

PONY SERIES INVERTER DC ARC

OPERATION MANUAL

DO NOT INSTALL, OPERATE OR MAINTAIN THIS
MACHINE WITHOUT READING THIS MANUAL
AND PLEASE ALWAYS THINK BEFORE YOU ACT.



 **HYUNDAI**
WELDING

www.hyundaiwelding.com

◆ SAFETY PRECAUTIONS ◆

General Safe Practices.

- Wear approved safety glasses with side shields under your welding helmet or face shield and at all times in the work area.
- When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
- Do not install or place machine on or over combustible surfaces.
- Be sure that all installation, operation, maintenance and repair procedures are performed only by qualified persons.

Electric shock can kill.

- Wear Dry, hole-free insulating gloves and body protection. Do not touch electrode with bare hand. Do not wear wet or damaged gloves.
- Do not touch live electrical parts.
- Never dip the electrode in water for cooling.
- Properly install and ground all equipment.
- Protect yourself from electric shock by insulating yourself from work and ground. Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material big enough to cover your full area of contact with the work or ground, and watch for fire.
- Turn off input power using the disconnect switch at the fuse box before working on the equipment.
- Frequently inspect input power cord for damage or bare wiring and repair or replace cord immediately if damaged.

Fumes and gases can be dangerous.

- Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone.
- Use enough forced ventilation or local exhaust (forced suction) at the arc to remove the fumes from your breathing area.
- Use a ventilating fan to remove the fumes from the breathing zone and welding area.

Welding sparks can cause fire or explosion.

- Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and opening to adjacent areas. Avoid welding near hydraulic lines.
- When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
- Do not weld on drums, tanks, or any closed containers unless a qualified person has tested it and declared it or prepared it to be safe.
- Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.

Arc rays can burn eyes and skin.

- Use welding helmet with correct shade of filter to protect your eyes from sparks and the rays of the arc.
- Wear welders cap and safety glasses with side shields. Use ear protection when welding out of position or in confined spaces. Button shirt collar.
- Wear complete body protection. Wear oil-free protective clothing such as leather gloves, heavy shirt, cuffless pants and high boots.

Welding current and shading the light

Welding current	100A Below	100 - 200A	300 - 500A	MORE THAN 500A
Shading the light	NO. 9, 10	NO. 11, 12	NO. 13, 14	NO. 15, 16

TERMS OF GUARANTEE HYUNDAI WELDING CO.,LTD. provides a guarantee for products manufactured and sold by them if defects in manufacture and materials occur. Guarantee repairs must be carried out by an Authorized HYUNDAI WELDING CO., LTD. Service Agent. The guarantee is effected on the day of purchase. Verbal promises which do not comply with terms of guarantee are not binding on guarantor.

LIMITATIONS ON GUARANTEE The following conditions are not covered under terms of guarantee.:

- Defects due to natural wear and tear
- Non-compliance with operating and maintenance instructions
- Connection to incorrect or faulty supply voltage(including voltage surges outside equipment spec)
- Incorrect gas pressure, overloading
- Transport or storage damage
- Fire or damage due to natural causes i.e. lightning or flooding.

This guarantee does not cover direct or indirect travelling costs, daily allowances or accomodation.

NOTE Under the terms of the guarantee, welding torches and their consumables, feed, drive rollers and feeder guide tubes are not covered. Direct or indirect damage due to a defective product is not covered under the guarantee. The guarantee is void if changes are made to the product without approval of the manufacturer, or if repairs are carried out using non-approved spare parts. The guarantee is also void if repairs are carried out by non-authorized agents.

GUARANTEE PERIOD The guarantee is valid for 6months from date of purchase, provided that the machine is used for single-shift operation.

UNDERTAKING GUARANTEE REPAIRS Guarantee defects must be informed to HYUNDAI WELDING CO.,LTD or authorized HYUNDAI WELDING SERVICE AGENTS within the guarantee period.

Before any guarantee work is undertaken, the customer must provide proof of purchase and serial number of the equipment in order to validate the guarantee. The parts replaced under the terms of guarantee remain the property of HYUNDAI WELDING CO., LTD. Following the guarantee repair, the guarantee of the machine or equipment, repaired or replaced, will be continued to the end of the original guarantee period.

Warranty

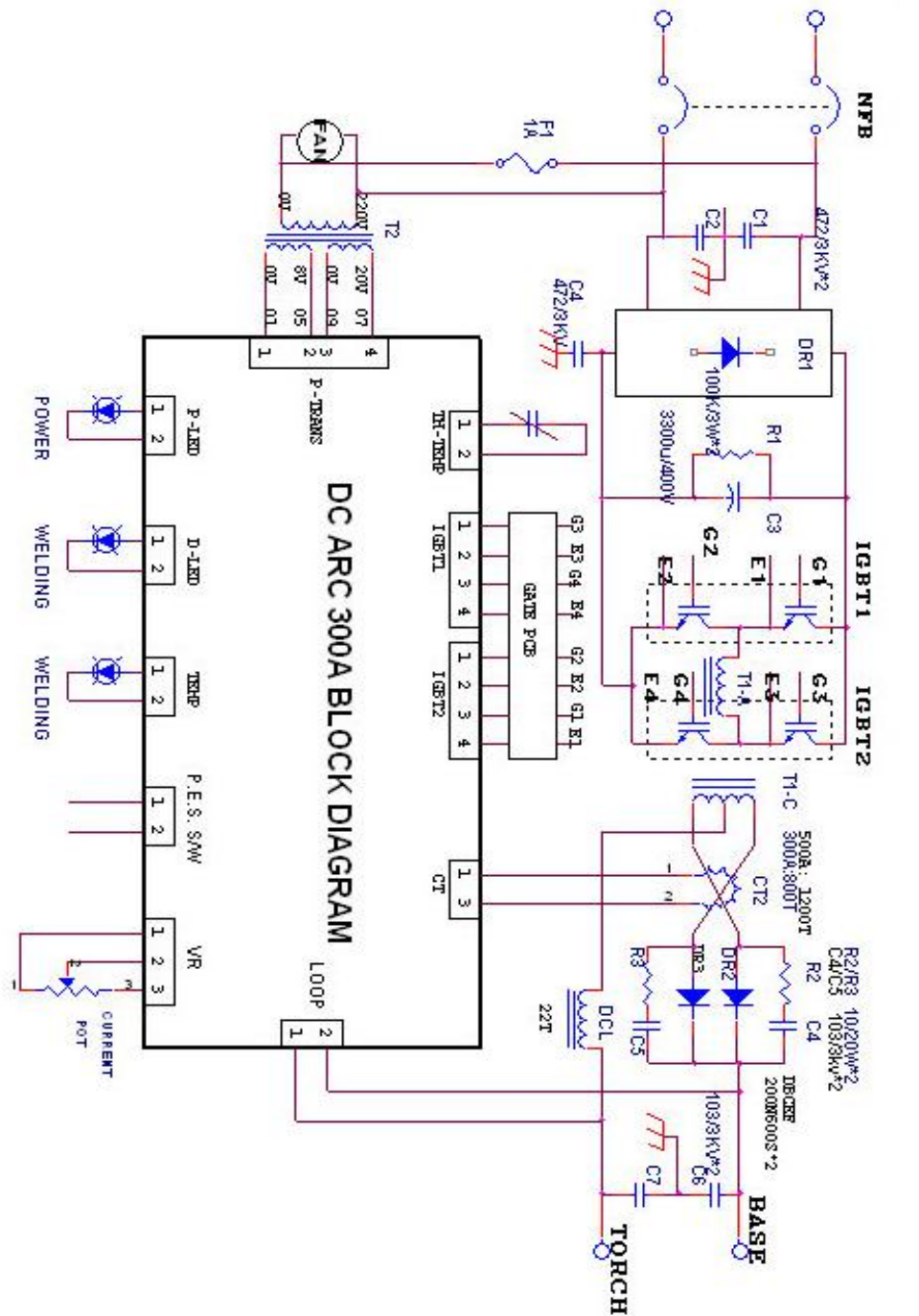
Model		Inverter dc arc welder	
		Serial number	
Sales Dealer			
Customer	Company		
	Contact		
Date of purchase		Free repair period	6 months



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□ Diagram



□ Specifications

MODEL	PONY						
	2160H	2180H	2200H	2250H	2300H	2500H	
Welding Type	MMA						
Rated Input Power	kVA	5	6.5	8	11	25	
Input Voltage	V	1P 220			3P 220,380,440		
Frequency	Hz	50/60					
Rated Welding Current	A	160	180	200	250	300	500
Rated Welding Voltage	V	26.5	27.5	28	30	32	40
Output Current Range	A	20-160	20-180	20-200	20-250	20-300	30-500
Output Voltage Range	V	20-26.5	20-27.5	20-28	20-30	20-32	20-40
Max. Open-Circuit Voltage DC	V	72		73		90	
Duty Cycle	%	60					
Weight	kg	8.2	11.2	13	15.3	20	76
Dimension(W*D*H)	mm	130x390x210	180x400x220	180x400x220	205x475x290	205x450x360	410x600x740

* Note: Some specifications of the product performance and can be changed to improve performance.

□ Duty Cycle and Overheating

CAUTION

Exceeding Duty Cycle Ratings will cause thermal overload protection circuit to become energized and shut down output until unit has cooled to operating temperature.

The duty cycle is the percentage of a ten minute period that a welding power source can be operated at a given output without causing overheating and damaging the unit. Each unit has it's own duty cycle(60%) ; therefore, this unit can be operated continuously without causing damage to the unit.

60% Duty Cycle

6 Minutes Welding → 4 Minutes Resting

Overheating

Reduce Duty Cycle

❑ Welder installation

	WARNING
<ul style="list-style-type: none"> • Correct input power supply (see unit nameplate) • Adequate ventilation and fresh air supply • No flammables • A clean and dry area • Proper temperature that avoids extremes of heat or cold • Proper airflow around unit 	

	DANGER
<p>Fire or Explosion can result from placing the unit on or over combustible surfaces. Restricted Airflow can cause overheating and possible damage to internal parts.</p> <ul style="list-style-type: none"> • Do not locate the unit over combustible surfaces. • Maintain at least 200mm of space from the rear of unit, 300mm from the sides. • Do not place any filtering device over the intake air passages that provide airflow for cooling this part. <p>The welding power source may not be used for thawing frozen pipers. The machine's □ (safety) mark means that it is suitable for use in welding under the conditions of increased electrical danger, e.g. welding work performed inside boilers, in confined spaces, in cramped surroundings, between or on electrically conductive parts, or in damp or hot spaces</p>	

❑ Transporting methods

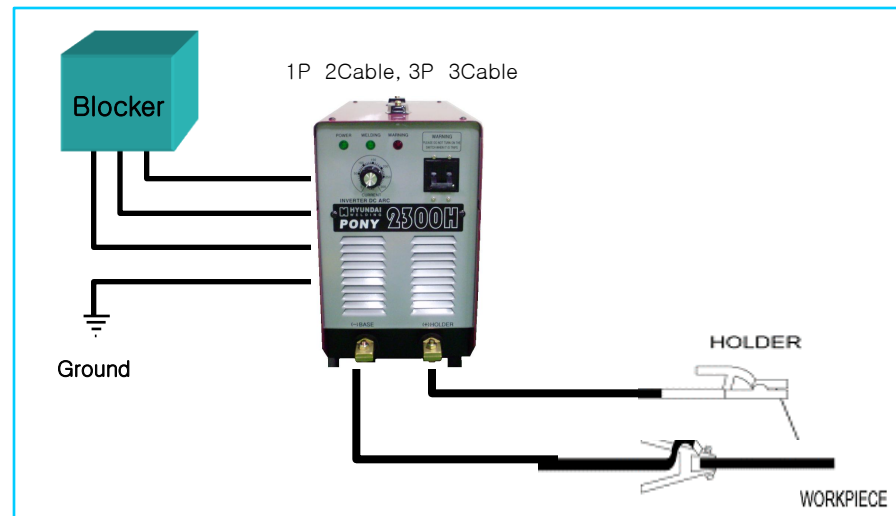
	WARNING
<ul style="list-style-type: none"> • Do not touch live electrical parts. • Disconnect the input power conductors from a de-energized supply line before moving the welding power source. • Falling equipment can cause serious personal injury and equipment damage. • Move the unit using a hand cart or the similar device of adequate capacity. • If using a fork lift vehicle, place and secure unit on a proper skid before transporting. • Be sure the unit is lifted and transported safely and securely. 	

❑ welding cable size

	WARNING
<p>Seen welder's maximum output rating of the cable at the proper selection, preparation, installation is required. Below depending on the selection, preparation, installation does not, welding can be a problem.</p>	

Model	2160H	2180H	2200H	2250H	2300H	2500H
INPUT CABLE	3.5	5.5				8
ELECTRODE CABLE	mm ²	16		25	35	50
WORK CABLE		16		25	35	50

❑ Connection



❑ Front control panel

① Power Switch
② Warning Lamp
③ Welding lamp
④ Power Lamp
⑤ Out Current Control
⑥ Work Cable
⑦ Holder Cable