MACHINE WORLD 2

QUICK REFERENCE

Work in progress

Thank you for purchasing Machine World 2!
We hope it will provide countless hours of creativity, exploration, and fun.

The original Machine World was an iOS app that started its life due to my son's interest in contstruction equipment. It seems to be a law of nature that kids find machines fascinating.
Some outgrow this, and some do not... such as yours truly.

Machine World 2 is the quantum leap evolution of that first app. The goal has been to design a sandbox game that allows for total freedom and creativity, and a sense of ownership of all the machines.
The machines are tools of creation and we hope that learning to use them efficiently and in a correct manner will be a challenging and rewarding experience.

Each machine is physically based simulation of the real thing. Everything that happens in the game is the result of a physics calculation. The machines are component modelled, so every real major part in a machine is simulated; the engine, gearbox, control systems, the various hydraulic motors, and so on.

This has been a big undertaking and devloping MW 2 basically from scratch has taken more than three years for our small team of hardcore machine afficionados.

We hope you enjoy the result, and will help us to evolve Machine World 2. We look forward to hearing from you in the community forum!

Best regards,
Daniel Forslund

Lead developer and owner of Trino AB

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MORE DOCUMENTATION

There is more documentation in your game folder!

A keyboard bindings reference, and a full reference manual (work in progress) can be found in the MW2 Steam folder.

Usually this is in a folder called SteamApps. You can access it by right clicking on MW2 in Steam, and chosing local files->explore local files.

All the documentation is a work in progress. It will be expanded upon, and edited, during Early Access.

trino® GAMES

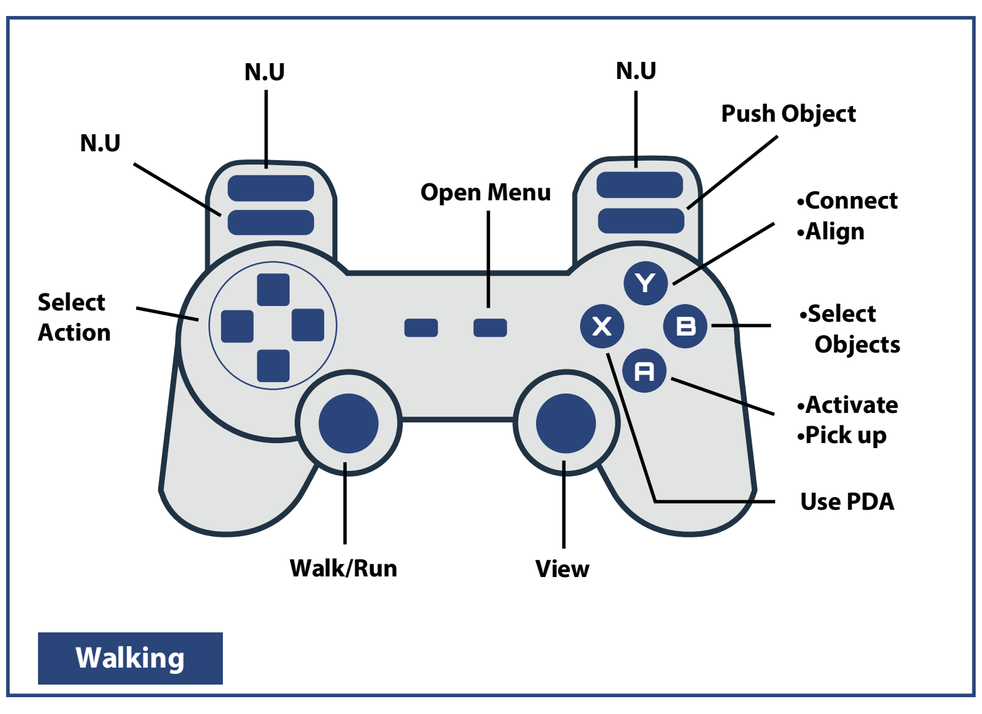
CONTROL BINDINGS

Info

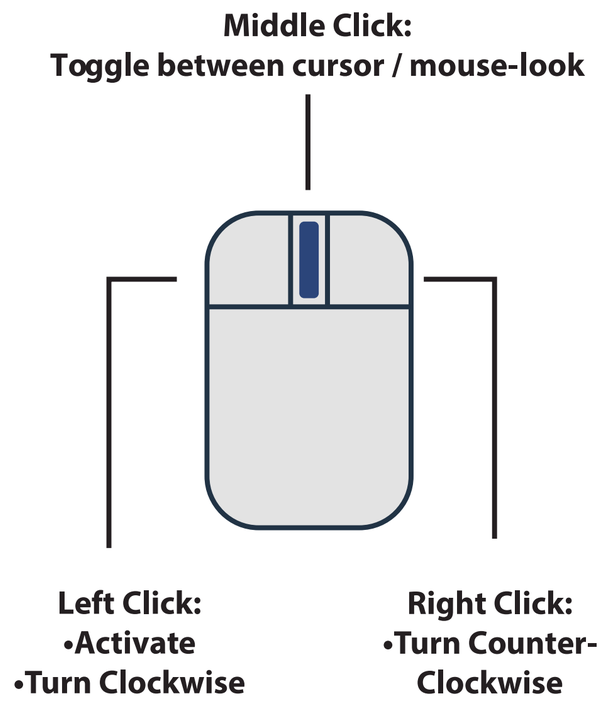
All key bindings and controller bindings can be remapped in the controls menu pane.
While controls by default have been mapped for a standard gamepad, all controls can be remapped to your controller(s) of choice.

If you encounter a controller - or a combination of controllers - that are not recognized, please contact us.

GETTING AROUND



Walking

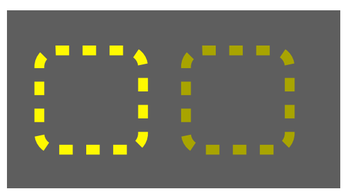


Forward.....	Arrow Left/Right
Left.....	Arrow Up/Down
Backward.....	S
Right.....	D
Climb Obstacle....	C
Look L/R.....	W
Look U/D.....	A
Backward.....	S
Right.....	D
Climb Obstacle....	C

COMMANDS

Look at the object or switch you want to use

Switches and objects are marked with these Command Squares



Navigate between different commands with the DPAD

The A-button activates or turns clockwise
The Y button turns counter-clockwise

Info

Commands are used for all parts and switches in the game. Opening doors, flipping switches, turning keys - everything is a "command".

Default Key mapping	Arrow keys	Activate: Space Turn: Keypad + / -

HELP

In game help is available in the main menu

Open main menu

Start / option

Question mark icon:

In game hints and tutorial movies

Play -> Mission List

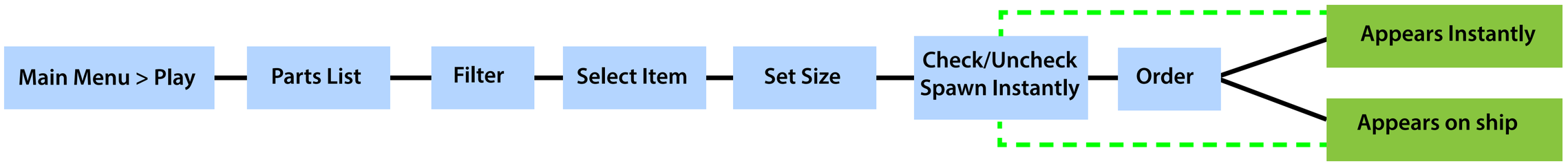
Tutorial missions

Info

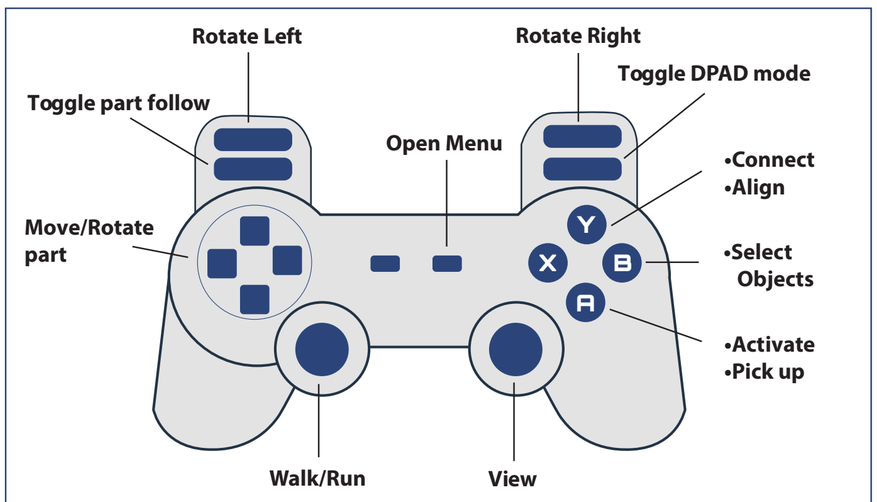
More tutorials are added continuously

Default key mapping	Escape

ORDERING PARTS



MANIPULATING PARTS

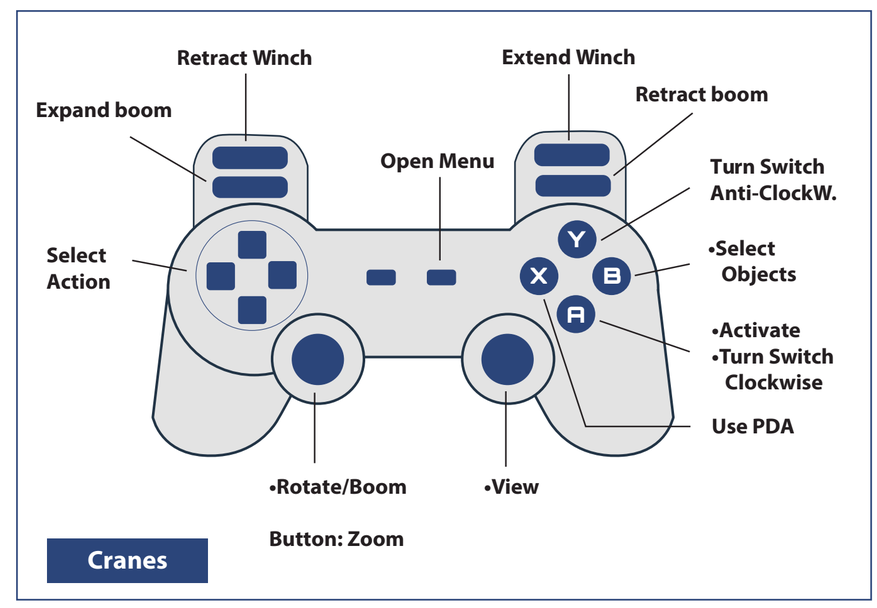


Part Manipulation

Select Part / Object.....	Tab
Pick up Object.....	Q
Connect Object.....	E
Toggle part follow	Numpad 0
Show links for selected object.....	V
Toggle part auto align.....	B
Toggle Zoom View.....	Left Shift
Object rotation.....	Numpad
Object Up/Down.....	Numpad + =
Object Distance in/out.....	Numpad / *

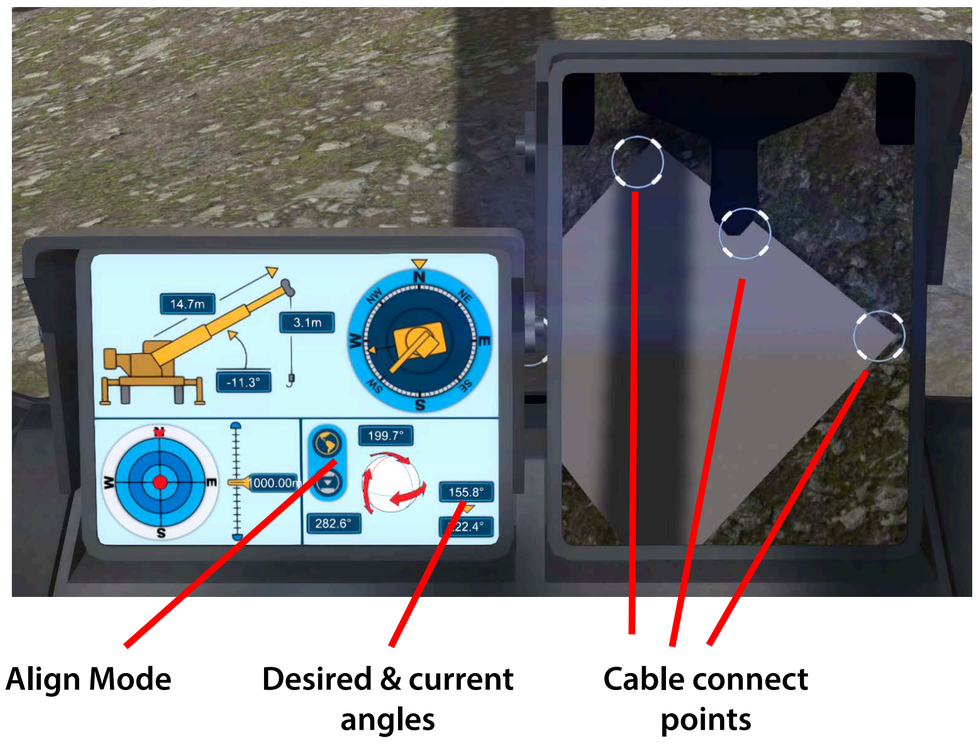
Look at the part you want to manipulate	Select the object	Pick it up	Toggle stationary or following	Position using the above controls	Align to object or global angles	Put it down	Connect it to parts in contact
	B	A	Left Bumper		Y	A	Y
Default key mapping	Tab	E	Numpad 0	Numpad	Q	E	Q

HOISTING PARTS / VEHICLES



Cranes

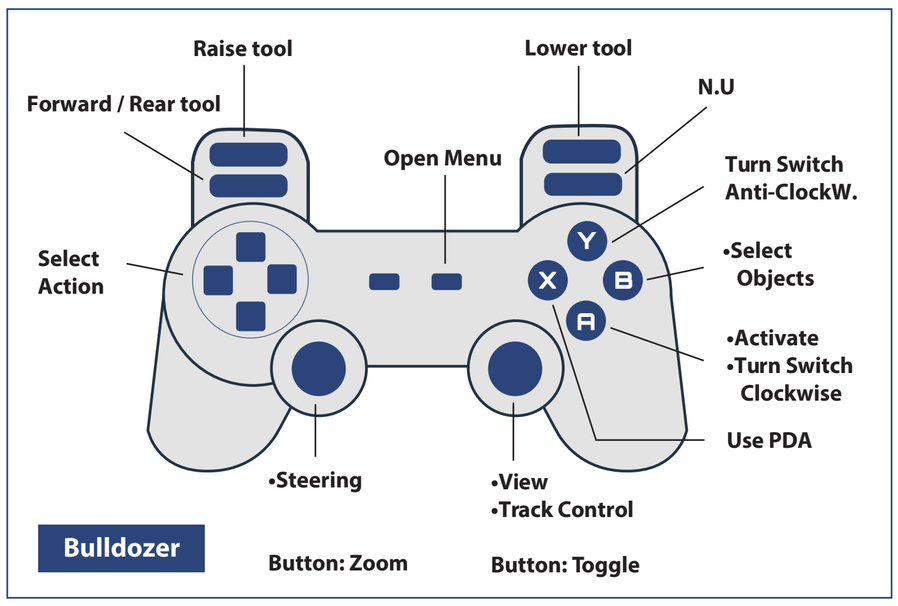
Cab Left/Right.....	**A/D**
Boom Out / In	**W/S**
Stick Out/In	**I/K**
Bucket Out/In	**J/L**
Connect Hook.....	**Q**
Connect Object.....	**E**
Rotate part.....	***NP 4/6***



Position the hook above the object you want to hoist	Wait a bit for the crane system to show optimal cable connect points	Connect hook to object	Toggle align mode	Cange target angle	Connect object to other part	Release cargo
		A + panel button	A + panel button	A Y + panel controls	A + panel button	A + panel button
Default key mapping	Tab	E	Numpad 0	Numpad 4/6	Q	E

More info To make object positioning easier, objects will automatically attempt to align to the object below. You can alter the relative angle using the commands above, and toggle the display between relative and absolute angles (for the cranes that have the optional left monitor).

BULLDOZER CONTROLS



Bulldozers

Blade Up/Down **I/K**
Ripper Up/Down **J/L**

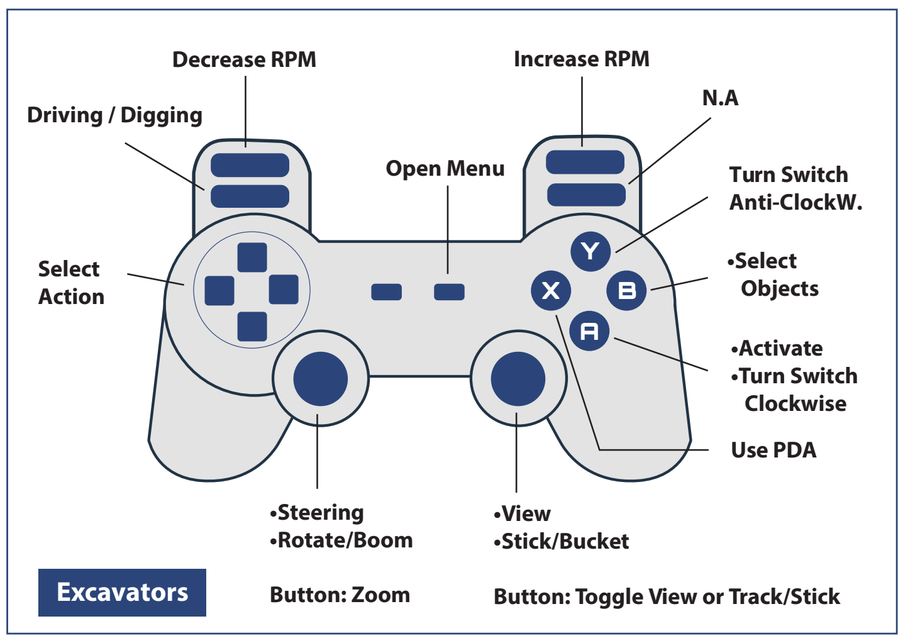
Blade Angle ... **Page U/D**

Ripper Angle.... **Page Home/End**

Survey the ground. It helps to have a plan.	Adjust the blade pitch	If desired, switch on Auto Level	If an absolute level is desired, switch on the absolute mode	Press SET button to set level	Continue adjusting blade as desired
	Triggers	2	3	1	Triggers

Default key mapping	I / K	I / K

EXCAVATOR CONTROLS



Easy Drive (Track Drive with Joystick / Pad only)

Forward..... **W**
Left..... **A**
Backward..... **S**
Right..... **D**

Digging Mode

Cab Left/Right..... **A/D**
Boom Out / In ..... **W/S**
Stick Out/In **I/K**
Bucket Out/In **J/L**

RPM up..... **R**
RPM down..... **F**

Info

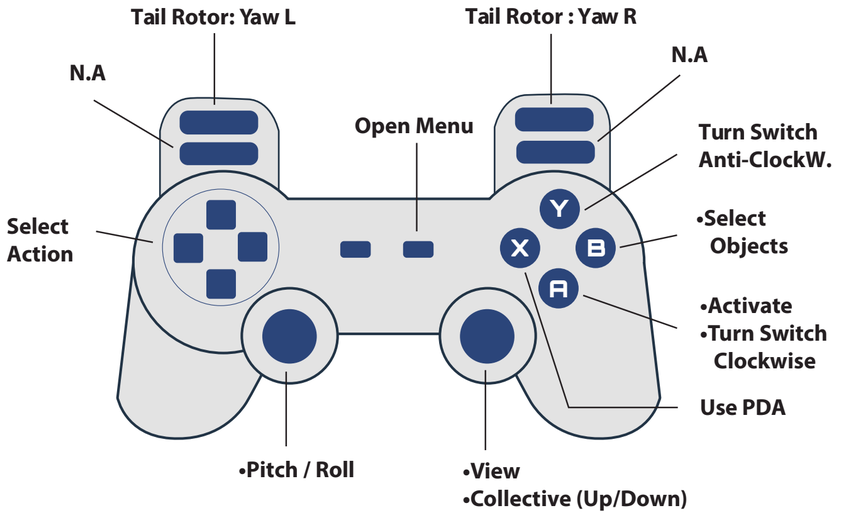
To fit all the controls to a normal gamepad, the right stick is used for viewing (default) or for control of the right track, or to control the stick and bucket.

Use the left shoulder button to toggle between digging or driving, and the right stick button to toggle between using the right stick for viewing or driving/digging.

Use the correct RPM setting for the current task.	Increase or Decrease RPM	Toggle Digging/Driving	View or Track / Arm control
	Right and Left Triggers	Left Shoulder	Right Stick Button

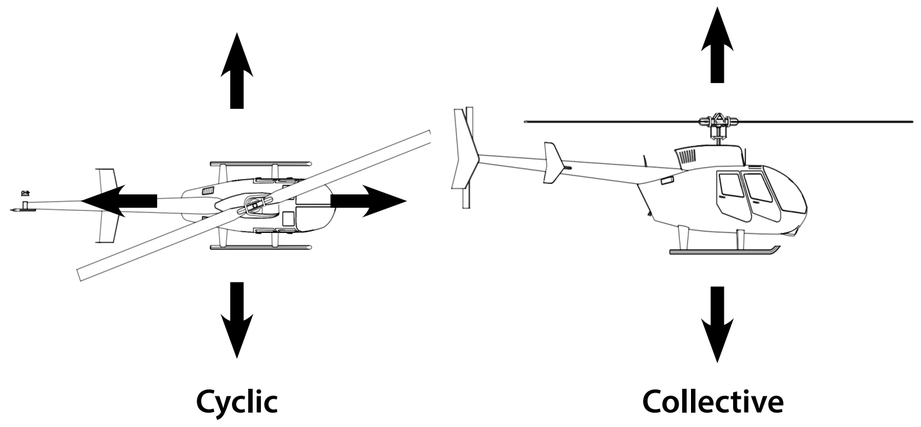
Default key mapping	R/F

HELICOPTER CONTROLS



Helicopters

Pitch (Cyclic F/B)	**W/S**
Roll (Cyclic L/R).....	**A/D**
Vertical (Collective).....	**Numpad +/-**
Landing Gear.....	**G**
Main Alternator.....	**6**
Fuel Flow.....	**5**
Fuel Pumps.....	**4**
Rotor Clutch.....	**8**
Ignition On/Off.....	**9/0**
Position Hold.....	**H**
FCU Cyclic Assist.....	**Y**



⚠ Always make sure you have proper rotor RPM before attempting to take off!

⚠ Always monitor the main instruments

Use smooth and small frequent inputs for all controls

Takeoff and landing should only happen in an open and level area

Engage Alternator / generator and monitor Amp / Volts

Info

As with other complex vehicles: If using a gamepad, you will have to lock the view with the right stick button to use the right stick for collective control.

PISTON HELICOPTER STARTUP

Master Battery **ON** — Avionics **ON** — Starter **ENGAGE** — Oil pressure **WAIT** — Alternator **ON** — Clutch **ENGAGE** — Rotor RPM **WAIT** — Engine temperature **WAIT**

TURBINE HELICOPTER STARTUP

Master Battery **ON** — Avionics **ON** — APU (Aux. Power Unit) **ENGAGE** — Fuel pump power **ON** — Engine One Start **ENGAGE** — Engine RPM 3000 **WAIT** — Fuel pump flow **ON** — Engine RPM **WAIT**

Repeat for other engine

→ Generator **ENGAGE** — APU **DISENG.** — ECU MODE **FLIGHT** — Rotor RPM **WAIT** — Engine temperature **WAIT**

Info ⚠ ***PISTON***

In a piston powered helicopter, monitoring the manifold pressure is very important during all phases of flight. Otherwise loss of lift may occur.

Please see the manual for more information.

Info ⚠ ***TURBINE***

Introducing fuel before 3000 RPM will result in a Hot Start and will damage the turbine, requiring service.

The turbine starter will disengage at 5000 rpm. Failing to introduce fuel before that will result in engine start failure.