



EZIMIG 205 / ADVANCEMIG 255 MULTI-PROCESS MIG WELDER

OPERATING INSTRUCTIONS



- CONSTANT CURRENT/VOLTAGE
- DIRECT CURRENT
- SYNERGIC OPERATION
- 4 WHEEL DRIVE
- LCD SCREEN
- SPOOL GUN READY
- INTELLIGENT PROTECTION SYSTEM
- IGBT INVERTER TECHNOLOGY
- CORROSION RESISTANT
- SPIKE/GENERATOR SAFE
- 230V 50HZ SINGLE PHASE
- LIFT TIG
- POWER FACTOR CORRECTION *
- MULTI VOLTAGE 110 - 230V *

* ADVANCEMIG 255 only



EZIMIG 205 / ADVANCEMIG 255

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EZIMIG 205 / ADVANCEMIG 255

Congratulations on the purchase of your new Stata Welding Product!

The Strata range of Welding Products from Euroquip utilises the latest design technology and is engineered to produce welding products that combine market leading value, features and durability. Designed for the discerning operator, who seeks professional results and quality. Design emphasis is placed on simple design and functional operation. All Strata products are subject to stringent quality control and are designed and manufactured to New Zealand and Australian standards.

Common applications for Strata products include:

- Engineering
- Automotive
- Manufacturing
- Farming
- Industrial Maintenance and Repair

For more industrial welding solutions, check out the full Strata Range from Euroquip at:

www.strata.co.nz

Euroquip is a market leading provider of innovative power equipment solutions to a wide range of industries across Australasia.

Providing exceptional product support is a key component of Euroquip's market leading customer advantage program. As part of this program, it is required products to be registered with Euroquip to qualify for extended product support. Products that are not registered with Euroquip are supported by a base 12 month warranty only. Spare parts and after sales support may not be available for an unregistered product outside of the base warranty period. If a Euroquip dealer has not already registered your product, please register it online at **www.euroquip.co.nz**. To access a physical registration form, please download one at **www.euroquip.co.nz** under the contact us tab.



EZIMIG 205 / ADVANCEMIG 255

Specifications

Model	EziMig205	AdvanceMig255
Dimensions (WxLxH)	850x440x730mm	850x440x730mm
Weight	36kg	38.5kg
Input Power Supply -	230V AC 15A 50/60Hz	230V AC 15A 50/60Hz
Input Power Supply Tolerance	230±10%V	90V-275V AC
Maximum Input Current	44A	38A
Input Generator Capacity	12 KVA	10 KVA
MIG Voltage Output	16V-27V	16V-30V
MIG Current Output	40A-200A	40A-250A
MIG Duty Cycle	200A@ 25% 145A@60%, 110A @ 100%	250A@ 40% 195A@60%, 150A @ 100%
MIG No Load Voltage	28V	26V
Wire Feeding Speed	2.4-18m/min	2.4-18m/min
MMA Current Output	10A-200A	10A-250A
MMA Duty Cycle	200A@25%, 130A@60%, 80A@100%	250A@15%, 180A@60%, 140A@100%
MMA No Load Voltage	58V	58V
TIG Current Output	10A-200A	10A-250A
TIG Duty Cycle	200A@25%, 165A@60%, 130A@100%	250A@30%, 195A@60%, 150A@100%
TIG Sytem	Internal solenoid gas control, Lift ignition	Internal solenoid gas control, Lift ignition
Insulation Class	IP23	IP23
Power Efficiency	≥85%	≥85%
Power Factor	0.65	0.99
Standards	EN60974-1:2012	EN60974-1:2012
MIG Drive Rollers Available	0.6/0.8/0.9/1.0/1.2mm V Groove, Knurled 0.8/0.9/1.0/1.2mm, U Groove 0.8/1.0/1.2mm	0.6/0.8/0.9/1.0/1.2mm V Groove, Knurled 0.8/0.9/1.0/1.2mm, U Groove 0.8/1.0/1.2mm
MIG Wire spool Size	D200mm/D300mm 5kg/15kg	D200mm/D300mm 5kg/15kg
Warranty	36 months with registration	36 months with registration

Standard Accessories

Strata Professional MT250-40ER MIG Torch
 4m MMA lead with heavy duty twist lock electrode holder
 3m Earth Lead with heavy duty earth clamp
 Strata 2 Stage Flowmeter Argon Gas Regulator
 Argon Regulator/CO2 Cylinder Adaptor
 4m Gas Hose
 Gas Inlet Quick Connector
 Gas Hose Clamp x2
 Wire Drive Roller 0.6/0.8mm 'v' groove x2
 Wire Drive Roller 0.9/1.0mm 'v' groove x2
 Wire Drive Roller 0.8/0.9mm flux cored x2

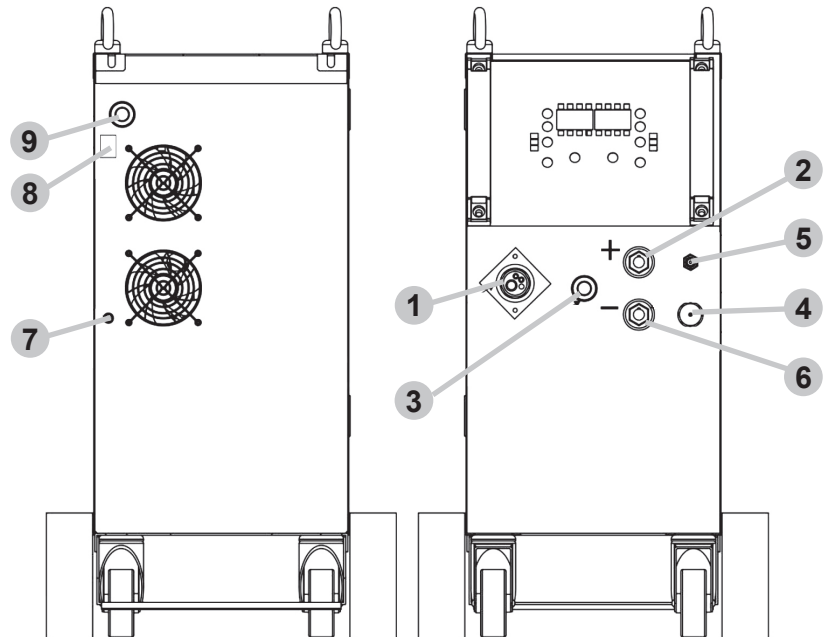


EZIMIG 205 / ADVANCEMIG 255

Getting to Know Your Machine

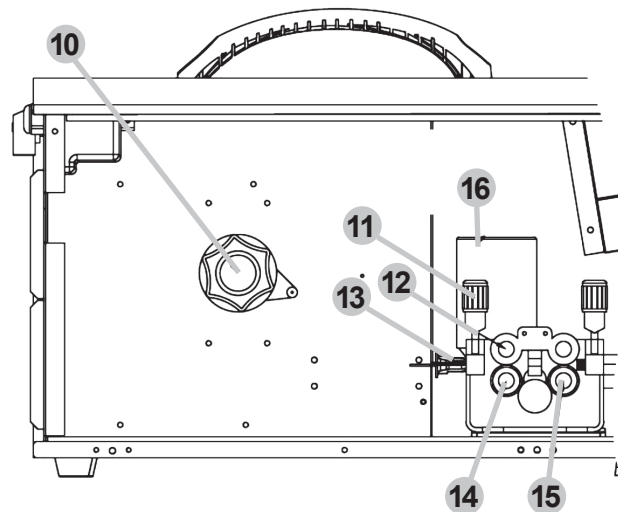
Welding Machine

1. MIG torch Euro Connection
2. Positive (+) Welding Power Output Connection Socket
3. Mig Torch Power Connection
4. Remote Connection Plug
5. TIG Gas Outlet Connector
6. Negative (-) Welding Power Output Connection Socket
7. Gas Inlet Connection
8. Power On/Off Switch (EZIMIG205 only)
9. Input Power Cable



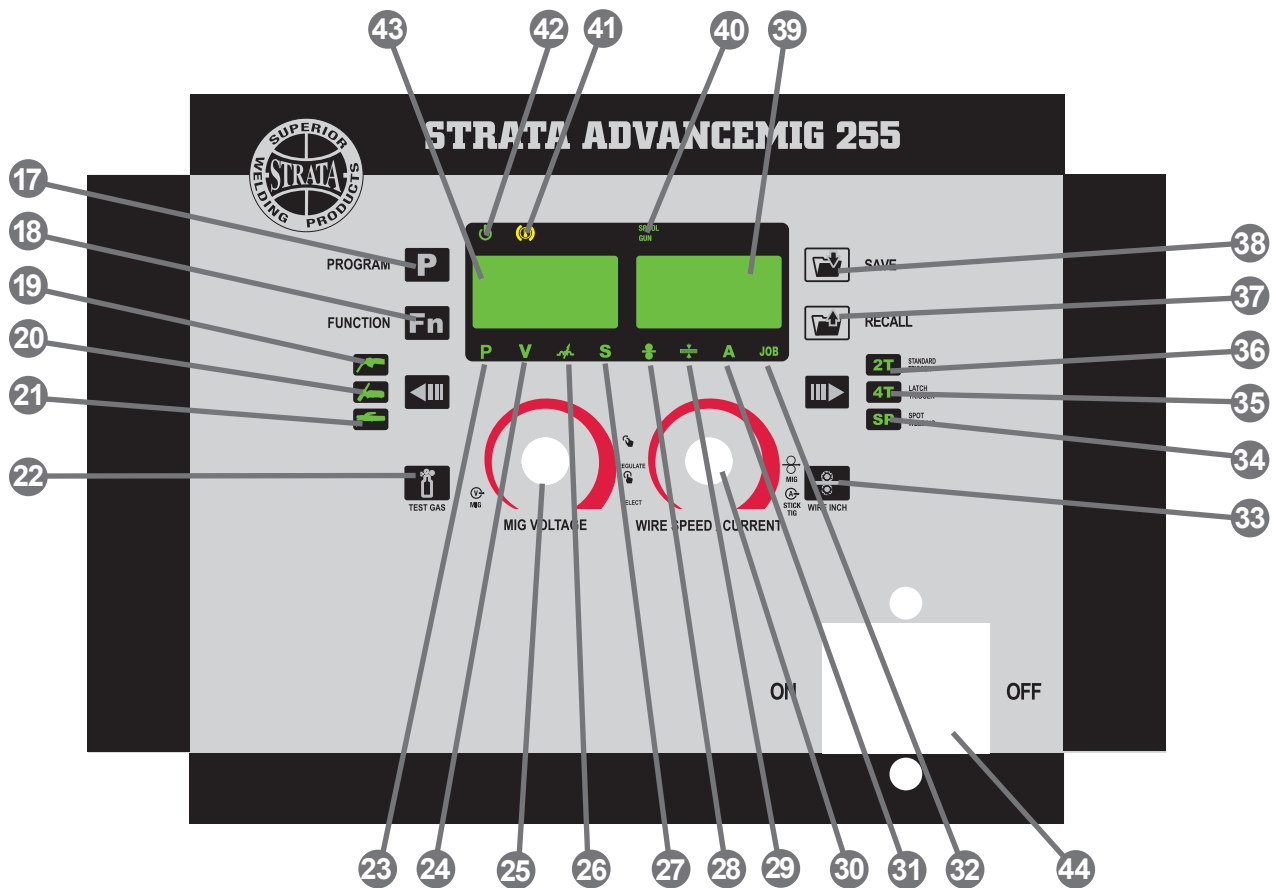
Wire Feeder

10. Mig Wire Spool Holder
11. Wire Feed Tension Adjustment
12. Wire Feed Tension Arm
13. Wire Feed Inlet Guide
14. Wire Drive Roller Retainer
15. Wire Drive Roller
16. Wire Drive Motor





EZIMIG 205 / ADVANCEMIG 255



Control Panel

- | | |
|--|---|
| 17. Programme Selection Button | 31. Parameter (Current) Selection Light |
| 18. Secondary Function | 32. Parameter (Job) Selection Light |
| 19. MIG Mode Light | 33. Fast Wire Feed Button |
| 20. TIG Mode Light | 34. Spot Weld Selected Light |
| 21. MMA Mode Light | 35. 4T Trigger Selected Light |
| 22. Gas Check | 36. 2T Trigger Selected Light |
| 23. Parameter (Program) Selection Light | 37. Programme Recall Button |
| 24. Parameter (Voltage) Selection Light | 38. Programme Save Button |
| 25. Function Adjustment Knob | 39. Programme/Parameter Display |
| 26. Parameter (Wave Control) Selection Light | 40. Spool Gun Selected Light |
| 27. Parameter (Seconds) Selection Light | 41. Alarm Self-Protection Light |
| 28. Parameter (Wire Feed Speed) Selection Light | 42. Power Indicator Light |
| 29. Parameter (Material Thickness) Selection Light | 43. Parameter Display |
| 30. Parameter Adjustment Knob | 44. Power On/Off Switch (ADVANCEMIG 255 only) |





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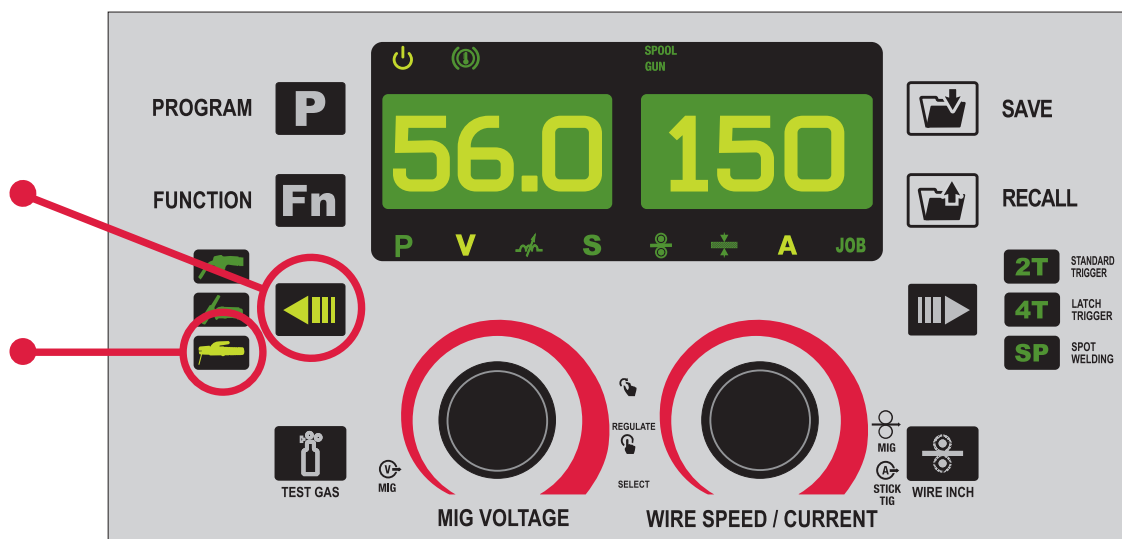
MMA Welding

Manual Metal Arc (MMA) welding is the most flexible, and one of the most widely used welding processes. It involves striking an arc between a coated metal electrode and a workpiece. The heat of the arc melts the parent metal and the electrode which together form, on cooling, a single solid mass. The central metal electrode or core wire acts as the consumable, providing the filler metal for the weld. As the weld is laid, the flux coating of the electrode disintegrates, giving off vapours that serve as a shielding gas and providing a layer of slag, both of which protect the weld area from atmospheric contamination.

MMA welding can be used to join most steels, stainless steel, cast iron and many non-ferrous metals. For many mild and high strength carbon steels, it is often the preferred joining method. Successful results depend on a number of factors and parameters including correct electrode and size for the job, welding current, arc length, angle of electrode to the job, travel speed and preparation of the work piece.

Installation and Setup for MMA (Stick) Welding

1. Turn on the power source and select the MMA function by pressing the  button until the MMA light  is lit.



2. Two sockets are available on this welding machine for MMA welding. For MMA welding the electrode holder is connected to the Positive socket, while the earth lead is connected between the workpiece and the negative socket. However various electrodes require a different polarity for optimum results and careful attention

should be paid to the polarity. Refer to the electrode manufacturers' information for the correct polarity.

- DC+** Electrode connected to the (+) output socket, or
- DC-** Electrode connected to the (-) output socket.

The Earth clamp quick connector and lead shall be connected to the opposing polarity.

3. Set the required welding current by rotating the RH knob relevant to the electrode size and type, as recommended by the electrode manufacturer.
4. Place the electrode into the electrode holder and clamp tight.
5. Strike the electrode against the workpiece to create an arc and hold the electrode steady to maintain the arc.
6. Hold the electrode slightly above the workpiece and travel at an even speed.
7. To finish the weld, break the arc by quickly pulling the electrode away from the workpiece.
8. Wait for the weld to cool before chipping away the slag to reveal the welded metal below.



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MIG Welding

Metal Inert Gas (MIG) welding refers to a welding process that uses the heat generated by an electric arc to fuse the metal in a jointed area. The continuous wire electrode is fed by a powered wire drive system that feeds filler metal into the weld pool. The electric arc is created between the tip of the wire and the weld material. The wire is progressively melted into the weld pool at the same speed at which it is being fed. Both the arc and the weld pool are protected against atmospheric contamination by an inert shielding gas delivered directly onto the weld pool through the gas shroud at the front end of the torch.

The MIG process is suited to a variety of applications provided the shielding gas, electrode (wire size) and welding parameters have been set correctly. Welding parameters include the voltage, arc length, wire feed rate and travel speed. The arc voltage and wire feed rate will determine the filler metal transfer method.

Installation and Setup for MIG Welding

Mounting the Welding Wire Spool

1. Open the side panel of the machine by pressing down on both latches simultaneously, allowing the side panel to drop down.
2. Remove the wire spool retaining nut from the spindle and place the wire roll onto the spindle.

IMPORTANT: The wire must feed off the bottom of the wire spool in an anti-clockwise direction. Do not release the tension on the wire as it will unravel and can cause wire feed problems later.

Setting the Correct Drive Roller and Size




1. Loosen both wire tension knobs, and then pivot these towards you.
2. Lift up both tension arms.
3. Unscrew both centre knurled roller retaining nuts and remove.
4. Select the correct drive roller to suit the type of wire and size of wire you will be welding using the chart in this manual. This can also be found inside the wire drive drop down panel.
5. Pull the wire from the spool, taking care not to release tension.

6. Push the wire through the first wire guide tube, over the first drive roller, through the middle wire guide tube, over the second drive roller and into the last wire guide tube. Push about 10-15cm of wire through the last wire guide.
7. Lower both tension arms and push both wire tension knobs back into their vertical position.
8. Tension both wire tensioner knobs sufficiently to hold firmly but do not tighten completely.

IMPORTANT: Correct tension will allow the wire to feed smooth without slippage, but will also allow the drive rollers to slip in the event of a wire jam or blockage.

10. Close the side panel of the welder.

Torch Fitting and Setup

1. Turn on the power source and select MIG function by pressing the  button until the MIG light  is lit.
2. Connect the Mig torch to the euro-style connector on the front panel of the welder and tighten securely.
3. Pull off the torch shroud with a twisting movement and remove the contact tip.
4. Press and hold the wire feed button  on the front panel until the wire appears at the torch tip.

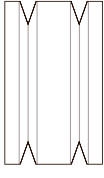
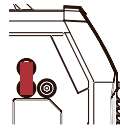
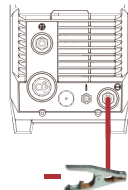
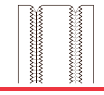
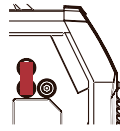
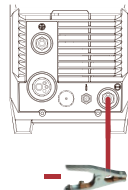




IMPORTANT: Never look towards or into the torch front end whilst feeding the wire. Always point the torch tip away!

5. Refit the correct size contact tip for the wire size being used and refit the torch shroud. Cut any excess wire off leaving about 5-10mm stick out.

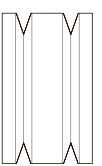
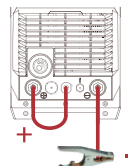
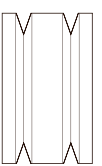
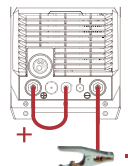
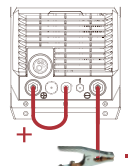
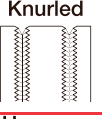
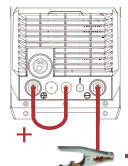

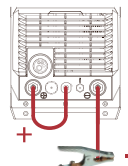

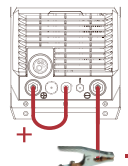


EZIMIG 205 / ADVANCEMIG 255

EZIMIG 205 Synergic MIG Program Chart

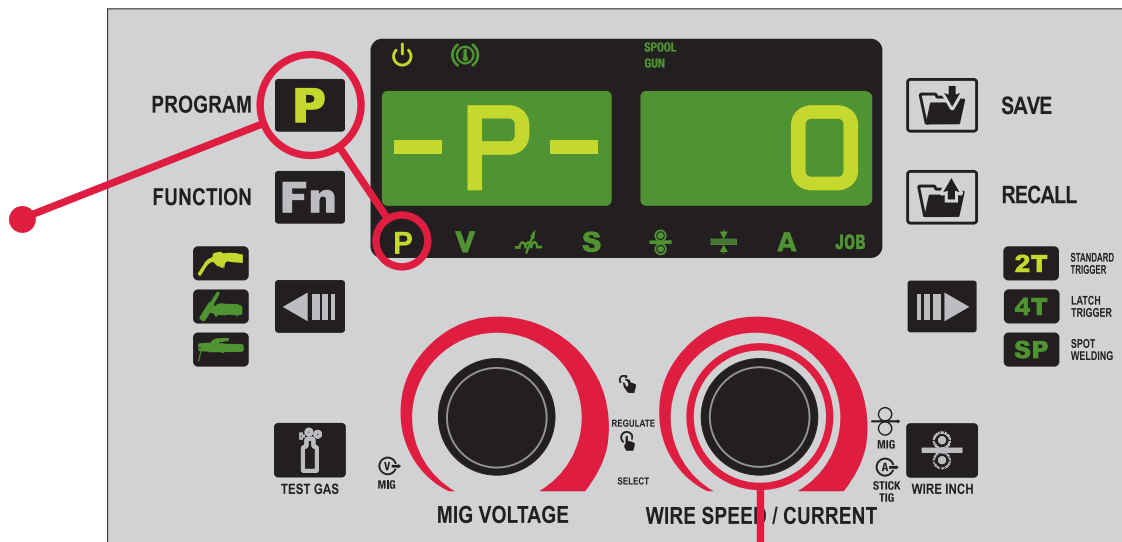
Synergic MIG Program Chart						
Program	Wire Size	Wire Type	Shielding Gas	Drive Roller Type	Torch Connection	Earth Connection
0	Manual (Non-Synergic)		Refer to relevant application below.			
1	0.6mm	Solid Fe	(Argon + CO ²)	V-groove 		
2	0.6mm		CO ²			
3	0.8mm		(Argon + CO ²)			
4	0.8mm		CO ²			
5	0.9mm		(Argon + CO ²)			
6	0.9mm		CO ²			
7	1.0mm		(Argon + CO ²)			
8	1.0mm		CO ²			
9	0.8mm	Flux Cored Steel	CO ²	Knurled 		
10	0.9mm					
11	1.0mm					
12	0.8mm	Stainless Steel	98%Ar+2%CO ²	V-groove 	+	
13	0.9mm					
14	1.0mm					
15	0.9mm	AL Mg	Argon	U-groove 		
16	1.0mm					
17	1.2mm					
18	0.8mm	Cu si	Argon	V-groove 		
19	0.9mm					

ADVANCEMIG 255 Synergic MIG Program Chart

Program	Wire Size	Wire Type	Shielding Gas	Drive Roller Type	Torch / Earth Connection
0	Manual (Non-Synergic)		Refer to relevant application below.		
1	0.6mm	Solid Fe	Mixed (Argon + CO ²)	V-groove 	
2	0.8mm				
3	0.9mm				
4	1.0mm				
5	1.2mm				
6	0.6mm	Solid Fe	CO ²	V-groove 	
7	0.8mm				
8	0.9mm				
9	1.0mm				
10	1.2mm	Stainless Steel	98%Ar+2% CO ²	Mixed or Argon	
11	0.8mm				
12	0.9mm				
13	1.0mm				
14	1.2mm	Flux Cored Steel	CO ²	Knurled 	
15	0.8mm				
16	0.9mm				
17	1.0mm				
18	1.2mm	AL Mg	Argon	U-groove 	
19	1.0mm				
20	1.2mm	Cu si	Argon	V-groove 	
21	0.8mm				

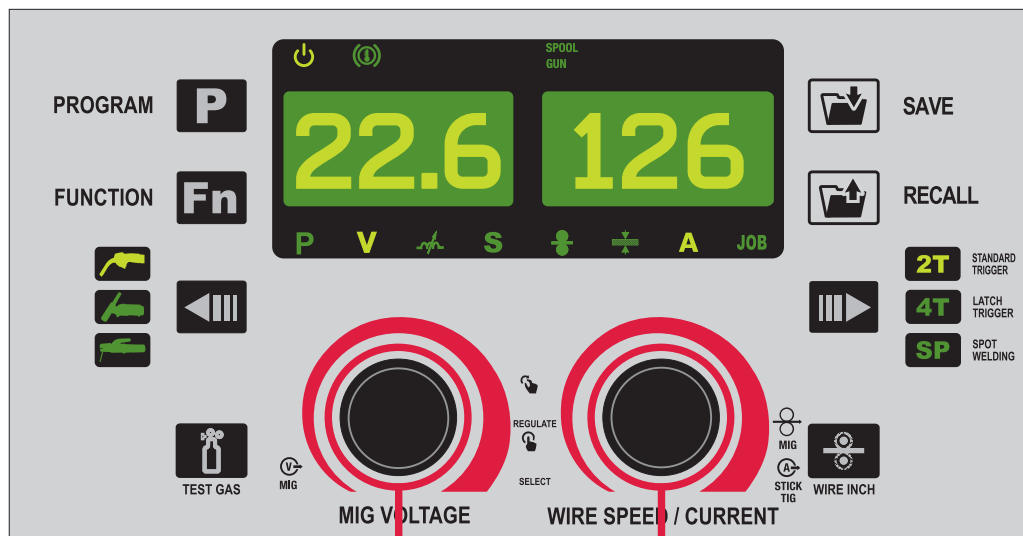


EZIMIG 205 / ADVANCEMIG 255



Programme Selection Screen

Press the Programme selection button **P** to enter the programme selection screen. Rotate the RH knob to select the desired programme relevant to (Welded material, wire type, shielding gas and wire diameter). The previous chart listing the synergic programmes can be found located inside the wire drive door. After selecting a suitable programme, pressing **P** again will lock in the selection and return you to the main weld screen.

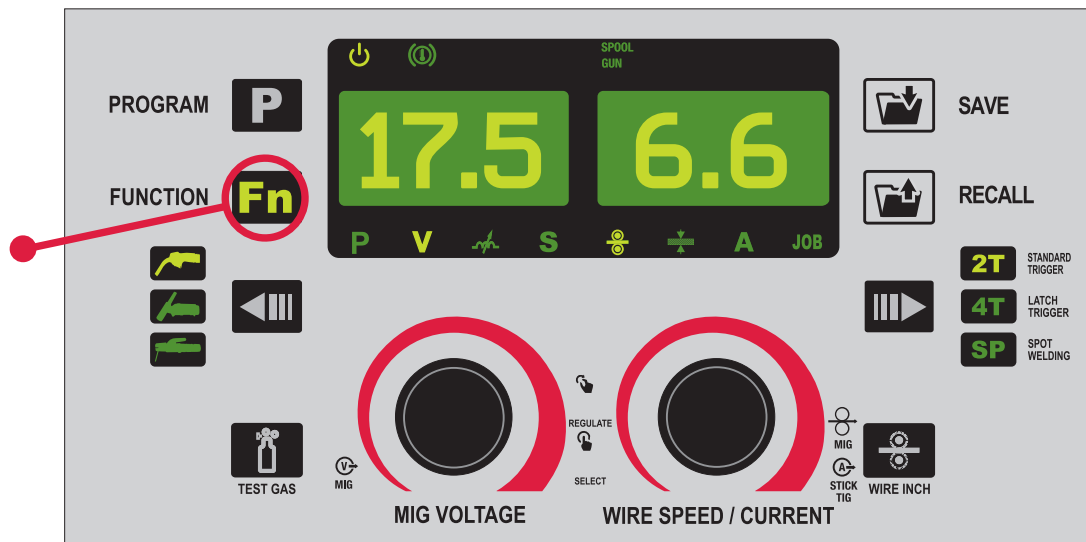


Main Welding Screen

Programme Zero can be set to utilise the Manual selection mode and selection of Voltage and Wire speed can be set using the LH and RH control knobs.



EZIMIG 205 / ADVANCEMIG 255



MIG Welding Manual Selection

Additional Mig weld parameters can be accessed and set using the Function **Fn** button.

Functions		
Display	Description	Symbol
MIG MODE		
<i>PrG</i>	Pre-Gas Time (sec)	
<i>PoG</i>	Post-Gas Time (sec)	
<i>SFt</i>	Soft Start Adjustment	
<i>bUb</i>	Burnback Adjustment	
<i>SPt</i>	Spot/Stitch Weld Time (sec)	
<i>dSL</i>	Down slope	
<i>SPo</i>	Spool Gun (On/Off)	
TIG MODE		
<i>PoG</i>	Post-Gas Time (sec)	
<i>SLo</i>	Slope Up Time (sec)	
STICK (MMA) MODE		
<i>Hot</i>	Hot Start Adjustment	
<i>ArC</i>	Arc Force Adjustment	



EZIMIG 205 / ADVANCEMIG 255

Pre-Gas Time: (0-2S) Time in seconds that gas is released after the torch has been triggered but before the arc is initiated.

Post Gas Time: (0-5S) Time in seconds that gas will continue to be released after the trigger has been released and the arc has been extinguished.

Soft Start: (0-5) When a weld is started, the workpiece and the wire are cold. This can cause an uneven and poor start to the weld. This setting slows the wire feed down at the start of the weld which can improve the weld starting performance.

Burn Back: (0-5) Burn back is used as a way of releasing the wire from the weld pool at the stopping of the weld run. When the trigger is released the wire will stop feeding whilst adding a little time for the output current and the gas shield to stay running. The longer the time that the power and gas stay on, the closer the wire will burn back to the tip.

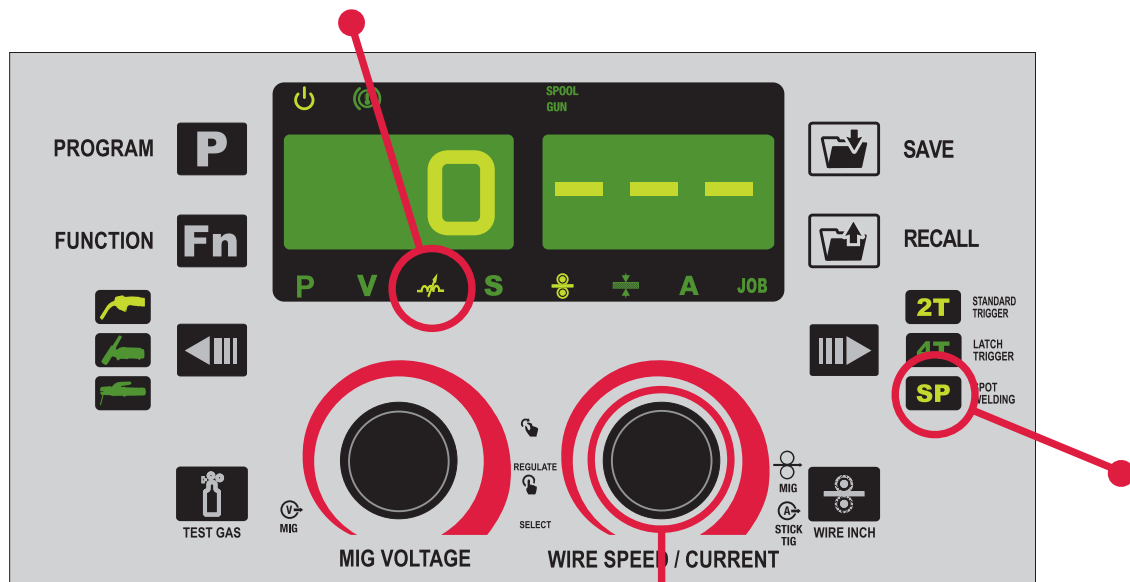
Spot/Stitch: (0.5-5.0) The time in seconds the weld arc is active when the weld torch has been triggered and held when spot mode **SP** is selected.

Gap: (0.1-5.0) The time in seconds of no Weld Arc before the next Weld Arc begins when the trigger is held and spot mode **SP** is selected.

NOTE: Spot and Gap functions are only available within the function menu when spot mode **SP** has been selected.

Inductance: (-5 --+5) This setting is used to change the MIG waveform to simulate changing the inductance of the welding circuit. Inductance controls the rate of current rise and fall as the welding wire contacts the workpiece. More inductance causes a wider and more penetrating arc, useful for thicker weld joints. Less inductance will create a narrow more focused arc.

NOTE: This setting can be accessed in both Synergic and Manual Mig mode by first pressing the LH Mig Voltage knob to select the inductance parameter and then by rotating the knob for inductance adjustment. Pressing the LH Mig Voltage knob again will exit the inductance adjustment screen.



Inductance Adjustment Screen

Plate Thickness: Selection of this parameter is achieved in synergic mode by pressing the RH wire speed/current knob until the plate thickness light is lit. Rotate this knob until the required plate thickness is selected. Press this knob again to set the selection. Synergic parameters will then be set by the internal programme to give you an excellent starting point to achieve a superior weld.







EZIMIG 205 / ADVANCEMIG 255

Save and Recall User Set Welding Parameters

The Strata EZIMIG 205 and ADVANCEMIG 255 have the ability to save and recall 20 different user chosen settings. Within each function, a setting can be saved and then later recalled. For future reference there is an area reserved to write these settings inside the wire drive cover in the Lower RH corner under Job Number Register.

To Save and Recall your chosen settings in any selected mode.

1. Press SAVE  once to bring up the program list.
2. Turn the RH knob to select a desired Programme number. This can be any chosen number between 1 and 20.
3. Pressing SAVE  again will save the all current settings and parameters to the chosen program number.
4. Pressing RECALL  once will bring up the Saved Program list.
5. Turn the RH knob to navigate to your chosen program number.
6. Pressing RECALL  again will select this and return you to the main welding screen.

Gasless Welding Setup and Operation

1. Connect the earth clamp cable quick connector to the Positive (+) welding output socket.
2. Connect the earth clamp to the work piece ensuring the clamp to workpiece connection is with clean bare metal, without corrosion, paint or scale at the connection point.
3. Connect the torch power cable quick connector to the Negative (-) output socket.

NOTE: If this connection is not made. There will be no electrical connection or output to the welding torch.

4. Fit the MIG torch to the Euro adaptor connector and screw hand tight.
5. Fit the correct sized knurled drive rollers for the welding wire sized being used.

6. Fit the correct sized contact tip for the welding wire size being used.
7. Select Programme Zero for manual mode MIG operation
8. Lower the torch to the work piece with hand and approach the workpiece with the torch tip at 15-35 degrees and pull the torch trigger fully. As the wire touches the workpiece, an arc will be struck.
9. In order to gain a satisfactory weld, the parameters may be fine tuned as required.

Gas Shielded Welding Setup and Operation

1. Connect the earth clamp cable quick connector to the Negative (-) welding output socket.
2. Connect the earth clamp to the work piece ensuring the clamp to workpiece connection is with clean bare metal, without corrosion, paint or scale at the connection point.
3. Connect the torch power cable quick connector to the Positive (+) output socket.

NOTE: If this connection is not made. There will be no electrical connection or output to the welding torch.

4. Fit the MIG Torch to the Euro adaptor connector and screw hand tight.
5. Fit both correctly sized and suitably grooved drive rollers for the welding wire size being used.
6. Fit the correct sized contact tip for the welding wire size and type being used.
7. Select a suitable synergic MIG programme which contains the correct wire size and shielding gas settings for your work piece. Alternately, select Programme Zero to enter MIG manual mode and adjust settings and parameters as required.
8. Connect a bottled shielding gas supply to the shielding gas quick connector on the rear of the welding power source. Adjust the regulator flow to between 10-25L/min depending on application.
9. Connect the machine to suitable mains power using the mains input power lead. Switch the mains power to ON to power up the machine.



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10. Lower the torch to the work piece with one hand and approach the workpiece with the torch tip at 15-35 degrees and pull the torch trigger fully. As the wire touches the workpiece, an arc will be struck.
11. In order to gain a satisfactory weld, the parameters may be fine tuned as required.

NOTE: MIG welding is an acquired skill. It is recommended that if you are not fully familiar with this type of welding that you practice on a piece of material with the same characteristics as your workpiece, until you are satisfied with the result, and you have fine tuned your welder to produce a satisfactory weld.

Lift TIG Setup and Operation

1. Connect the earth clamp cable quick connect to the Positive (+) welding output socket.
2. Connect the earth clamp to the work piece ensuring the clamp to workpiece connection is with clean bare metal, without corrosion, paint or scale at the connection point.
3. Connect the TIG torch cable quick connect to the Negative (-) welding output socket.
4. Screw the TIG torch gas input fitting to the TIG torch gas outlet fitting on the front panel of the welding machine.
5. Connect a bottled shielding gas supply to the shielding gas quick connector on the rear of the welding power source. Adjust the regulator flow to between 5-10 l/min depending on requirements.
6. Connect the machine to suitable mains power using the mains input power lead. Switch the mains power to ON to power up the machine.
7. Lower the torch to the workpiece with one hand and approach the workpiece at 15 degrees.
8. Touching the workpiece with the electrode briefly before lifting away 2-4mm will initiate the arc.

NOTE: The EZIMIG 205 and ADVANCEMIG255 are DC (Direct Current) output welders only, this means that it is unable to TIG weld reactive metals such as aluminium alloys and brass (which require AC Output). DC TIG output is suitable for steel, stainless steel and copper. The ADVANCEMIG ACDC models in the Strata range are designed for TIG welding aluminium alloys.

Note to welding with aluminium and other soft wires. MIG welding with aluminium provides a unique challenge, due to the low column strength of the wire. This causes the wire to deform more as it is pushed through the feed mechanism and the torch wire delivery liner, greatly increasing friction. Because good MIG welding results are dependent on a smooth wire delivery, certain changes must be made to the feed system to minimise friction caused issues.

For a standard 'push' fed torch, a length of no longer than 3 metres of cable may be used. The torch feed liner must also be changed to a special teflon/PVC liner, rather than the conventional steel liner. Also the correct style 'U' shaped drive roller must also be used in conjunction with the change to a specific aluminium rated torch contact tip (or a standard tip in one size over-sized, e.g 0.8mm aluminium wire would use a 1.0mm contact tip). For this reason, it is quite common for operators to have an additional torch specifically setup for aluminium use, if the machine is used for mild steel as well.

An alternative to overcome the friction issues is using a spool gun, which will give better results than a 3m push torch when welding aluminium. The Strata EziMig205 and ADVANCEMIG 255 are spool gun capable.

Spool Gun Setup and Operation

NOTE: The spool gun is an optional extra.

The spool gun is a very useful addition to a MIG Welder. It can in fact be used for all types of MIG welding, but it has two primary advantages over a conventional 'push' wire feeder.

The main advantage is that the distance that the wire has to travel from the spool to the welding tip is very short, compared with a conventional torch. This greatly reduces the wire feeding friction and greatly improves the wire feed smoothness and consistency, thus the welding quality is greatly improved. This is especially so with 'soft' wires such as aluminium. It is difficult to get aluminium to feed smoothly in welding machines equipped with standard design wire feeders, even with special torch liners and short torch lengths.

The second advantage is that the gun can allow the use of the small D100 wire spools at a distance from the power source. This distance is only limited by the length of the spool gun lead. This is also advantageous for high cost wire, that is not used commonly such a stainless steel or MIG brazing wire. It saves the outlay cost for a much more expensive, larger D200 spool.



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1. Connect the earth cable quick connector to the negative welding power output socket.
2. Connect the earth clamp to the work piece ensuring the clamp to workpiece connection is with clean bare metal, without corrosion, paint or scale at the connection point.
3. Connect the torch power cable quick connector to the positive (+) output socket.

NOTE: If this connection is not made. There will be no electrical connection or output to the welding torch.

4. Fit the Spool Gun Torch to the Euro Adaptor connector and screw hand tight.
5. Fit the correct sized Contact Tip for the welding wire size and type being used.
6. Select a suitable synergic MIG programme which contains the correct wire size and shielding gas settings for your work piece. Alternately select Programme Zero to enter Mig Manual Mode and adjust settings and parameters as required.
7. Connect the spool gun interface plug to the 9-pin spool gun connector on the front face of the power source just below the TIG gas outlet.
8. Press the Function button **Fn** and then rotate the LH MIG voltage knob until 'SPo OFF' is displayed. Rotate the RH knob until 'SPo ON' is displayed and the spool gun active light **SPool GUN** is lit. Pressing the **Fn** function key again will confirm this selection and return you to the main welding screen.
9. Connect the a bottled shielding gas supply to the shielding gas quick connector on the rear of the welding power source. Adjust the regulator flow to between 10-25L/min depending on application.
10. Connect the machine to suitable mains power using the mains input power lead. Switch the mains power to ON to power up the machine.
11. Lower the torch to the work piece with one hand and approach the workpiece with the torch tip at 15-35 degrees and pull the torch trigger fully. As the wire touches the workpiece, an arc will be struck.
12. In order to gain a satisfactory weld, the welding parameters may be fine tuned as required.

Care & Maintenance

Keep your Welding Machine in Top Condition

The ADVANCEMIG 250 does not require any special maintenance, however the user should take care of the machine as follows:

- Regularly clean the ventilation slots.
- Keep the casing clean.
- Check all cables before use.
- Check electrode holders, work lead/clamps and welding torches before use.
- Replace worn electrode holders and earth clamps, which do not provide a good connection.
- Replace worn consumable parts in a timely manner.
- Use a soft cloth or brush to clean electrical components.
- Do not use liquid cleaning products, water or especially solvents.
- Do not use compressed air to clean electrical components as this can force dirt and dust further into components, causing electrical short circuits.
- Check for damaged parts. Do not use the welder with damaged parts.
- A damaged welder must be carefully checked by a qualified person to determine that it will operate properly. Check for breakage of parts, mountings and other conditions that may affect its operation. An authorised service centre should properly repair a damaged part. Have your welder repaired by an expert.

This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result. Use only genuine replacement parts. Do not use modified or non-genuine parts.



EZIMIG 205 / ADVANCEMIG 255

Keep your Welding Machine in Top Condition

The EZIMIG205 and ADVANCEMIG 255 do not require any special maintenance, however the user should take care of the machine as follows:

- Regularly clean the ventilation slots.
- Keep the casing clean.
- Check all cables before use.
- Check electrode holders, work lead/clamps and welding torches before use.
- Replace worn electrode holders and earth clamps, which do not provide a good connection.
- Replace worn consumable parts in a timely manner.
- Use a soft cloth or brush to clean electrical components.
- Do not use liquid cleaning products, water or especially solvents.
- Do not use compressed air to clean electrical components as this can force dirt and dust further into components, causing electrical short circuits.

- Check for damaged parts. Do not use the welder with damaged parts.
- A damaged welder must be carefully checked by a qualified person to determine that it will operate properly. Check for breakage of parts, mountings and other conditions that may affect its operation. An authorised service centre should properly repair a damaged part. Have your welder repaired by an expert.

This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result. Use only genuine replacement parts. Do not use modified or non-genuine parts.

Storing the Welder

When not in use the welder should be stored in the dry and frost-free environment.



WARNING! Before performing cleaning/maintenance, replacing cables / connections, make sure the welding machine is switched off and disconnected from the power supply.



EZIMIG 205 / ADVANCEMIG 255

Safety

Store and Retain this Manual

Retain this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number into the NOTES section at the rear, and keep this manual and the receipt in a safe and dry place for future reference.

Important Safety Information

Failure to follow the warnings and instructions may result in electric shock, fire, serious injury and/or death. Save all warnings and instructions for future reference.



This is the safety alert symbol to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER! indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING! indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE: Used to address practices not related to personal injury.

General Safety Warnings

1. Maintain labels and nameplates on the welder. These carry important information. If unreadable or missing, contact Euroquip for a replacement.

2. Avoid unintentional starting. Make sure the welder is setup correctly and you are prepared to begin work before turning on the welder.

3. Unplug before performing maintenance.

Always unplug the welder from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

4. Never leave the welder unattended while energised. Turn power off before leaving the welder unattended.

5. Do not touch live electrical parts. Wear dry, insulating gloves. Do not touch the electrode or the conductor tong with bare hands. Do not wear wet or damaged gloves.

6. Protect yourself from electric shock. Do not use the welder outdoors. Insulate yourself from the work piece and the ground. Use non-flammable, dry insulating material if possible, or use dry rubber mats, dry wood or plywood, or other dry insulating material large enough to cover the area of contact with the work or the ground.

7. Avoid inhaling dust. Some dust created by power sanding, sawing, grinding, drilling, cutting, welding and other construction activities, contain chemicals known to cause cancer, birth defects or other harm. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

8. People with pacemakers should consult their physician(s) before using this machine.



WARNING!

Electromagnetic fields in close proximity to a heart pacemaker could cause interference, or failure of the pacemaker. The use of a Welder is NOT RECOMMENDED for pacemaker wearers. Consult your doctor.

9. Ensure that the unit is placed on a stable location before use.



WARNING!

If this unit falls while plugged in, severe injury, electric shock, or fire may result.

10. Transportation Methods Lift unit with the handles provided, or use a handcart or similar device of adequate capacity. If using a fork lift vehicle, secure the unit to a skid before transporting.



CAUTION!

Disconnect input power conductors from de-energized supply line before moving the welding power source.

11. Exercise good work practices. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be considered by the operator.



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Welding Safety Instructions & Warnings



WARNING!

Protect yourself and others from possible serious injury or death. Keep children away. Read the operating/Instruction manual before installing, operating or servicing this equipment. Have all installation, operation, maintenance, and repair work performed by qualified people.

If an operator does not strictly observe all safety rules and take precautionary actions, welding products and welding processes can cause serious injury or death, or damage to other equipment or property. Safe practices have developed from past experience in the use of welding and cutting.

These practices must be learned through study and training before using this equipment. Some of these practices apply to equipment connected to power lines; other practices apply to engine driven equipment. Anyone not having extensive training in welding and cutting practices should not attempt to weld.

Safe practices are outlined in the European Standard EN60974-1 entitled: Safety in welding and allied processes.



WARNING!

Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye and breathing protection must be AS/NZS compliant for the specific hazards in the work area.



DANGER!

Always wear AS/NZS compliant safety glasses and full face shield fitted with appropriate filter shade number (Refer Filter Table on page 17.)



CAUTION!

Heavy-duty work gloves, non-skid safety shoes and hearing protection used for appropriate conditions will reduce personal injuries.



CAUTION!

Have the equipment serviced by a qualified repair person using identical replacement parts. This will ensure that the safety of the power tool is maintained.

Personal Safety



CAUTION!

Keep the work area well lit. Make sure there is adequate space surrounding the work area. Always keep the work area free of obstructions, grease, oil,

trash, and other debris. Do not use equipment in areas near flammable chemicals, dust, and vapours. Do not use this product in a damp or wet location.

1. **Stay alert**, watch what you are doing and use common sense when operating equipment. Do not use a tool while you are tired or under the influence of drugs, alcohol or medication. A moment of distraction when operating equipment may result in serious personal injury.
2. **Do not over-reach**. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

Arc Rays can Burn Eyes and Skin



DANGER!

Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin.

1. **Use a Welding Helmet or Welding Face Shield fitted with a proper shade filter** (refer AS 60974-1, AS/NZS 1337.1 and AS/NZS 1338.1 Safety Standards) to protect your face and eyes when welding or watching. (See Filter Table on Page 20)
2. Wear approved safety glasses. Side shields are recommended.
3. Use protective screens or barriers to protect others from flash and glare; warn others not to watch the arc.
4. Wear protective clothing made from durable, flame-resistant material (wool and leather) and foot safety protection.
5. Never wear contact lenses while welding.

Noise Can Damage Hearing



CAUTION!

Noise from some processes can damage hearing. Use AS/NZS compliant ear plugs or ear muffs if the noise level is high.

Work Environment Safety



DANGER!

Remove any combustible material from the work area.



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1. When possible, move the work to a location well away from combustible materials. If relocation is not possible, protect the combustibles with a cover made of fire resistant material.
 2. Remove or make safe all combustible materials for a radius of 10 metres around the work area. Use a fire resistant material to cover or block all doorways, windows, cracks, and other openings.
 3. Enclose the work area with portable fire resistant screens. Protect combustible walls, ceilings, floors, etc., from sparks and heat with fire resistant covers.
 4. If working on a metal wall, ceiling, etc., prevent ignition of combustibles on the other side by moving the combustibles to a safe location. If relocation of combustibles is not possible, designate someone to serve as a fire watch, equipped with a fire extinguisher, during the welding process and well after the welding is completed.
 5. Do not weld or cut on materials having a combustible coating or combustible internal structure, as in walls or ceilings, without an approved method for eliminating the hazard.
 6. After welding, make a thorough examination for evidence of fire. Be aware that visible smoke or flame may not be present for some time after the fire has started. Do not weld or cut in atmospheres containing dangerously reactive or flammable gases, vapours, liquids, and dust. Provide adequate ventilation in work areas to prevent accumulation of flammable gases, vapours, and dust.
 7. Do not apply heat to a container that has held an unknown substance or a combustible material whose contents, when heated, can produce flammable or explosive vapours. Clean and purge containers before applying heat. Vent closed containers, including castings, before preheating, welding, or cutting.
- metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.
1. Do not touch live electrical parts.
 2. Wear dry, hole-free insulating gloves and body protection.
 3. Insulate yourself from the work and the ground using dry insulating mats or covers.
 4. Disconnect input power before installing or servicing this equipment. Lock input power, disconnect switch open, or remove line fuses so power cannot be turned on accidentally.
 5. Properly install and ground this equipment according to national, state, and local codes.
 6. Turn off all equipment when not in use. Disconnect power to equipment if it will be left unattended or out of service.
 7. Use fully insulated electrode holders. Never dip the holder in water to cool it or lay it down on the ground or the work surface. Do not touch holders connected to two welding machines at the same time or touch other people with the holder or electrode.
 8. Do not use worn, damaged, undersized, or poorly spliced cables.
 9. Do not wrap cables around your body.
 10. Connect work piece to a good electrical ground.
 11. Do not touch the electrode while in contact with the work (ground) circuit.
 12. Use only well-maintained equipment. Repair or replace damaged parts as soon as practical.
 13. In confined spaces or damp locations, do not use a welder with AC output unless equipped with a voltage reducer.

Electricity Can Kill



DANGER!

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on.

The input power circuit and machine internal circuits are also live when power is on. In semi-automatic or automatic wire welding, the wire, wire reel, drive roll housing, and all

Arc rays from the welding process produce intense heat and strong ultraviolet rays that can burn eyes and skin. Use the following table to select the appropriate shade number for a Welding Helmet or Welding Face Shield.



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Recommended Protective Filters for Electric Welding		
Description of Process	Approximate Range of Welding Current in Amps	Minimum Shade Number of Filter(s)
Manual Metal Arc Welding - Covered Electrodes (MMA)	Less than or equal to 100	8
	100 to 200	10
	200 to 300	11
	300 to 400	12
	Greater than 400	13
Gas Metal Arc Welding (GMAW) (MIG) other than Aluminium And Stainless Steel	Less than or equal to 150	10
	150 to 250	11
	250 to 300	12
	300 to 400	13
	Greater than 400	14
Gas Metal Arc Welding(GMAW) (MIG) Aluminium and Stainless Steel	Less than or equal to 250	12
	250 to 350	13
Gas Tungsten Arc Welding (GTAW) (TIG)	Less than or equal to 100	10
	100 to 200	11
	200 to 250	12
	250 to 350	13
	Greater than 350	14
Flux-Cored Arc Welding (FCAW) - with or without Shielding Gas	Less than or equal to 300	11
	300 to 400	12
	400 to 500	13
	Greater than 500	14
Air - Arc Gouging	Less than or equal to 400	12
Plasma - Arc Cutting	50 to 100	10
	100 to 400	12
	400 to 800	14
Plasma - Arc Spraying	—	15
Plasma - Arc Welding	Less than or equal to 20	8
	20 to 100	10
	100 to 400	12
	400 to 800	14
Submerged - Arc Welding	—	2 (5)
Resistance Welding	—	Safety Spectacles or Eye Shield

Refer to standard AS/NZS 1338.1 for comprehensive information regarding the above table.

Fumes And Gases



WARNING!

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

1. Keep your head out of the fumes. Do not breathe the fumes.
2. If inside, ventilate the area and/or use an exhaust at the arc to remove welding fumes and gases.
3. If ventilation is poor, use an approved air-supplied respirator.
4. Read the Safety Data Sheets (SDS) and the manufacturer's instruction for the metals, consumables, coatings, and cleaners.
5. Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Shielding gases used for welding can displace air causing injury or death. Be sure the breathing air is safe.
6. Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapours to form highly toxic and irritating gases.



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7. Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and if necessary, while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.

Fire & Explosive Risks



WARNING!

Sparks and spatter fly off from the welding arc. The flying sparks and hot metal, weld spatter, work piece, and hot equipment can cause fires and burns.

Accidental contact of electrode or welding wire to metal objects can cause sparks, overheating, or fire.

1. Protect yourself and others from flying sparks and hot metal.
2. Do not weld where flying sparks can strike flammable material.
3. Remove all flammables within 10m of the welding site.
4. Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
5. Watch for fire, and keep a fire extinguisher nearby.
6. Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
7. Do not weld on closed containers such as tanks or drums.
8. Connect the work lead/clamp to the job as close to the welding area as practical to prevent welding current from travelling long, possibly unknown paths and causing electric shock and fire hazards.
9. Do not use a welder to thaw frozen pipes.
10. Remove the stick electrode from the holder or cut off the welding wire at the contact tip when not in use.

Sparks & Hot Metal



WARNING!

Chipping and grinding causes flying metal, and as welds cool they can throw off slag.

1. Wear an AS/NZS approved face shield or safety goggles. Side shields are recommended.
2. Wear appropriate safety equipment to protect the skin and body.

Cylinders



WARNING!

Gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

1. Protect compressed gas cylinders from excessive heat, mechanical shocks, and arcs.
2. Install and secure cylinders in an upright position by chaining them to a stationary support or equipment cylinder rack to prevent falling or tipping.
3. Keep cylinders away from any welding or other electrical circuits.
4. Never allow a welding electrode to touch any cylinder.
5. Use appropriate shielding gas, regulators, hoses, and fittings designed for the specific application; maintain them and their associated parts in good condition.
6. Turn your face away from the valve outlet when opening the cylinder valve.



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Notes



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Warranty

As part of an on-going commitment to excellence in product support, Euroquip offers a comprehensive product warranty program.

In order to qualify for full warranty support, your product must be registered. Product not registered with Euroquip is supported by a base 12 month warranty only. Spare parts and technical support will not be available for an unregistered product outside of this base warranty period. If a Euroquip dealer has not already registered your product, please register it online or download a physical registration form at www.euroquip.co.nz.

Registered warranty period for:

EZIMIG 205 - ADVANCEMIG 255:

Commercial Use: 36 Months

Warranty covers failure caused by manufacturing and material defects in the product, during the warranty period specified. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty does not cover parts that are subject to wear and tear from usage.

Warranty covers failure of a product caused by defective materials and/or manufacturing for the period given and the usage specified by Euroquip. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Warranty also does not cover failure caused by the untimely replacement or service of the above wearing parts. Evidence must be provided that the product has been maintained and serviced suitably for a claim to be considered under warranty.

Failure caused by incorrect operation of the product, lack of proper care and maintenance of the product, external damage, external circumstances such as contaminated fuel or poor water supply, modifications to the product, attempted repair/ service by a party other than an Approved Service Agent, is not covered under warranty.

Warranty does not cover pre delivery service and adjustment, or failure that may occur as a result of lack of/ incorrect pre delivery service and adjustment.

Warranty does not cover any incidental, indirect or consequential loss, damage or expense that may result from any defect, failure or malfunction of a product.

Should any issue be found to be a combination of a warranty failure and a non-warranty issue, the repair cost component to rectify and repair the non-warranty failure is the customers' full responsibility.

The decision that an issue with a product qualifies as a warranty claim is made at the sole jurisdiction of Euroquip.

No costs incurred will be considered under warranty if repairs are carried out by a party other than a Euroquip Approved Service Agent, unless with prior consent in writing from Euroquip.

It is the responsibility of the purchaser to deliver a product under warranty to the nearest relevant service agent or product reseller. Warranty does not cover call outs, mileage and freight costs.

If a product is repaired under warranty, parts and labour required for the repair will be supplied at no charge. Warranty assessment and repair will be scheduled and executed according to the normal work flow at the service location and depending on the availability of suitable replacement parts.

This warranty policy is an additional benefit and does not affect the legal rights of any end user, reseller or service agent.



Congratulations on your new STRATA product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty and world-wide service network. To locate your nearest distributor or service agency visit www.strata.co.nz, or email us at info@euroquip.co.nz.

www.strata.co.nz