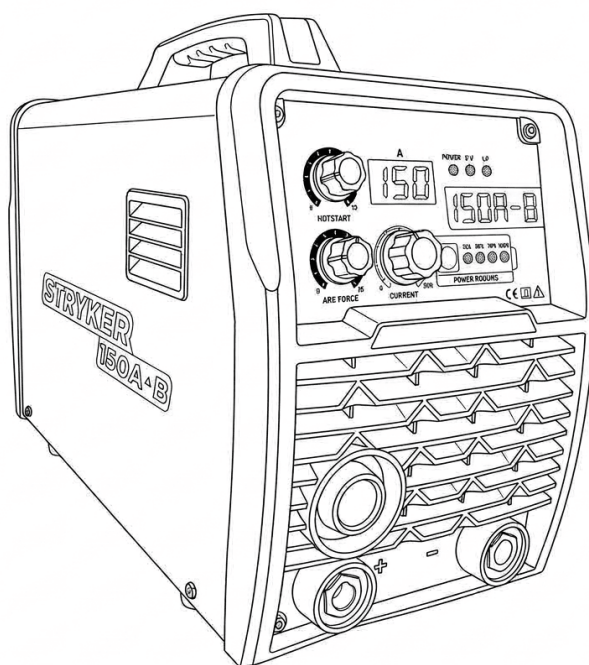




USER & SERVICE MANUAL

150A-B Battery Powered Welder

Warranty

Stryker America warrants to the end user all of its welding machines are free from manufacturer defects in materials and assembly for a period of 2 years from the date of purchase by the end user.

All warranty is null and void if the welding machine has been modified or damaged by the end user or used in any manner incorrectly.

Stryker America will assume all parts (including shipping) and labor repair costs to return the welding machine to correct working order, end user will be required to get the welding machine to a local Warranty / Repair Center.

Final determination will be made by Stryker America if the defect is covered by warranty based on information found at Warranty / Repair Center. If the defect falls under Warranty by Stryker America, Welder Repair or Replacement will be at the sole discretion of Stryker America.

WARRANTY LIMITATIONS

Stryker America's Liability under the Warranty Program shall not exceed the cost of correcting of the defect of the Stryker America Part.

Stryker America will not be liable for any incidental or consequential damages (such as loss of business etc) caused by the defect or the duration of time involved to correct the defect.

End Users Responsibility

The end user must maintain a copy of their original purchase receipt to help establish the date of purchase (this being the date the 2-year warranty begins).

The end user must do regular maintenance and have a copy of the receipts to prove appropriate maintenance has been done during the 2-year time frame.

All Stryker Welders have been designed for welding, with high quality designs and highest quality components to ensure professionally quality welding.

150A-B Welder (Overview)

This welder has been designed for high portability / mobility with high power and high duty cycle (in its category), designed for smaller welding operations. Designed for welding materials up to 1/4 to 3/8 inch thickness (thicker if the material is beveled with root pass and fill welding).

With a fully charged battery, the welder can be used for 4+ hours continuously, with a short recharge, a full workday of welding can be achieved.

Due to its high mobility, the welder can be very close to the welding location, please be aware of the welding fumes, do not use in an enclosed space and keep the unit away from water / extreme moisture areas.

With use of high quality welding cables (+ / -) up to 50 ft of distance can be used as a welding distance from the machine without any loss in power, with a longer distance possible but with a drop in amperage over long distances.

We have placed 50mm dinse output connectors on the welder allowing for the operator to quickly attach the cables and remove as needed to move the welder to new locations. Due to the ability to have the welder beside the welding location, a 15-25 ft long cable set is typically long enough for most operations, 25-30 ft extensions cables are available to extend the distance of the welder from the welding operation.

If left outdoors (in a yard or in the back of an open pick-up truck) a waterproof vinyl cover is strongly recommended to help keep water and dirt out of the welder for a longer life. It is better to leave indoors or inside the vehicle cabin for protection from the elements.

The unit has been designed with 2 sets of vibration dampers, 1 set of 4 to absorb the engine vibrations and 1 set of 4 acting as a set of "feet" on the base to keep the machine from moving during use on hard surfaces.

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1. SAFETY INSTRUCTIONS

Before using this welder, you must read this instruction manual. Incorrect operation or abuse of the welder will result in the safety of the operator and damage to the welder, public or private property.

***** *Protect yourself and others, welding can put you and others under multiple hazards:***

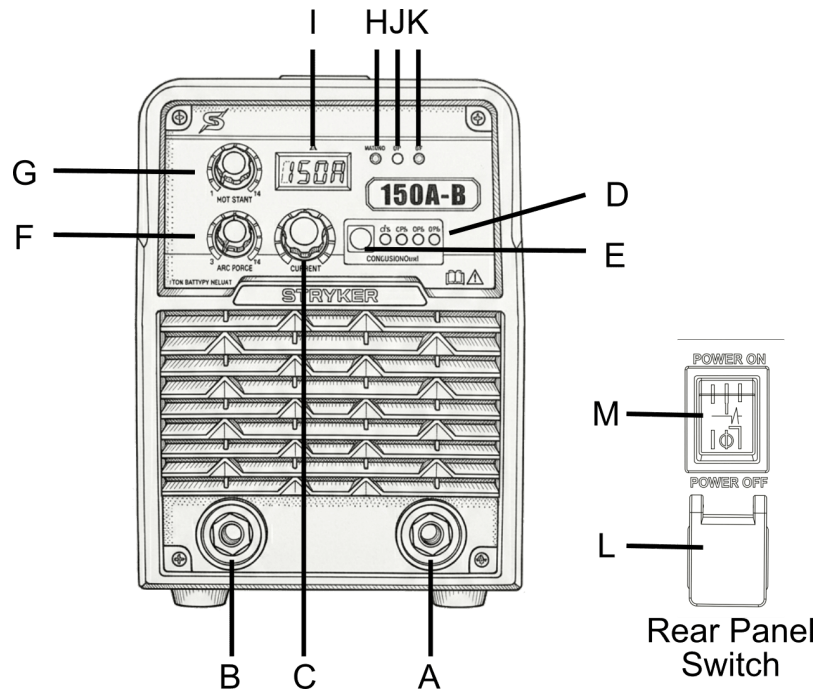
- 1.1. Take adequate measures to protect the eyes: it is very important to protect the eyes during welding, not only for the operator, but also for any other personnel in the vicinity of the welding operation. Eye hazards include welding flash caused by arc glare reflections. So, if you stare at the flash without protection, you may have severe pain or even blindness. For this purpose, the owner/operator must ensure that the welder is used by a person. Professional protective equipment must be used during operation: A properly fitted welding helmet with the correct shading of glass plus any protective light barriers if any other personnel will be in the vicinity of the welding.
- 1.2. Power and welding current may cause electric shock. Please do not touch the inside and outside of the welder; ensure that you and others have dry insulation against the ground, so that the body is completely isolated from the ground or electrodes.
- 1.3. Welding fumes and gases can be harmful to humans. Please never leave your head in the position of the welding or engine exhaust fumes ALWAYS ENSURE that there is sufficient fresh air circulation around the operator.
- 1.4. People using a pacemaker should not engage in welding operations and welders in use, without the consent of a medical professional, and the magnetic field generated when the welder is energized can adversely affect the operation of the pacemaker.
- 1.5. Welding splatter can cause fire or explosion. Do not allow welding near flammable materials; do not perform welding in hazardous locations such as closed tanks or pipes.

- 1.6. Before the welding work, check the power output cables (+ / -) for wear and cracks in the casing, confirm protective machine grounding wire is correctly set (if required), confirm the ground cable is correct and a good ground has been made to the material to be welded.
- 1.7. Ensure the equipment is entirely off load before cycling the primary power switch to the ON position.
- 1.8. Never operate the main ON/OFF power switch while an active electrical load is connected to the welding terminals or during an ongoing arc strike.
- 1.9. Disconnect or isolate all welding leads prior to power activation to prevent premature component strain, arc flash damage, or unexpected current surges through the internal circuitry.

2. WELDER SPECIFICATIONS

STRYKER 150A-B SPECIFICATIONS	
Welding rated no-load voltage (V)	DC70V
Rated welding output	10A - 150A
Current regulation	Stepless adjustment
Digital Inductance	Arc Force
Arc Start	Hot Start
Duty Cycle	100% @ 25°C
Power type	Lithium-Ion (Battery)
Battery Capacity	48V / 50000mAh / 2400Wh
Input Voltage Charging	120V AC 60Hz
Charging Time (from 0%)	3.5 Hours Standard Charge
Charging Temperature	0°C to 45°C (32°F to 113°F)
Battery Cycles	1500 cycles (5 to 8 years)
Electrode Consumptions	Φ 2,5 mm (3/32") - 105 Electrode Φ 3,25 mm (1/8:) - 45 Electrode
Protection class	IP21S
Net weight (kg / lbs)	21.6 / 47.6
Overall size (L x W x H)	460mm x 215mm x 350mm 18.1" x 8.5" x 15.75"

3. MACHINE COMPONENTS



A	Negative Welding Connector	H	Power On Indicator
B	Positive Welding Connector	I	Welding Current Indicator
C	Welding Current Adjustment Knob	J	Overheating Indicator
D	Battery Charge Level Indicator	K	Low Batter Voltage Indicator
E	Battery Charge Level Meter Button	L	Battery Charger Connection
F	Arc Force Adjustment Potentiometer	M	Main Power Switch
G	Hot Start Current Potentiometer		

4. BATTERY

4.1 CHARGING

Check whether the welding machine parts are complete, and whether the battery is charged before use.

If charging required, connect charger into back of welder and plug into a standard grounded 120V outlet. The welder has a BMS (Battery Management System) which will control charging and stop when battery is fully charged.

4.2 BATTERY CHARGE CYCLE

To charge the battery, connect the charger to the battery charger connector (L) on rear panel of the welder and the other end to a 120V standard outlet. The charger will start the charge cycle whenever it detects that the battery is not at its maximum level. During charging, several red LEDs light up on the charger grids. When the battery is full, the cycle ends, and only the green LEDs light up on the charger.

Normally we recommend charging the battery with the machine off. If necessary, the equipment can charge and weld at the same time, as long as the battery is not at the minimum level. In this situation, the low battery voltage indicator (K) will light up when trying to weld. Note that the charging time will increase, or even drain the battery on average, depending on the duty cycle of the weld and amperage utilized.

To determine the current charge level of the battery, turn power on via main switch (M) on back panel and press the battery charge meter button (E). The battery charge level will display on front panel indicator (D) which will show percentage of charge available.

5. WELDING OPERATION

5.1 CONNECTORS

The welder utilizes 50mm Dinse style connectors. A set of ground (earth) and electrode cables are provided with welder.

The red electrode connector from the cable should be inserted into positive red connector of machine terminal and you will need to rotate clockwise to tighten and "lock" into place (note: do not over-tighten).

The black ground connector from the cable should be inserted into negative black connector of machine terminal and you will need rotate clockwise to tighten and "lock" into place (note: do not over-tighten).

5.2 CABLES

If a long positive electrode cable is used, to reduce voltage drop, a larger diameter (thicker gauge) cable should be utilized. The longer the cable, the greater the voltage drop and corresponding impact on arcing performance and possibly overall performance of the system.

Inspect the ground clamp is in good working condition with strong clamping force to ensure a good ground on the material or work table is obtained. The ground contact surface needs to be free of rust or paint to obtain proper effect.

5.3 CONTROLS & ADVANCE FEATURES

5.3.1 HOT START FUNCTION

Hot start is controlled with the dial (G) in diagram labeled "Hot Start." The Hot Start feature automatically delivers a brief surge of electrical current the exact moment you strike the welding arc. This temporary boost increases heat output for less than one second, preventing the electrode from sticking to cold metal and ensuring immediate weld penetration. By maximizing arc ignition efficiency, this feature reduces electrode waste and optimizes the machine's battery consumption.

5.3.2 ARC FORCE FUNCTION

Arc Force is controlled with the dial (F) in diagram labeled "Arc Force." The Arc Force

feature automatically stabilizes the welding arc by dynamically adjusting current output during the weld. When the electrode moves too close to the work piece and causes a voltage drop, the machine instantly delivers a temporary amperage boost to prevent short-circuiting and sticking. Increasing this setting creates a crisper, hard-driving arc suitable for deep penetration and out-of-position welding. Lowering the setting produces a softer, low-spatter arc that optimizes battery efficiency by minimizing power spikes during flat or decorative cap passes.

5.3.3 WELDING CURRENT

Welding Current is controlled with the dial (C) in diagram labeled "Current" and ranges from 10A to 150A. The Welding Current Adjustment regulates the baseline operating amperage delivered to the electrode during the welding cycle. This parameter directly governs the total heat input into the work piece, dictating weld bead profile, depth of penetration, and deposition rate. Adjusting the current allows operators to configure the machine for varying material thicknesses and electrode types. Setting the current too high will result in burn-through, excess spatter, and accelerated battery depletion, while setting the current too low will cause weak arc ignition, a sluggish weld puddle, and poor fusion.

5.3.4 WELDING PARAMETERS

It is recommended to use the following chart to select the Electrode and the output Amperage. ***Note: for reference only.***

Workpiece thickness (mm)	≤2	3	4~5	6~12	More than 13
Welding rod diameter (mm)	1.6~2.5	2.5~3.2	3.2~4.0	4.0~5.0	5.0~6.0
Welding current (AMPS)	40~60	60~80	90~130	160~210	200~270

6. MAINTENANCE GUIDELINES

To maximize equipment service life and ensure reliable performance, strictly adhere to the following essential operation and maintenance procedures.

Prior to performing any service, adjustment, or inspection on the equipment or welding cables, verify that the primary power switch is securely locked in the **OFF (Disconnected)** position.

All specialized internal maintenance, electronic calibration, and component repairs must be performed exclusively by authorized technical personnel

6.1 DAILY MAINTENANCE PROCEDURES

Inspect the ventilation grilles to ensure they are completely free of metallic dust and debris.

Verify that the battery housing shows no signs of physical damage, swelling, or structural cracking.

Check all cable insulation for tears, burns, or exposed copper strands before power-up.

Examine the 50mm Dinse connectors for clean contact surfaces and tight, non-vibrating engagement.

6.2 BATTERY STORAGE AND CHARGING SAFETY

Charge the equipment exclusively within the manufacturer-specified temperature range of 0°C to 45°C (32°C to 113°F).

Disconnect the charging apparatus once the battery management system indicates a full cycle completion.

Store the unit in a dry environment away from direct sunlight, flammable substances, and high humidity.

Maintain the state of charge between 40% and 60% during extended periods of machine storage.

6.3 OPERATIONAL PRECAUTIONS

6.3.1 INTERNAL DUST AND DEBRIS REMOVAL

Perform regular internal cleanings by blowing out the chassis interior with clean, dry, low-pressure compressed air as required.

Prevent the accumulation of airborne metallic dust, which acts as a primary conductor causing short-circuits and premature electronic breakdown in high-pollution fabrication environments.

Isolate the welding power source at a safe distance from the active welding station to minimize the intake of grinding sparks, direct weld spatter, and particulate matter.

Conduct a routine hardware check after every compressed air blowout to ensure all internal electrical connections remain properly tightened and have not vibrated loose.

6.3.2 IMPACT PREVENTION AND HOUSING ISOLATION

Avoid dropping the welder or subjecting it to mechanical shock to prevent severe internal short-circuits, electrode shifting, or catastrophic thermal runaway within the lithium-ion cells.

Keep the machine housing isolated from direct weld spatter, grinding sparks, and pooling liquids to preserve the structural integrity of the outer shell and internal circuitry.

 **WARNING:** *Always maintain sufficient physical separation between the machine housing and the active workstation. Prevent conductive metal dust or moisture from entering the equipment enclosure to avoid severe component anomaly or deterioration.*

6.3.3 VENTILATION AND AIR EXCHANGE REQUIREMENTS

Operate the equipment exclusively in a clean environment where a continuous supply of ambient air is actively renewed.

Keep all intake and exhaust grilles completely unobstructed to permit unrestricted internal airflow and prevent rapid thermal buildup.

6.3.4 ENCLOSURE INTEGRITY

Never operate the welding system with any portion of the outer protective housing, sheet metal panels, or shrouds removed. The enclosure must remain fully intact during operation

to guarantee correct internal cooling pathways and to shield the operator from high-voltage internal components.

6.3.5 POST-OPERATION THERMAL COOL DOWN CYCLE

Do not power off or disconnect the machine immediately following heavy operational periods or while the internal components remain hot.

Allow the integrated cooling fans to run completely uninterrupted until they cycle off automatically following a thermal event, ensuring the battery cells and internal electronics have returned to a safe baseline temperature.

7. TROUBLESHOOTING

SYMPTOM. ANOMALY.	PROBABLE CAUSE.	POSSIBLE SOLUTION.
GENERAL PROBLEM. NOTHING WORKS ON THE MACHINE.	The battery is flat.	Perform a full charge cycle (see 3.3).
	The battery is faulty.	Contact the technical service.
	Mains switch (M) defective.	Contact the technical service.
GENERAL PROBLEM. NOTHING WORKS IN THE CHARGER.	The socket outlet used is disconnected or faulty.	Check the socket you are using is working and has the proper voltage. Check the electrical panel of the installation. Try other socket outlets.
CHARGER LIGHTS UP BUT THE EQUIPMENT DOES NOT CHARGE.	The charger LEDs are green: the battery is full or the charger does not detect the battery.	Charging cable or connector fault. Contact the technical service.
	Some LEDs on the charger are red, but the battery is not charging.	Defective battery. Contact the technical service for its replacement.
LIMITADOR TRIPS.	The charger may absorb a high peak current when connected.	Connect the charger a second time. It will consume less and the limiter may not trip. Replace the limiter with a larger gauge.
	There may be a short circuit that causes the limiter to trip.	Contact the technical service.
IT MAKES NOISE	Loose metal casing.	Review and screw casing.
	Defective electrical connections.	Correctly tighten the connections.
	Damaged or poorly attached fan.	Examine the fan.
THE EQUIPMENT IS ON BUT THE EQUIPMENT DOES NOT WELD	Active protection system. Illuminated overheating led (J).	Overheated equipment, wait for it to cool down.
		Possible fault in the power circuit.
WHEN CHARGING, "INVERSION" LED (I) LITS	The polarity of the charging voltage is reversed.	Defective charging cable or connector. Contact the technical service.
ABNORMAL HEATING IN THE EQUIPMENT. THERMAL PROTECTION WORKS QUICKLY	The equipment is positioned so that it prevents correct ventilation.	Place the equipment in an area where the air is constantly replaced.
	The fan does not work.	Replace the fan.
	The equipment is located in a very hot environment.	Avoid positioning where there is direct exposure to the sun.
	There is a loose connection inside the equipment.	Review the power electrical connections.

SPECIALIZED PERSONNEL MUST CARRY OUT ANY WORK ON THE EQUIPMENT.

BOTH AT THE BEGINNING AND END OF A REPAIR CHECK THE EQUIPMENT INSULATION LEVELS. DISCONNECT THE ELECTRONIC BOARDS WHEN MEASURING THE INSULATION.
BLOW THE INSIDE OF THE EQUIPMENT WITH COMPRESSED AIR.

The insulation-measuring device will have 500 V D.C. and will be applied to the following points of the circuit:

- Supply-Earth: $R_a > 50$ Mohms.
- Welding-Earth: $R_a > 50$ Mohms.
- Supply-Welding: $R_a > 50$ Mohms.



BEFORE TURNING THE EQUIPMENT ON, ENSURE THAT IT IS OFF LOAD.
DO NOT OPERATE THE ON/OFF SWITCH WITH AN ELECTRICAL LOAD
CONNECTED TO THE WELDING CONNECTORS.

NOTES

[illegible]



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