dealer must submit the failed battery part number, not the replacement battery part number.



Date-code markings indicate installation and the service record on most StrongBox batteries; the top plaques include removable circles for indicating delivery or activation date. Also, removable circles on plaques may indicate the intended usage of the battery when it is sold.

# JOHN DEERE STRONGBOX™ BATTERY LIMITED-WARRANTY COVERAGE CHART — U.S. AND CANADA

WARRANTY CODE	FREE EXCHANGE
6	6 month
9	9 month
12	12 month
15	15 month
18	18 month
20	20 month
30	30 month

#### BATTERY SAFETY AND INSTALLATION

Follow these guidelines to ensure safe battery installation and charging, and booster-cable operation.



Because batteries contain sulfuric acid and produce mixtures of hydrogen and oxygen, failure to use caution when handling them can or may result in serious injury. The self-discharge action of a battery generates hydrogen gas, presenting the potential to explode even if the battery is not in operation. Acid can cause serious burns to your skin through handling. That's why it's important to follow these safety precautions:

#### **STORING BATTERIES**

- Always store batteries in a well-ventilated, open area.
- Check batteries frequently to ensure there is no acid leakage or corrosion on the batteries.
- Keep a freshly charged fire extinguisher near any stored batteries.

#### HANDLING BATTERIES

- Always wear proper eye, face, and hand protection.
- Keep all sparks, flames, and cigarettes away from the battery.
- Do not remove damaged vent caps.
- Cover vent caps with a damp cloth to minimize gas.
- Make sure work area is well ventilated.
- Never lean over a battery when boosting, testing, or charging it.

#### INSTALLATION

- Disconnect the ground cable first (this is usually the negative cable; however, older vehicles may have a positive ground).
- Remove the old battery note the positions of the positive (+) terminal and the negative (–) terminal.
   Mark the cable for the correct connection to the new battery.
- Clean the terminals and cable connections with a wire brush. Broken, frayed, or cut cables should be replaced.
- Install the new battery in the same position as the old one and secure it with the hold-down assembly.
- Ensure terminals do not touch any metal mounting, engine, or vehicle body parts.
- Connect the ground cable last to avoid sparks.
   Make sure the cables are connected tightly.

#### **BOOSTER-CABLE OPERATION**

When jump-starting a battery, always wear proper eye protection, and never lean over the battery. Do not jump-start a damaged battery. Inspect both the discharged and assisting batteries before connecting booster cables. Be sure vent caps are tight and level. Place a damp cloth over the vent caps of both batteries. Make certain that the vehicles are not touch-ing and that both of the ignition switches are turned to the "OFF" position. Then, follow these steps in order:

- Connect the positive (+) booster cable to the positive (+) terminal of the discharged battery.
- Connect the other end of the positive (+) cable to the positive (+) terminal of the assisting battery.
- Connect the negative (-) cable to the negative (-) terminal of the assisting battery.
- Make the final connection of the negative (–) cable to the engine block of the stalled vehicle.
- Start the vehicle and remove the cables in the reverse order of the connections.

#### **HEAT-SHIELD CAUTION**

When a heat shield is used, a slight adjustment may be needed to accommodate terminal posts. Protective heat shields around batteries are being used with increasing frequency to protect the battery from very high temperatures. Failure to replace the heat shield after installation of the replacement battery may reduce its electrical performance life.

#### **CHARGING**

Never attempt to charge a battery without first reviewing the instructions for using the charger. In addition to the charger instructions, these general precautions should be followed:

- Always charge batteries in a well-ventilated area, and wear proper eye protection.
- Turn the charger and timer to "OFF" before connecting the leads to the battery to avoid dangerous sparks.
- Never try to charge a visibly damaged or frozen battery.
- Connect the charger leads to the battery: red positive
   (+) lead to the positive (+) terminal and black to the
   negative (-) terminal. If the battery is still in the vehicle,
   connect the negative (-) lead to the engine block to
   serve as a ground (if the vehicle is positive grounded,
   connect the positive lead to the engine block).
- Set the timer, turn on the charger, and slowly increase the charging rate until the desired ampere value is reached.
- If the battery becomes hot, or if violent gassing or spewing of electrolyte occurs, reduce the charging rate or temporarily halt the charger.
- Always turn the charger to "OFF" before removing the charger leads from the battery to avoid dangerous sparks.

#### RECOMMENDED CHARGING PROCEDURES

#### **DETERMINING STATE-OF-CHARGE**

The simplest method to determine the state-of-charge of a battery is to read the battery "rested" open-circuit voltage (OCV) with a digital voltmeter. Consider these facts:

- Rested OCV indicates an undisturbed battery with no charging or discharging for at least eight hours or more.
- The use of a hydrometer to read the cell-specific gravities is encouraged since this complementary value will aid in battery diagnostics.
- At activation (first dry-charged battery acid fill), the OCV is fairly close to the true rested OCV, and no wait is necessary to determine true state-of-charge.

#### **BATTERY-CHARGING THEORY**

The best way to understand how a charger works is to make the analogy of two tanks connected at the bottom by a pipe. The tank filled with water represents the charger, while the empty tank represents the battery. As the full tank discharges into the empty tank, its level rises (voltage), while the water flow through the pipe into the empty tank decreases (amperage). The amount of charging amperes (A) multiplied by time (hours) will provide the battery capacity in ampere-hours of charge.

During charging, the battery will self-regulate the charge flow according to the charger output voltage, which is just as important as the amperage that is forced into the battery. The voltage must be controlled and used according to the operator's needs to avoid battery damage.

The various voltage levels for batteries and a variety of chargers are described in the chart at right.

# HOW THE CHARGING CURRENT WILL BEHAVE DURING RECHARGE

The current (amperes) flowing into the battery will be dictated by the battery's state-of-charge, temperature, and charging voltage (kept fairly constant by the charger).

The current profile will almost invariably follow the pattern shown at right, according to the state-of-charge of the battery.

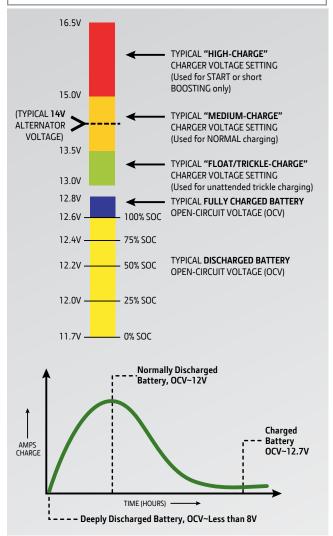
The appropriate state-of-charge and approximate time to complete full charging at  $80^{\circ}F$  can be determined from the following table.

OCV*	Avg. Cell-Specific Gravity	Approx. SOC**	Approx. Charging Hours†
12.60 (or higher)	1.265 (or higher)	100%	3 (or less)
12.40-12.60	1.22	75%	4-6
12.20-12.40	1.16	50%	12
12.00-12.20	1.1	25%	22
11.70-12.00	1.04	0%	24

\*Rested 8 hours or more OCV (use 1/2 OCV for 6-volt batteries).
\*Based on the 20-hour (ampere hour) capacity.

†Based on "low-voltage" charger setting

(13.5- to 14-volt charger output).



#### **BATTERY-CHARGING SCENARIOS**

#### Boost-charging a recently discharged battery

A battery discharged in the past three days can be easily charged since the materials will respond to charging by readily converting to their original chemical state. The table on the previous page may be used as a guideline with medium settings. High/start-voltage or boost-voltage settings will accelerate charging, requiring close supervision to ensure that batteries are not overheating or gassing excessively. High/start and boost settings must be done in two-hour intervals until voltage rises to specifications.

#### Boost-charging a rundown (flat) battery

Batteries with little or no voltage have little chance for recuperation, especially if they have remained in this state for a long period of time.

To charge a battery in this condition, the operator must use the lowest setting on the charger (low/trickle/float) and allow the battery to charge over a 24-hour period.

If the battery resists charge, a high-boost charge may be attempted for 30 to 60 minutes until the battery begins to accept charge. After this limited time period, the setting must be switched to low to avoid excessive overheating. The operator must make sure the battery is still accepting charge by watching the needle move above the zero mark. Once charging is completed, the battery must be tested to determine its condition.

# Use the Battery Replacement Data Book as a complete source for finding the right battery quickly.

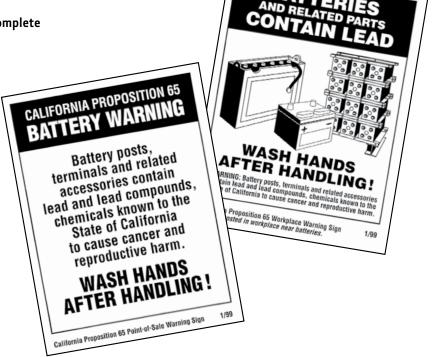
The Battery Council International Battery Replacement Data Book makes it easy to find the correct BCI group (size) for a specific application. The book is an invaluable resource packed with useful information, and it is easy to use:

- Define the manufacturer, model, and year of the vehicle or machine.
- Identify the BCI group and OE (Original Equipment) cold cranking amps.
- Turn to the book's battery data section. Then, cross-reference the John Deere part number to the BCI group identified.

Best-fit estimate — Some equipment manufacturers do not provide complete replacement battery information. Estimates are provided for replacement battery size to give some guidance to the Battery Replacement Data Book user. However, use caution — the size stated is only an estimate. You should always try to obtain the specific battery replacement size information from the equipment manufacturer.

More valuable information — The BCI Data Book also includes explanations on battery terminal types, terminal placement, use of booster cables, safety precautions, a BCI/DIN/EN reference chart, cell layouts, and more. Use the BCI Data Book to your advantage — it's a great reference tool! Also, information on the Battery Council International organization can be found at http://www.batterycouncil.org.

**California Proposition 65** — The posters shown below have been posted in John Deere California dealerships according to California's Proposition 65 requirements. Noncompliance with California Proposition 65 could cause dealerships to be liable and lose protection from such claims under the terms of a battery manufacturer's settlement.



# **MERCHANDISING RACKS**

Batteries are not included and should be ordered separately.

#### SW90RACK

- Displays up to 90 batteries
- Gravity fed to assist with First In/ First Out (FIFO) rotation
- Utilizes 13 sq. ft. of floor space
- Black, powder-coated, semi-gloss finish
- Pre-assembled tubular steel construction
- Designed so it can be moved with forklift or pallet jack
- Header frame and bracket
- Marketing signage and price cards included



Weight	410 lb.
Nidth	52 in.
Height	73 in.
Height (w/header)	84 in.
Depth	36 in.

#### SWDISPLAY48

- Displays up to 48 batteries
- Gravity fed to assist with First In/ First Out (FIFO) rotation
- Utilizes 8 sq. ft. of floor space
- Black, powder-coated, gloss finish
- Pre-assembled tubular steel construction
- Includes wheels for easy movement
- Header frame and bracket
- Marketing signage and price cards included



Weight	155 lb.
Width	48 in.
Height	70 in.
Height (w/header)	81 in.
Depth	23 in.

#### **SWDISPLAY36**

- Displays up to 36 batteries
- Utilizes 6 sq. ft. of floor space
- Black, powder-coated, semi-gloss finish
- Black, tempered hardboard shelves
- E-Z Snap design allows for quick assembly and requires no tools or hardware
- Header frame and bracket
- Marketing signage included

Weight	85 lb.
Width	34.5 ir
Height	48 in.
Height (w/header)	66 in.
Depth	23 in.





#### **SWDISPLAY18**

- Displays up to 18 batteries
- Utilizes 6 sq. ft. of floor space
- Black, powder-coated, gloss finish
- Durable steel construction
- E-Z Snap design allows for quick assembly and requires no tools or hardware
- Header frame and bracket
- Marketing signage included

/eight	23 lb.
/idth	34 in.
leight	32 in.
leight (w/header)	53 in.
epth	15 in.

#### **SWDISPLAY12**

Displays up to 12 batteries

- Utilizes 4 sq. ft. of floor space
- Black, powder-coated, gloss finish
- Durable steel construction
- Header frame and bracket
- Marketing signage and price cards included

Weight	140 lb
Width	27 in.
Height	52 in.
Height (w/header)	59 in.
Depth	27 in.
'	



## **BATTERY CHARGERS**

No matter how low the mercury dips, or if you accidentally drain a battery, you'll be up and running in no time. Nothing delivers peace of mind like a quality battery charger.

# BATTERY CHARGER WITH ENGINE START

#### TY27732

#### Battery types:

 6V/12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- 6A<>2A Charge Maintain
- 40A Boost
- 200A/150A Engine Start
- · 6V: 150A
- · 12V: 200A

#### **Additional Features:**

- Scrolling display, LED indicators and push-button controls
- 12-foot reach, 6-gauge output cables
- Microprocessor-controlled automatically adjusts amperage rate to charge and maintain

#### Weight - 27.59 lbs



# Automatic Barrary Charges Chargess de Salacie automatique Automatic Barrary Charges Charges de Salacie automatique Automatic Barrary Charges Charges de Salacie automatique Automatic Barrary Charges Automati

TY27732 TY27733

#### AUTOMATIC BATTERY CHARGER WITH ENGINE START

#### TY27733

#### Battery types:

12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### **Charging:**

- 6A<>2A Charge Maintain
- 50A Engine Start
- 10A Boost

#### **Additional Features:**

- LED indicators
- Monitors and maintains the battery when fully charged
- Microprocessor-controlled automatically adjusts amperage rate to charge and maintain

#### Weight - 10.47 lbs



# WHEELED BATTERY CHARGER WITH ENGINE START TY27731

#### Battery types:

6V/12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- 6A<>2A Charge Maintain
- 50A Boost
- 250A/125A Engine Start
- · 6V: 125A
- · 12V: 250A

#### Additional Features:

- Digital display, LED indicators and push-button controls
- 12-foot reach, 6-gauge output cables
- Microprocessor-controlled automatically adjusts amperage rate to charge and maintain

Weight - 33.05 lbs

#### **BATTERY MAINTAINERS**



#### FULLY AUTOMATIC 1.5-AMP BATTERY CHARGER/MAINTAINER TY25866\*

#### **Battery Types:**

6V/12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- 1.5A Charge/Maintain

#### **Additional Features:**

- Auto voltage detection -6V or 12V battery
- Float mode monitoring
- Reverse hook-up protection helps prevent damage to battery and charger

Weight - 1.50 lbs



### FULLY AUTOMATIC 1.5-AMP ON-BOARD BATTERY CHARGER/MAINTAINER

#### TY26328

**Battery Types:** 

 6V/12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- 1.5A Charge/Maintain

#### **Additional Features:**

- "Onboard" feature allows mounting next to battery
- Float mode monitoring
- Fully automatic charging and shutdown when charging is complete

Weight - 1lb

# FULLY AUTOMATIC 3-AMP BATTERY CHARGER/MAINTAINER TY27265

#### **Battery Types:**

6V/12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

3A Charge/Maintain

#### **Additional Features:**

- Auto voltage detection -6V or 12V battery
- Scrolling display with battery charging percentage
- Reverse hook-up protection helps prevent damage to battery and charger

Weight - 2.15 lbs

#### **BATTERY JUMP STARTERS**



#### SWDSR108

#### Jump Starting:

- Peak Current: 450 Amps
- Battery types: 12V lead-acid only (Wet, MF,EFB, AGM)

#### Charging:

- Gasoline Engine: Up to 6 liter
- Diesel Engine: Up to 3 liter

#### **Additional Features:**

- Charges off dead battery >7 volts
- Built in voltmeter
- Glow mode for cold start of diesel engine

Weight - 3.65 lbs



#### SWDSR115

#### Jump Starting:

- Peak Current: 4400 Amps
- Battery types: 12V/24V lead-acid only (Wet, Gel, MF, EFB, AGM)
- 12V: 750 CA/525 CCA
- 24V: 475 CA/350 CCA

#### Charging:

- 2A external automatic charger
- USB (Input): 2.1A
- 12V (DC Output): 12V (15A)

#### Additional Features:

- Digital display
- On/Off switch
- Reverse connection warning

Weight - 13.25 lbs



#### SWDSR116

#### Jump Starting:

- Peak Current: 2250 Amps
- Battery types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)
- 12V: 525 CA/350 CCA

#### Charging:

- 2A external automatic charger
- USB (Input): 2.1A
- 12V (DC Output): 12V (15A)
- 2 AC Outlets

#### Additional Features:

- 400W Inverter
- Digital display
- On/Off switch
- Reverse connection warning

Weight - 31 lbs

**CAUTION:** The circumstances/conditions when starting a vehicle depend on various parameters: vehicle's condition, engine type (petrol or diesel) and power, presence of battery in vehicle or not, temperature, and frequency of use.

<sup>\*</sup> TY25866 restricted for sale in California. Suggest TY27265 as a substitute.

# BATTERY JUMP STARTERS (CONT.)



#### SWDSR119

#### Jump Starting:

- Peak Current: 1800 Amps
- Battery types: 12V lead-acid only (Wet, MF,EFB, AGM)
- 12V: 280 CA/225 CCA

#### Charging:

- 12V (DC Output): 12V (15A)
- Built-in charger: for automatic charging of internal battery

#### **Additional Features:**

- LED indicators: for charging and status of internal battery
- Corrosion-proof polypropylene case

#### Weight - 19.59 lbs



#### SWDSR128

#### Jump Starting:

- Peak Current: 2000 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)
- 12V: 650 CA

#### Charging:

- 2A external automatic charger
- USB (Input): 2.1A (2x)
- 12V (DC Output): 12V (15A)
- Charging LED indicator

#### **Additional Features:**

- Rust and corrosion-proof case
- Reverse hook-up protection
- Professional clamps with ergonomic grips

#### Weight - 9.68 lbs



#### A-GB20

#### Jump Starting:

- Gasoline Engine Size: 4.0L
- Diesel Engine Size: Not Recommended
- Jumps Per Charge: 20X
- Peak Current: 500 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A
- Recharge Time: 6hr (1A)

#### Flashlight:

- Lumens (LED's): 100L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

#### Weight - 2.1 lbs



#### A-GB40

#### Jump Starting:

- Gasoline Engine Size: 6.0L
- Diesel Engine Size: 3.0L
- Jumps Per Charge: 20X
- Peak Current: 1000 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A
- Recharge Time: 6hr (1A)

#### Flashlight:

- Lumens (LED's): 100L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

#### Weight: 2.4 lbs



#### A-GB50

#### Jump Starting:

- Gasoline Engine Size: 7.0L
- Diesel Engine Size: 4.5L
- Jumps Per Charge: 30X
- Peak Current: 1,500 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A
- Recharge Time: 9hr (1A)

#### Flashlight:

- Lumens (LED's): 200L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

Weight: 3.0 lbs

# BATTERY JUMP STARTERS (CONT.)



#### **A-GB70**

#### Jump Starting:

- Gasoline Engine Size: 8.0L
- Diesel Engine Size: 6.0L
- Jumps Per Charge: 40X
- Peak Current: 2,000 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A
- 12V (Input): 12V (3A)
- 12V (Output): 12V (15A)
- Recharge Time: 14hr (1A) / 2-3 hrs (12V Fast)

#### Flashlight:

- Lumens (LED's): 400L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

#### Weight: 5.0 lbs



#### A-GB150

#### Jump Starting:

- Gasoline Engine Size: 10.0L
- Diesel Engine Size: 10.0L
- Jumps Per Charge: 80X
- Peak Current: 4,000 Amps
- Battery Types: 12V lead-acid only (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A
- 12V (Input): 12V (5A)
- 12V (Output): 12V (15A)
- Recharge Time: 22hr (1A) / 2-3 hrs (12V Fast)

#### Flashlight:

- Lumens (LED's): 500L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

#### Weight: 7.5 lbs



#### A-GB500

#### Jump Starting:

- Gasoline Engine Size: Class 8+/CE J
- Diesel Engine Size: Class 8+/CE
- Jumps Per Charge: 400X
- Peak Current (12V): 20000 Amps Peak Current (24V): 10000 Amps
- Battery Types: 12 & 24V lead-acid (Wet, Gel, MF, EFB, AGM)

#### Charging:

- Micro USB (Input): 5V, 2.1A
- Micro USB (Output): 5V, 2.1A (2X)
- 12V (Input): 12V (4A)
- 12V (Output): 12V (15A)
- Recharge Time: 22hr (1A) / 2-3 hrs (12V Fast)

#### Flashlight:

- Lumens (LED's): 2,200L
- Number of Modes: 7X (100%, 50%, 10%, SOS, Blink, Strobe, Off)

#### Weight: 19.25 lbs

## POWERUP!™ CONSUMER ELECTRONICS





#### **DUAL 2.4 USB CHARGER/ADAPTER**

#### PM191-052901

- Ideal for mobile devices
- Input: 12-24V DC
- Output: 5.4V @ 4.8A (2.4A + 2.4A)
- LED power indicator
- Energy efficient
- 1-year limited warranty



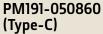


PM191-050563 (Micro-USB)

**USB CABLES** 







- Charge and sync at the same time through a standard USB port
- Strain relief cable provides lasting durability
- 6-ft. cables
- 1-year limited warranty

#### POWERUP!™ POP COUNTER DISPLAY KIT

- PM191-050563 4 pieces
- PM191-054448 3 pieces
- PM191-050860 4 pieces
- PM191-052901 5 pieces
- PM191-050594 4 pieces
- PM191-052079 3 pieces





#### WALL CHARGER WITH 2.4 USB

#### PM191-052079

- Charge USB devices while keeping full use of outlets
- AC: 120V 15A/60hz 1800W
- USB Output: 5V @2.4A
- Energy-efficient
- 1-year limited warranty





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3-IN-1 CHARGER (2.4A)

when only one USB is charging

PM191-05448

- AC: 100-240V

- DC: 12-24V

- Car, Wall or USB port

- Output: 5V @2.4A

Energy-efficient

1-year limited warranty

PM191-050594 (Apple)



## BATTERY CLEANING PRODUCTS AND ACCESSORIES





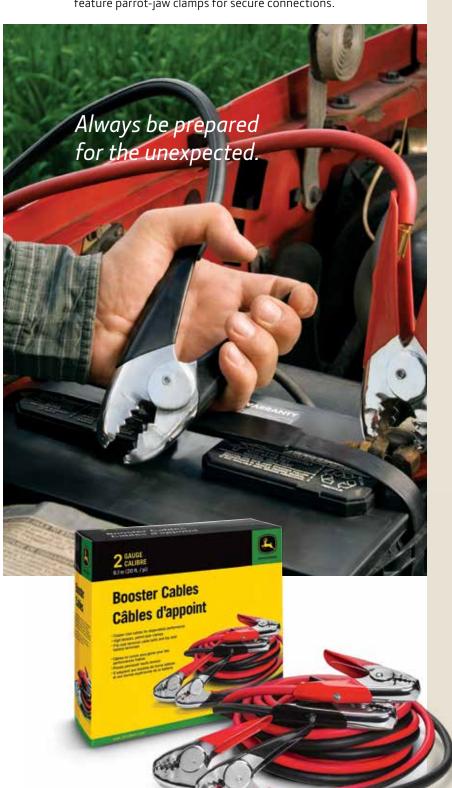
# YOUR ONE-STOP SHOP FOR BATTERY ACCESSORIES.

The wide selection of John Deere battery accessories includes terminals, terminal brushes, bolts, corrosion preventative, and terminal cleaner — everything you need. We also offer battery and booster cables in a variety of popular sizes. And if we don't have the size of cables you need, we'll custom-make them while you wait. See us for competitively priced, SAE-approved battery accessories for all applications, be it agricultural, lawn and garden, automotive, truck, and more. John Deere is your one-stop battery and accessories shop.

Description	Part Number
Top post terminal 1/CS	TY25910
Top post terminal coated 2/CS	TY25929
Fleet terminal 1/CS	TY25914
Marine terminal, epoxy coated 2/CD	TY25892
OEM terminal with wing nut	TY25928
Terminal protector, top 2/CD	TY25913
L&G bolts 2/CD	TY25899
Marine terminal 1/CS	TY25912
Top post battery terminal 10/CD	TY25915
Side terminal 1/CS	TY25911
Nut and bolt bulk packaged 2/CD	TY25908
HD-Commercial top post terminal 10/CD	TY25916
Gr 31 charging posts 2/CD	TY25918
Gr 31 closed stainless steel nut 2/CD	TY25917
10-in. J bolt 2/CD	TY25902
12-in. J bolt 2/CD	TY25903
Sure-grip battery carrier	TY25900
500P clamps 2/CD	TY25935
Hydrometer	TY25901
Cleaning and cutting tool	TY25921
Steel terminal brush	TY25905
50-amp clamp 2/CD	TY25897
Battery Corrosion Preventative	TY25766
Battery Corrosion Cleaner	TY25767

# BOOSTER CABLES AND CLAMPS

Keep a set of John Deere booster cables in your car, pickup, garage, or shop. Available in 16- or 20-foot lengths, these heavy-duty 500-amp cables come in 2- and 4-gauge wire. They feature parrot-jaw clamps for secure connections.



# TY26217 Professional Service 20-foot

- 100%-copper 2-gauge cables
- Thermoplastic rubber cable insulation protects against oil, grease, and abrasion
- Color-coded, tangle-free, dual-cable construction designed for maximum flexibility and ease in handling
- 600-amp parrot-style clamps
- Manufactured in U.S.A.

#### TY27301 Professional Service 20-foot

- Copper-clad 2-gauge cables
- Tough PVC insulation remains flexible at extreme temperatures
- Color-coded cable and clamp for easy polarity identification
- 600-amp parrot-style clamps
- Manufactured in U.S.A.

#### TY26215 — Commercial Service 16-foot TY26216 — Commercial Service 20-foot

- 100%-copper 4-gauge cables
- Tough vinyl insulation, color-coded, tangle-free, dual-cable construction
- 600-amp parrot-style clamps
- Manufactured in U.S.A.
- TY27302 Commercial Service 20-foot
- Copper-clad 4-gauge cables
- Tough PVC insulation remains flexible at extreme temperatures
- 600-amp parrot-style clamps
- Manufactured in U.S.A.

# BUILT AND TESTED FOR REAL CONDITIONS. YOURS.





This literature has been compiled for worldwide circulation. While general information, pictures and descriptions are provided, some illustrations and text may include finance, credit, insurance, product options and accessories NOT AVAILABLE in all regions. PLEASE CONTACT YOUR LOCAL DEALER FOR DETAILS. John Deere reserves the right to change specification and design of all products described in this literature without notice.



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