



POWER TROWEL MASTER 600-700-900-1200



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English

EC declaration of conformity

We, Uni-corp Europe, 12, avenue des Coquelicots, 94385 Bonneuil-sur-Marne France, hereby certify that if the product described within this certificate is bought from an authorised Paclite dealer within the EEA, it conforms to the following directives: Machinery Directive 2006/42/EC, Electromagnetic Compatibility Directive 2004/108/EC (as amended by 92/31/EEC & 93/68 EEC). The physical agent (vibration) conforms with the directive 2002/44/EC. The low voltage directive 2006/95/EC, BS EN ISO 12100-1/2 Safety of machinery and associated harmonised standards, where applicable. Noise emissions conform to directive 2005/88/EC (Annex VI), for machines under article 12 the notified body is **TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Cologne Germany.**

PRODUCT TYPE

MODEL	
SERIAL N°	
MANUFACTURE	
WEIGHT	
	_
	Signed by:
	Anita Tan
	Quality Manager - On behalf of Uni-corp Europe
GB/US - Operator's manual	
`·	PACLITE Equipment



Foreword

This manual has been written to help you operate the MASTER Trowel Series safely. It is intended primarily for dealers and operators of Paclite Trowels. It is recommended that you keep this manual or a copy of it with the machine so that it is readily available for reference.

Before you operate or carry out any maintenance on this machine YOU MUST READ and UNDERSTAND this manual.

Should you have ANY QUESTIONS about the safe use or maintenance of this machine after reading this manual, ASK YOUR SUPERVISOR or CONTACT:

Uni-corp Europe on +33 (0) 1 49 56 02 82

Paclite reserves the right to change machine specification without prior notice or obligation.

Directions with regard notations

Text in this manual to which special attention must be paid are shown in the following way:



This CAUTION sign indicates a potential hazard, which if ignored, could result in injuries to the operator and/or those close by, as well as damaging the machine.



This WARNING sign indicates a potential hazard, which if ignored could result in the DEATH of the operator and/or those close by.



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Safety Information

For your own personal protection and for the safety of those around you, please read and ensure you fully understand the following safety information. It is the responsibility of the operator to ensure that he/she fully understands how to operate this equipment safely. If you are unsure about the safe and correct use of the MASTER Trowel, consult your supervisor or **Paclite Equipment-Uni-corp Europe** on +33 (0) 1 49 56 02 82.



Improper maintenance can be hazardous. Read and understand this section before you perform any maintenance, service or repairs.

GENERAL SAFETY

- The owner of this machine must observe, and also train the user of the machine to observe, the effective labour protection laws in the country of application.
- Use suitable lifting equipment to lift the machine.
- This machine is to be used for is intended application only.
- · This machine must only be operated by well-trained personnel.
- · Personal Protective Equipment (PPE) must be worn by the operator whenever the equipment is being used.
- Cordon off the work area and keep members of the public and unauthorised personnel at a safe distance.
- Make sure you know how to safely switch this machine OFF before you switch it ON in case you run into any difficulties.
- · Always switch OFF the engine before servicing it.
- During use, the engine becomes very hot. Always allow the engine to cool down before touching it.
- · Never leave the engine running and unattended.
- Never remove or tamper with any fitted guards; they are there for your own protection. If they are damaged
 or missing, DO NOT USE THE MACHINE until the guard has been replaced or repaired.
- · Keep hands and feet away from moving blades.
- Always switch OFF the engine before transporting it, moving it around site or servicing it.
- Do not operate the machine when you are ill, feeling tired or when under the influence of alcohol or drugs.
- This machine is designed to eliminate the possible risks arising from the use of it. However, risks DO reside, and these residual risks are not clearly recognisable and may cause personal injury or property damage, and possibly death. If such unpredictable and unrecognisable risks become apparent, the machine must be stopped immediately, and operator or his supervisor must take appropriate measure to eliminate such risks. It is sometimes necessary that the manufacturer must be informed of such event for future counter measuring.



FUEL SAFETY



Fuel is flammable. It may cause injury and property damage. Shut down the engine, extinguish all open flames and do not smoke while filling the fuel tank. Always wipe up any spilled fuel.

WARNING

- Before re-fuelling, switch off the engine and allow it to cool.
- When re-fuelling, use a proper funnel, and avoid spilling over the engine.
- When re-fuelling, DO NOT smoke or allow naked flames in the area.
- Spilt fuel must be made safe immediately by using sand. If fuel is spilt on your clothes, change them.
- Store fuel in an approved, purpose made container away from heat and sources of ignition.

Health and security

FUEL

Do not ingest fuel or inhale fuel vapors and avoid contact with your skin. Wash fuel splashes immediately. If you get fuel in your eyes, irrigate with copious amounts of water and seek medical attention as soon as possible.

EXHAUST FUMES



The exhaust fumes produced by this machine are highly toxic and can kill!

Do not operate your MASTER Trowel indoors or in confined spaces. Make sure the work area is adequately ventilated.

PPE (PERSONAL PROTECTIVE EQUIPMENT)

Suitable PPE must be worn when using this equipment i.e. safety goggles, gloves, ear defenders, dust mask and steel toe-capped footwear (with anti-slip soles for added protection). Wear clothing suitable for the work you are doing. Always protect skin from contact with concrete.

Environment

In order to protect the environment please recycle any discarded apparatus or accessories. The table beside provides you with a list of the machine's components and their respective materials. Take the discarded apparatus to the relevant recycling facilities.

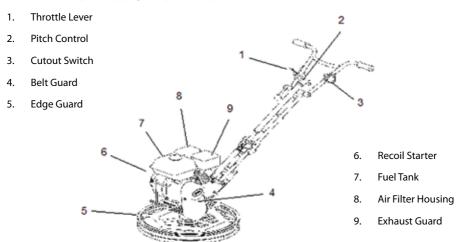


Component	Material	
Operator Handle	Steel	
Belt Guard	Glass Fibre	
Blade Guard	Steel	
Bedplate	Steel	
Hand Grips	Rubber	
Engine	Aluminium & Steel	
Gearbox	Aluminium, Steel & Phosphor Bronze	
Spider Assembly	Cast Iron, Steel & Phosphur Bronze	
Various Parts	Steel & Aluminium	

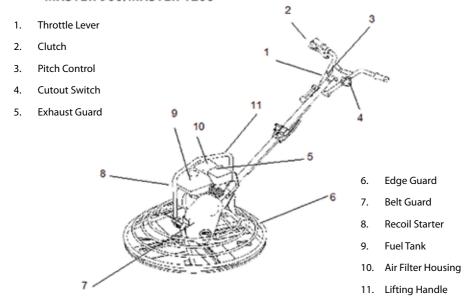


Machine Description

MASTER 600/MASTER 700









Assembly

HANDLE ASSEMBLY

- Secure handle in place using M12 x 90 (x1) and M12 x 75 (x1) bolts.
 Tighten the bolts to a torque setting of 30Nm.
- 2. Screw the cable down to it's maximum length so the bolt is at the bottom of the slot. (See 1)



- Fit the threaded end of the cable through the hole in the yoke arm boss. Secure in place using M8 washer and nut. (See 2) Tighten the M8 nut until all play has been removed from the yoke arm.
- 4. Connect the electrical cable for the centrifugal clutch cutout switch (See 3).



THROTTLE CABLE ASSEMBLY

- 1. Remove Air Filter Assembly from the engine (See 4)
- 2. Set the Throttle Lever on the handle to the idle position. The lever should be in its lowest possible position.
- 3. Also set throttle lever on the engine to the idle position. (See 4)
- 4. Thread the throttle cable through the cable clamp (A) so that the metal area located on the end of the cable is gripped. (See 4)
- 5. Loosen the screw on the cable clamp (B) and slide the throttle cable through the hole. Re-tighten the screw so that it grips the cable. (See 4)







Pre-start checks

The following inspection must be performed before the start of each work session or after every four hours of use, whichever is first. Please consult the service section for detailed guidance. If any fault is discovered, the machine must not be used until the fault is rectified.

- 1. Thoroughly inspect the machine for signs of damage.
- 2. Check hoses, filler openings, drain plugs and any other areas for signs of leakage. Fix any leaks before operating.
- 3. Check the engine oil level and top up if required. Use proper engine oil with the proper viscosity (SAE 10W-30 is recommended).
- 4. Check the engine fuel level and top up as necessary. Use clean fuel. The use of contaminated fuel may damage the fuel system.
- 5. Check for oil and fuel leaks.

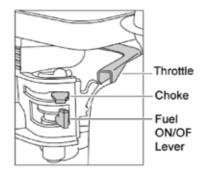




Improper operation can be hazardous. Read and understand this section before you start the machine.

HONDA GX120 & GX160

- Open the petrol tap by moving the fuel ON/OFF lever fully to the right.
- If starting the engine from cold, set the choke ON by moving the choke lever fully to the left. If restarting a warm engine, the choke is usually not required, however, if the engine has cooled to a degree, partial choke may be required.
- 3. Turn the engine ON / OFF switch clockwise to the 'I' position.
- 4. Set the throttle to the idle position by moving the throttle lever fully to the right. Do not start the engine on full throttle.
- Taking a firm hold of the control handle and set the centrifugal switch to ON if not already, grasp the recoil starter handle with the other. Pull the recoil starter until engine resistance is felt, then let starter return.
- 6. Taking care not to pull the starter's rope fully out, pull the starter handle briskly.
- 7. Repeat until the engine fires.
- 8. Once the engine fires gradually set the choke lever to the OFF position by moving it to the right.
- 9. If the engine fails to fi re after several attempts, follow the troubleshooting guide on page 12.
- 10. To stop the engine, set the throttle to idle and release the control switch safety switch. Alternatively turn the engine ON/OFF switch anti-clockwise to the 'O' position.
- 11. Turn the petrol off.





ROBIN EX13 & EX17

- 1. Open the fuel cock.
- 2. Turn the STOP SWITCH to the position 'I' (ON)
- 3. Set the speed control lever 1/3 of the way towards the high speed position.
- 4. Close the choke lever.
 - If the engine is cold or the ambient temperature is low, close the choke lever fully.
 - If the engine is warm or the ambient temperature is high, open the choke lever half way, or keep it fully open.
- 5. Pull the starter handle slowly until resistance is felt. This is the 'compression' point. Return the handle to its original position and pull swiftly. Do not pull out the rope all the way. After starting the engine, allow the starter handle to return to its original position while still holding the handle.
- 6. After starting the engine, gradually open the choke by turning the choke lever and finally keep it fully opened. Do not fully open the choke lever immediately when the engine is cold or the ambient temperature is low, because the engine may stop.
- 7. To stop the engine, Set the speed control lever at the low speed position and allow the engine to run at low speed for 1 to 2 minutes before stopping.
- 8. Turn the STOP SWITCH counter-clockwise to the position '0' (OFF)
- 9. Close the fuel cock.
- 10. Pull the starter handle slowly and return the handle to its original position when resistance is felt. This operation is necessary to prevent outside moist air from intruding into the combustion chamber.

Operation

Make a visual inspection to ensure the blades are free of obstructions and the area is clear for operation.

OPERATING THE TROWEL

Get in into the operator's position behind the centre of the handle and get a good footing. Then apply the throttle slowly until the desired speed is obtained. The blades of the Paclite trowel spin in a clockwise direction.

- Pushing the handle down will steer the machine to the right.
- Lifting the handle up will steer the machine to the left.
- Twisting the handle slightly to the right will move the machine forwards.
- Twisting the handle slightly to the left will move the machine backwards.
- Holding the handle in the neutral position will keep the machine stationary.

PREPARATION OF CONCRETE SURFACE

The use of a mechanical or an air-vibration screeding machine to produce a level concrete surface which will provide good compaction to the slab and produce an ideal surface for finishing. It should be remembered finishing machines will not repair or correct a poorly screeded slab.



FLOATING OPERATION

Before starting the floating operation make sure that the Round Pan is correctly mounted on the finishing blades. Be aware that with the blade arms turning clockwise, the floats should also be positioned in the same way. The slab will be ready to work for the first floating operation when the heel of your shoe leaves a print of 2-3mm on the surface of the slab. On all other floating operations the blades should be almost flat. After the floated slab has set and your footprint is only slightly visible, it is ready to start the finishing operation. The timing of all these operations is dependent on weather conditions. After each operation the engine should be stopped.

Never park the machine with the engine running, especially during the floating operation when the concrete is relatively soft. If you were to leave it running on soft concrete in the same position, the finished floor tolerances would be damaged as the concrete would be pushed down and spread out under the weight of the machine.

FINISHING OPERATION

After the floating operation, the first thing to do is remove the Round Pan from the finishing blades and clean the blades, spider plate and protection ring of cement/concrete paste collected during the floating operation.

Increase the blade pitch up to 10 mm for the first finishing operation and then continue to increase the pitch on the subsequent finishing operations.

Continue the finishing passes until you obtain the desired finished floor surface. The time required between each finishing pass is dependent on weather conditions, cement and water content of the concrete. If some areas of the concrete set harden too fast, you may apply a small amount of water with a brush to help achieve a finish. Be careful when running the machine on areas where water has been applied because the machine will tend to skate away as the water will act as a lubricant and reduce friction. Be sure to have a safe hold on the handle and maintain control of the machine at all times.

PITCH ADJUSTMENT

The pitch control knob is in easy reach of the operator. He pitch adjustment has a limited pitch variation. Rotate the pitch control knob clockwise to tilt the blades and counterclockwise to flatten the angle of the blades. Adjustment is based on the desired performance for the specific job application.

SPIDER PLATE

From experience we know that a lack of lubrication on the trowel arms can lead to problems. During assembly we undertake the greasing and sealing of the trowel arms on the spider plate. Greasing should be carried out on a weekly basis using the grease nipple provided. If an arm becomes jammed, this is probably due to an arm being bent and will need replacing.



LIABILITY

Paclite declines any liability for possible damages to persons and / or things, which might arise from improper or wrong use of the machine or nonobservance of the operating instructions contained in this manual.

MASTER 900/1200 CLUTCH CONTROLS AND THROTTLE LEVER







CORRECT MANUAL CLUTCH ENGAGEMENT METHOD

This diagram shows the correct engagement method for the Manual Clutch. The Manual Clutch must be fully engaged at all times during the use of the Trowel.



INCORRECT MANUAL CLUTCH ENGAGEMENT METHOD

This diagram shows the incorrect way to operate the Manual Clutch, as the Clutch Lever is not fully engaged. The Clutch must never be used to control the Blade Speed. Doing this may allow the belt to slip and ultimately burn out the belt.



Service and maintenance

MAINTENANCE

The Paclite MASTER Trowel is designed to give many years of trouble free operation. It is, however, important that the simple regular maintenance listed in this section is carried out. It is recommended that an approved Paclite Equipment dealer carry out all major maintenance and repairs. Always use genuine Paclite replacement parts, the use of spurious parts may void your warranty. Before any maintenance is carried out on the machine, switch off the engine and disconnect the HT lead from the spark plug. Always set the machine on level ground to ensure any fluid levels will be correctly read. Only use recommended oils.

RUNNING IN PERIOD

When the trowel is first used from new, the engine oil must be changed after the initial running in period. (see engine manual for full details).

MACHINE CLEANING

Clean the machine after it has been used to prevent the collection of hardened cement. The blades can usually be cleaned with a high-pressure hose and water while the concrete is still wet. Hard cement/concrete is very difficult to remove. Immediately replace any labels/stickers should you notice that they are worn, missing, or damaged.

CHANGING BLADES



Be careful when changing old blades for new. Due to the way the blades wear, the old blades become very sharp and can cut easily. Wear heavy duty gloves to avoid injury.

BLADES MUST BE REPLACED AS A SET!!!

Rountine r	maintenance	Daily	After first 4 hrs / weekly	First month / 20 hours	Every 3 months / 50 hrs	Every 6 months / 100 hrs
Air Filter	Check condition			•		•
Air Filter	Clean/Replace				•	
Engino Oil	Check level		•			
Engine Oil	Change			•	•	
Cutout Switch	Check	•				
Belt Tension	Check		•		·	
Spark Plug	Check/Clean					•



	Oil/Fuel type & quantity - Spark plug type					
	Oil Type	Quantity (litres)	Fuel Type	Capacity (litres)	Spark plug Type	Electrode Gap
GX100		0.4	Unleaded	0.77	NGK (CR5HSB)	
EX13	SAE	0.6	Petrol /	2.7		0.6-0.7mm
GX160	10W-3	0.6	0.6 Gasolin	2.5	NGK BR-6HS	
EX17		1.1		3.6	כווס-אום	
Gearbox	EP90	Small (0.35) Large (0.6)	N/A			

Note:

- Check the gearbox oil at regular intervals and top-up when necessary. Make sure the oil is at the centre of the sight glass. To find out what grade of oil should be used in the gearbox, please contact the Paclite Equipment Warranty Department on +33 (0) 1 49 56 02 82.
- Grease Spider Arm Assembly prior to storage and at regular intervals.

Trouble shooting

Problems	Possible Causes	Countermeasures		
Engine stops suddenly or does not run.	 No fuel Engine switched off Spark plug fouled Engine cold Engine flooded 	 Open fuel cap, fill fuel tank Switch engine on Clean & reset plug gap Close choke Open choke, fully open throttle & pull recoil starter until engine fires. 		
Disconnected cutout safety switch wir		Reconnect wire		
Leaving swirls in concrete; rolling concrete; bouncing.	Main shaft	When the machine has a rolling motion, check the main shaft of the gearbox for any abnormalities.		
	Spider plate	Check spider plate for bent trowel arms. If one is bent, replace it.		
	Blades	 Check the trowel arms andensure all arms are adjusted equally. Blades should be of the same dimensions and designed to fit the machine. Excessively worn blades should not be used. 		



Technical data

MODEL	•	MASTER-600	MASTER-700	
Dimension (LxWxH)	Folded	700x630x700 (27.6x24.8x27.6)	750x750x700 (29.5x29.5x27.6)	
- mm (in)	Unfolded	1,650x630x1,100 (65X24.8X43.3)	1725x750x1,100 (67.9x29.5x43.3)	
Guard Ring Diamet	er - mm (in)	600 (23.6)	700 (27.6)	
Operating W	eight	56 (123)	70 (154)	
Handle Ty	pe	Foldak	ole	
Gearbox	(Smal	I	
Finishing Blad (LxW) - mm		230x120 (9x4.7)	266x50 (10.5x5.9)	
Max. Blade Pitch	Angle - °	14	15	
No. Of Blac	des	4		
Blade Operating S	peed - rpm	85-138 50-130		
Engine		Honda Gx120 / Robin Ex13		
Engine Type		4-Stroke Gasoline		
Max. Power Output - hp (kW)		Gx120@4(2.9)/Ex13@ 4.3(3.2)		
Max. Engine Speed - rpm		Honda @3,600 / Robin @4,000	Honda @3,600 / Robin @4,000	

MODEL		MASTER-900	MASTER-1200	
Dimension (LxWxH)	Folded	1300x992x827 (51.2x39.1x32.6)	1400x1200x880 (55.1x47.3x34.7)	
- mm (in)	Unfolded	1896x992x1066 (74.7x39.1x42)	1986x1200x1072 (78.2x47.3x34.7)	
Guard Ring Diamet	er - mm (in)	992 (39.4)	1200 (47.2)	
Operating W	eight	77 (170)	95 (209)	
Handle Ty	ре	Foldab	le	
Gearbox	(Heavy-D	Outy	
Finishing Blade Size (LxW) - mm (in)		356x151 (14x16)	458x152 (18x6)	
Max. Blade Pitch	Angle - °	15	15	
No. Of Blades		4		
Blade Operating Speed - rpm		50-150 50-130		
Engine		Honda GX160 / Robin Ex17	Honda GX270 / Robin Ex27	
Engine Type		4-Stroke Gasoline		
Max. Power Output - hp (kW)		GX160@5.5(4) / EX17@6.0(4.2)	GX270 / EX27@9(6.75)	
Max. Engine Speed - rpm		Honda @3,600 / Robin @4,000	Honda @3,600 / Robin @4,000	



Warranty

Your new Paclite MASTER Trowel is warranted to the original purchaser for a period of one-year (12 months) from the original date of purchase.

The Paclite Equipment warranty covers defects in design, materials and workmanship.

The following are not covered under the Paclite Equipment warranty:

- 1. Damage caused by abuse, misuse, dropping or other similar damage caused by or as a result of failure to follow assembly, operation or user maintenance instructions.
- 2. Alterations, additions or repairs carried out by persons other than Paclite Equipment or their recognised agents.
- 3. Transportation or shipment costs to and from Paclite Equipment or their recognised agents, for repair or assessment against a warranty claim, on any machine.
- 4. Materials and/or labour costs to renew, repair or replace components due to fair wear and tear.
- 5. The engine, air filter and the engine spark plug.

Paclite Equipment and/or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in connection with or by reason of or the inability to use the machine for any purpose.

WARRANTY CLAIMS

All warranty claims should firstly be directed to Uni-corp Europe, either by telephone, by fax, by email, or in writing.

FOR WARRANTY CLAIMS:

Uni-corp Europe S.A.R.L. - Paclite Equipment- Z.A.C. les Petits Carreaux

12, avenue des Coquelicots

94385 Bonneuil-sur-Marne France

Tél.: +33 (0) 1 49 56 02 82 Fax: +33 (0) 1 43 99 19 50 Email: sales@paclite-equip.com











