

# Large Chemical Reactor

The Gregtech Large Chemical Reactor (LCR) is functionally a multiblock version of a regular, single-block chemical reactor. Like many other multiblocks, they can wallshare.

## Construction

An LCR is a 3x3x3 structure that requires:

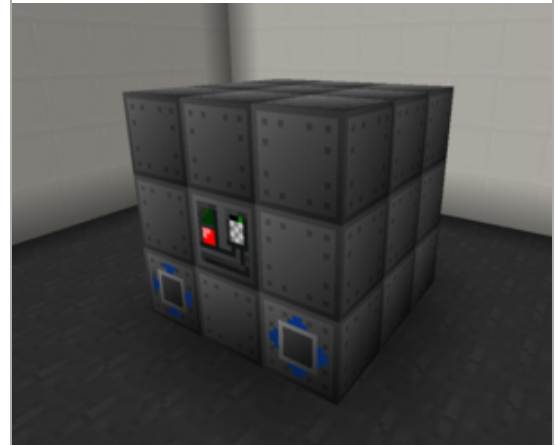
- 1 Controller block; any face, centered
- 1 Maintenance Hatch; anywhere
- 1+ Energy Hatch, anywhere
- 0+ Input Bus, optional, anywhere
- 0+ Output Bus optional, anywhere
- 0+ Input Hatch optional, anywhere<sup>[1]</sup>
- 0+ Output Hatch, optional, anywhere<sup>[2]</sup>
- 1 PTFE Pipe Casing, in the very center of the 3x3x3
- 1 Coil Block, any tier; must be physically touching the PTFE Pipe <sup>[3]</sup>
- 8-22 Chemically Inert Machine Casing, everywhere else

1. One Input Hatch required for each fluid ingredient of the recipe, unless using stocking input hatches.
2. One Output Hatch required for each fluid output of the recipe.
3. More than one coil block is not allowed in the multiblock structure. Higher tiers of coils have no benefit.

## Usage

The LCR deals with pure liquid inputs/outputs; no cells are needed. Lock output hatches to specific fluids, and output busses to specific items, using a screwdriver or the GUI of the hatch. To lock it to the currently held fluid (or the next to enter in case of an empty hatch), use Shift-right-click. The LCR can be recipe locked by using a screwdriver on the controller. It won't process other recipes when applied. Otherwise, it can have multiple hatches for different recipes but will do only one recipe per operation. By default it will stop processing if there isn't enough room for the recipe products in the output buses/hatches. This behavior can be toggled in the controller GUI with Void Mode.

## Large Chemical Reactor



<b>Mod</b>	Gregtech
<b>Relevant Quest</b>	Bring Me My Vat Of Polyethelyne!
<b>Tier</b>	HV
<b>Size</b>	3x3x3
<b>Rotatable</b>	Yes
<b>Energy:</b>	
<b>Energy usage</b>	Variable
<b>Overclocking</b>	4/4

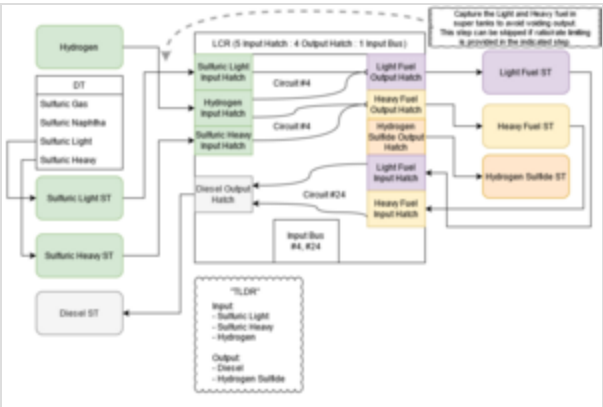
The LCR will overclock with 100% efficiency (very much like an EBF when it performs a "special" overclock). This means that, instead of the standard GT overclock of 4x energy/2x speed, an LCR will actually overclock with 4x energy/4x speed.

LCRs do not have input separation; a configured circuit in any input bus (or the controller) will apply for all inputs.

## Key Differences Between Single-Block and Multi-Block

The LCR has several key differences from the single-block chemical reactor:

- The LCR has special recipes that make certain chemical chains into an "all-in-one" recipe (note: in older versions of GT:NH, this may not be the case). For example, sulfuric acid can be made in a single step rather than multiple steps. Typically, such recipes involve the use of a Configured Circuit #24.
- One must also consider the ease of upgrading a multiblock vs upgrading a single block. Upgrading a multiblock usually involves a simple swap of the energy hatch with a new higher tier energy hatch, whereas upgrading a single block means having to build a whole new single block.



A single LCR can be used to make diesel with credit to bitonality

## Troubleshooting

Problem	Solution
Wrong Recipe	Ensure the recipe is not locked. LCR's do not have Input Bus Separation and will potentially use another's circuit setting if wallsharing.

Gregtech GTNH Edition			<a href="#">[Collapse]</a>
Blocks			<a href="#">[Collapse]</a>
Generators	Block	Combustion generator • Gas turbine • Steam turbine • Magic energy converter • Magic energy absorber • Lightning rod • Naquadah reactor • Plasma generator	
	Multiblock	Large steam turbine • Large HP steam turbine • Large gas turbine • Large plasma generator • Combustion engine • Extreme combustion engine	
Machines	Utility	Transformer • Locker • Battery Buffer • Battery Charger	
	Processing	Alloy Smelter • Assembling Machine • Bending Machine • Canning Machine • Compressor • Cutting Machine • Electric Furnace • Extractor • Extruder • Lathe • Macerator • Microwave • Printer • Recycler • Scanner • Wiremill • Centrifuge • Electrolyzer • Thermal Centrifuge • Ore Washing Plant • Packager • Unpackager • Chemical Reactor • Fluid Canner • Rock Breaker • Disassembler • Mass Fabricator •	

Multiblocks		<a href="#">Mixer</a> • <a href="#">Precision Laser Engraver</a> • <a href="#">Forming Press</a> • <a href="#">Forge Hammer</a> • <a href="#">Fluid Heater</a> • <a href="#">Slicing Machine</a> • <a href="#">Sifting Machine</a> • <a href="#">Arc Furnace</a> • <a href="#">Plasma Arc Furnace</a> • <a href="#">Electric Oven</a> • <a href="#">Circuit Assembling Machine</a>
	Steam	<a href="#">Small Coal Boiler</a> • <a href="#">High Pressure Coal Boiler</a> • <a href="#">High Pressure Lava Boiler</a> • <a href="#">Steam Furnace</a> • <a href="#">High Pressure furnace</a> • <a href="#">Simple Solar boiler</a> • <a href="#">High Pressure Solar boiler</a> • <a href="#">Steam Macerator</a> • <a href="#">High Pressure Macerator</a> • <a href="#">Steam Extractor</a> • <a href="#">High Pressure Extractor</a> • <a href="#">Steam Forge Hammer</a> • <a href="#">High Pressure Forge Hammer</a> • <a href="#">Steam Compressor</a> • <a href="#">High Pressure Compressor</a> • <a href="#">Steam Alloy Smelter</a> • <a href="#">High Pressure Alloy Smelter</a>
	Automation	<a href="#">Chest Buffer</a> • <a href="#">Item Filter</a> • <a href="#">Type Filter</a> • <a href="#">Regulator</a> • <a href="#">Super Buffer</a> • <a href="#">Item Distributor</a> • <a href="#">Recipe Filter</a>
	Fusion	<a href="#">Fusion Control Computer</a> • <a href="#">Fusion Coil Block</a> • <a href="#">Fusion Machine Casing</a>
	Machines	<a href="#">Bricked Blast Furnace</a> • <a href="#">Oil/Gas/Fluid Drilling Rig</a> • <a href="#">Concrete Backfiller</a> • <a href="#">Infinite Oil/Gas/Fluid Drilling Rig</a> • <a href="#">Electric Blast Furnace</a> • <a href="#">Implosion Compressor</a> • <a href="#">Vacuum Freezer</a> • <a href="#">Multi Smelter</a> • <a href="#">Distillation Tower</a> • <a href="#">Large Boiler</a> • <a href="#">Large Heat Exchanger</a> • <a href="#">Charcoal Pile Igniter</a> • <a href="#">Ore Drilling Plant</a> • <a href="#">Pyrolyse Oven</a> • <a href="#">Oil Cracking Unit</a> • <a href="#">Large Chemical Reactor</a> • <a href="#">Assembly Line</a> • <a href="#">Cleanroom</a> • <a href="#">Processing Array</a>
	Parts	<a href="#">Dynamo Hatch</a> • <a href="#">Energy Hatch</a> • <a href="#">Input Hatch</a> • <a href="#">Output Hatch</a> • <a href="#">Input Bus</a> • <a href="#">Output Bus</a> • <a href="#">Maintenance Hatch</a> • <a href="#">Auto Maintenance Hatch</a> • <a href="#">Muffler Hatch</a> • <a href="#">Data Access Hatch</a> • <a href="#">Advanced Data Access Hatch</a>
Machine Parts		<a href="#">Machine Hulls</a> • <a href="#">Casings</a> • <a href="#">Frame Box</a> • <a href="#">Coil Blocks</a> • <a href="#">Gear Box</a> • <a href="#">Pipe casing</a> • <a href="#">Superconducting Coil Block</a> • <a href="#">Firebox Casing</a> • <a href="#">Grate Machine Casing</a> • <a href="#">Filter Machine Casing</a> • <a href="#">Hermetic Casing</a>
Transport		<a href="#">Wires</a> • <a href="#">Cables</a> • <a href="#">Fluid Pipes</a> • <a href="#">Item Pipes</a> • <a href="#">Microwave Energy Transmitter</a> • <a href="#">Long Distance Fluid Pipeline</a> • <a href="#">Long Distance Item Pipeline</a> • <a href="#">Stocking Input Bus (ME)</a> • <a href="#">Stocking Input Hatch (ME)</a> • <a href="#">Advanced Stocking Input Bus (ME)</a> • <a href="#">Advanced Stocking Input Hatch (ME)</a>
Storage		<a href="#">Super Tank</a> • <a href="#">Super Chest</a> • <a href="#">Quantum Tank</a> • <a href="#">Quantum Chest</a>
Building		<a href="#">Granite</a> • <a href="#">Concrete</a> • <a href="#">Marble</a> • <a href="#">Basalt</a> • <a href="#">Yellow stripes block</a> • <a href="#">Hazard sign block</a>
Other		<a href="#">Teleporter</a> • <a href="#">Pump</a> • <a href="#">Monster Repellator</a> • <a href="#">Seismic Prospector</a> • <a href="#">Miner</a> • <a href="#">Materials</a> • <a href="#">Ores</a>
GTNH Coremod		<a href="#">Electric Air Filter</a> • <a href="#">Turbo Charger</a> • <a href="#">Name Remover</a>
GTNH lanthanides		<a href="#">Digester</a> • <a href="#">Dissolution tank</a>
KekzTech		<a href="#">Solid-oxide Fuel Cell</a> • <a href="#">T.F.F.T</a> • <a href="#">Lapotronic Supercapacitor</a> • <a href="#">T.F.F.T Multi I/O Hatch</a>
Galaxy Space		<a href="#">Dyson Swarm Ground Unit</a> • <a href="#">Planetary Gas Siphon</a>
Electro magic tools		<a href="#">Large Essentia Generator</a> • <a href="#">Research Completer</a>
Hydro dam		<a href="#">Hydro Dam</a> • <a href="#">Hydro Pump</a> • <a href="#">Hydro Turbine</a>
Removed		<a href="#">Bronze Plated Blast Furnace</a>
		Items <span>[Collapse]</span>
Tools		<a href="#">Meta-tools</a> • <a href="#">Portable scanner</a> • <a href="#">Debug scanner</a> • <a href="#">Match</a> • <a href="#">Match box</a> • <a href="#">Lighter</a> • <a href="#">Platinum Lighter</a> • <a href="#">Sonictron</a> • <a href="#">Prospector's scanner</a> • <a href="#">Braintech aerospace advanced reinforced duct tape FAL-84</a> • <a href="#">Cover copy/paste tool</a> • <a href="#">Turbines</a>
Organics		<a href="#">Crops</a> • <a href="#">Drinks</a> • <a href="#">Food</a>
Circuits		<a href="#">Silicon boueles</a> • <a href="#">Wafers</a> • <a href="#">Integrated circuits (IC)</a> • <a href="#">Circuitry components</a> • <a href="#">Circuits (tiered)</a> • <a href="#">Circuit boards</a> • <a href="#">Data orb</a> • <a href="#">Data stick</a>
		<a href="#">Battery hull</a> • <a href="#">Acid battery</a> • <a href="#">Mercury battery</a> • <a href="#">Cadmium battery</a> • <a href="#">Lithium battery</a> • <a href="#">Sodium battery</a> • <a href="#">Quaternary battery</a> • <a href="#">Alkaline battery</a> • <a href="#">Plasma battery</a> • <a href="#">Neutronium battery</a> • <a href="#">Leakless battery</a>

<b>Nuclear Control</b>	<a href="#">Gregtech sensor card</a> • <a href="#">Gregtech sensor kit</a>	
<b>Containers</b>	<a href="#">Cell</a> • <a href="#">Empty crate</a> • <a href="#">Glass Arrow Head</a> • <a href="#">Regular arrow</a> • <a href="#">Light arrow</a> • <a href="#">Plastic fluid can</a> • <a href="#">Spray can</a> • <a href="#">Empty thermos can</a> • <a href="#">Large fluid cell</a> • <a href="#">Volumetric flask</a>	
<b>Configuration</b>	<a href="#">Programmed circuit</a> • <a href="#">Schematics</a> • <a href="#">Empty shape plate</a> • <a href="#">Molds</a> • <a href="#">Extruder shapes</a> • <a href="#">Slicer blades</a>	
<b>Upgrades</b>	<a href="#">Muffler upgrade</a> • <a href="#">Lock upgrade</a>	
<b>Redstone</b>	<a href="#">Redstone transmitter</a> • <a href="#">Redstone receiver</a>	
<b>Covers</b>	<b>Tiered covers</b>	<a href="#">Electric motor</a> • <a href="#">Electric pump</a> • <a href="#">Steam valve</a> • <a href="#">Conveyor module</a> • <a href="#">Electric piston</a> • <a href="#">Robot arm</a> • <a href="#">Fluid regulator</a> • <a href="#">Fluid filter cover</a> • <a href="#">Field generator</a> • <a href="#">Emitter</a> • <a href="#">Sensor</a> •
	<b>Covers</b>	<a href="#">Machine controller cover</a> • <a href="#">Activity detector cover</a> • <a href="#">Fluid detector cover</a> • <a href="#">Item detector cover</a> • <a href="#">Energy detector cover</a> • <a href="#">Player detector cover</a> • <a href="#">Computer monitor cover</a> • <a href="#">Crafting table cover</a> • <a href="#">Drain module cover</a> • <a href="#">Needs maintenance cover</a> • <a href="#">Shutter cover</a> • <a href="#">Solar panels</a> • <a href="#">Item filter cover (export)</a> • <a href="#">Item filter cover (import)</a>
<b>Colors</b>	<a href="#">Dyes</a> • <a href="#">Spraycans</a>	
<b>Nuclear</b>	<a href="#">Coolant cells</a> • <a href="#">Fuel rods</a> • <a href="#">Iridium neutron reflector</a> • <a href="#">1G Neutronium heat capacitor</a>	
<b>Parts</b>	<a href="#">Dust</a> • <a href="#">Nuggets</a> • <a href="#">Ingots</a> • <a href="#">Plates</a> • <a href="#">Gems</a> • <a href="#">Rod</a> • <a href="#">Lens</a> • <a href="#">Round</a> • <a href="#">Bolt</a> • <a href="#">Screw</a> • <a href="#">Ring</a> • <a href="#">Foil</a> • <a href="#">Casing(Item)</a> • <a href="#">Turbine blade</a> • <a href="#">Fine wireame</a> • <a href="#">Small gear</a> • <a href="#">Gear</a> • <a href="#">Rotor</a> • <a href="#">Long rod</a> • <a href="#">Small spring</a> • <a href="#">Spring</a>	
<b>Miscellaneous</b>	<a href="#">Diamond sawblade</a> • <a href="#">Diamond grinding head</a> • <a href="#">Tungsten grinding head</a> • <a href="#">Iridium alloy ingot</a> • <a href="#">Printed pages</a> • <a href="#">Coins</a> • <a href="#">Planks</a> • <a href="#">Book</a> • <a href="#">Iron minecart wheels</a> • <a href="#">Steel minecart wheels</a> • <a href="#">Heavy duty alloy ingot</a> • <a href="#">Gelled toluene</a> • <a href="#">Super fuel binder</a> • <a href="#">Magic super fuel binder</a> • <a href="#">Quantum eye</a> • <a href="#">Quantum star</a> • <a href="#">Gravi star</a> • <a href="#">Compressed fireclay</a> • <a href="#">Firebrick</a> • <a href="#">Glass fiber</a>	
<b>Removed/Not ingame</b>	<a href="#">Bronze plated blast furnace</a> • <a href="#">Integrated circuit</a> • <a href="#">Item filter</a> • <a href="#">Enchanted page</a> • <a href="#">Enchanted pages</a> • <a href="#">Magic paper</a> • <a href="#">Punch card</a> • <a href="#">Punched card</a> • <a href="#">The holy planks of sengir</a> • <a href="#">Serious bug block</a> • <a href="#">Microwave oven manual</a> • <a href="#">Printer manual v2.0</a> • <a href="#">Punch card manual v0.0</a>	

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