Initial Setup (HP Auto Series)

The initial setup prepares the striper for operation based on a number of user entered parameters. Language selections and the units of measure selections can be set before you start or changed later.

Language

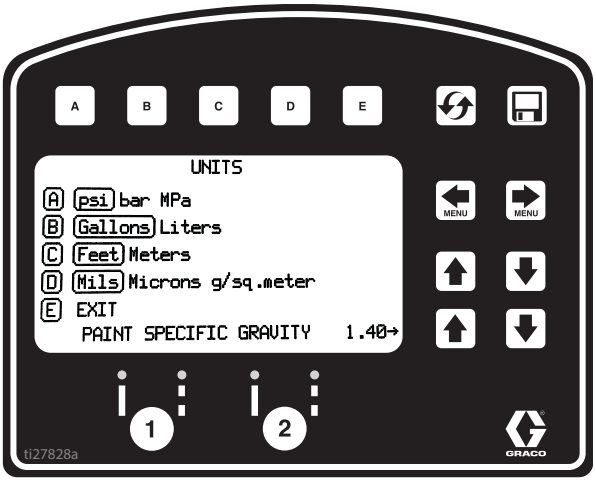
From Setup/Information select appropriate language by pressing D until the language is outlined.

ENG = English
SPA = Spanish
FRE = French
DEU = German
RUS = Russian
WORLD = Symbols see **Data Logging**, page 48**.**

NOTE: Language can be changed later.

Units

Press B to enter settings and then B again to enter units. Select appropriate units of measure.



US Units
- Pressure = psi
- Volume = gallons
- Distance = feet
- Line Thickness = mil

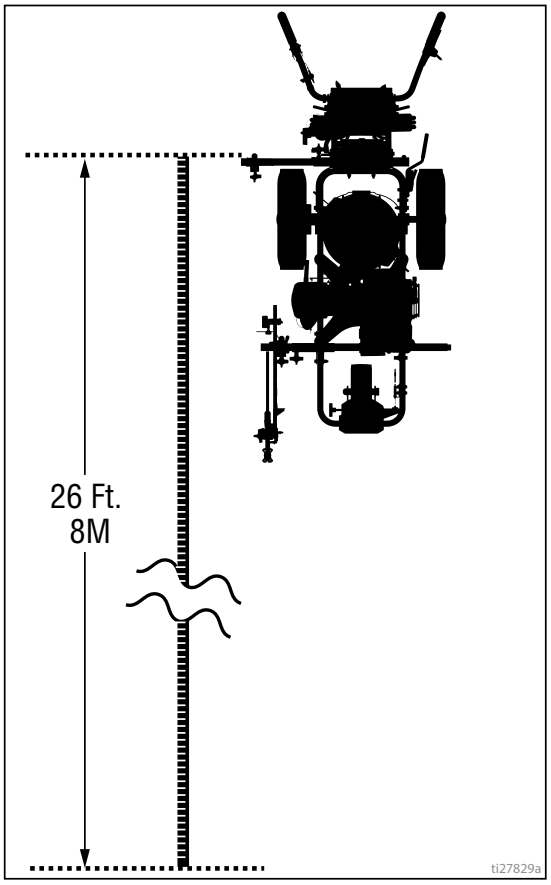
SI Units
- Pressure = bar (MPa available)
- Volume = liters
- Distance = meters
- Line thickness = micron (g/m^2 available)

Paint Specific Gravity = Use UP and DOWN arrows to set specific gravity. Required to determine paint thickness.

NOTE: All units can be changed individually at any time.

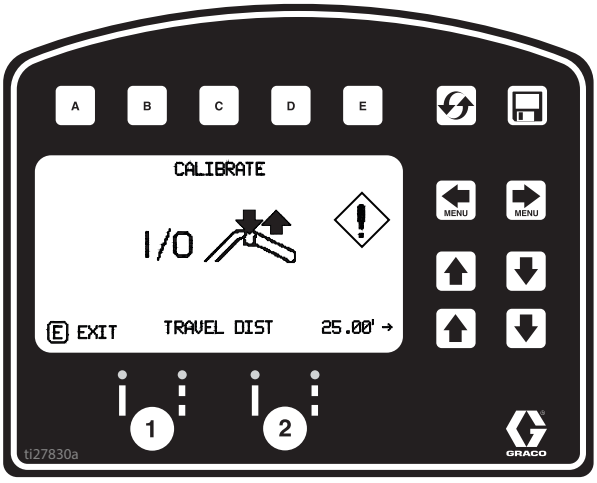
Calibration

1. Check rear tire pressure 55 ± 5 psi (379 ± 34 kpa) and fill if necessary.
2. Extend steel tape to distance greater than 26 ft. (8m).

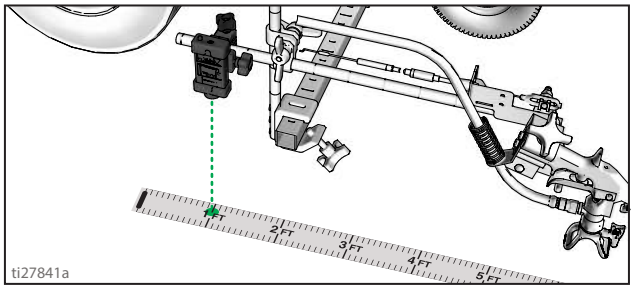


3. Press [◀ MENU] [▶ MENU] to select Setup/Information.

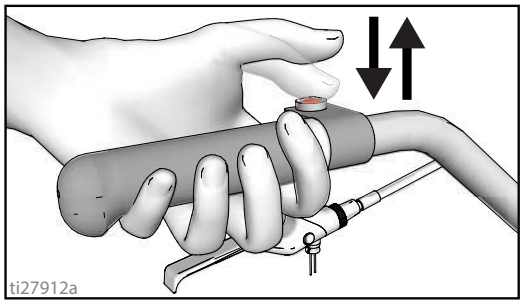
4. Press [A] for Calibration. Set TRAVEL DIST to 25 ft (7.6m) or longer. Longer distances ensure better accuracy, depending on conditions.



5. Turn on laser and align laser dot with 1 foot (30.5cm) on steel tape.

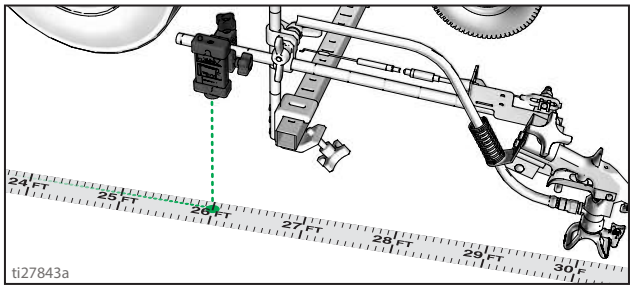


6. Press and release gun trigger control to start calibration.

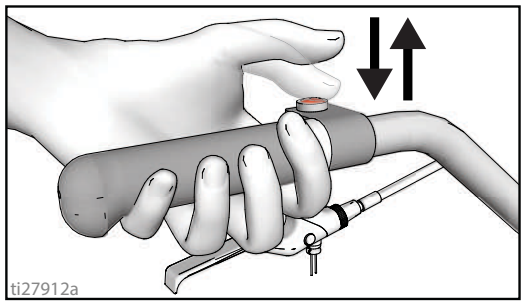


7. Move striper forward. Keep laser dot on steel tape.

8. Stop when laser aligns with 26-ft (8m) or distance entered on steel tape (25-ft./7.6m distance).



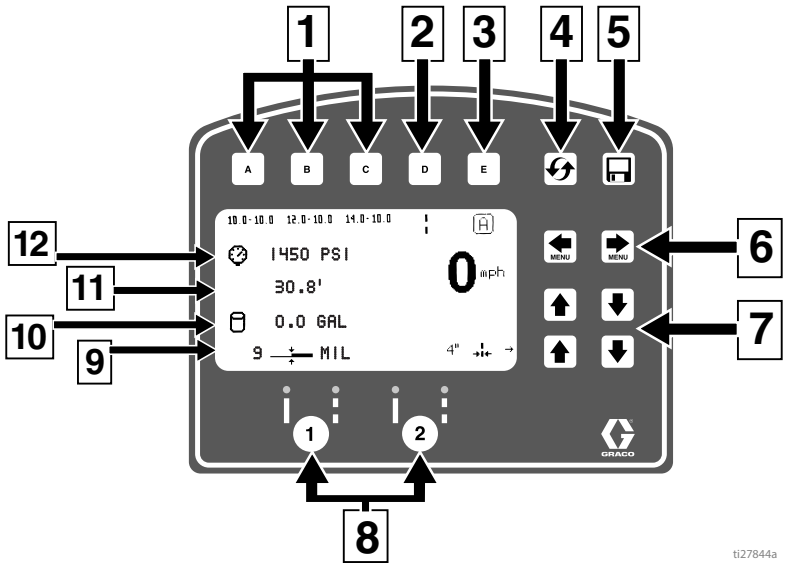
9. Press and release gun trigger control to complete calibration.



- Calibration is not complete when the exclamation symbol ⚠ is displayed.
- Calibration is finished when the check mark symbol ✓ is displayed.

10. Calibration is now complete.

Striping Mode (HP Auto Series)

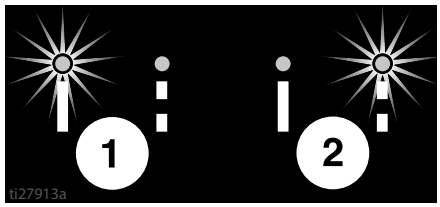


Ref.	Description
1	**Select** a “Favorite”, press for less than one second.
	Save a “Favorite”, press and hold for more than three seconds.
2	Cycles between viewing line width or paint and space value.
3	Cycles between Manual Mode, Semi-Automatic Mode, Automatic Mode.
	Manual Mode [M]**:** Press and hold gun trigger control to stripe.
	Semi-Automatic Mode [S]**:** Press and release gun trigger control to stripe the programmed length one time when in Skip Mode.
	Automatic Mode [A]**:** Press and release gun trigger control to start striping. Press and release button again to stop.
4	Resets trip distance.
5	Job Data Logger, page 48.
6	Scrolls between menu screens.
7	Paint and Space length **OR** line width adjustment buttons.
8	Auto guns activation buttons.
9	MIL thickness. While spraying “Instant MIL avg” is displayed. When stopped total “Job MIL avg” is displayed.
10	Total gallons (liters) sprayed.
11	Total line length sprayed.
12	Pressure

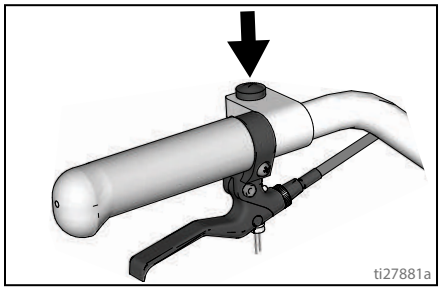
Operating in Striping Mode

Striper must be running before activating gun trigger control.

1. Make sure engine is running.
2. Use gun activation buttons to select guns and line type.



3. Press gun trigger control to begin spraying.

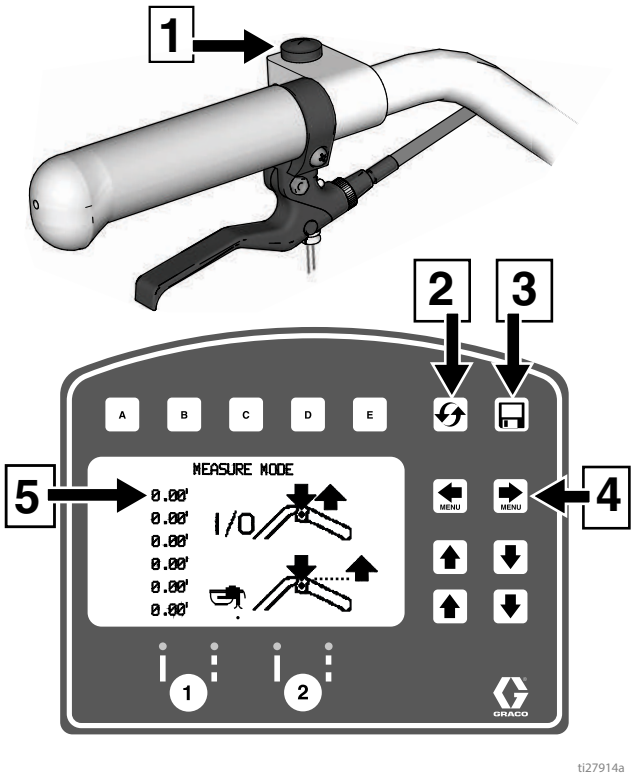


In Automatic Mode or Semi-Automatic Mode the [A] or [S] will flash when gun trigger control is pressed to signal mode is active.

Measure Mode (HP Auto Series)

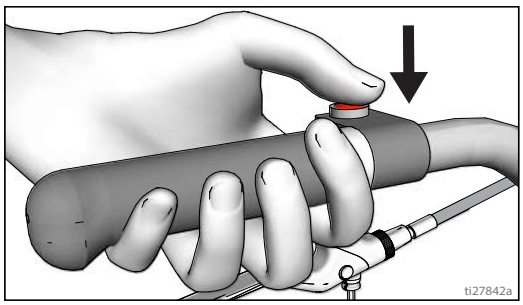
Measure Mode replaces a tape measure to measure distances when laying out an area to be striped.

1. Use MENU MENU to select Measure Mode.



Ref.	Description
1	Press to start measurement, Press to stop measurement.
2	Hold to reset values to zero.
3	Job Data Logger, page 48.
4	Scroll between main menu screens
5	Last measurement taken

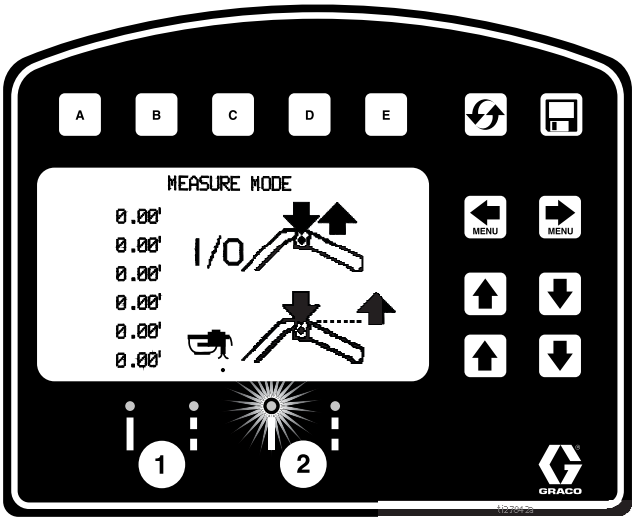
2. Press and release gun trigger control. Move striper forwards or backwards. (Moving backwards is a negative distance.)

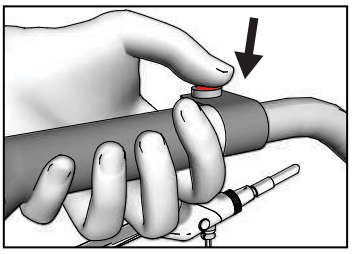


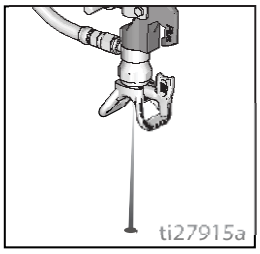
3. Press and release gun trigger control to end measured length. Up to six lengths are viewable.

The most recent measured length is also saved as the measured distance in the Stall Calculator display. See **Stall Calculator**, page 41.

If an auto gun is activated, press and hold gun trigger control at any time to apply a dot. If trigger is held while striper is moving, a dot is marked every 12-inches (30.5cm).



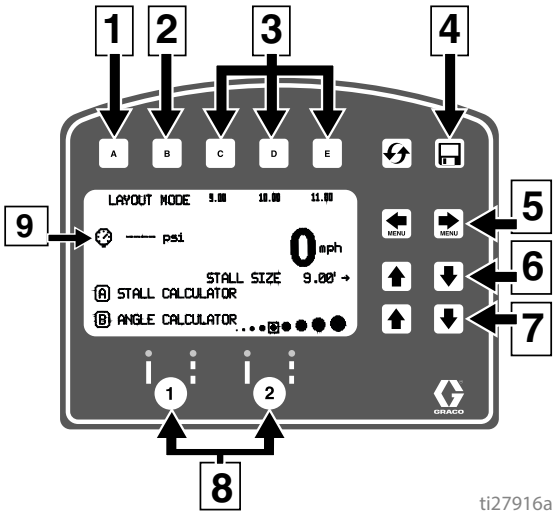




Layout Mode

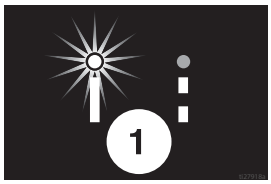
Layout Mode is used to calculate and mark parking lot stalls.

1. Use  to select Layout Mode.

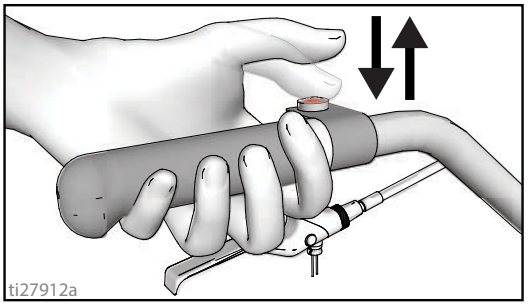


Ref.	Description
1	Opens Stall Calculator Menu. See **Stall Calculator**, page 41.
2	Opens Angle Calculator Menu. See **Angle Calculator**, page 42.
3	**Select** a “Favorite”, press for less than one second.
	Save a “Favorite”, press and hold for more than three seconds.
4	**Job Data Logging**, page 48.
5	Scroll between menu screens.
6	Adjust stall size/dot spacing.
7	Adjust dot size.
8	Auto Gun activation buttons.
9	Pressure.

2. Use gun activation buttons to select guns.



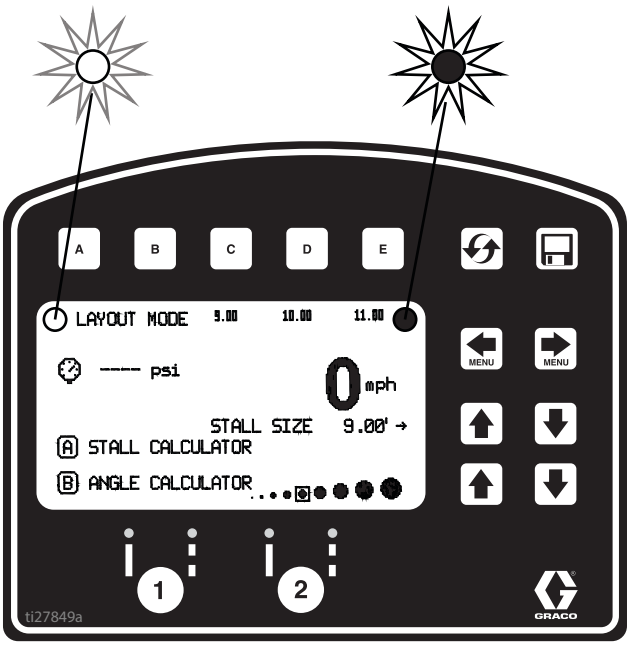
3. Press and release gun trigger control and move striper forward.



4. Striper default is to place a dot every 9.0 ft (2.7m) to mark the stall size. Stall size is adjustable.

5. Dots are laid down until gun trigger control is pressed and released again.

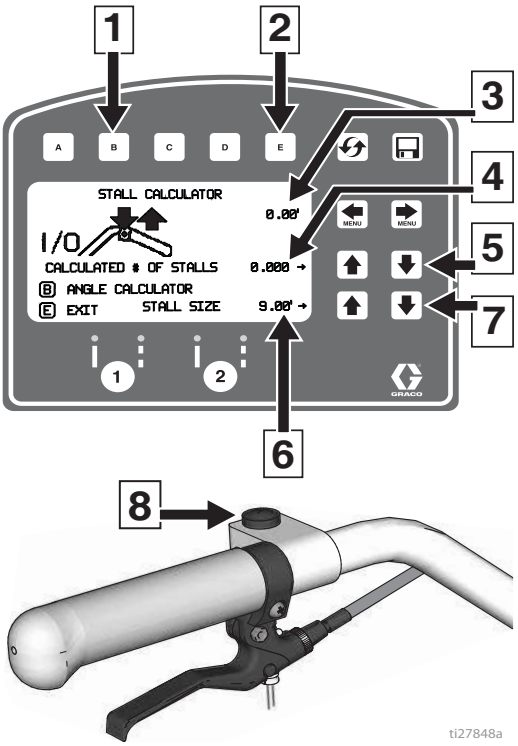
An indicator on the screen alternately flash when gun trigger control is pressed to signal mode is active.



Stall Calculator

Stall Calculator is used to set the stall size. The striper divides the measured length by the stall size to determine the number of stalls that will fit in the length measured. User can adjust number of stalls to a round number and stall width is calculated.

1. Use [◀ MENU] [▶ MENU] to select Layout Mode. Press [A] to open Stall Calculator Menu.

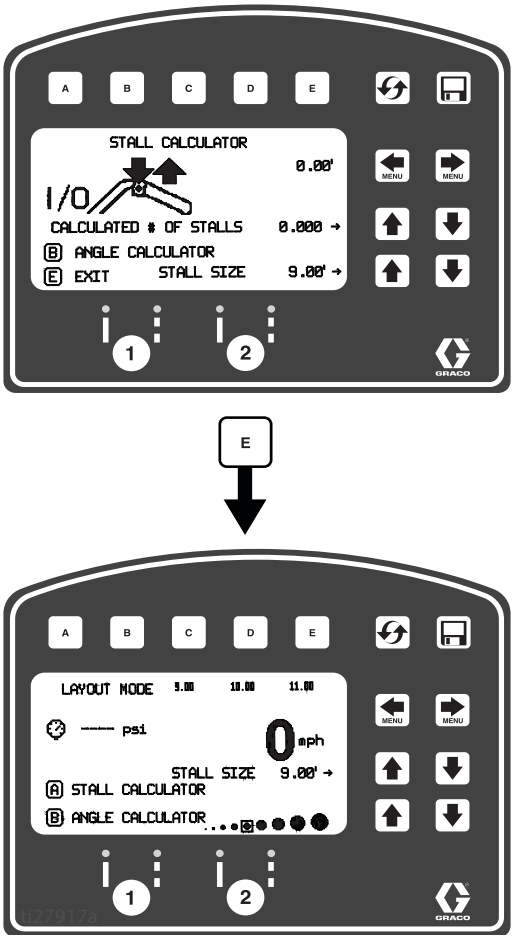


Ref.	Description
1	Opens Angle Calculator Menu. See **Angle Calculator**, page 42.
2	Exits and returns stall size to Layout Mode.
3	Measured distance.
4	Calculated # of stalls. Changing the number of stalls will change the stall size.
5	Adjusts number of stalls.
6	Stall size. Changing stall size changes the calculated # of stalls.
7	Adjusts stall size.
8	Press to start measurement, Press to stop measurement.

2. The most recent length measured in Measure Mode is automatically displayed. Press gun trigger control to start a new measurement. Press again to stop measuring.

   Stall size and calculated number of stalls are both adjustable.

3. Press [E] to return to Layout Mode. The Stall size is saved and displayed on the Layout Mode screen.

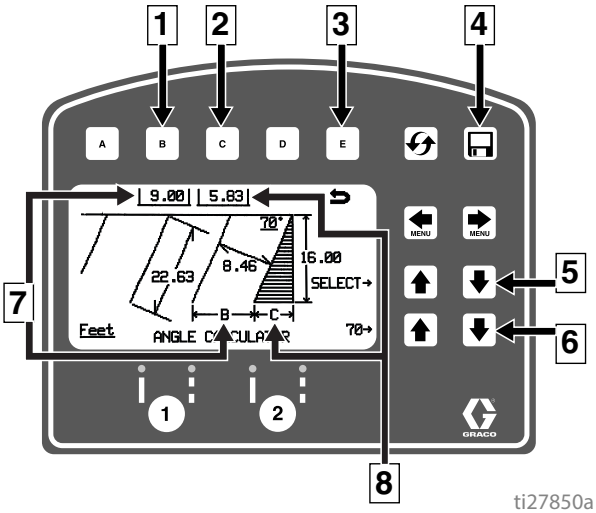


4. Press and release gun trigger control to start marking dots. Press and release gun trigger control again to stop.

Angle Calculator

Angle Calculator is used to determine the offset value and dot spacing value for a layout.

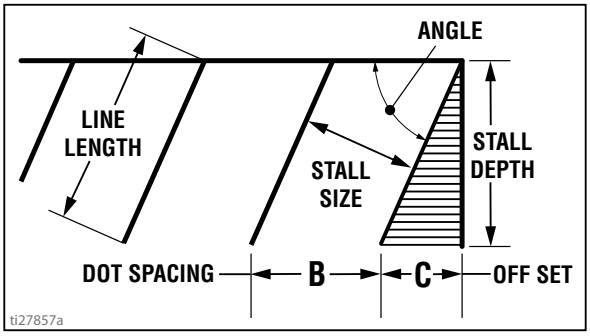
1. Use MENU MENU to select Layout Mode. Press B to open Angle Calculator Menu.



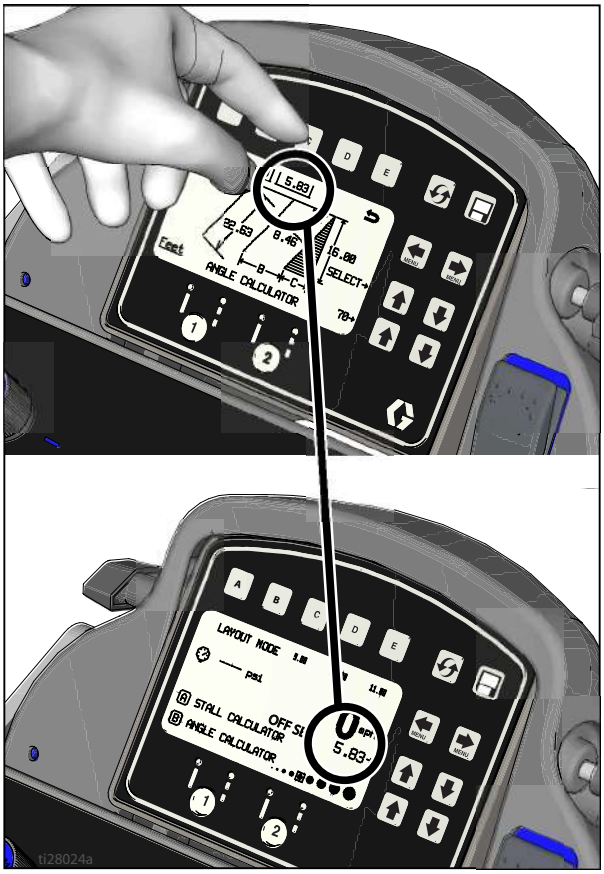
Ref.	Description
1	Transfers calculated dot spacing, B, to Layout Mode.
2	Transfers calculated off set, C, to Layout Mode.
3	Exits and returns to Layout Mode without transferring any values.
4	Data Logging.
5	Select input variables.
6	Adjust the variable selected.
7	Calculated dot spacing, B.
8	Calculated off set, C.

2. Dot spacing (B) and offset (C) are calculated based on the parameters entered:

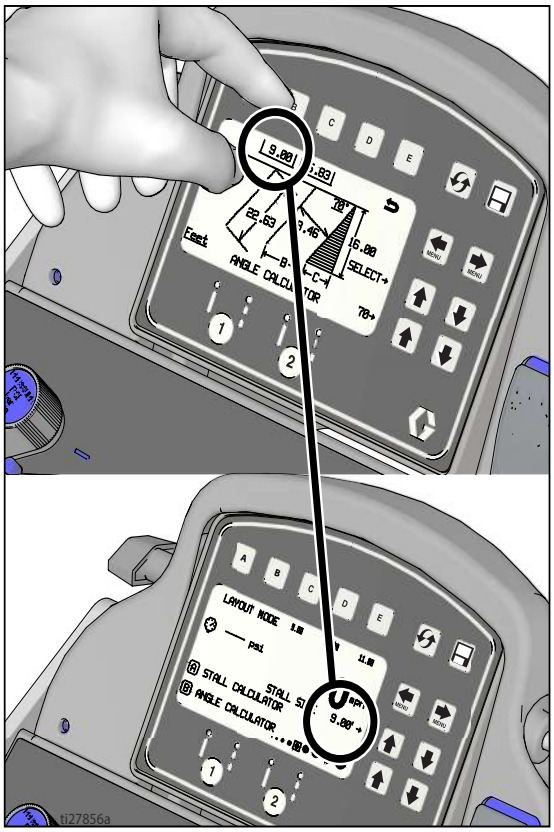
   Stall angle
   Stall depth
   Stall size (width)
   Line Length



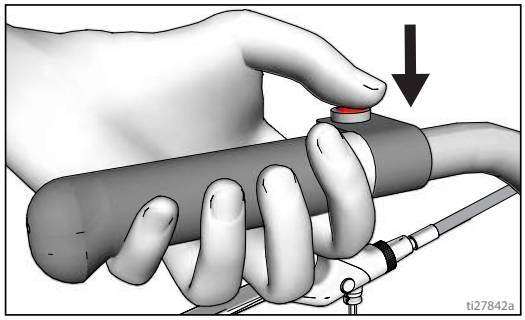
3. Press C to transfer calculated off set distance to Layout Mode. Save this value in favorites if desired.



4. Press [B] to transfer calculated dot spacing distance to Layout Mode. Save this value in favorites if desired.

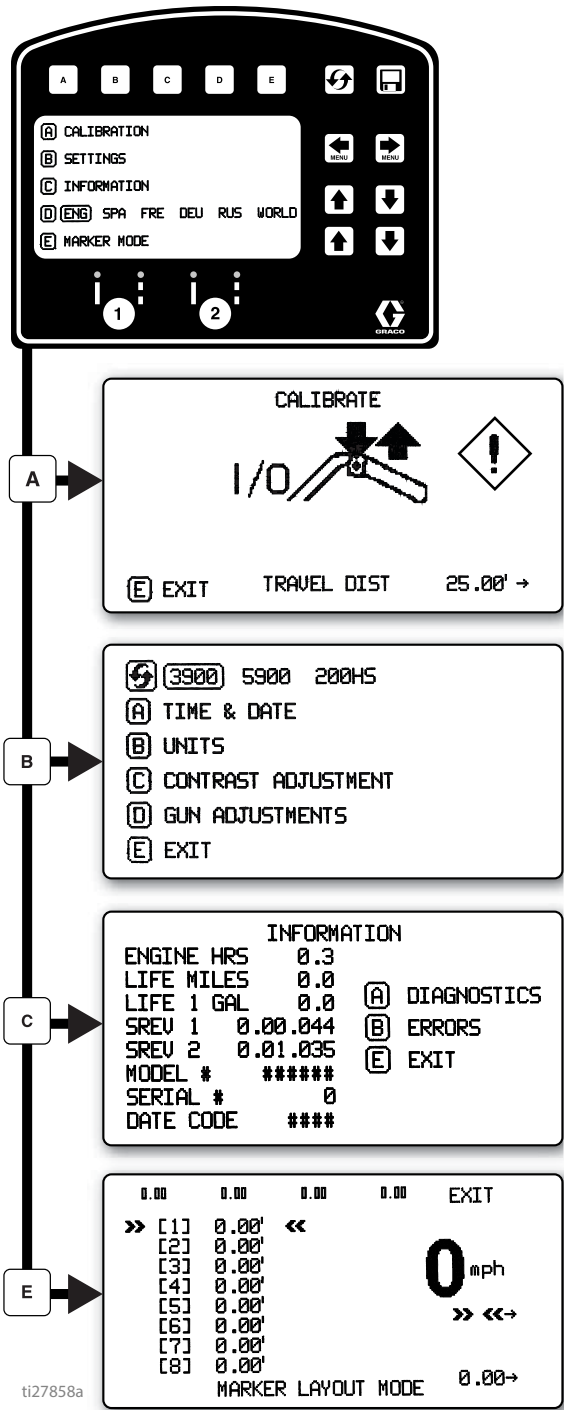


5. Press and release gun trigger control to start marking stall size dots. Press and release gun trigger control to stop marking.



Setup/Information

Use MENU MENU to select Setup/Information.



Press D to select Language.
See **Language**, page 36.

See **Measure Mode (HP Auto Series)**, page 39.

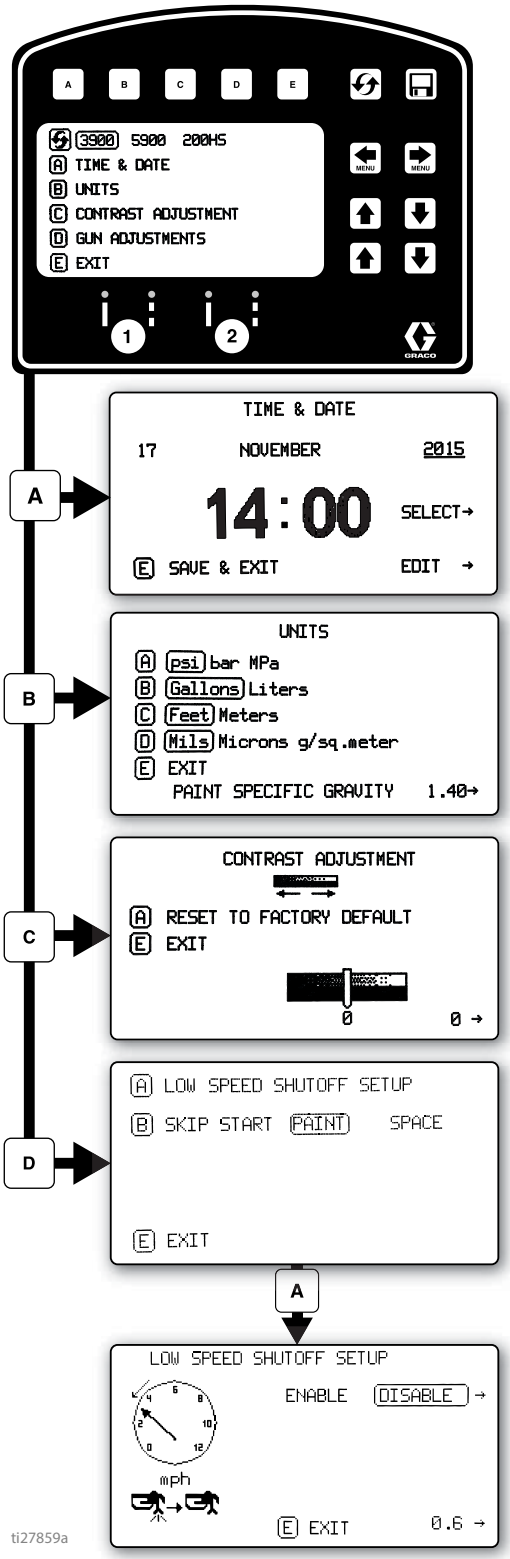
See **Settings**, page 45.

See **Information**, page 46.

See **Marker Layout Mode**, page 47.

Settings

Use [MENU] [MENU] to select Setup/Information. Press [B] to open Settings Menu.



[GRACO] Chooses the machine type. Necessary for accurate gallon counting.

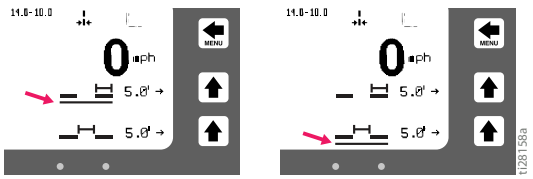
Use [▲▼] to set time and date. Needed for accurate Data Logging.

Set units with [A] [B] [C] [D]

Use [▲▼] to adjust screen contrast to the desired value.

For programmed skip lines, press [B] to choose:

Paint first **or** **Space first**



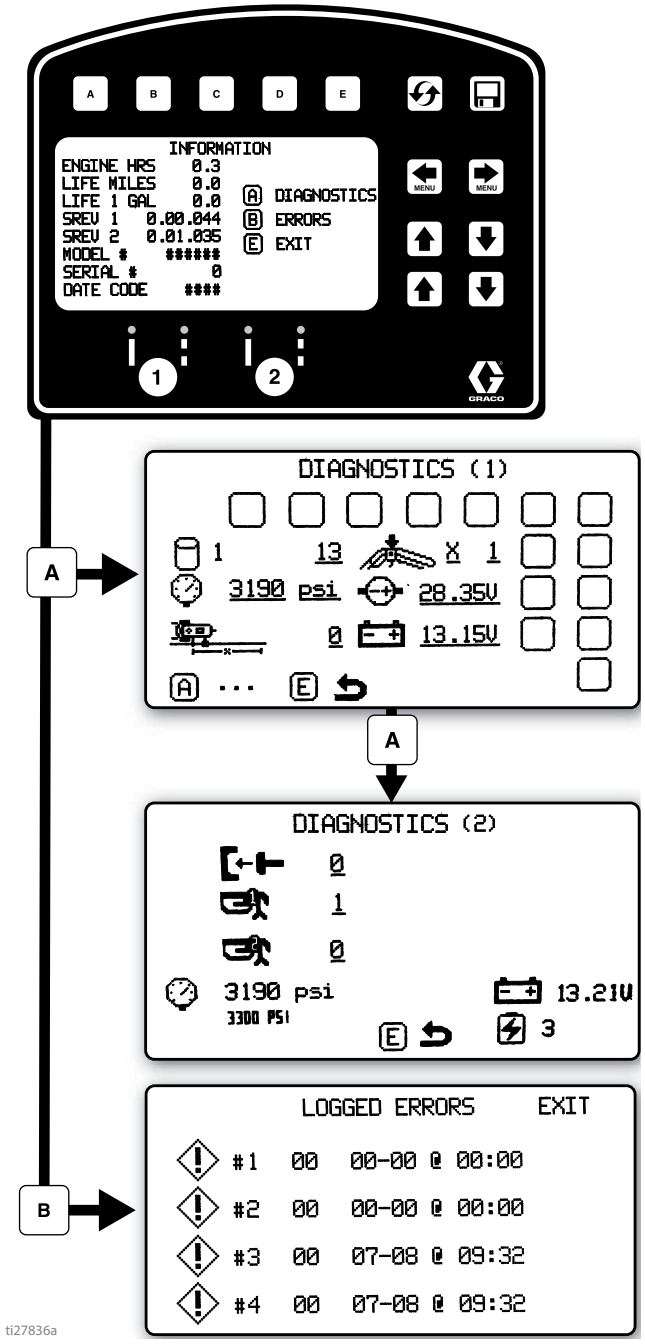
In Auto-mode, guns won't fire or will shut off if speed is below set value.

[MENU] [MENU] Enable or Disable Low Speed Shutoff

[▲▼] Adjust low speed setting.

Information

Use [MENU] [MENU] to select Setup/Information. Press [C] to open Information Menu.



Displays and logs life data and striper information.

View and test functionality of component

- Stroke Counter
- Touch Pad Buttons
- Pressure Transducer
- Engine Voltage
- Distance Sensor
- Battery Voltage

- Clutch
- Solenoid 1
- Solenoid 2
- Battery charger state

Logs last four error codes that occurred.

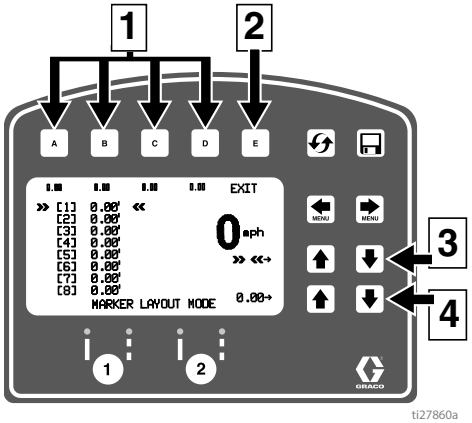
Code Description
02 = Over pressure
03 = No transducer detected

Reset error codes

Marker Layout Mode

The Marker Layout Mode feature sprays a dot or a series of dots to mark an area.

1. Use MENU MENU to select Setup/Information. Press E to open Marker Layout Mode.



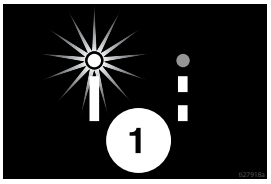
Ref.	Description
1	**Select** a “Favorite”, press for less than one second.
	Save a “Favorite”, press and hold for more than three seconds.
2	Exits and returns to Information Menu.
3	Select value to change.
4	Adjust spacing value.

2. Use arrow keys to set up a marker pattern.

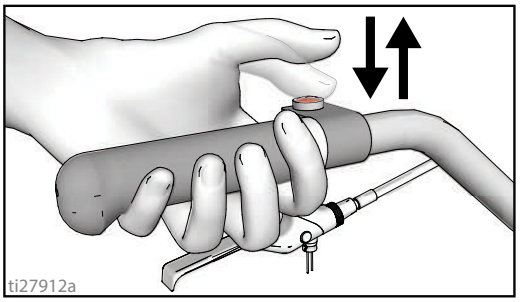
3. Marker layout example shows a typical lane layout for reflective markers. Set space sizes up to eight consecutive measurements. By leaving zeros in any space, Marker Layout Mode will skip to the next measurement in a continuous loop.

   Some other uses of Marker Layout Mode are:
   - Multiple spaced handicap stall layout
   - Double line stalls

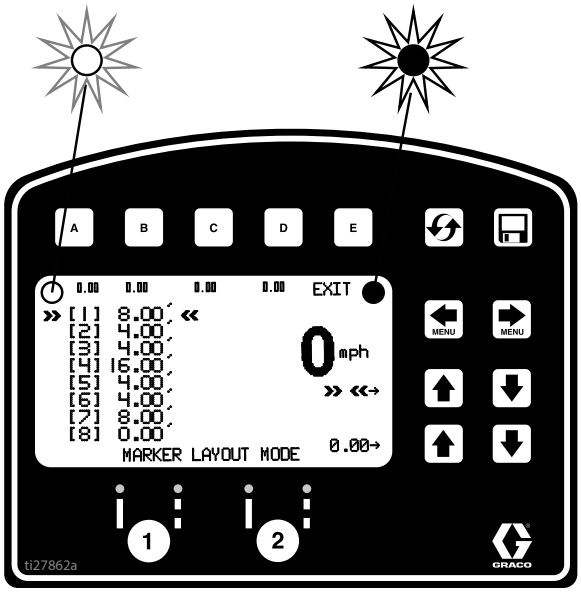
4. Set gun switch to skip line or solid line.

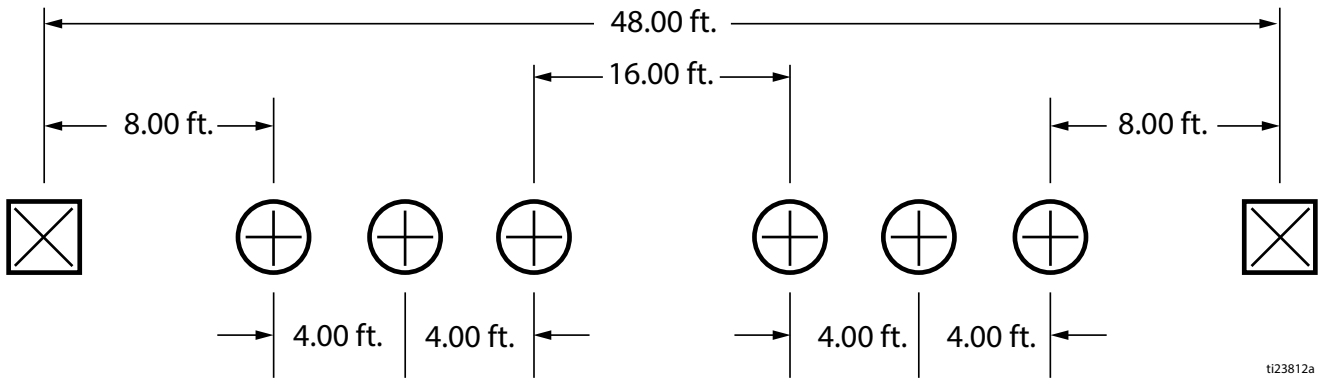


5. Press and release gun trigger control to start marking dots. Press and release gun trigger control again to stop.



An indicator before and after Marker Mode on the screen alternately flash when gun trigger control is pressed to signal mode is active.

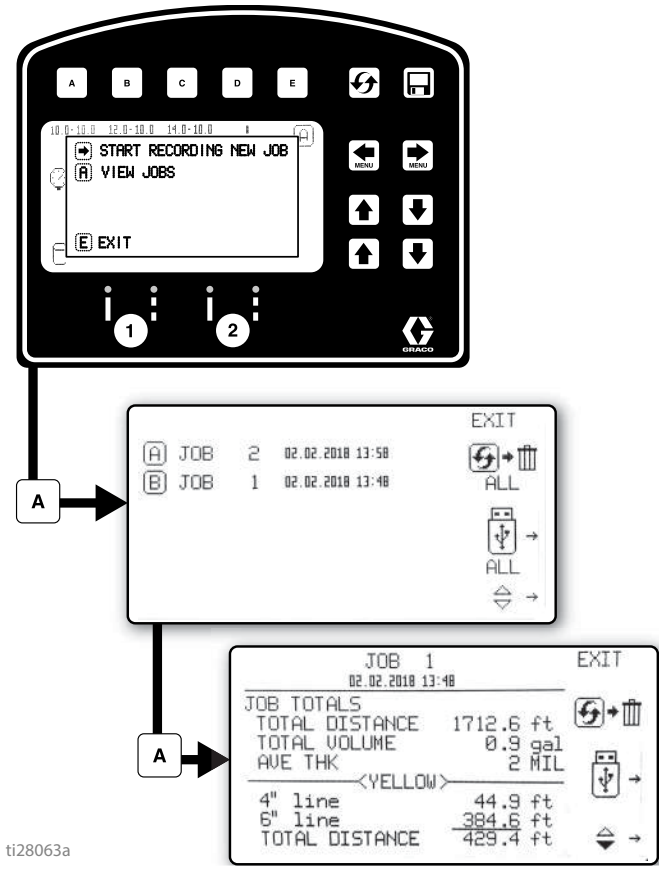




Data Logging

The LLV control is equipped with Data Logging, which allows the user to recall job data and export the data from the machine to a USB drive.

1. Press the to open the Data Logging pop up window.
2. Choose to start recording a new job or view jobs previously done.



Start recording a new job.

Erase all jobs

Export all jobs to USB

Erase jobs

Export job to USB

Job data is compiled while spraying. A summary of volume sprayed, distance sprayed and average mil thickness is displayed for the entire job. The job is also broken down by colors, line widths and stencil volume sprayed.

Maintenance

LineLazer V 3900, 5900

Periodic Maintenance

DAILY: Check engine oil level and fill as necessary.

DAILY: Check hose for wear and damage.

DAILY: Check gun safety for proper operation.

DAILY: Check pressure drain valve for proper operation.

DAILY: Check and fill gas tank.

DAILY: Verify calibration.

AFTER THE FIRST 20 HOURS OF OPERATION: Drain engine oil and refill with clean oil. Reference Honda Engines Owner's Manual for correct oil viscosity.

WEEKLY: Remove air filter cover and clean element. Replace element, if necessary. If operating in an unusually dusty environment: check filter daily and replace, if necessary.

Replacement elements can be purchased from your local HONDA dealer.

WEEKLY: Check level of TSL in displacement pump packing nut. Fill nut, if necessary. Keep TSL in nut to help prevent fluid buildup on piston rod and premature wear of packings.

AFTER EACH 100 HOURS OF OPERATION: Change engine oil. Reference Honda Engines Owner's Manual for correct oil viscosity.

SPARK PLUG: Use only BPR6ES (NGK) or W20EPR-U (NIPPONDENSO) plug. Gap plug to 0.028 to 0.031 in. (0.7 to 0.8 mm). Use spark plug wrench when installing and removing plug.

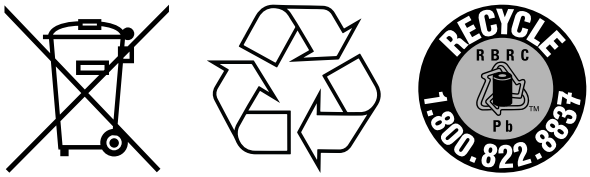
Caster Wheel

1. Once each year, tighten nut under dust cap until spring washer bottoms out, then back off the nut 1/2 to 3/4 turn.
2. Once each month, grease the wheel bearing.
3. Check pin for wear. If pin is worn out, there will be play in the caster wheel. Reverse or replace the pin as needed.
4. Check caster wheel alignment as necessary. To align; page 22.

Recycling and Disposal

Rechargeable Battery Disposal

Do not place batteries in the trash. Recycle batteries according to local regulations. In the USA and Canada, call 1-800-822-8837 to find recycling locations or go to www.call2recycle.org.



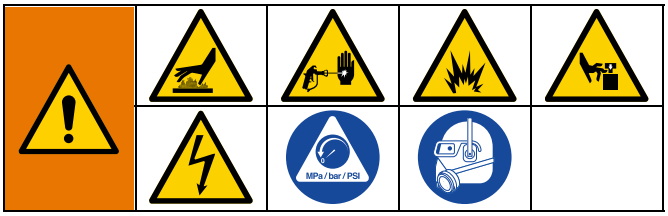
End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the **Pressure Relief Procedure**, page 12.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove motors, batteries, circuit boards, LCDs (liquid crystal displays), and other electronic components. Recycle according to applicable regulations.
- Do not dispose of batteries or electronic components with household or commercial waste.

  
- Deliver remaining product to a recycling facility.

Troubleshooting



Problem	Cause	Solution
Engine won't start	Engine switch is OFF.	Turn engine switch ON.
	Engine is out of gas.	Refill gas tank. Honda Engines Owner's Manual.
	Engine oil level is low	Try to start engine. Replenish oil, if necessary. Honda Engine Owner's Manual.
	Spark plug cable is disconnected or damaged.	Connect spark plug cable or replace spark plug.
	Cold engine.	Use choke.
	Fuel shutoff lever is OFF.	Move lever to ON position.
	Oil is seeping into combustion chamber.	Remove spark plug. Pull starter 3 to 4 times. Clean or replace spark plug. Start engine. Keep sprayer upright to avoid oil seepage.
Engine operates, but displacement pump does not operate.	Error code displayed?	Reference error codes. Page 33.
	Pump switch is OFF.	Turn pump switch ON.
	Pressure setting is too low.	Turn pressure adjusting knob clockwise to increase pressure.
	Fluid filter is dirty.	Clean filter. Page 24.
	Tip or tip filter is clogged.	Clean tip or tip filter. See spray gun manual.
	Displacement pump piston rod is stuck due to dried paint.	Repair pump. See pump manual.
	Connecting rod is worn or damaged.	Replace connecting rod.
	Drive housing is worn or damaged.	Replace drive housing.
	Electrical power is not energizing clutch field.	Check wiring connections. Pages 59-62. Reference wiring diagram. Pages 59-62. With pump switch ON and pressure turned to MAXIMUM, use a test light to check for power between clutch test points on control board. Disconnect clutch wires from control board and measure resistance across clutch coil. At 70° F, the resistance must be between 1.2+0.2 ohms (LineLazer V 3900); 1.7+0.2 ohms (LineLazer 5900); if not, replace pinion housing. Have pressure control checked by authorized Graco dealer.
	Clutch is worn, damaged, or incorrectly positioned.	Replace clutch. Page 57.
	Pinion assembly is worn or damaged.	Repair or replace pinion assembly.

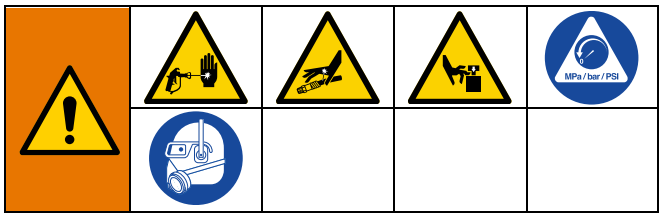
Problem	Cause	Solution
Pump output is low.	Strainer is clogged.	Clean strainer.
	Piston ball is not seating.	Service piston ball. See pump manual.
	Piston packings are worn or damaged.	Replace packings. See pump manual.
	O-ring in pump is worn or damaged.	Replace o-ring. See pump manual.
	Intake valve ball is not seating properly.	Clean intake valve. See pump manual.
	Intake valve ball is packed with material.	Clean intake valve. See pump manual.
	Engine speed is too low.	Increase throttle setting. See operation manual.
	Clutch is worn or damaged.	Replace clutch. Page 57.
	Pressure setting is too low.	Increase pressure. See operation manual.
	Fluid filter (11), tip filter or tip is clogged or dirty.	Clean filter. See operation or spray gun manual.
	Large pressure drop in hose with heavy materials.	Use larger diameter hose and/or reduce overall length of hose. Use of more than 100 ft of 1/4 in. hose significantly reduces performance of sprayer. Use 3/8 in. hose for optimum performance (50 ft. minimum).
Excessive paint leakage into throat packing nut.	Throat packing nut is loose.	Remove throat packing nut spacer. Tighten throat packing nut just enough to stop leakage.
	Throat packings are worn or damaged.	Replace packings. See pump manual.
	Displacement rod is worn or damaged.	Replace rod. See pump manual.
Fluid is spitting from gun.	Air in pump or hose.	Check and tighten all fluid connections. Reprime pump. See Operation manual.
	Tip is partially clogged.	Clear tip. See spray gun manual.
	Fluid supply is low or empty.	Refill fluid supply. Prime pump. See operation manual. Check fluid supply often to prevent running pump dry.
Pump is difficult to prime.	Air in pump or hose.	Check and tighten all fluid connections. Reduce engine speed cycle pump as slowly as possible during priming.
	Intake valve is leaking.	Clean intake valve. Be sure ball seat is not nicked or worn and that ball seats well. Reassemble valve.
	Pump packings are worn.	Replace pump packings. See pump manual.
	Paint is too thick.	Thin the paint according to supplier’s recommendations.
	Engine speed is too high.	Decrease throttle setting before priming pump. See operation manual.
Clutch squeaks each time clutch engages.	Clutch surfaces are not matches to each other when new and may cause noise.	Clutch surfaces need to wear into each other. Noise will dissipate after a day of run time.
High engine speed at no load.	Mis-adjusted throttle setting.	Reset throttle to 3600 engine rpm at no load.
	Worn engine governor.	Replace or service engine governor.

Problem	Cause	Solution
Gallon (liter) counter not adding fluid volume.	Fluid pressure not high enough.	Must be over 800 psi (55 bar) for counter to add.
	Broken or disconnected pump counter wire, both pumps.	Check wires and connections. Replace any broken wires
	Missing or damaged magnet.	Reposition or replace magnet on pump, see Parts manual (Pump parts) for magnet location.
	Bad sensor, both pumps.	Replace sensor.
Sprayer operates, but display does not.	Bad connection between control board and display.	Remove display and reconnect.
	Display damaged.	Replace display.
Distance not adding properly (Measure mode will be inaccurate and speed will be wrong).	Machine not calibrated.	Perform calibration procedure. See Operation manual.
	Rear tire pressure is too low or too high.	Adjust tire pressure to 55 +/- 5 psi (380 +/- 34kPa).
	Gear teeth missing or damaged (right side when standing on platform).	Replace distance gear/wheel hub.
	Distance sensor is loose or broken.	Reconnect or replace sensor.
Mils not calculating or calculates wrong.	Distance sensor.	See “Distance counter not operating properly”.
	Gallon counter.	See “Gallon (liter) counter not adding fluid volume.”
	Line width not entered.	Set line width on main striping screen.
	Bad or damaged control board.	Replace control board.
Fluid spray starts after spray icon is shown on display.	Interrupter.	Turn screw counterclockwise until spray icon synchronizes with fluid spray, page 20.
Spray icon does not show on display when fluid is sprayed.	Loose connector.	Check connector and reconnect.
	Interrupter is improperly positioned.	Turn screw counterclockwise until spray icon synchronizes with fluid spray, page 20.
	Reed switch assembly is damaged.	Replace reed switch assembly.
	Magnet on assembly is missing.	Replace reed switch assembly.
	Cut or sliced wire.	Replace distance sensor harness.
	Control board is damaged.	Replace control board.
	Display is damaged.	Replace display.
Spray icon is always shown on display.	Interrupter is improperly positioned.	Turn screw clockwise until spray icon is synchronized with fluid spray, page 20.
	Reed switch assembly is damaged.	Replace reed switch assembly.

Problem	Cause	Solution
AUTO GUN MODE		
Auto Gun won't actuate when the red button is pressed.	Gun is not activated.	Press the 1 or 2 button on control to activate a gun.
	Cable is not adjusted properly.	Adjust Cable to properly actuate gun trigger, page 21.
	Not on main striping screen.	Go to main striping screen on control to Actuate Auto Guns.
	Low Speed Shut off is enabled.	Disable Low Speed Shutoff, see page 43.
	Battery Voltage is too low.	Check battery voltage on Diagnostic Screen, page 33, or with Volt meter. If below 11.5V, charge battery or replace battery.
	Cable is not adjusted properly.	Adjust Cable to properly actuate gun trigger, page 21.
	Red button is broken.	Test button functionality in Diagnostic screen. page 33, replace if broken.
	Auto Gun Cable is broken or extremely kinked resulting in too much drag.	Replace Auto Gun Cable.
	Solenoid wire is disconnected or broke.	Check Wiring Diagram, pages 59-62, repair or replace wires if necessary.
	Fuse to battery is removed or blown.	Check and replace fuse.
	Solenoid is jammed.	Spray Lubrication on solenoid plunger.
	Solenoid is failed.	Check resistance across solenoid wires. Resistance should be between .2 and .26 ohms. If it's not, replace solenoid.
	Control board is failed.	Replace Control board.
Line Spacing is not accurate	Wrong line pattern loaded.	Reload the correct pattern.
	Machine is out of calibration.	Calibrate the machine, page 39.
Battery won't stay charged.	Accessories are left on and drain the battery when unit is not running.	Turn off accessories when machine is not in use.
	Throttle is not set high enough.	Make sure engine is being ran above 3300 rpm NO LOAD for proper power supply.
	Power consumption from accessories is higher than engine output.	Reduce accessories or charge battery when necessary.
	Wiring is broken or disconnected.	Check Wiring Diagram, pages 59-62, repair or replace wires if necessary.
	Charger is not working.	Check Charging state in diagnostics, page 33, to see if charger is properly working. Replace Board.
Auto Gun won't shut off	Cable is kinked.	Repair or replace cable.
	Solenoid is jammed.	Lubricate solenoid plunger, Check for solenoid damage.
	Needle in gun is clogged.	Clean out gun.

Problem	Cause	Solution
LAYOUT MODE		
No dots or poor dots in Layout and Marking Mode.	Too small of Dot setting.	Increase Dot size, page 41.
	Gun is not activated.	Press the 1 or 2 button on control to activate a gun.
	Cable is not adjusted properly.	Adjust Cable to properly actuate gun trigger, page 21.
	Tip clog.	Clear tip or Replace tip.
	Battery voltage is too low.	Charge battery or replace battery.
	Pump is not on, or pressure is not set.	Turn on pump and increase pressure to a minimum of 200 psi.

Fluid Pump Runs Constantly



1. Perform **Pressure Relief Procedure**, page 12, turn prime valve forward to SPRAY position, and turn power switch OFF.
2. Remove control box over.

Troubleshooting Procedure:

With a pressure gauge plumbed into the paint hose, start the engine. Turn pump switch ON. Does sprayer exceed maximum pressure?

NO → Pump or Pressure Relief valve problem. See the proper fluid pump manual for the sprayer for further troubleshooting procedures.

YES

Disconnect clutch wires from control board (see diagram, pages 59-62). Does the pump stop running?

NO → Mechanical problem in the clutch pinion assembly (clutch may be too close to the rotor).

YES

Make sure clutch wires are plugged in (see diagram, pages 59-62). Do the clutch test points read 10-18 DC volts?

NO → Check for a short from the two clutch wires to the frame. If shorted, repair or replace faulty wire.

YES

Unplug transducer from control board. Does the pump stop running?

NO → Replace the control board.

YES

Bad transducer.
Replace and test with a new one.

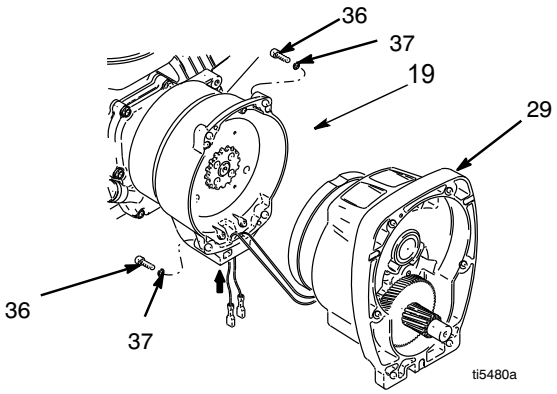
Pinion Assembly/Clutch Armature/Clamp

Pinion Assembly/Clutch Armature Removal

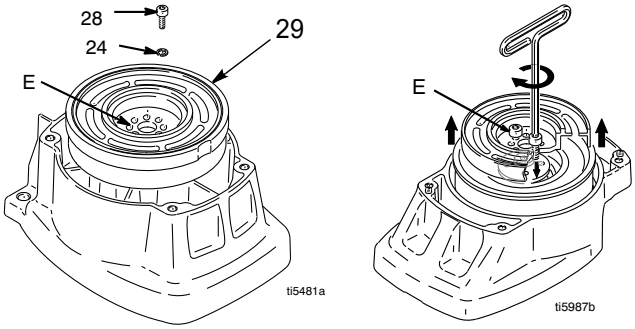
Pinion Assembly

If pinion assembly (29) is not removed from clutch housing (19), do 1. through 3. Otherwise, start at 4.

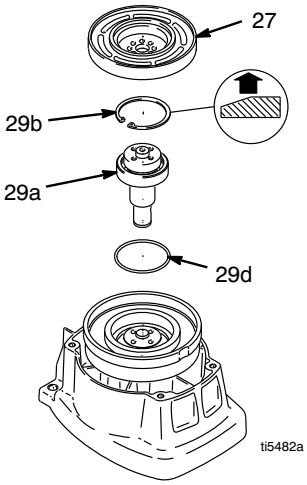
1. Remove drive housing.
2. Disconnect clutch cable connectors from inside of pressure control.
   a. Remove two screws (71) and swing down cover (130a).
   b. Disconnect engine leads from board to engine.
   c. Remove strain reliefs 130r and 123.
3. Remove four screws (36) and pinion assembly (29).



4. Place pinion assembly (29) on bench with rotor side up.
5. Remove four screws (28) and lock washers (24). Install two screws in threaded holes (E) in rotor. Alternately tighten screws until rotor comes off.

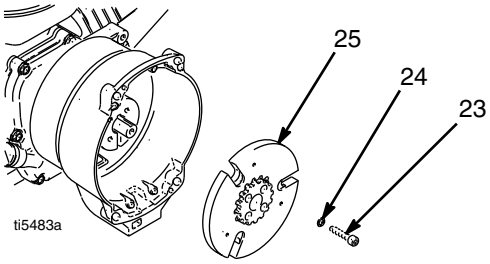


6. Remove retaining ring (29b).
7. Turn pinion assembly over and tap pinion shaft (29a) out with plastic mallet.



Clutch Armature

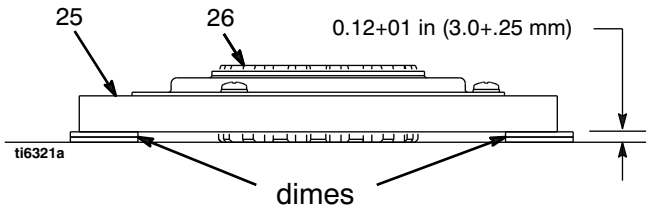
8. Use an impact wrench or wedge something between clutch armature (25) and clutch housing to hold engine shaft during removal.
9. Remove four screws (23) and lock washers (24).
10. Remove armature.



Installation

Clutch Armature

1. Lay two stacks of two dimes on smooth bench surface.
2. Lay armature (25) on two stacks of dimes.
3. Press center of hub (26) down to bench surface.



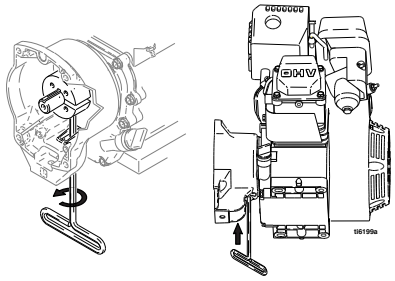
4. Install armature (25) on engine drive shaft.
5. Install four screws (23) and lock washers (24) with torque of 125 in-lb.

Pinion Assembly

1. Check o-ring (29d) and replace if missing or damaged.
2. Tap pinion shaft (29a) in with plastic mallet.
3. Install retaining ring (29b) with beveled side facing up.
4. Place pinion assembly on bench with rotor side up.
5. Apply thread sealant to screws. Install four screws (28) and lock washers (24). Alternately torque screws to 125 in-lb until rotor is secure. Use threaded holes to hold rotor.
6. Install pinion assembly (29) with four screws (36) and washers (37).
7. Connect clutch cable connectors to inside of pressure control.

Clamp Removal

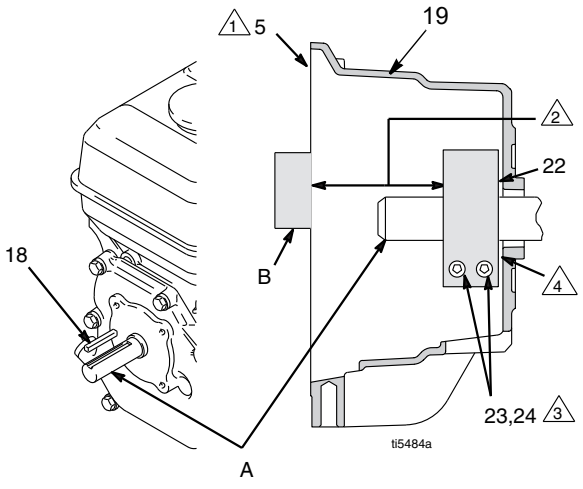
1. Remove engine.
2. Drain gasoline from tank according to Honda manual.
3. Tip engine on side so gas tank is down and air cleaner is up.
4. Loosen two screws (24) on clamp (22),
5. Push screwdriver into slot in clamp (22) and remove clamp.



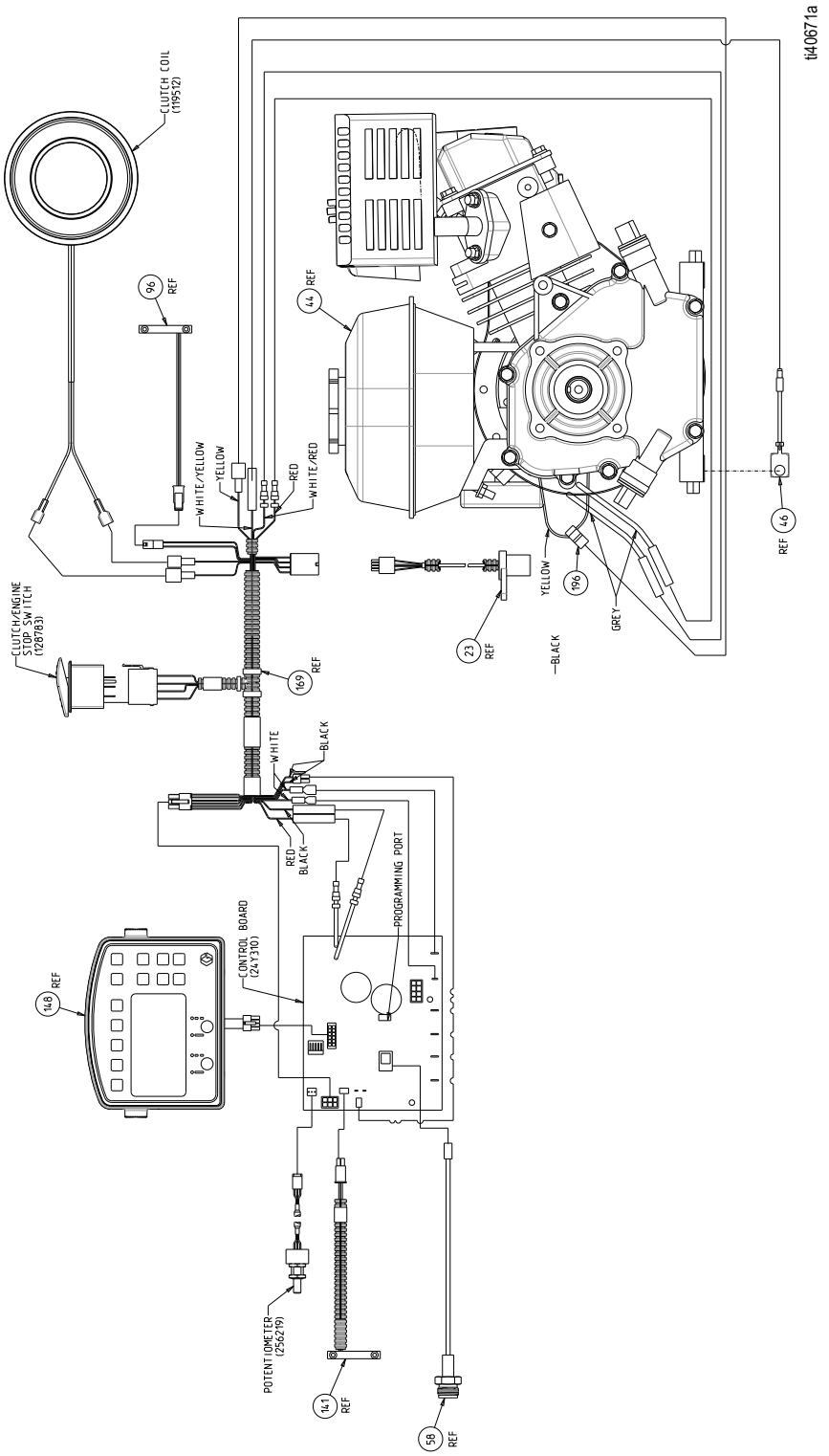
Clamp Installation

1. Install engine shaft key (18).
2. Tap clamp (22) onto engine shaft (A). Maintain dimension shown note 2. Chamfer must face engine.
3. Check dimension: Place rigid, straight steel bar (B) across face of clutch housing (19). Use accurate measuring device to measure distance between bar and face of clamp. Adjust clamp as necessary. Torque two screws (24) to 125 ±10 in-lb (14 ±1.1 N•m).

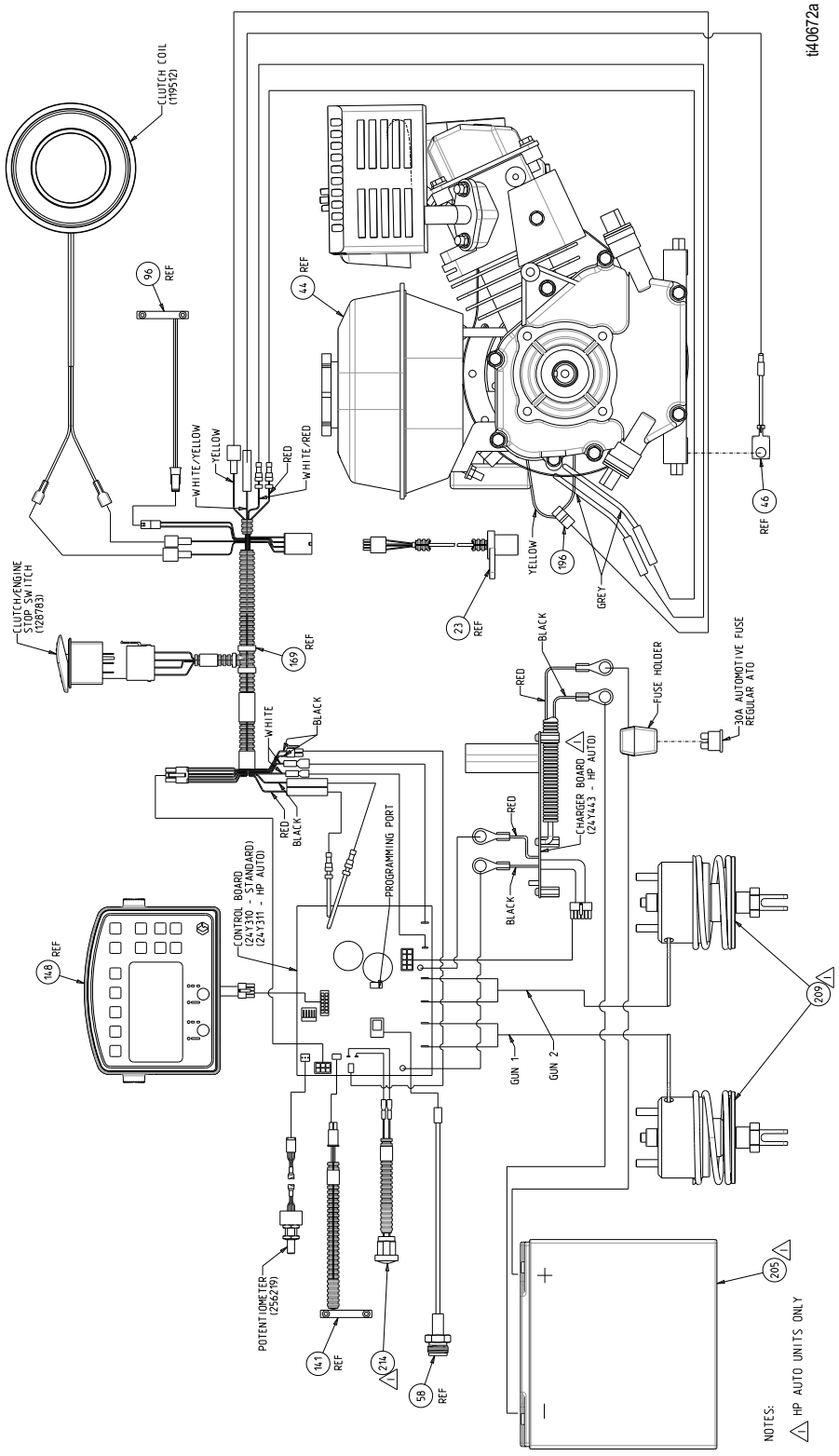
1. Face of clutch housing
2. 1.550 ± .010 in. (39.37 ± .25 mm) - LLV 3900
   2.612 ± .010 in. (66.34 ± .25 mm) - LLV 5900
3. Torque to 125 ±.10 in-lb (14 ±1.1 N•m)
4. Chamfer this side



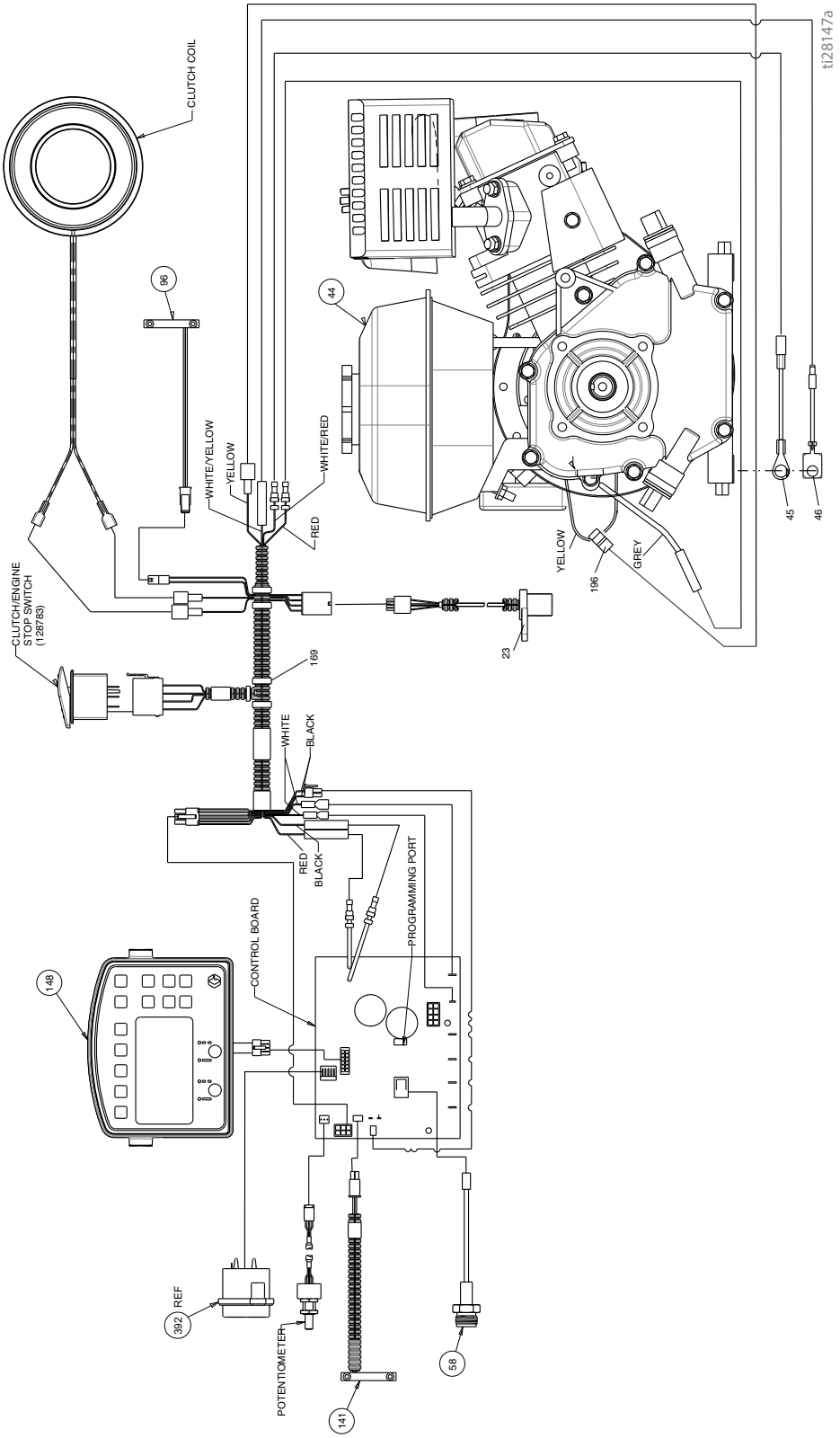
Wiring Diagram (Standard Series - China only)



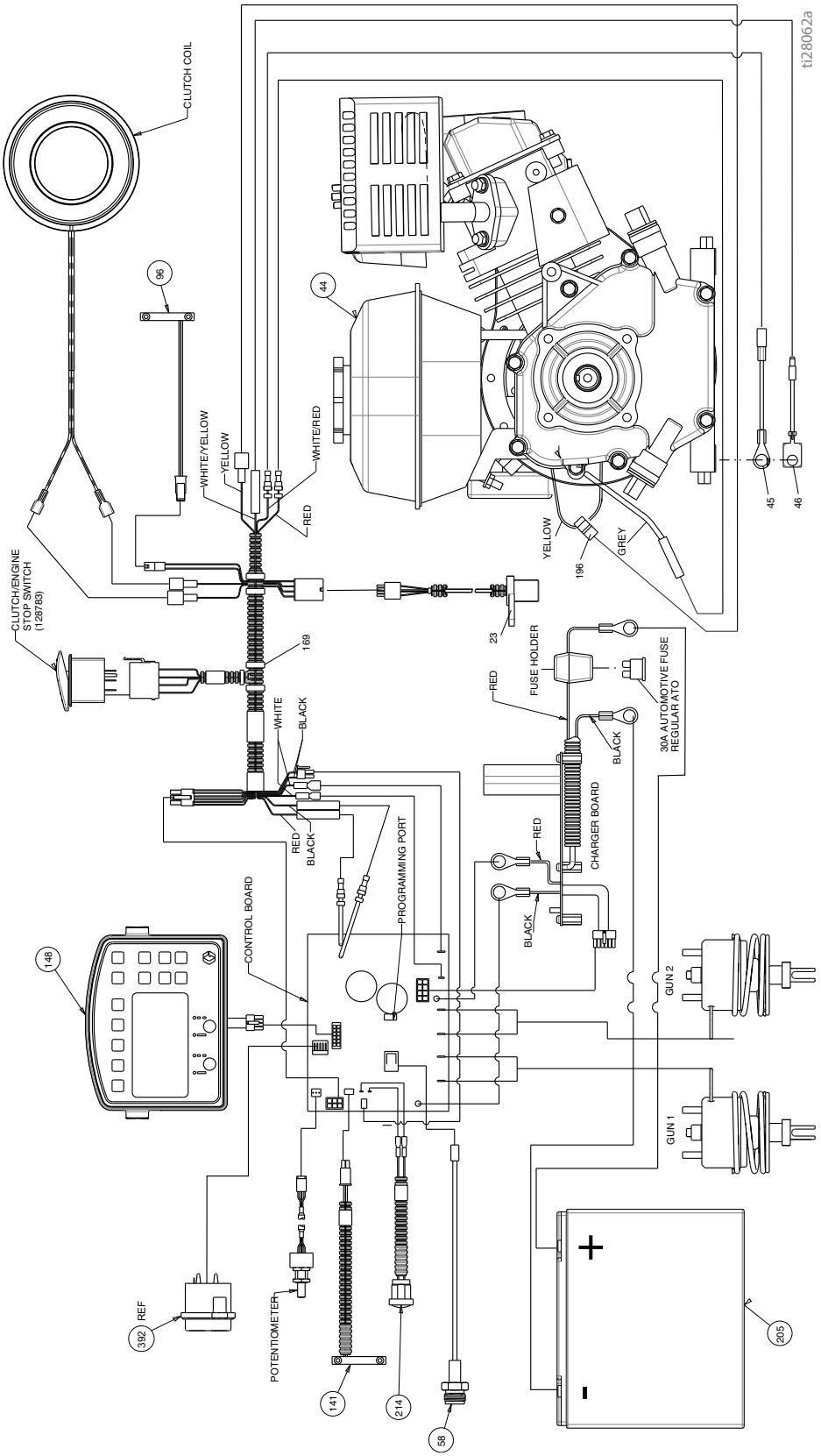
Wiring Diagram (HP Auto Series - China only)



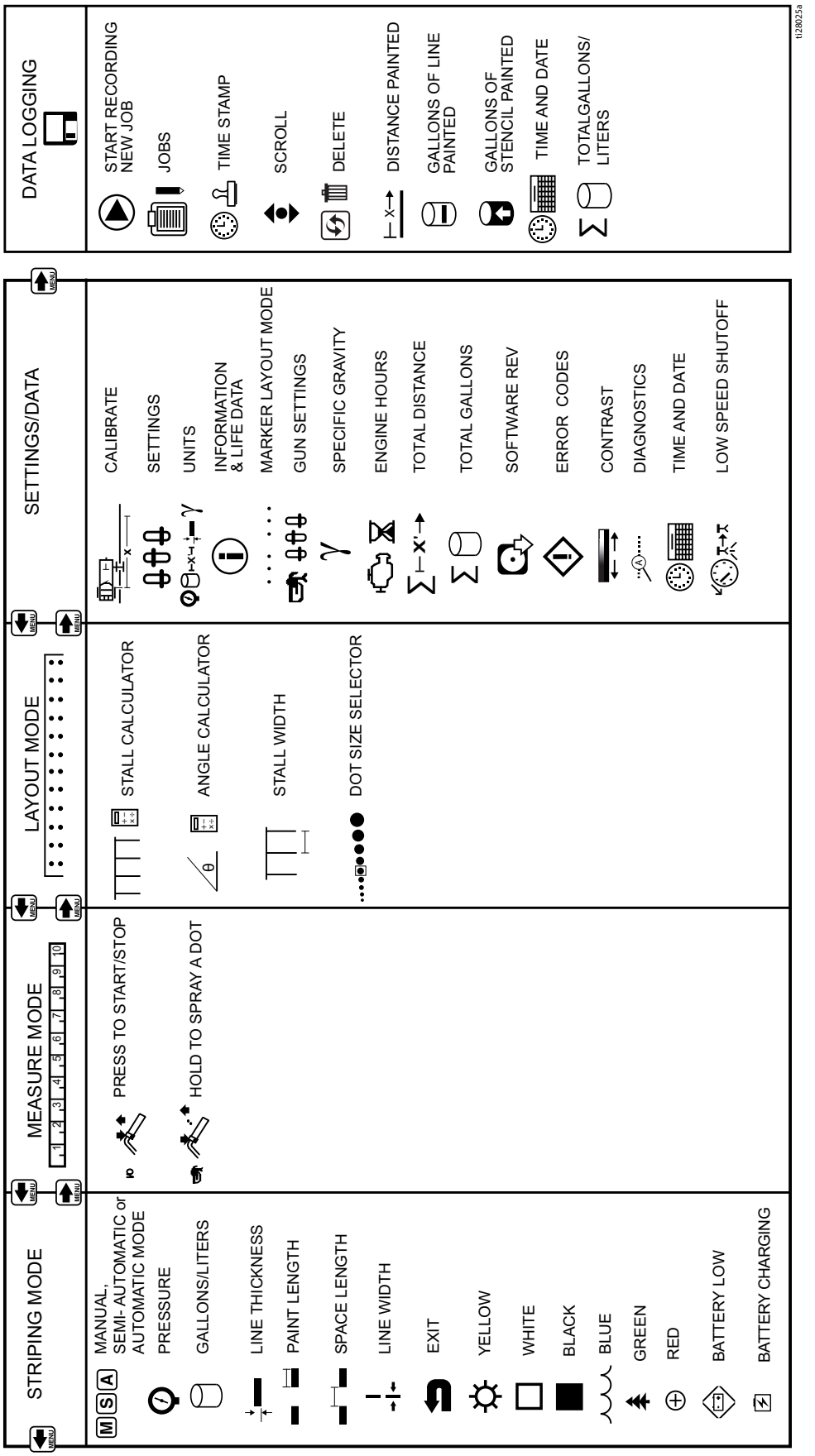
Wiring Diagram (Standard Series)



Wiring Diagram (HP Auto Series)



World Symbol Key



Technical Specifications

LineLazer V 3900 Standard Series (Models 25P330)		
	U.S.	**Metric**
Dimensions		
Height (with handle bar down)	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length (with platform down)	Unpackaged - 68.75 in. Packaged - 73.50 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 235 lbs Packaged - 302 lbs	Unpackaged - 106 kg Packaged - 137 kg
Noise (dBa)		
Sound Power per ISO 9614:	95.6	
Sound Pressure per ISO 9614:	85.5	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.73 Right hand 2.06	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	5.5 HP @ 3600 rpm	4.1 kW @ 3600 rpm
Maximum Delivery	1.25 gpm	4.7 lpm
Maximum Tip Size 1 gun 2 gun	 .036 .025	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	50 W @ 3600 rpm	
Starting Battery	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

LineLazer V 3900 Standard Series (Models 17H449, 17H450)		
	U.S.	**Metric**
Dimensions		
Height	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length	Unpackaged - 68.75 in. Packaged - 73.5 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 230 lbs Packaged - 297 lbs	Unpackaged - 104 kg Packaged - 135 kg
Noise (dBa)		
Sound Power per ISO 9614:	95.6	
Sound Pressure per ISO 9614:	85.5	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.73 Right hand 2.06	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	4.0 HP @ 3600 rpm	2.9 kW @ 3600 rpm
Maximum Delivery	1.25 gpm	4.7 lpm
Maximum Tip Size 1 gun 2 gun	 .036 .025	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	50 W@ 3600 rpm	
Battery (optional)	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

LineLazer V 5900 Standard Series (Models 17H454, 17H455)		
	U.S.	**Metric**
Dimensions		
Height (with handle bar down)	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length (with platform down)	Unpackaged - 68.75 in. Packaged - 73.50 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 250 lbs Packaged - 317 lbs	Unpackaged - 113 kg Packaged - 144 kg
Noise (dBa)		
Sound Power per ISO 9614:	97.6	
Sound Pressure per ISO 9614:	87.1	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.65 Right hand 3.72	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	5.5 HP @ 3600 rpm	4.1 kW @ 3600 rpm
Maximum Delivery	1.6 gpm	6.0 lpm
Maximum Tip Size 1 gun 2 gun	 .043 .029	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	84 W @ 3600 rpm	
Battery	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

LineLazer V 3900 HP Auto Series (Models 25P332, 25P333)		
	U.S.	**Metric**
Dimensions		
Height (with handle bar down)	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length (with platform down)	Unpackaged - 68.75 in. Packaged - 73.50 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 245 lbs Packaged - 312 lbs	Unpackaged - 111 kg Packaged - 141 kg
Noise (dBa)		
Sound Power per ISO 9614:	95.6	
Sound Pressure per ISO 9614:	85.5	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.73 Right hand 2.06	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	5.5 HP @ 3600 rpm	4.1 kW @ 3600 rpm
Maximum Delivery	1.25 gpm	4.7 lpm
Maximum Tip Size 1 gun 2 gun	 .036 .025	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	50 W @ 3600 rpm	
Starting Battery	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

LineLazer V 3900 HP Auto Series (Models 17K577, 17H451, 17K638, 17H452, 17K579, 17H453)		
	U.S.	**Metric**
Dimensions		
Height (with handle bar down)	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length (with platform down)	Unpackaged - 68.75 in. Packaged - 73.50 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 240 lbs Packaged - 307 lbs	Unpackaged - 109 kg Packaged - 139 kg
Noise (dBa)		
Sound Power per ISO 9614:	95.6	
Sound Pressure per ISO 9614:	85.5	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.73 Right hand 2.06	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	4.0 HP @ 3600 rpm	2.9 kW @ 3600 rpm
Maximum Delivery	1.25 gpm	4.7 lpm
Maximum Tip Size 1 gun 2 gun	 .036 .025	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	50 W @ 3600 rpm	
Starting Battery	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

LineLazer V 5900 HP Auto Series (Models 17K580, 17H456, 17K636, 17H457, 17K581, 17H458)		
	U.S.	**Metric**
Dimensions		
Height (with handle bar down)	Unpackaged - 44.5 in. Packaged - 52.5 in.	Unpackaged - 113.03 cm Packaged - 133.35 cm
Width	Unpackaged - 34.25 in. Packaged - 37.0 in.	Unpackaged - 86.99 cm Packaged - 93.98 cm
Length (with platform down)	Unpackaged - 68.75 in. Packaged - 73.50 in.	Unpackaged - 174.63 cm Packaged - 186.69 cm
Weight (dry - no paint)	Unpackaged - 266 lbs Packaged - 333 lbs	Unpackaged - 121 kg Packaged - 151 kg
Noise (dBa)		
Sound Power per ISO 9614:	97.6	
Sound Pressure per ISO 9614:	87.1	
Vibration (m/s^2) (8 hours daily exposure)		
Hand Arm (per ISO 5349)	Left hand 3.65 Right hand 3.72	
Whole Body (per ISO 2631)	0.4	
Power Rating (Horse Power)		
Power Rating (Horse Power) per SAE J1349	5.5 HP @ 3600 rpm	4.1 kW @ 3600 rpm
Maximum Delivery	1.6 gpm	6.0 lpm
Maximum Tip Size 1 gun 2 gun	 .043 .029	
Inlet paint strainer	16 mesh	1190 micron
Outlet paint strainer	50 mesh	297 micron
Pump inlet size	1 in. NSPM (m)	
Pump outlet size	3/8 NPT (f)	
Maximum working pressure	3300 psi	228 bar, 22.8 MPa
Electrical Capacity	84 W @ 3600 rpm	
Starting Battery	12V, 22Ah, Sealed lead acid, Deep cycle	

Wetted Parts: PTFE, Nylon, polyurethane, V-Max, UHMWPE, fluoroelastomer, acetal, leather, tungsten carbide, stainless steel, chrome plating, nickel-plated carbon steel, ceramic

California Proposition 65

CALIFORNIA RESIDENTS

⚠ **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.

All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 3A3388
Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

www.graco.com
Revision J, February 2024