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The Ready Welder II is designed to be a lightweight, portable MIG welder that can run on direct DC power from two car batteries.

# PACKING HEAT

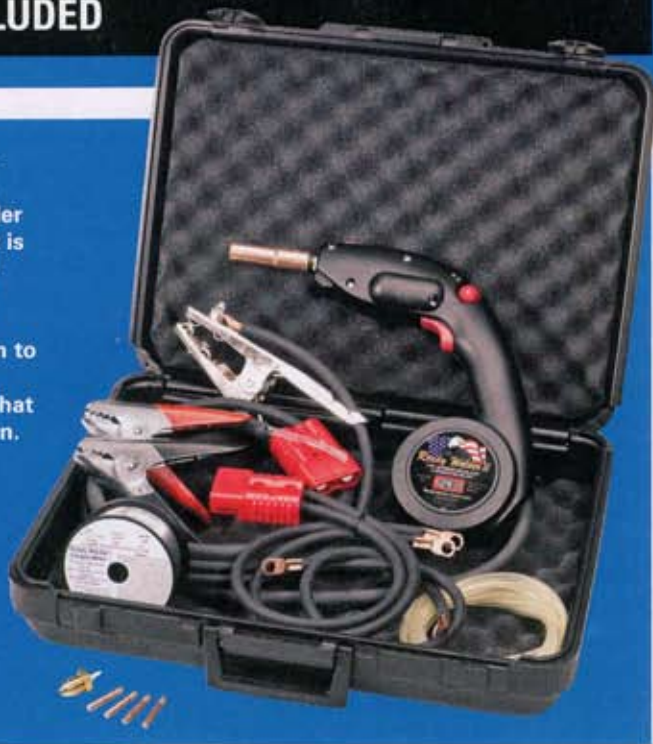
STORY AND PHOTOS BY >> JOSH BURNS

**READY WELDER II IS A LIGHTWEIGHT MIG WELDER YOU CAN USE JUST ABOUT ANYWHERE—BATTERIES NOT INCLUDED**

Ingenuity and creativity are arguably the cornerstones of off-roading, and this is especially true when you're broken down on a ride and have to figure out how to get back to camp. For these situations and more, the lightweight and very portable Ready Welder II can be very valuable for welding jobs in remote locations.

The Ready Welder II is an on-the-go MIG welder that welds steel, stainless, aluminum and more. For most applications, the unit is designed for attachment to two 12-volt car batteries. Case and all, the standard Ready Welder II tips the scales at about 17 pounds. Included in the foam-molded case is the MIG gun, 10-foot power leads, one spool of flux-core wire, a 300-amp ground clamp, two battery clamps, extra tips and gas hose

Compared to conventional welding equipment, the Ready Welder II is unique because it is easily portable via its carrying case, and it weighs in at only 17 pounds. So if you plan to stash it in your ride, there's little concern that it will weigh you down.



fitting and 10 extra feet of gas hose. In instances where you don't have your heavy welding equipment on the ride with you, this MIG welder can help you get out of a serious bind—and it packs a serious punch.

### TOUGH ENOUGH?

At first, it was a little hard to believe that the Ready Welder II, with its plastic gun and all, could tackle serious welding tasks. But after speaking with Keith Hook, VP of sales and business development for WeldStone and master distributor for Ready Welder Corp., apparently the product has been put through its paces long before we got our hands on one.

"Every military service Humvee vehicle gets one of these on board, every single one—Afghanistan, Iraq, domestically," Hook said. "Anytime you see a service Humvee or a tank-service vehicle, there's a Ready Welder II on board."

The first Ready Welder was introduced about 12 years ago, though its abilities were pretty limited. "It was originally designed for minimal hobbyist use, almost like a disposable welder," Hook said.

The president and founder of Ready Welder Corp. came up with the idea for the product after serving in the military decades ago, and he pursued the military as a purchaser of the original Ready Welder back when the first unit was introduced. After years of field testing, the military came back and said it was a good product but wasn't tough enough for the constant abuse they were giving it.

After some serious tweaking, refining and thorough testing, Ready Welder introduced the Ready Welder II as a much more long-lasting and durable MIG-welding tool. The RWII was originally designed as a complimentary piece to the original Ready Welder but quickly replaced it. Hook says the military has another five years on its contract with the company, and between 50 and 70 units are shipped to them each month.

Depending upon the application, the Ready Welder II is available in three different packages to fit your specific needs. The 10000 model is designed specifically for use with car batteries only. The 10000 ADP offers the option of hooking up to an existing MIG, arc or stick-welding machine, while the 10250 model is designed specifically as a spool-gun attachment.

### BATTERY POWERED

Off-roaders will appreciate the Ready Welder II's simplicity. If your rig uses two batteries, you carry a spare or can borrow one from a buddy's vehicle, two 12-volt batteries will provide the 24 volts of power needed to perform serious welding repairs. With 24 volts at 275 amps, the RWII can penetrate as much as half-inch steel in a single pass.

While single battery use is possible, the RWII's abilities will be limited to basic spot welding and sheet-metal work. Hook says that 18 volts is where you really start to get penetration power. A three-battery configuration can be used as well, offering as much as 3/4-inch penetration, but this is a pretty rare

application. Most people will only need to utilize a two-battery setup.

So, how long can the Ready Welder operate before killing batteries? Unless you plan to construct an entire vehicle on the trail, it should be long enough.

"I have two timers that I keep track of: One is before you do damage to the battery, and one is before you'll be able to restart your vehicle," Hook said.

"Depending upon what thickness of metal, on the average [for 24-volt applications] you'll get about 30 minutes of welding time and still be able to start your vehicle. You'll get about 60 to 70 minutes of welding time before you start damaging the batteries. If it's really thin stuff and you're just spot welding, you



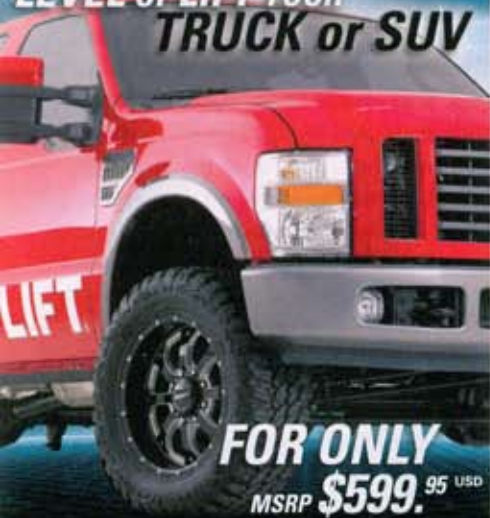
When hooked up to two 12-volt batteries, 24 volts of battery power are enough to penetrate half-inch steel in a single pass. Depending upon the size and quality of your battery, you should get about 30 minutes of heavy-duty welding time and still be able to start your vehicle. Less demanding welding with lower amperages will drain the battery significantly less.

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#### ABOVE:

This is a weld we made with the Ready Welder II. As is evident by the right side of the weld, the machine is very capable of producing a quality bead. Since we'd been using the welder for quite awhile, our battery life was starting to reduce and the weld quality declined just a bit on the left—yet even with lower battery power it still produces a weld that'll get you back to camp.

#### BELOW:

Upon opening the Ready Welder II gun, there is a setting to control the wire tension, depending upon your application, which includes aluminum, steel and extra grip for heavy-duty jobs.



could go for hours, but if it's thick, half-inch stuff and you're welding for five or six minutes at a time, you're going to be closer to 20 to 30 minutes."

Obviously the strength of the batteries used will have an impact on the effectiveness of the Ready Welder II. The company recommends deep-cycle batteries, such as Yellow Top or Blue Top Optimas.

Arguably the toughest obstacle to operating the Ready Welder II has nothing to do with the unit itself, but rather getting the two batteries side by side to hook them up. It is possible to hook them up together if they are in two separate locations, but it takes a bit of customizing on your battery connections. In most cases the 10-foot power lead cable

with quick disconnects should suffice, although optional cables extend up to 90 feet from your power source.

To get 24-volt power from the two batteries, keep in mind that the batteries must be wired in series. Also, unless you want to fry your rig's electronics, remember not to hook it up to your car batteries with the car running. When it comes to operating the unit in the off-road environment, Hook has a tip on setting up the battery configuration.

"When you are welding in flux-core environments, or when you're not going to be welding with gas, which is common for the off-roaders, you're actually going to hook up the gun in reverse-polarity," Hook said. "The reason why is


It gives you deeper penetration and less spatter than what you would typically find on a standard flux-core welder."

The Ready Welder II can use wire sizes from .023 to .040 without changing rollers, and the case comes standard with a spool of 0.035-inch flux-cored steel wire. The thickness of the wire will control the amount of current, yet the speed at which the wire is fed will also have an impact on amperage simply because the amount of wire being fed to the bead is directly proportional to the ultimate amperage level delivered. The wire feed speed control knob is located on the gun itself and is easily adjusted by turning the dial. Inside the gun, there is an adjustment for the tension roller to adjust for the size and type of wire used.

#### GAS READY

If you like the concept of the Ready Welder II and still want to use the gun with a gas setup, that's not a problem. "A lot of people have that concern because they still want to use it as a spool-gun attachment in their shop or they just want get that better quality appearance of the weld," Hook said.

The RWII features an integrated valve block inside the gun which will allow you to weld with gas. The gas lead actually comes out to the same location of the quick disconnect and the kit comes with an additional 10 feet of hose and an adapter to be able to thread into a standard regulator on a standard bottle. This allows you to weld with basically anything you can find on a one- or two-pound spool. The duty cycle on the ready welder is 100 percent when welding with gas, and it's 70 percent when welding with flux.

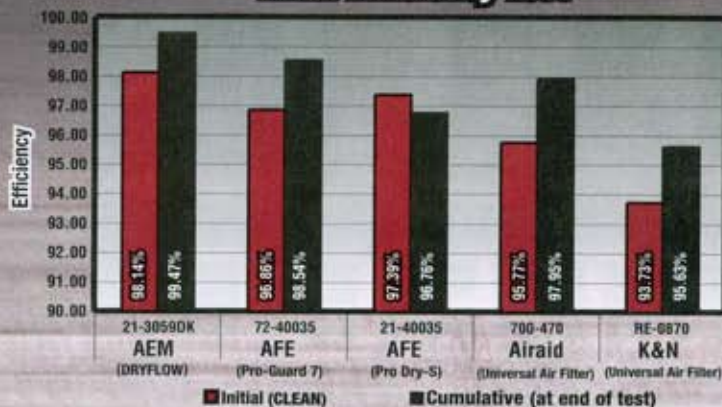
With the Ready Welder II, seeing is certainly believing. While it won't replace a professional welder's equipment, it can tackle some heavy-duty welding tasks, and there are applications where even professionals will find this unit handy. For the Off-Road Nation, it could be a "Get Out of Jail Free" card when you've busted an A-arm or a shock mount and are nowhere near camp. There's no doubt the Ready Welder II is a handy item to have on hand for when the going gets tough. 



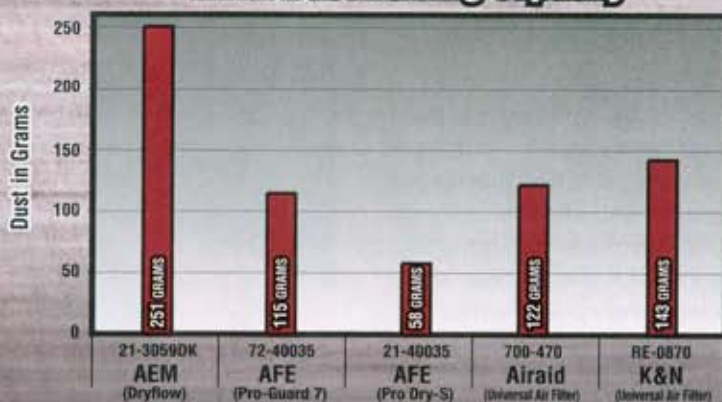
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