

# READYWELDER

BY

**BROCO**



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**READYWELDER by BROCO**  
**USER'S MANUAL**  
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## **1. THE READYWELDER BY BROCO**

The ReadyWelder is a light weight, portable, battery-powered MIG welder for welding on mild steel, stainless steel, and aluminum. It can also be connected to a constant voltage MIG welding machine for use as a spool gun.

The original ReadyWelder was developed in 1997 by a U.S. World War II veteran and battlefield surgeon. After years of testing and improvements the ReadyWelder II was introduced in 2002 and was quickly adapted for military use due to its portability and welding capability. ReadyWelder II was regularly found on U.S. Humvee's and tank service vehicles.

ReadyWelder was acquired in 2024 by Broco, Inc., inventor and sole manufacturer of the original Broco Exothermic Cutting Torch. Broco, Inc. and Rankin Industries, Inc. are based in Ontario, California. They design and manufacture a wide range of products from Broco Underwater, Broco Tactical, Broco Industrial, Rankin Hardfacing, Protective Metal Alloys (PMA), Chamberlain Security, and now, ReadyWelder.

The ReadyWelder by Broco is available in a consumer version and a military version. Battery packs and other accessories are also available for purchase.

## 2. SAFETY & WARNINGS

### PLEASE READ ALL WARNINGS AND SAFETY RECOMMENDATIONS BEFORE USE

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#### **WARNING** – SERIOUS INJURY OR DEATH MAY RESULT IF NOT USED PROPERLY!

Serious injury or death may result if welding or cutting equipment is not properly installed, used and maintained. Misuse of this equipment can be both hazardous and dangerous to the operator and any persons in the general work area. Operators must read and understand the following safety warnings and instructions before installing or using any welding or cutting equipment.

The welding and/or cutting process is used in many potentially dangerous and hazardous conditions. In environments such as elevated heights, areas of limited ventilation, close quarters, proximity to water, uncertain power sources, and hostile environments, etc., it is important that the operators are aware of the dangers and limitations associated with working in such conditions. Only properly trained and experienced operators trained in safe practices for the environments in which they are expected to work and are under competent supervision should use this welder. It is essential that the operator, supervisor, and others in the work areas are aware of the dangers of the welding or cutting process. Training and supervision are both important and necessary for a safe workplace.

#### **WARNING** – THE FOAM IN THE CASE IS FLAMMABLE

Make sure the case is closed and is a sufficient distance from welding or cutting with the ReadyWelder to avoid sparks, slag, or any hot material from coming in contact with the foam.

#### **WARNING** - ELECTRIC SHOCK CAN CAUSE INJURY OR DEATH

Install and maintain equipment in accordance with the National Electric Code NFPA 70 and local codes. Do not service or repair equipment when the power is on, or the batteries are connected. Do not operate equipment with protective insulators or covers removed. Service or repair to equipment must be done by qualified and trained personnel only.

#### **WARNING** – OPERATOR MUST NOT CONTACT ELECTRICALLY LIVE PARTS!

Do not touch electrode with bare skin and electrical ground at the same time. Always wear dry welding gloves in good condition. Be aware that aluminized protective clothing can become part of the electrical path. Keep oxygen cylinders, chains, wire ropes, cranes, hoists, and elevators away from any part of the electrical path. All ground connections must be checked periodically to determine that they are mechanically

strong and electrically adequate for the required current. When welding is to be suspended for any sustained period of time, such as during a lunch break or overnight, DISCONNECT the ReadyWelder from its arc current power source.

**WARNING** – NEVER IMMERSE MIG GUNS, ELECTRODE HOLDERS, TIG TORCHES, PLASMA TORCHES, OR ELECTRODES IN WATER.

**WARNING** – ARC RAYS, HOT SLAG AND SPARKS CAN CAUSE INJURY TO EYES AND SKIN

Always wear PPE, personal protective equipment, when using the ReadyWelder. The welding and cutting processes produce extreme localized heat and strong ultraviolet rays. Wear proper welding equipment, including but not limited to, a welding helmet with the proper lens that complies with federal guidelines and welding gloves. Number 12-14 shade filter lenses provide the best protection against arc radiation. Make sure other people around are also protected from arc rays and sparks with shielding curtains, goggles and protective shirts or jackets to protect the skin from heat and molten metal. Other safety equipment includes leather aprons, sleeves and leggings, high-top work shoes, and leather spats. All pockets should be sewn shut and flammable hair products should be avoided.

**WARNING** – WELDING SPARKS CAN CAUSE FIRES AND EXPLOSIONS

Causes of fires and explosions are combustibles reached by the arc, flame, flying sparks, hot slag and heated materials. Remove combustible materials from the work area and provide a fire watch. Avoid oily or greasy clothing. Keep a fire extinguisher nearby and know how to use it. Always make sure the work area is well ventilated. Use only inert gases or inert gases mix for purging. Use of combustible compressed gases and arcing against compressed gases can cause explosions resulting in personal injury or death.

**Please keep these instructions for reference and future use.**

Please Note: These instructions are for ReadyWelder by Broco prepared in 2024. Questions regarding older models of the ReadyWelder should contact [sales@brocoinc.com](mailto:sales@brocoinc.com) or (909) 483-3222 with questions.

### **3. READYWELDER RW-10000**

The ReadyWelder, product number RW-10000, contains the following:

- ReadyWelder Spool Gun and MIG Welder
- One 1 lb. Spool .035" Flux Core Wire
- Four (4) Welding Tips
- Ready Welder Assembly with Ground Clamp
- Battery Power Cable Assembly
- Battery Jumper Cable
- Gas Line
- Foam-lined carrying case

Optional Equipment Available for Purchase:

- Welder Adapter Kit
- Auxiliary Power Adapter Cable
- Cold Switch Adapter
- 20 Foot Extension Power Cable
- 1 & 2 lb. Wire Spool Consumables

Call Broco Customer Relations at (909) 483-3222 for pricing or more information.

## 4. OPERATING TIPS

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**SAFETY** – Never open the ReadyWelder if it is connected to a live power source. Opening the ReadyWelder’s case halves while the gun is powered can cause severe damage to the circuit board and other internal parts. This damage will not be covered by the Limited Warranty. Also, never leave the power connected to the ReadyWelder when not welding – the tip stays “hot” when power is connected. Always disconnect the unit from the power source when not in use.

### Power Connections for the ReadyWelder

The ReadyWelder comes with battery clamps which can be mounted onto the 3/8” copper lugs provided. Whenever possible make the power connections using the 3/8” copper lugs mounted directly to the battery terminals. Many deep cycle batteries come with additional threaded post terminals with wing nuts on them which are ideal for making these connections. The battery clamps are convenient to use but may restrict flow and therefore should only be used when using the 3/8” copper lugs is not feasible. Never connect the ReadyWelder to AC output terminals on arc welding machines.

### Battery Selection

Battery selection is important for the successful operation of the ReadyWelder. The size and power ratings of the batteries selected will impact the duration of welding time and depth of penetration. Select larger batteries for welding metal 1/8” or thicker. Deep cycle marine batteries are recommended with threaded tip terminal posts topped with wing nuts in group sizes 24D to 31D. Gel cell batteries work very well but may require a special charger. Keep batteries charged over 80% between uses to extend life span. Thin metal and thin aluminum require lower amperages for welding compared to thicker metals. Use thinner wire (.023”) on thinner metal, and thicker wire (.040”) on thicker metal.

### Clean Metal Surfaces

Clean all the metal surfaces that are to be welded together. They should be free of mill scale deposits which are found on most steel products from the foundry. Grind surfaces down to shiny bare metal to improve the strength and penetration of the weld. Because MIG welding is an electrical process, any action taken to improve the conductivity of the metal to be welded will improve final results. This also applies to the surface that the large grounding clamp is connected to. Make sure the ground clamp is attached to clean, bare metal on the piece being welded. The cleaner the surface, the stronger the weld.

## 5. OPERATION

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The ReadyWelder is shipped virtually ready to use. The only preparation required is the installation of the wire spool.

### Guidelines for Loading the Wire Spool

Before opening the two case halves of the ReadyWelder to load the wire spool be sure to disconnect the gun from any live power sources, including the AC/DC power supply. The unit has quick disconnects to make this process quick and easy. Failure to follow this rule can lead to personal injury and may cause damage to the ReadyWelder and will not be covered by the Limited Warranty due to user negligence. Before loading the wire spool be sure the wire selected is suitable for the task.

### Control Functions

The ReadyWelder's primary user controls consist of a trigger and a wire feed speed control knob. There are also LED indicator lights which indicate current polarity with battery power hook-ups (when the AC/DC power is being utilized). When using the optional AC/DC power supply to power the circuit board and motor the LED light will indicate only that the AC/DC power supply is powered and properly connected. Arc polarity is NOT indicated by the LEDs when the AC/DC power supply is being utilized. The power supply must be connected in the same polarity as the power source. The small red pigtailed included with the system will allow for the AC/DC power supply to be hooked up in reverse polarity.

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### Loading the wire spool in the ReadyWelder

1. Remove the T-bolt handle by turning counterclockwise.
2. Lift top half of case from spool end to allow the retainer clip to disengage. Remove nozzle and insulator, then remove gas diffuser and tip to make loading the wire easier.
3. Select wire to be used. Unroll a few inches of the wire making sure to hold the coil firmly to prevent bird nesting. Clip off the end of the wire leaving 3-4 inches if straight wire.
4. Place the spool in the housing of the gun holding the wire firmly. Press the red tension lever and insert the wire between the rollers into the slot. Feed the wire parallel to the flat surface of the brass bracket. The wire should feed quickly and easily.
5. Install the gas diffuser and tip, then reinstall the nozzle cup and insulator. This will prevent accidental arcing.



*(Add photo here showing wire routing from spool through gun)*

**CAUTION:** ALWAYS DISCONNECT THE READYWELDER FROM THE POWER SOURCE AND LET IT COOL BEFORE OPENING THE CASE.

**CAUTION:** ONCE THE READYWELDER IS CONNECTED TO THE POWER SOURCE THE CIRCUITRY AND TIP ARE LIVE. DO NOT GROUND TIP TO ANYTHING WHEN CONNECTED.

### Duty Cycle

Unlike conventional welders, which are limited in how long they can weld because of heat build-up, the ReadyWelder has a 100% duty cycle when shielding gas is being used. The use of flux core wire with high amperage levels requires cooling periods. Note that the welder can be cooled rapidly with compressed air. When operating from direct current drawn from batteries there are no power source components to overheat. The system can be operated continuously for as long as the batteries can deliver power. Be sure to leave a small gap between the back end of the nozzle and the plastic face of the gun so that heat will not be transferred directly into the plastic and cause damage to the welder.

### Using the MIG Gun

The ReadyWelder can use a number of types and sizes of welding wire. One of the key advantages of the ReadyWelder is the ability to control the speed of the wire directly from the gun. Wire speeds can range from 50 inches per minute for lighter work, up to 900 inches per minute for heavier jobs. Speed selection is controlled using the speed selector knob. See the Applications Chart (Section 14) for more information.

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## DC/CC ENGINE DRIVES AND STICK MACHINES

All tig welding machines are constant current, or CC. These machines have voltage spikes so learning the technique is important. Stick welding machines will weld aluminum and flux core wire but do not have the sustained voltage to run hard wire. Use the AC/DC power supply supplied with the ReadyWelder and make sure it is connected in the same polarity as the arc current. Gas welding is DC- (direct current negative) or ground negative (green LED light). Flux core is DC+ (direct current positive) or ground positive (red LED light). Change polarity as with any welding rod.

## **6. CONNECTING THE READYWELDER TO BATTERIES**

For up to 1/2" thick in a single pass: Two 12V batteries in series, producing 24V and up to 275 amps.

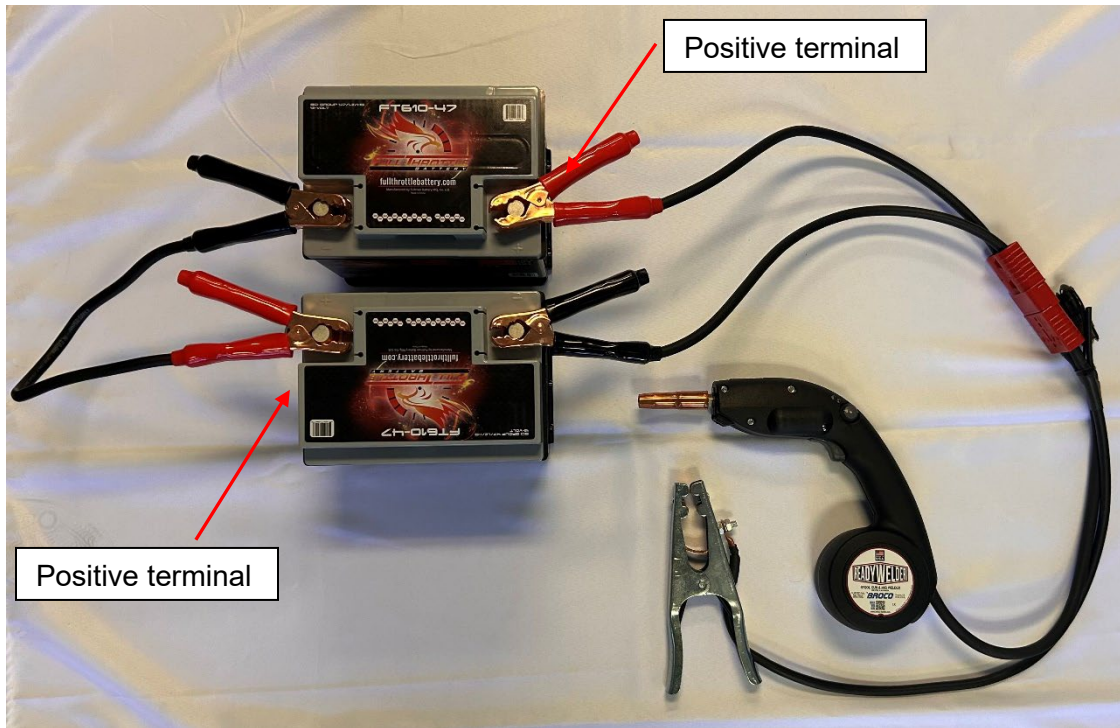
Connect two 12V batteries in series by connecting the positive terminal of battery #1 to the negative terminal of battery #2. This provides the necessary 24 volts. For all gas shielded wires use standard polarity (green LED light).

There are two polarities that the ReadyWelder can be used with.

1. DCEN (Direct current electrode negative) or also described as "straight polarity". This indicates that the ground clamp is connected to the positive terminals of the battery combination. This polarity is used for welding without gas and utilizes flux core wire.
2. DCEP (Direct current electrode positive) or also described as "reverse polarity". This polarity is used for welding with gas.

For thin material or sheet metal: One 12V and one 6V battery in series, producing 18V and 45-125 amps.

For up to 3/4" thick in a single pass: Three 12V batteries in series, producing 36V and up to 350 amps.



The ReadyWelder is configured to be in the straight polarity configuration when connected as in the figure above. When connected in this manner the green LED light on the ReadyWelder will illuminate. The welder will be ready to use with flux core wire which will be used in most remote applications.

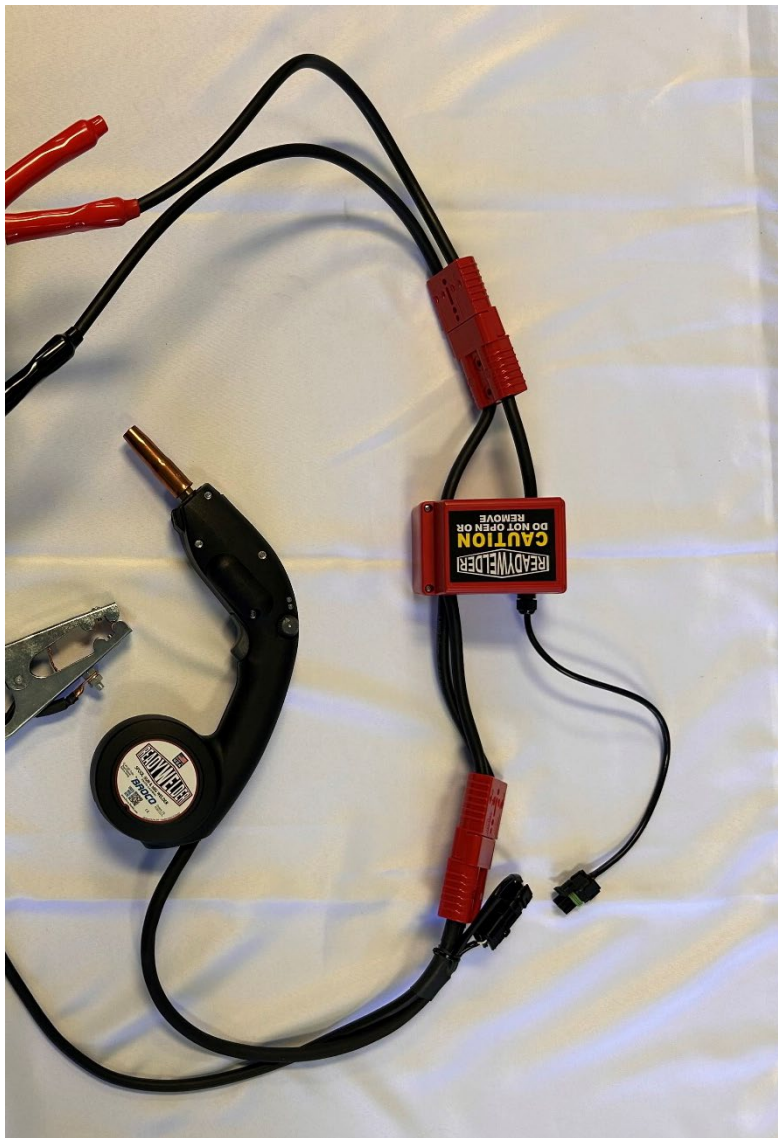
**PLEASE NOTE:** The red and green LED lights are different on the Broco ReadyWelder; previous ReadyWelder models were connected differently as listed in the older Users' Manuals. Please call Broco Customer Relations at (909) 483-3222 before use if there are any questions.

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## 7. CONNECTING THE READYWELDER COLD SWITCH

The ReadyWelder Cold Switch option is used to disable power to the welding electrode whenever the trigger on the ReadyWelder is not engaged. It is used to prevent accidental arcing until a weld is desired.

PLEASE NOTE: The Cold Switch can only be used with the Broco ReadyWelder and cannot be connected to older ReadyWelder models.



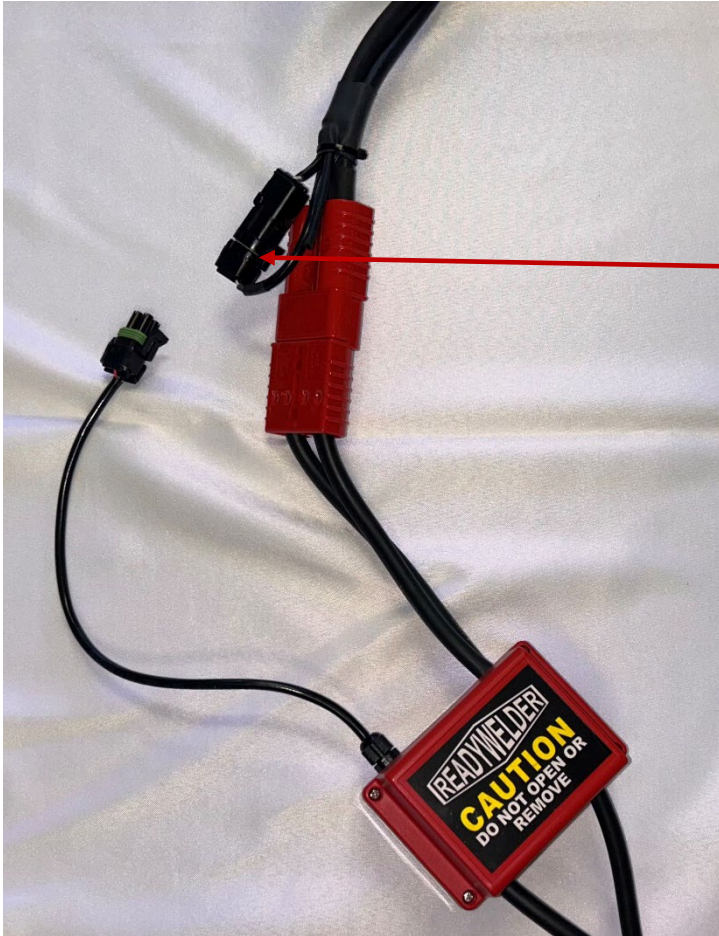
To install the Cold Switch disconnect the battery cable assembly from the ReadyWelder gun cable (large red connector).

Attach the larger cable on the side of the Cold Switch that has two cables to the ReadyWelder.

Attach the other large cable connector to the battery cable assembly.

See picture to the left.





Locate the small data cable connectors coming from the ReadyWelder cable assembly.

Disconnect the two connectors by lifting up on the tab and pulling them apart.



Connect the smaller cable from the Cold Switch to the matching connector from the ReadyWelder cable assembly.

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## 8. CONNECTING THE READYWELDER TO AN EXTERNAL WELDER

The ReadyWelder can be connected to an external welder as its power source for welding using the optional Welder Adapter Kit instead of utilizing batteries.

**WARNING:** THE READYWELDER SHOULD NOT BE CONNECTED TO AN EXTERNAL WELDING SOURCE WITHOUT USING THE AC TO DC ADAPTER THAT COMES WITH THE KIT.



To connect the ReadyWelder to an external welding power source replace the battery clamp cable with the welder adapter cable that has the Dinse connectors. These connectors will mate with most welders. You may need to reverse polarity depending on whether you are doing straight connections or reverse connections.

Above shows the AC adapter connection for use without a cold switch. Locate the small data cable connectors coming from the ReadyWelder cable assembly. Disconnect the two connectors by lifting up on the tab and pulling them apart. Plug the female side into the mating connector on the AC adapter. The other connector on the AC adapter is utilized when a cold switch is used.

The AC adapter is used to supply the proper voltage to the small logic board in the ReadyWelder allowing the ability to use a constant current welding source.

Using a Cold Switch with an external welding power source

To use the Cold Switch option with an external power source put the cold switch in between the welder adapter cable and the ReadyWelder cables. Plug the smaller data cable connector into the remaining small connector coming from the AC adapter.





## 9. WELDING ALUMINUM

### General Information

When welding aluminum use a contact tip which is .005" larger than the wire diameter being used. Extend the nozzle out 3/8" to help reduce burn back (i.e. melting the wire in the tip). Aluminum conducts heat rapidly. Some users prefer to increase wire speed and move more quickly across the metal being welded, especially on thin aluminum of 1/8" and less.

Preheating aluminum over 1/4" thick to about 250°F is a recognized practice and helps on the start of the bead while increasing penetration. Using a heat sink steel plate on the back side of aluminum can help prevent burn through. Thin aluminum wire will help reduce the voltage and amperage when welding. When welding on 1/8" thick or less aluminum the travel rate must be faster than on steel and the movement should be similar to drawing a line on a piece of paper. When the wire speed is adjusted correctly there should be no splatter and the weld process very quiet, similar to the sound of a gas leak.

### Bird Nesting

Bird nesting may occur when wire stick out makes contact with a grounded surface. The wire is electrically hot when there is power. This means that if the aluminum wire extending out of the contact tip comes in contact with the grounded work, it will burn back and weld into to contact tip – bird nesting.

Please Note: To avoid excessive tip replacement and arc flashing, pull away from the grounded work just prior to releasing the spool gun trigger when concluding the weld.

### Welding With Aluminum

Depending on the thickness and mass of the aluminum to be welded, a slight pre-heat in the area where starting will help for a uniform weld bead. Use the forehand technique by slightly tilting the spool of the gun in the direction of the travel. To establish the arc, hold the gun nozzle about 1/4" away from the grounded work piece and slowly depress the gun trigger to start the flow of argon shield gas. Pull the gun trigger and establish the weld. The wire should burn off slightly above the grounded work piece. Slow the wire speed slightly if there is excess spatter and a crackling sound. This will smooth it out. When welding lighter gauge aluminum, increasing travel speed will help avoid burn through. In some cases, reducing power to 18V DC, a 12 and 6V battery in series, will also make it easier to weld.

### Settings For Welding Aluminum

The suggested settings for the ReadyWelder with batteries are as follows:

Three charged 12V batteries in series will provide plenty of power for heavy, thick and large welding jobs.

Two 12V batteries in series will provide up to 275 amps for most jobs.

One 12V and one 6V battery works well on 1/8" or thinner aluminum.

Wire sizes for .023" - .030" should be used for thinner sections.

Wire sizes .035" - .040" for heavier sections.

Complete connections when ready to begin welding and set the spool gun speed control to 50%. Adjust as required as wire size will also have an effect on the welding current.

## 10. THIN METAL WELDING

The following Power Control Guidelines are recommended when attempting to weld metal thinner than 1/8”.

1. The use of 18V DC, obtained by connecting a 6V battery in series with a 12V battery, will provide enough arc current to weld all metal with a thickness of 1/8” or less. Be aware that it can get hot enough to burn through the metal.
2. Use the smallest diameter of feed wire available. The smaller the diameter of wire the less current it can conduct reducing possible melt through. Solid steel, stainless steel and aluminum wires come in .023” diameter and require the use of gas. Flux core wire comes in .030 as a minimum.
3. Use increased wire “stick-out” length to cool the bead. The greater the distance from the end of the contact tip to the bead, the greater the resistance faced by the arc current. Increasing wire “stick-out” works best with flux cored wire. Using the maximum wire “stick-out” also reduces the likelihood of wire burn-back clogging the contact tip.
4. The “Stitch Welding” mode allows for successful welding of thin sheet metal at a 24V power level without melt through. Stitch welding produces a series of small, cooler beads rather than a continuous bead and prevents the bead area from getting hot enough to melt the surrounding metal.
5. Increasing external resistance will lower the output and can be done in several ways, such as longer cable, shorter cable, or by attaching a piece of chain to the work piece. Be aware that increased resistance causes greater heat.

## **11. ROUTINE MAINTENANCE**

### **Preventative Maintenance Recommendations**

1. Keep grinding grit from getting into the ReadyWelder gun. Do not lay the ReadyWelder down on dirty or gritty surfaces and set the gun down as far away from grinding activities and grit sources as possible.
2. Proper lubrication of moving parts is essential to long life. Full synthetic motor oil is recommended. Use of petroleum base lubricants can adversely affect gun body and gas valve action.
3. Regularly blow gun clean with compressed air or gas.

### **Battery Maintenance**

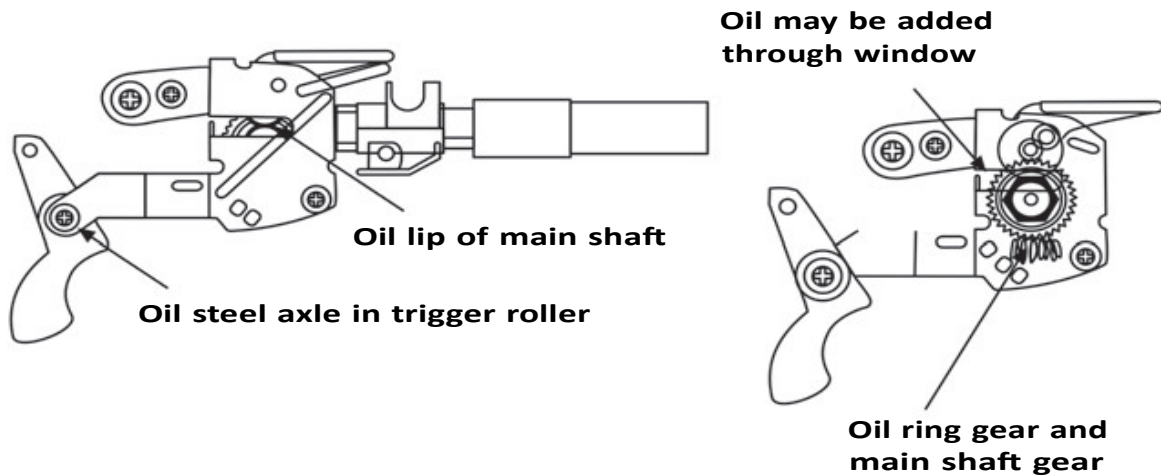
To maximize the life of lead-acid, deep cycle batteries, always check the fluid level at least once a week. Always keep the batteries fully charged between uses and the use of a "Battery Tender" device is recommended.

### **Replacing Tip Assembly Components**

With use, the welding tips will need to be replaced intermittently. Recommended replacement tips are standard #2 Tweco tips or compatible. Dedicated tips should be used when welding various type of metal.

## 12. RECOMMENDED PERIODIC MAINTENANCE

The following diagram shows areas to be lubricated periodically.



NOTE: Do not get oil on surface of plastic roller and main shaft. Use silicon oil on gears and shafts. Oil all parts sparingly with a toothpick or cotton swab.

### 13. TROUBLESHOOTING

<b>Trouble</b>	<b>Possible Problem</b>	<b>Possible Solution</b>
Irregular wire feed or motor unable to feed wire	Wire not loaded properly	Check for binding
	Batteries need recharging / maintenance	Charge or maintain batteries
	Contact Tip Clogged	Replacement tip needed
	Wire feed tension spring misadjusted	Tighten tension spring setting
	Idle roller not contacting wire	Replacement roller needed
No wire feed	Improper power or ground connection	Check all connections
	No power from MIG machine	Close contactor on MIG machine
	AC/DC power supply has no power	Check AC/DC connections
	Motor or circuitry damaged	Contact Broco Inc.
	No power to wire feed motor	Verify LED is lit and & check connections
No weld output (wire feeds normally)	Batteries need recharging / maintenance	Charge or maintain batteries
	No arc power from MIG machine	Close contactor on MIG machine
	Improper power or ground connection	Check all connections
	Arc current source malfunction	Check source for output problems
	Cold start solenoid not working	Contact Broco Inc.
Poor weld quality	Batteries need recharging / maintenance	Charge or maintain batteries
	Improper power or ground connection	Check all connections
	Contact Tip Clogged	Replacement tip needed
	Wrong output polarity used	Check application table
	Wrong feed wire or shielding gas used	Check application table

## 14. APPLICATIONS TABLE

Metal Type	Thickness of Material Being Welded	Wire Type/Size	Tweco #2 Tip Size	ShieldGas	Gas Flow Rate (Cu.Ft./Hour)	Polarity / LED Color	Wire Speed Control Setting
Steel	24 to 18 GA	Solid Steel .023"	.023"	75% Argon / 25% Co2	15 - 30	Straight / Green	Stitch
	18 GA to <sup>3</sup> / <sub>16</sub> "	Solid Steel .030"	.030"	75% Argon / 25% Co2	15 - 30	Straight / Green	Stitch to 1
	<sup>1</sup> / <sub>8</sub> " plus	Solid Steel .035"	.035"	75% Argon / 25% Co2	15 - 30	Straight / Green	Stitch to 2
	<sup>1</sup> / <sub>4</sub> " plus	Solid Steel .040"	.040"	75% Argon / 25% Co2	15 - 30	Straight / Green	1 to 4
	22 to 14 GA	Flux-Core Steel .030"	.030"	None	None	Reverse / Red	Stitch to 1
	<sup>1</sup> / <sub>8</sub> " to <sup>3</sup> / <sub>8</sub> "	Flux-Core Steel .035"	.035"	None	None	Reverse / Red	Stitch to 3
	<sup>1</sup> / <sub>4</sub> " to <sup>1</sup> / <sub>2</sub> " plus	Flux-Core Steel .040"	.040"	None	None	Reverse / Red	3 to 6
Aluminum	.060" to <sup>1</sup> / <sub>8</sub> "	Aluminum .023"	.030"	100% Argon	20-Oct	Straight / Green	1 to 2
	<sup>1</sup> / <sub>8</sub> " to <sup>1</sup> / <sub>2</sub> "	Aluminum .035"	.040"	100% Argon	15 - 30	Straight / Green	2 to 6
	<sup>1</sup> / <sub>2</sub> " plus	Aluminum .040"	.045"	100% Argon	20 - 50	Straight / Green	4 to 9
Stainless Steel	.080" to <sup>1</sup> / <sub>8</sub> "	Solid Stainless .030"	.030"	Tri-Mix*	20 - 40	Straight / Green	Stitch to 1
	<sup>1</sup> / <sub>8</sub> " plus	Solid Stainless .035"	.035"	Tri-Mix*	20 - 40	Straight / Green	1 to 6
	<sup>1</sup> / <sub>8</sub> " plus	Flux-Core Stainless .035"	.035"	None	None	Reverse / Red	1 to 6

**Tri-Mix\*:** The specific mix of gases and their respective proportions will be determined by 1) the alloy and thickness of the stainless steel being welded, and 2) the alloy and thickness of the stainless welding feed wire being used. Please consult your welding gas distributor or an appropriate reference manual to determine the proper mixture for your application.

### Other General Guidelines

**Stitch Mode Welding.** When welding metal thinner than <sup>1</sup>/<sub>8</sub>" with batteries as a power source, it is often necessary to use a stitch mode welding procedure to avoid melting the metal being welded. Start by lowering the wire feed speed control to its lowest setting where the wire just begins to feed. When you begin welding, a small bead will form and then the wire will melt back just enough to break the arc. The process will weld a series of small beads with short breaks of time between them. This prevents heat from building up and melting through, known as globular transfer.

**Voltage Levels/Settings.** When powering the ReadyWelder with a welding machine, the machine will offer amperage control and/or voltage control. The ReadyWelder works well on 12 to 40 DCV and on amperage between 30 to 300 amps. Dialing the proper power level with a machine as a power source is a simple task that requires a little experimentation. Power from batteries is controlled by different voltage combinations of 12V to 36V. The amperage is controlled by the wire size, wire speed and by external

resistance such as longer and smaller cable. By hooking a 6V battery in series with a 12V battery you can obtain 18V, which will aid in welding metals thinner than 1/8" without melt through. With metal thicker than 1/8", we recommend 24V for globular welding and 36V for spray transfer welding on metal 1/4" or thicker. On thinner metal it often takes a bit of experimentation to find the right combination of battery voltage, feed wire diameter, and wire feed speed to obtain the desired results.

**Aluminum Welding.** We recommend using a contact tip which is .005" bigger than the aluminum feed wire itself and pulling the nozzle about 3/8" farther out to reduce burn-back.

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## **15. LIMITED WARRANTY**

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The ReadyWelder by Broco is warranted to be free from defects in material and workmanship for a period of one year from the date of the original purchase with proof of purchase. This warranty only covers failures due to defects in material or workmanship which occur during normal use.

This warranty does not cover damage which occurs in shipment, or failures which result from accident, misuse, neglect, mishandling, misapplication, alteration, or modification of the product.

Broco, Inc. shall not be responsible for any incidental or consequential damage resulting from the use of this product or arising out of any breach of this warranty. All express and implied warranties or merchantability and fitness for a particular purpose, are limited to the applicable warranty period of one year as set forth above.

Please contact Broco management at (909) 483-3222 with any questions.

## 16. PRODUCTS

The following ReadyWelder products are available for purchase separately:

RW-10000	ReadyWelder for Battery Power
RW-10000MDP	Military Pack ReadyWelder
RW-SA-951	Welder Adapter Kit with AC Power Source
RW-SA-850	Cold Switch Adapter
RW-40200	20 Foot Extension Power Cable



BY

***BROCO***<sup>®</sup>

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