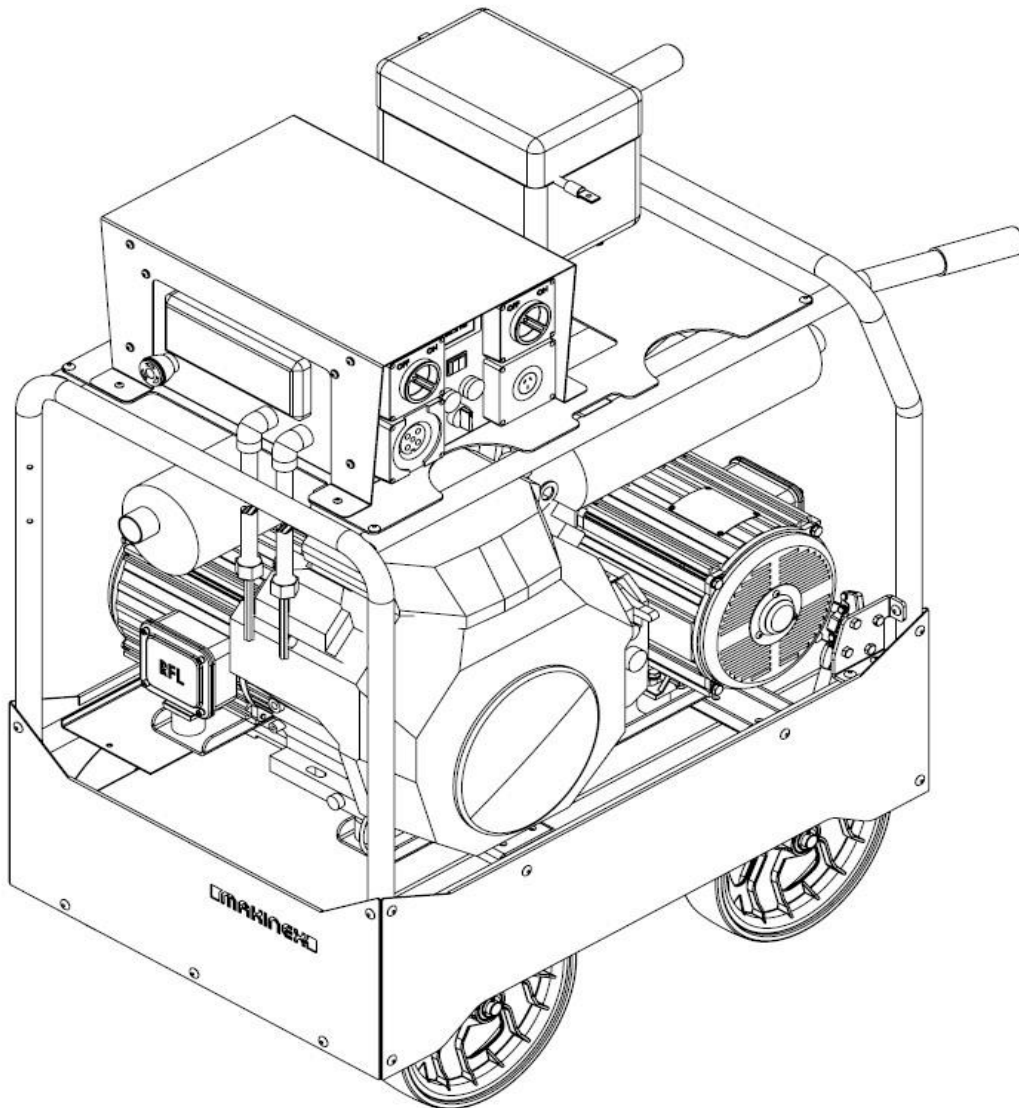




## Makinex 32kVA Generator

### GEN -32P

- 2x15A Single Phase + 2x32A 3 Phase Outlets



## OPERATOR'S MANUAL

Rev 0621

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## **INTRODUCTION**

Thank you for purchasing a MAKINEX product.

This manual provides information and procedures to safely operate and maintain the **GEN-32P** Generator. For your own safety and protection from injury, carefully read, understand, and observe the safety instructions described in this manual.

Keep this manual or a copy of it with the machine. If you lose this manual or need an additional copy, please contact MAKINEX. This machine is designed and built with user safety in mind; however, it can present hazards if improperly operated and serviced. If there are any questions regarding operating or servicing of this machine, please contact MAKINEX.

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Any type of reproduction or distribution not authorised by MAKINEX represents an infringement of valid copyrights and will be prosecuted. We expressly reserve the right to make technical modifications, even without due notice, which aim at improving our machines or their safety standards.

## ***DISCLAIMER***

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MAKINEX and its affiliates take no responsibility for any damage, injury or death resulting from the incorrect or unsafe use of this product. Use of this product should be undertaken by competent persons only. It is the operator's responsibility to ensure that the following safety procedures are followed. If you are unsure, do not operate this product.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.






## GEN-32P

### PURCHASE LOCATION

### **ABOUT THIS MANUAL**

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment. Follow all safety messages to avoid or reduce the risk of serious injury or death.

### **KEY TERMS**

 <b>READ CAREFULLY</b>	<b>READ CAREFULLY</b> – refers to <i>important information</i> that should be paid careful attention.
 <b>CAUTION</b>	<b>CAUTION</b> - indicates a potential hazardous situation which, if not avoided, <i>may</i> result in minor or moderate injury
 <b>WARNING</b>	<b>WARNING</b> – indicates a potentially hazardous situation which, if not avoided, <i>could</i> result in death or serious injury
 <b>DANGER</b>	<b>DANGER</b> – indicates an imminently hazardous situation which, if not avoided, <i>will</i> result in death or serious injury
 <b>PROHIBITED</b>	<b>PROHIBITED</b> – identifies actions that <i>should never</i> be carried out by anyone interacting with the machine.

These safety warnings do not eliminate all possible hazards that could occur therefore it is essential to use common sense and to strictly follow any instructions to prevent accidents.

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# SAFETY INFORMATION

## GENERAL SAFETY INFORMATION

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Read this manual **thoroughly** before operating your generator. Failure to follow instructions could result in serious injury or death.




MAKINEX GEN-32P Generator designed for professional operators only, instruct operators in care and use of the machine before use!



Keep children away from the generator at all time.

- **ALWAYS** use in a well-ventilated area.
- **ALWAYS** have someone alert attending the machine.
- **ALWAYS** wear hearing protective equipment whilst in operation.
- **ALWAYS** ensure the applied load does not exceed the generators rating.
- **ALWAYS** disconnect the generator when carrying out any maintenance.
- **ALWAYS** ensure the generator reaches operating speed before connecting a load.
- **ALWAYS** start the engine **BEFORE** connecting any appliances to the output receptacles.
- **ALWAYS** test the RCBO's before use.
- **ALWAYS** check the generator for damage before use.
- **ALWAYS** keep well clear of all moving parts on the generator.
- **NEVER** allow children or animals near the generator.
- **NEVER** connect to a commercial or mains power supply, or any other electrical source.
- **NEVER** allow the generator to run out of fuel when a load is connected.
- **NEVER** use accessories or attachments not recommended by MAKINEX.
- **NEVER** alter or tamper with the internal wiring of the generator.
- **NEVER** operate in wet conditions.
- **NEVER** climb or stand on the generator as dents may cause overheating of the acoustic lining.

**RISK OF HOT SURFACES**




**DANGER**

- Contact with hot surfaces, such as engine's exhaust components, could result in serious burns.
- During operation, touch only the control surfaces of generator.

- **NEVER** touch any part of the engine, alternator, or exhaust when the generator is in use or immediately after use, as these get hot and could burn.

**RISK TO BREATHING**



**DANGER**

- Running engine gives off Carbon Monoxide, an odourless, colourless, poisonous gas.
- Breathing Carbon Monoxide can cause nausea, fainting or death.
- Some chemicals or detergents may be harmful if inhaled or ingested, causing severe nausea, fainting, or poisoning.



**DANGER**

**EXHAUST FUMES CAN BE FATAL**





**TOXIC HAZARD**

- **ALWAYS** ensure that there is adequate ventilation when using the generator.
- **ALWAYS** position the generator so that the exhaust is pointing away from people or animals.
- **NEVER** use the generator indoors or in an enclosed area.

## **GENERATOR POSITIONING FOR SAFE USE**



- **ALWAYS** leave at least a 1 metre (3 foot) gap between the generator and any surrounding building or structure.
- **ALWAYS** ensure the generator is on a solid, flat surface.
- **ALWAYS** ensure the surrounding area is free from any material that could burn or be damaged by heat.
- **NEVER** move or tilt the generator whilst it is switched on.
- **NEVER** cover or enclose the generator whilst it is in use.
- **NEVER** use the generator at an incline above 20° otherwise the engine will malfunction whilst in operation.
- **NEVER** attempt to lift or move the generator without the assistance of other persons or suitable lifting equipment.

## ELECTRICITY RELATED SAFETY PRECAUTIONS

 <b>WARNING</b>	<b>RISK OF ELECTRICAL SHOCK</b> □ Risk of electrocution	 <b>ELECTRICAL HAZARD</b>
---	--	---

- **ALWAYS** test the RCBOs before use.
- **ALWAYS** store the generator undercover when not in use and away from damp or wet conditions.
- **ALWAYS** disengage the battery when performing any maintenance.
- **NEVER** try to repair electrical components if not authorised or qualified.
- **NEVER** use the generator outdoor when it is raining or snowing or in wet or damp conditions.
- **NEVER** use water or any other liquids to clean the unit while it is running.
- **NEVER** use any damaged electrical cord sets with the generator.

## FIRE -RELATED SAFETY PRECAUTIONS

 <b>DANGER</b>	<b>RISK OF EXPLOSION OR FIRE</b> Fuel □ and its vapours are extremely flammable and explosive □ Fire or explosion can cause severe burns or death	 <b>FIRE HAZARD</b>
--	---	---


- **ALWAYS** switch the engine **OFF** when refuelling.
- **ALWAYS** refuel away from any source of heat.
- **ALWAYS** refuel in a well-ventilated area.
- **ALWAYS** keep a fire extinguisher in the vicinity at all time
- **NEVER** overfill fill the tank, fill to the level specified to allow for fuel expansion.
- **NEVER** smoke or use a naked flame near the generator.
- **NEVER** start the engine if there is a fuel spill. Any spillage must be wiped clean and the generator allowed to dry before attempting to start the engine.
- **NEVER** leave any combustible materials near the generator.

## EARTHING OF GENERATOR

Earthing of generators helps protect the user from electric shock or electrocution which may be caused due to malfunction or breakdown. This threat to the user is prevented by creating a path of least resistance for the electrical current to travel to the ground which inherently absorbs the over-current or short circuit.

The appropriate measures for earthing the portable generator are already in place however, the user should always inspect the earthing system before use.

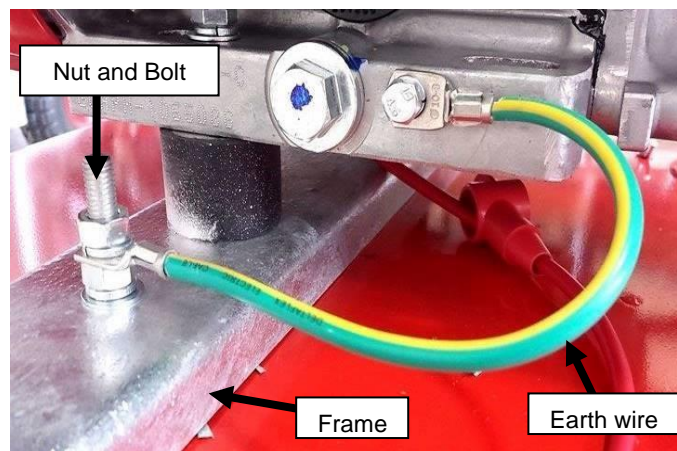
 <b>WARNING</b>	<b>DO NOT TOUCH ANY COMPONENTS IF YOU ARE NOT A QUALIFIED ELECTRICIAN.</b>	 <b>ELECTRICAL HAZARD</b>
---	--	---


 <b>WARNING</b>	<b>FAILURE TO PROPERLY CONNECT THE EQUIPMENT TO THE EARTHING CONDUCTOR WILL RESULT IN A RISK OF ELECTROCUTION. CONSULT WITH A QUALIFIED ELECTRICIAN IN CASE OF DOUBT WITH THE EARTHING OF THE UNIT.</b>
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Referring to the example image, there are a few components that should be observed.

- Frame
- Green/yellow earth wire
- Nut and screw

**Ensure both wires are secured with the nuts and screw onto the frame.**



 <b>READ CAREFULLY</b>	<b>ANY OTHER GROUNDING INSTALLATION MUST BE CARRIED OUT BY A LICENSED ELECTRICIAN AND ALL LOCAL CODES MUST BE FOLLOWED.</b>
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We strongly recommend that all applicable federal, state, and local regulations relating to grounding/earthing specifications be checked and followed.





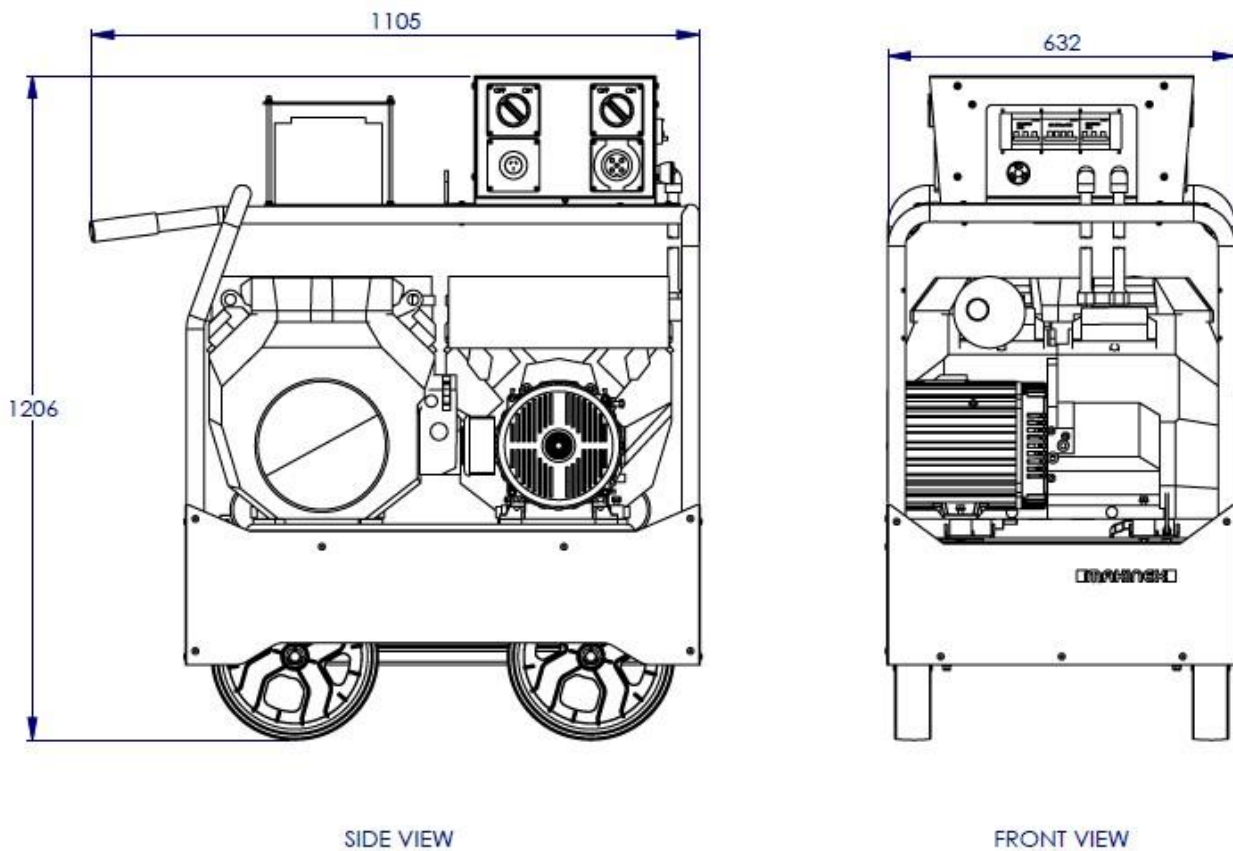
## PRODUCT SPECIFICATIONS

<b>GENERATOR:</b>	
<b>MAX OUTPUT</b>	32kVA (25.6kW)
<b>RATED FREQUENCY</b>	50Hz
<b>RATED POWER FACTOR</b>	0.8
<b>OUTLET SOCKETS</b>  (all with RCBO PROTECTON)	2 X 15A SINGLE PHASE + 2 X 32A 3PHASE SOCKETS
<b>DRY WEIGHT</b>	300 KG
<b>DIMENSIONS</b>	1105 x 632x 1206 mm LENGTH x WIDTH x HEIGHT APPROX
<b>NOISE LEVEL (7m)</b>	NO LOAD – dB
	50% LOAD – dB
	100% LOAD – dB
<b>ENGINE:</b>	
TYPE	TWIN CYLINDER AIR COOLED PETROL
MODEL	HONDA GX690
STARTING SYSTEM	ELECTRIC KEY START
DISPLACEMENT	688CC
FUEL ECONOMY	3.5L/h @ 50% LOAD
FUEL TANK	50 L




## FEATURES

<b>FEATURES</b>
Durable Galvanised frame
Multi cushion isolators for vibration reduction
Compact design for easy storage and transport
Lifting point for transportation
RFL permanent magnet alternator

## OVERALL MACHINE DIMENSIONS



## ALTERNATOR SPECIFICATIONS

 <b>RFL Alternators</b> <a href="http://www.rflalternators.com">http://www.rflalternators.com</a>			
<b>Frame</b>	132	<b>Type</b>	RF2 - 17.5
<b>Enclosure</b>	IP23		<b>PM Brushless Alternator</b>
<b>Poles</b>	2	<b>Phase</b>	3
<b>RPM</b>	3000	<b>Volts</b>	415
<b>Frequency</b>	50 Hz	<b>Amps</b>	20
<b>Power</b>	14.0 kW	<b>Motor Start kVA</b>	19.0
<b>Weight (kg)</b>	51	<b>Short Cir Amps</b>	60
<b>Ref Temp</b>	27 °C	<b>Serial No.</b>	RF2-132-150-180-3P-1
 		<b>EC. 1282. 0E140328. RFLQ093</b>	

## INSTRUCTION FOR USE



**WARNING**

Read and adhere to all safety and operation instructions.

### **BEFORE USE**

Before using the generator, ensure all the safety and operation instructions are read and the following steps are performed.

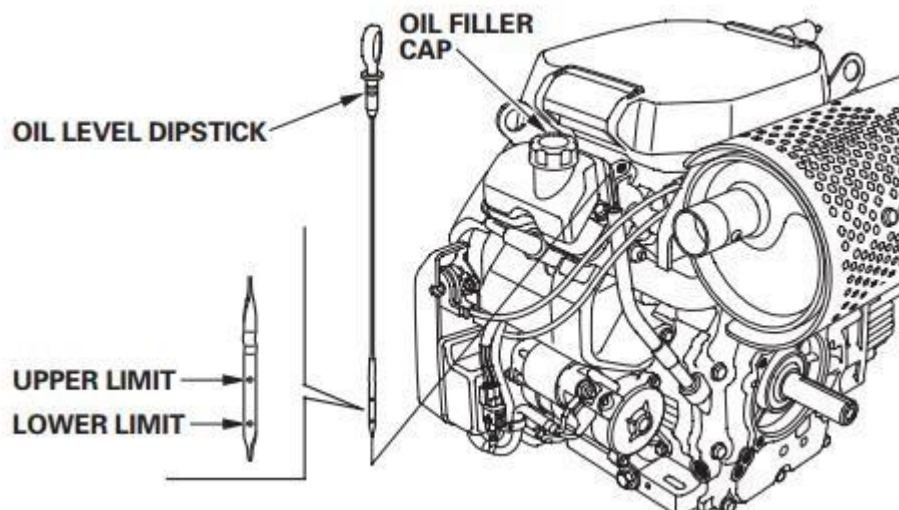
### **OIL LEVEL CHECK**



**CAUTION**

Check the engine oil level with the engine stopped and in a levelled position

1. Check the engine oil level with the engine stopped and, in a levelled position.
2. Start the engine and let it idle for 1 or 2 minutes. Stop the engine and wait for 2 or 3 minutes.
3. Remove the oil level dipstick and wipe it clean.
4. Fully insert the oil level dipstick, then remove it to check the oil level.
5. If the oil level is low, remove the oil filler cap, and fill with the recommended oil to the upper limit mark on the oil level dipstick.
6. Reinstall the oil level dipstick and oil filler cap



**NOTE:** New machines will be pre-oiled from MAKINEX with:  
**Honda Power Equipment Engine Oil – SAE 10W-30, API SJ**

## REFUELING



**WARNING**

**FAILURE TO USE FUEL AS RECOMMENDED IN THIS MANUAL WILL VOID WARRANTY**

- **DO NOT** use unapproved gasoline such as ethanol-based fuel.
- **DO NOT** mix oil with gasoline.
- **DO NOT** modify engine to run on alternate fuels.



**WARNING**

**Fuel and fuel vapour are extremely flammable and explosive. Fire or explosion from misuse of fuel can cause severe burns and even death.**



**FIRE HAZARD**



**WARNING**

**Always ensure that fuel tanks are filled outdoors.**

1. Turn generator **OFF** and let it cool for at least two minutes before removing fuel cap.
2. Loosen fuel cap slowly to release pressure.
3. Slowly add unleaded gasoline to fuel tank. **DO NOT** fill fuel above baffle to allow for appropriate space fuel expansion.
4. Wait for spilled fuel to evaporate before starting the engine.



**WARNING**

**Keep fuel away from sparks, open flames, pilot lights, heat and other ignition sources.**

**DO NOT** light a cigarette or smoke near open fuel tank or container.



## OPERATING GENERATOR



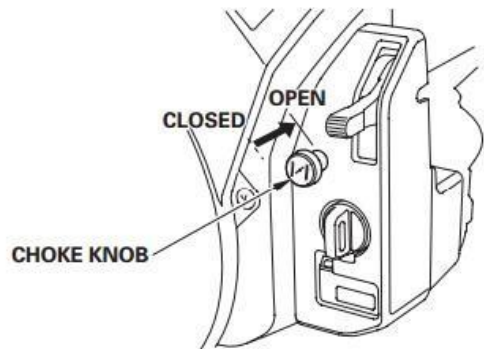
Read and adhere to all safety and operation instructions. **WARNING**



Always have the brake down while it is stationary. **CAUTION**

### STARTING THE GENERATOR

1. Remove all connections from the AC sockets.
2. If the fuel tank is equipped with a valve, be sure the fuel valve is in the OPEN or ON position before attempting to start the engine.
3. To start a cold engine, pull the choke knob out to the CLOSED position. To restart a warm engine, leave the choke knob in the OPEN position.
4. Turn the engine switch to the START position and hold it there until the engine starts.
5. When the engine starts, release the engine switch, allowing it to return to the ON position.
6. Once the engine has warmed up, set the choke lever to the OPEN position.



### PARALLEL MODE

This generator set can be operated in independent or parallel mode.

Follow the instructions above to start GEN 1 **OR** GEN 2 for independent mode. This will power the outlets on the side of the electrical panel corresponding to the engine that is running. The power output will be 16kVA.

For parallel mode (combining power of both generators):

1. When both engines are running the RED LIGHT on the electrical panel will begin flashing.
2. Turn the parallel isolator switch (A) ON. After a few seconds the system will engage into parallel mode and the GREEN LIGHT will illuminate.
3. If both the RED and GREEN lights are illuminated, allow time for the system to stabilise. The RED light will turn off after a few seconds and the generators can be used in parallel mode.
4. All outlets are now in parallel mode running at 32kVA.

### CONNECTING ELECTRICAL DEVICES

The generator can supply 230V AC through 2 x 15amp sockets and 415V AC through the 2x32A socket.

1. Connect the appliance to the generator starting with the device that draws the most current.
2. Set the circuit breaker to 'ON'.

## **SHUTTING DOWN THE GENERATOR**

1. Disconnect all appliances connected to the generator.
2. Turn the ignition key to the OFF position.
3. Set the fuel supply valve to OFF if the fuel tank equipped with.

**NOTE:** To stop the generator in an emergency simply turn the ignition key to the off position.

# MAINTENANCE


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## **GENERAL RECOMMENDATIONS:**

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Regular maintenance will improve the performance and extend the life of the generator.

The generator's warranty does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain the generator as instructed in this manual and in the **Honda GX690** user manual, including proper storage and regular servicing.

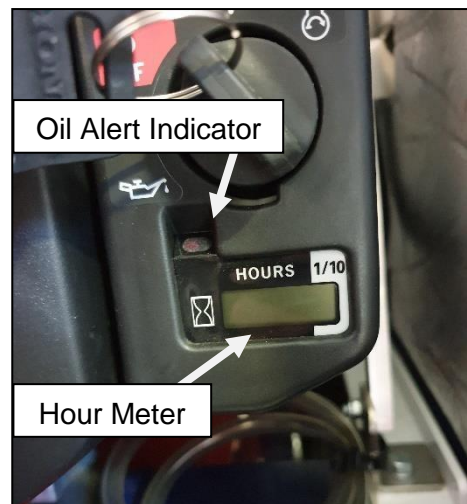
 <p><b>READ CAREFULLY</b></p>	<p><b>Regular maintenance is required to ensure performance of generator and to ensure warranty is not voided.</b></p> <p><b>The maintenance schedule is in the Honda GX690 owner's manual.</b></p>
--	---

Should you have questions about replacing components on your generator, please contact dealer for assistance. MAKINEX dealers have access to all the special tools, technical information, parts and training required to maintain your MAKINEX product in peak operating condition.

## **GENERAL GENERATOR CHECKS**

It is considered good practise to check the generator before and after use, looking at:

- Function of brake
- Condition of electrical components (especially RCBOs)
- Earthing bolts are tight
- Condition of engine mounts
- Fuel lines conditions
- Oil and fuel levels
- Battery is well secured, and terminals are fastened tightly
- Hour meter
- Any possible leaks



Hour Meter tracks the operational time of the engine.



## GENERAL TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	CORRECTIONS
<b>ENGINE WILL NOT START</b>	Out of fuel.	Add fresh fuel.
	Wrong fuel.	Drain fuel tank and then add fresh fuel.
	Low engine oil.	Fill up with oil.
	Choke is OPEN if the engine is cold.	Close the choke.
	Low battery.	Charge the battery.
	Engine requires servicing.	Contact authorised Makinex dealer
<b>ENGINE LACKS POWER</b>	Stale fuel.	Drain fuel tank and then add fresh fuel.
	Dirty air filter.	Replace or clean air filter.
	Generator is overloaded.	Reduce the load.
	Fault in alternator.	Contact authorised Makinex dealer
	Engine throttle is in "SLOW" position.	Slide the throttle to "FAST" position.
	Engine requires servicing.	Contact authorised Makinex dealer
<b>ENGINE IS RUNNING BUT NO AC OUTPUT</b>	Circuit breaker tripped	Unplug all appliance from sockets and reset the circuit breaker.
	Faulty appliance.	Connect with another appliance that is in good condition.
	Fault in generator	Contact authorised Makinex dealer
<b>UNIDENTIFIED</b>	Contact authorised Makinex dealer for assistance.	

For other engine problems or further instructions, refer to the provided Honda GX690 user manual.

# ENGINE FREQUENCY ADJUSTMENT



## 32 kVA Generator

### Engine Frequency Adjustment

WHAT YOU'LL NEED



This guide is intended as a fix for generators that are experiencing long parallel times. As the engines accumulate work hours, it is likely that their respective frequencies have shifted apart, resulting in the parallel box taking longer to sync up. The parallel box works best when the engine frequencies are within a 0.5 Hz range of each other. Please follow the steps outlined below to learn how to adjust the engines to their desired frequency.

1

Start up engine and observe frequency by using the switch under the frequency meter. Ensure that the correct engine is selected by referring to the generator labels highlighted.



2



Locate the highlighted governor adjustment screw between the engine and exhaust.

3

Using a Phillips head screwdriver, adjust the screw located in Step 2 to tighten and loosen the governor spring accordingly.



4

Continue adjusting the screw until the frequency meter displays  $\approx 52.5$  Hz. Repeat steps for second engine.



5

Start up both engines and turn Switch A until the green light turns on to test the time taken for the generators to parallel.



**Caution:** Only operate on one engine at a time and ensure that the opposing engine is turned off and has cooled down before operation. Beware of hot surfaces and always wear safety gloves to protect against potential burns.

## STORAGE

## **STORAGE WITH FUEL IN TANK**

Gasoline fuel can become stale when stored over **30 days**. Stale fuel causes acid and gum deposits to form in the fuel system or crucial carburettor parts. To keep fuel fresh:

1. Add a fuel stabiliser liquid additive to fuel.
2. Run engine for a minimum of 2 minutes to allow it to circulate throughout the engine



**WARNING**

Fuel and fuel vapour are extremely flammable and explosive. Fire or explosion from misuse of fuel can cause severe burns and even death.



**FIRE HAZARD**

## **RUST PREVENTION IN CYLINDERS**

1. Remove spark plugs and pour approx. 15ml (1/2oz) of clean engine oil into the cylinder.
2. Install spark plug and briefly turn the key starter for 1-2 seconds to distribute oil. **DO NOT** start engine at this time.

Unintentional sparking can cause fire or electrical shock. Failure to observe this warning can cause severe property damage, severe burns and even death.



**WARNING**

Disconnect spark plug wire from spark plug and cover tip of spark plug wire with insulating tape and place wire where it cannot come in contact with spark plug or generator frame.



**WARNING**

Certain storage covers can be flammable or can melt in high temperatures. **DO NOT** place storage cover over generator until it has completely cooled.

## **BATTERY STORAGE PRECAUTIONS**

After use of the generator, follow these precautions to ensure the battery does not drain whilst in storage or not in use.

1. Check the key ignition is in the OFF position.
2. Check the battery isolator is in the OFF position by turning anti-clockwise to release.

## LIMITED WARRANTY

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To take advantage of the MAKINEX limited warranty, you must have maintenance performed according to the maintenance schedule (contained in **Honda GX690** owner's manual supplied with this product), by an authorised MAKINEX dealer or MAKINEX service technician. You are free to have your MAKINEX product serviced by any suitably qualified mechanic or electrician (depending on the mechanical or electrical requirement) and this will not affect your statutory warranties, however, failure by the owner to have the recommended servicing carried out by an authorised MAKINEX dealer/service technician means that you cannot take advantage of the MAKINEX limited warranty.

MAKINEX warrants each new generator to be free from defects in material and workmanship under normal domestic and industrial use and service for the period specified below, conditional to the limitations and exclusions printed on this page. This warranty applies only to new MAKINEX generator distributed by us and by our authorised MAKINEX dealers.

Under the limited warranty and at MAKINEX's discretion, upon evaluation, inspection and testing by a MAKINEX dealer or a MAKINEX service technician, MAKINEX will repair and replace of defective part(s).

AUSTRALIA: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

### **WARRANTY: (Ex-factory/ Reseller premise)**

MAKINEX warrants to the original purchaser:

- Frame and all Electrical components will be free of defects in material and workmanship for a period of one year from the original date of purchase.
- Honda GX Engine is subject to 3 years warranty.
  - Please see [www.hondapowerequipment.com](http://www.hondapowerequipment.com) for details.
- 3 years warranty on RFL alternators

### ***WARRANTY EXCLUSIONS***

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This warranty does not cover the following repairs and equipment:

#### **NORMAL WEAR**

Generator needs periodic service and genuine parts to perform well. This warranty does not cover repair when normal use has exhausted the life of a consumable part for example the oil filter and fuel filter.

## **INSTALLATION, USE, AND MAINTENANCE**

This warranty will not apply to parts and/or labour if this generator is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the generator's limits, modified and installed improperly. Normal maintenance such as spark plugs, air filters, adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

## **OTHER EXCLUSIONS**

This warranty excludes:

- Maintenance services cost.
- Expedited freight costs.
- Cosmetic damage such as paint, decals, etc.
- Problems caused by accidents, improper storage, handling and shipping.
- Accessory parts such as starting batteries, fuses, spark plugs, and storage covers. □ Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not from the original manufacturer.

## **OWNER'S RESPONSIBILITY UNDER LIMITED WARRANTY:**

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Strict adherence to the maintenance checks and with **proof of scheduled maintenance history** is required by an authorised agent or qualified mechanic. It is the consumer's responsibility to deliver the machine in question to our service premises or to the premises of our appointed agent at the consumer's expense for replacement or repair as applicable. Maintenance services are not covered under warranty.

### **Claim Procedure:**

- Contact MAKINEX by phone or email informing us of your machines problem or defect.
- Once the extent of the claim has been assessed, we retain the right to compensate the consumer for such defect, or repair (parts & labour), or replace the machine under warranty.
- All warranties will be carried out by MAKINEX authorised staff or appointed agents at a premise to be determined by the Manufacturer.
- It is the responsibility (and cost) of MAKINEX or our appointed agent to return the machine to be repaired or replaced under warranty to the consumer- this is valid for domestic territories only (e.g. Australian units will be delivered within Australian territories and European units will be delivered within its designated country's territories).
- Where the specific warranty component (e.g. Engine) is under a Manufacturer's warranty other than MAKINEX (e.g. Honda, Hatz or Kohler etc.), the consumer can either contact MAKINEX or the applicable manufacturer for repairs where such warranty was registered with that manufacturer at purchase.
- Warranty calls will only be carried out by our representatives and not via client's choice of repairer. We will not accept back charges for any work not carried out by our representatives or accept any charges due to equipment being un-operational for any reason even during its warranty period.

## CONTACT INFORMATION

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For sales, service, warranty and parts for all MAKINEX products; please refer below.

	<b>SALES, SERVICE, SPARE PARTS &amp; WARRANTY</b>
<b>AUSTRALIA</b>	<p style="text-align: center;"><b><u>SALES</u></b></p> <p style="text-align: center;">TEL 1300 795 953 or +61 2 9460 8071 WEB <a href="http://www.makinex.com.au">www.makinex.com.au</a></p> <p style="text-align: center;"><b><u>SERVICE, SPARE PARTS &amp; WARRANTY</u></b></p> <p style="text-align: center;">EMAIL <a href="mailto:service@makinex.com.au">service@makinex.com.au</a></p>
<b>USA</b>	<p style="text-align: center;"><b><u>SALES</u></b></p> <p style="text-align: center;">TEL +1 855-625-4639 WEB <a href="http://www.makinex.com">www.makinex.com</a></p> <p style="text-align: center;"><b><u>SERVICE, SPARE PARTS &amp; WARRANTY</u></b></p> <p style="text-align: center;">EMAIL <a href="mailto:service@makinex.com">service@makinex.com</a></p>
<b>UK</b>	<p style="text-align: center;">WEB <a href="http://www.makinex.co.uk">www.makinex.co.uk</a></p>
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<b>CHINA</b>	<p style="text-align: center;">TEL +86 18951118278 EMAIL <a href="mailto:sales@makinex.com.cn">sales@makinex.com.cn</a></p>

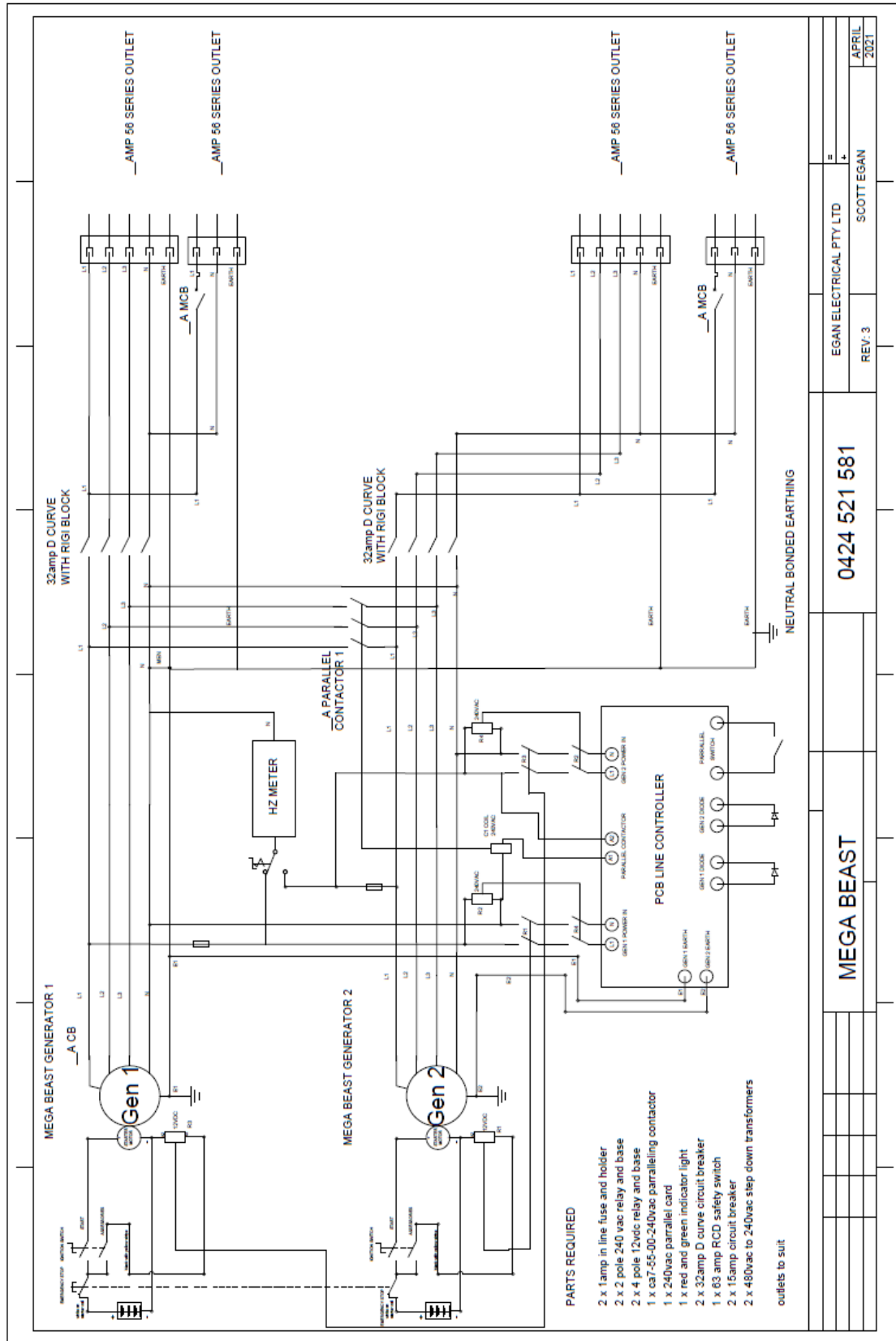
**Or your nearest MAKINEX distributor**

We have very knowledgeable, experienced staff to assist you with help and advice.



# APPENDICES

## APPENDIX A – WIRING CIRCUIT DIAGRAM





## APPENDIX B – RISK ASSESSMENT

PRODUCT RISK / HAZARD ASSESSMENT TABLE				
<b>Product Name:</b> GEN-32P-US		<b>Assessment By:</b> Matthew Cape (Makinex Pty Ltd)		
<b>Manufacturer:</b> MAKINEX PTY LTD		<b>Document Revision Number:</b> 1		
<b>Operator Competency:</b> PLANT LICENSE NOT REQUIRED		29-Oct-20		
HAZARD	LIKELIHOOD	CONSEQUENCE	RISK	
CRUSHING DUE TO -			CONTROL ACTION	
PRODUCT FALLING OVER	3 UNLIKELY	4 NEGLIGIBLE	5 LOW	ENSURE UNIT IS USED ON FLAT, LEVEL SURFACE AND BRAKES ARE ENGAGED
WHEEL RUNNING OVER LIMB	3 UNLIKELY	4 NEGLIGIBLE	5 LOW	ENSURE APPROPRIATE SAFETY APPAREL IS WORN
SHEARING INJURY DUE TO -				
CLOSING DOOR ON LIMB	3 UNLIKELY	4 NEGLIGIBLE	5 LOW	ROUTINE MANAGEMENT OF PROPER USE
CUTTING DUE TO -				
ENTANGLEMENT DUE TO -				
ELECTRICAL LEADS	2 LIKELY	3 MINOR	3 MEDIUM	SITE SAFETY OFFICER TO INSPECT PLACEMENT OF LEADS
ANCHOR CHAIN	2 LIKELY	3 MINOR	3 MEDIUM	SITE SAFETY OFFICER TO INSPECT PLACEMENT OF CHAIN
STRIKING DUE TO -				
PRODUCT ROLLING ON SLOPE / WIND	2 LIKELY	3 MINOR	3 MEDIUM	ENSURE BRAKES ARE ALWAYS ON WHEN UNA TTENDED AND ANCHORED WITH CHAIN IN WINDY AREAS
DROPPED DURING LIFTING	4 VERY UNLIKELY	2 MAJOR	4 MEDIUM	FREQUENT INSPECTION OF LIFTING EYE AND PROPER LIFTING EQUIPMENT AND TECHNIQUE
ABRASION DUE TO -				
SLIP/TRIP/FALL DUE TO -				
ELECTRICAL LEADS	2 LIKELY	3 MINOR	3 MEDIUM	SITE SAFETY OFFICER TO INSPECT PLACEMENT OF LEADS
ANCHOR CHAIN	2 LIKELY	3 MINOR	3 MEDIUM	SITE SAFETY OFFICER TO INSPECT PLACEMENT OF CHAIN
ELECTROCUTION DUE TO -				
EXPOSED / DAMAGED LEADS	3 UNLIKELY	2 MAJOR	3 MEDIUM	FREQUENT INSPECTION OF ALL ELECTRICAL EQUIPMENT INCLUDING MAINS POWER LEADS WITH ALL EQUIPMENT TESTED AND TAGGED
<b>NOTES</b>				
THIS ITEM OF PLANT IS DESIGNED AND MANUFACTURED AS A CHARGING DEVICE FOR TESTED AND TAGGED EQUIPMENT ONLY.				
THE PLANT IS NOT DESIGNED FOR, OR TO BE USED AS A DEVICE FOR POWERING EXTERNAL EQUIPMENT OR PLUGGING EXTENSION LEADS.				
<b>CONSEQUENCE TERMINOLOGY IS DEFINED BY THE WORK-COVER AUTHORITY AS THUS:</b>				
<b>NEGLIGIBLE</b> = ABLE TO BE TREATED USING FIRST AID				
<b>MINOR</b> = REVERSIBLE INJURIES REQUIRING SEVERAL DAYS OFF				
<b>MAJOR</b> = NORMALLY IRREVERSIBLE INJURIES				
<b>FATALITY</b>				
THIS DOCUMENT HAS BEEN PREPARED ACCORDING TO GUIDELINES AND RECOMMENDATIONS FOUND IN:				
1. 'HAZPAK' PRODUCED BY THE WORK-COVER AUTHORITY AND				
2. THE AUSTRALIAN STANDARDS 4024.1.4/5 - 1996 "SAFEGUARDING OF MACHINERY - PART 1: GENERAL PRIN"				
THE TERMS 'VERY LIKELY', 'LIKELY', 'UNLIKELY', 'VERY UNLIKELY' REFER TO PROBABILITY OF AN EVENT HAPPENING, BUT ARE QUALITATIVE AND BASED ON BEST ESTIMATION DUE TO CONSULTATION AND EXPERIENCE.				
<b>RISK LEVEL</b> IS DETERMINED USING THE 'RISK TABLE' AS SUGGESTED IN 'HAZPAK'. INHERENTLY, AS THE CONSEQUENCE INCREASES IN SEVERITY, RISK INCREASES - EVEN WHEN LIKELIHOOD				
<b>MAKINEX PTY LTD</b> PH: (02) 1300795953 <a href="mailto:m.cape@makinex.com.au">m.cape@makinex.com.au</a>				

