

# Aftermarket Chargers Handle Multiple Batteries At Once

You can charge multiple cordless tool batteries with the "Lion Charger" from Circuits Alive. By connecting one or more "Cub Chargers" to the Lion base charger, multiple batteries can be recharged at one time. The after market chargers can be set up for multiple brands.

"The Lion can recharge from 12 to 24-volt DC or be connected to solar panels or AC outlets," says John Swarey, Circuits Alive. "It can also serve as a host to one or more Cub chargers on the same power outlet. Each Cub can be used to charge an additional battery at the same time as the Lion charges its battery."

Each brand of rechargeable battery has its own port block. For example, when Swarey fills an order for Makita or Milwaukee or DeWalt, he installs the requisite port block. If a user has all 3 brands, the Lion can be set up with one port block with 2 Cubs set up for the other brands. Charging blocks for those 3 brands are more available than other brands. However, Swarey has done versions for Bosch rechargeable batteries. Regardless of the type of battery, the recharging system only puts out as much power as the battery

can use.

Swarey notes that the initial Lion and Cub designs recharge batteries in parallel. While the Lion by itself can recharge a battery quickly, the addition of a Cub with another battery slows the process. A single battery can recharge in half an hour, where 2 would take an hour and 3 would take an hour and a half.

A new product introduced in July offers a priority recharging alternative. "We have developed a series version of the Lion and Cubs that will recharge each battery quickly in turn," says Swarey. "You could have any number of Cubs hooked up to each other and eventually a Lion, and know the batteries will be recharged in order."

Swarey says the Lion and Cubs' architecture appears to give it another advantage over OEM chargers.

"I have had brand chargers indicate that the battery can not be charged; yet, when I connect the battery to a Lion or a Cub, it recharges," says Swarey.

Swarey suspects the simple design of the Lion and Cubs may eliminate an information



Multiple batteries can be recharged at one time with the aftermarket "Lion Charger" from Circuits Alive.

problem. He notes that brand chargers have terminal points for every slot in a battery. This is to provide energy flow to the battery and to communicate with the battery.

"A faulty circuit board may send faulty information to the battery, but with the simpler design of the Lion, I think the faulty information may be ignored," says Swarey. "This isn't a feature we promote, but simply something that has been observed."

The Lion sells for \$184. Cubs sell for \$48 each, but require a Lion for a base. He also sells a \$50 Solar Direct connection for using the Lion with a solar panel. It can be used with a maximum panel output of up to 40 volts. A 110-volt, AC adapter is available for \$40.

Contact: FARM SHOW Followup, Circuits Alive, 779 Rolling Acres, Campbellsville, Ky. 42718 (ph 270 465-0821 after 5 p.m.).

## Deere Offers All-Brand AutoTrac Steering Retrofit

No matter what brand or model tractor you have, if your tractor has hydraulic steering, you can get automated steering with the Deere AutoTrac Controller 300. Unlike earlier systems, the kit ships without make and model specific hoses and valves.

"The AutoTrac Controller 300 is generic in nature," says John Mishler, marketing manager, John Deere Precision Ag Technology. "Most dealers stock hydraulic fittings and hoses to build their own components to go with our kit. With the 300, we've reduced their stocking costs, let them use what they already have in inventory and the customer can get a fit customized to their machine. It lowers the end customer cost and gives dealers and the customer more flexibility."

Most newer Deere equipment is AutoTrac ready. Older Deere models and other brand models can add a 4240 Universal Display with software (\$5,495) and a StarFire receiver, such as the 6000, with SF1 (\$3,895) for +/- 6-in. pass-to-pass accuracy. Even greater accuracy is available with StarFire

RTK.

"With the universal display and a StarFire receiver, an AutoTrac 300 user has the same precision agriculture capability as the newest, currently shipping equipment," says Mishler.

FARM SHOW readers should contact their local dealer about pricing and installation, notes Mishler. The AutoTrac Controller 300 runs from \$3,300 to \$4,100 plus parts and labor. Pricing varies depending on the tractor. The one common denominator is hydraulic steering, a component system that has been in place for a considerable period of time.

"Recently I was in the field getting photos of equipment installed with AutoTrac 300," recalls Mishler. "A younger employee was demonstrating the system on a tractor at least twice his age."

Some applications of the technology, such as use on a sod cutter, have surprised even Mishler. However, he adds, the generic nature of the kits makes automated steering an option for a much wider range of users. Deere is now offering it as an option on the smaller 500 series tractors in the 100 hp. and



Deere says adding automated steering to your tractor, provided it has hydraulic steering, is easier and less expensive with its AutoTrac Controller 300.

less range, as well as for retrofit applications.

"From a manufacturing standpoint, it didn't make sense to make automatic steering systems an option on smaller, lower cost equipment," says Mishler. "With this universal or generic approach, we are seeing a lot of interest in it for specialty uses and

smaller utility tractors."

Contact: FARM SHOW Followup, Your nearest Deere dealer or (<https://www.deere.com/en/technology-products/precision-ag-technology/guidance/auto-trac-controller-300-steering-kit>).

## Planter Designed For 60-In. Rows

Joe Breker's planter leaves lots of room for cover crop growth with its 60-in. wide paired rows. What his planter does that others can't is to easily vary the space between the paired rows.

"I'm comparing pairs with 8, 6, 4 and 2-in. between them, as well as single rows, all with 60-in. spacing," says Breker. "The idea is to see if there's any difference in yields or in cover crop growth."

Breker started sketching out a design for the planter with 4 paired rows in late February, and it was ready to go by May 1st. He used AGCO Precision Planting 9000 row units with vDrives and vSet meters for accurate spacing, DeltaForce automated downforce control, and SpeedTubes for high-speed planting. Dakota Precision, a local fabricator, put it all together.

Breker expects to see a 5 to 8 percent yield compromise with the single row 60's with a 32,000 seeding rate, over single row 30's with a 30,000 seeding rate. He hopes to get lost yield back with his paired rows at 32,000 seeds per acre. The goal with the 60's over standard 30-in. rows is to successfully interseed cover crops.

Although he tried interseeding cover crops between 30-in. rows, the lack of light shaded

out the plants. "The goal is to have a living cover crop when the corn is harvested," says Breker.

He has been doing bio-strip till for the past 10 years, planting a multi-species cover crop into cereal stubble and following that with corn the next spring. He plants specific cover crops into the row where the corn will be planted.

"I have found that flax, fava, radish and rye are best," says Breker.

He follows his corn crop with a crop of soybeans. A fourth year in the rotation goes to radish, rye or camelina (Vol. 44, No. 3) cover crops raised for seed.

Planting started May 2 with Breker using the planter on all his corn acres. By the middle of June he had interseeded with a Great Plains press drill. He removed openers to avoid the corn rows.

"I planted a 6-way mix of fava beans, alfalfa, flax, oats, rye and wheat," says Breker. "I hope the alfalfa and rye will overwinter. The corn and the covers looked great by late July."

Breker has been planting paired rows for 40 years. This year, in addition to his own fields, he planted some 60-in. test plots for neighbors.



Joe Breker built this "pair row" 60-in. planter to leave lots of room for cover crop growth. "I'm comparing pairs with 8, 6, 4 and 2-in. between them to see if there's any difference in yields or in cover crop growth," he says.

"It's a great way to promote cover crops," says Breker, who sells Jackhammer Radish seed to wholesalers and retails rye into Iowa and Missouri.

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