# METEOR 250 Generation3 SAFETY & OPERATORS MANUAL

#### & PARTS LISTING

CAUTION: Read the instruction manual before using the appliance.



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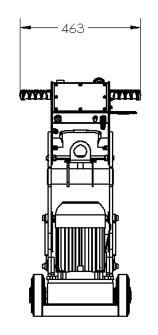
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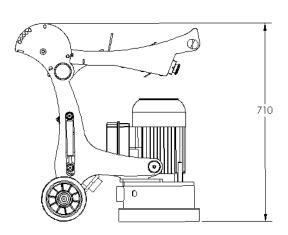
This machine is designed to operate with the wheels in contact with the floor at all times.

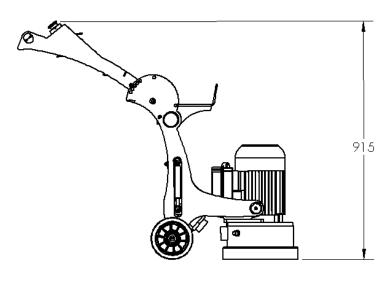
Do not operate with the wheels off the floor.

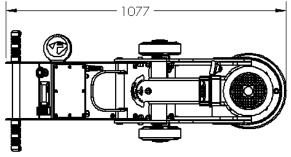
# **Specifications**

	Meteor 250
Weight	61kg
Dimensions	463 x 915 x 1077 (Width x Height x Length)
Rated Voltage	230 Volt 50 Hz
Rated Watts	2200W
Grinding Path	250mm









## Safety instructions

- 1. Read and understand the instructions on the machine and in this manual and engine manual (if applicable). Different models may have different parts and controls.
- 2. Equipment should only be operated by trained personnel, in good physical condition and mental health (not fatigued). The operator and maintenance personnel must physically be able to handle the bulk weight and power of this machine.
- 3. This is a one person machine. Maintain a safe operating distance to other personnel. Remember 'one machine, one operator'.
- 4. This equipment is intended for commercial use.
- 5. For the operators' safety and the safety of others, always keep all guards and shrouds in place.
- 6. Never start or run machine when unattended.
- 7. This machine is intended for use on floor surfaces only.
- 8. Never start or run machine with handle folded or when disk(s) are not in contact with the surface.
- 9. Do not lend or rent machine without the operating instructions for the machine (and the engine, if applicable).
- 10. Wear clothing suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non-fogging vented safety goggles, and dust mask suitable for dust.
- 11. Keep body parts or any loose clothing away from moving parts. Failure to comply could result in bodily injury.

## Safety instructions

- 12. Do not modify machine in any way. Only use genuine METEOR 250 parts and accessories.
- 13. Repairs should be performed by qualified persons only.
- 14. Ensure parts have stopped moving and disconnect power or spark plug when servicing or changing blades or accessories.
- 15. Never operate machine in rain or if heavy moisture is present. (other than under the shroud)
- 16. Do not operate METEOR 250 with any guards, shrouds, covers or doors removed or open.
- 17. The METEOR 250 can produce sound pressure levels greater than 85db. The operator must wear approved safety ear protection.
- 18. Do not allow the supply cord to come in contact with the cutting blade/head or other moving parts of this machine.
- 19. Petrol is extremely flammable and poisonous. Petrol should only be dispensed in well ventilated areas, and only when engine is cool.
- 20. WARNING! POISONOUS EXHAUST GASES. Do not operate petrol powered equipment without adequate ventilation. Carbon monoxide is and invisible odorless gas that can harm or can kill you.
- 21. WARNING! Breathable silica may be generated by use and maintenance of this machine. Silica can cause severe and permanent lung damage, cancer, and or other serious diseases. Do not breathe the dust. Do not rely on your sight or smell to determine if dust is in the air. Silica may be in the air without a visible dust cloud. If air monitoring for silica is not provided by your employer at your work site, you must wear appropriate respiratory protection when operating or maintaining this equipment. Consult your employer for proper respiratory protection.

## Operating instructions

- 1. Wear clothes suitable for the job and for the work place including, safety shoes, hard hat, hearing protection, non-fogging vented safety goggles, and dust respirator suitable for dust.
- 2. WARNING! POISONOUS EXHAUST GASES. Do not operate petrol powered equipment without adequate ventilation. Carbon monoxide is an invisible odorless gas that can harm or can kill you.
- 3. Be sure all equipment is tested and tagged prior to use on any job.
- 4. Inspect entire area to be ground before grinding and remove any bolts or concrete nails (etc.) that could damage diamond tooling or machine which could cause a hazardous situation.
- 5. Ensure there are no obstacles or existing structures that could present a hazard to the operator. If so, take necessary action to eliminate the hazard.
- 6. To change the Disk; Fold handle into the tooling mode (see Handle Positions) and lock in place using the locking lever, then tilt machine back so handle is resting on the floor.
- 7. The blade is removed by pushing the lock button located on the right side of the machine and using the spanner (supplied) to loosen the nut on the shaft, (Do not engage this button when shaft is rotating).
- 8. Install appropriate tooling into the machine. Only use genuine METEOR 250 tooling. Failure to comply could result in bodily injury.
- 9. Tighten the Blade using the Spanner and the Lock button as above. Tighten firmly.
- 10. Spin the blade by hand to double check it is fitted properly and spinning true.
- 11. Tooling fitted to this machine must not exceed 35mm high from Face of segment to the face against the machine boss. Floorex does not warrant the machine against damage resulting from after-market tooling.

## Operating instructions

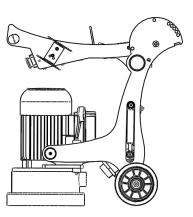
- 12. Tilt machine back onto the disk and lock handle into the best position in the operate mode for the operator comfort. (See Handle Positions)
- 13. Connect machine to suitable power outlet. Only use heavy duty power lead suitable for high current use (minimum 2.5 mm² cable), no longer than 20 meters. (For petrol powered equipment, refer to engine manual for startup procedure).
- 14. If no power is available within the specified distance, have a qualified person install a suitable power outlet closer to your work. Alternatively use 4mm<sup>2</sup> cable for up to 50 meters.
- 15. Connect a suitable dust extractor to the machine via a 50mm flexible hose. The machine is designed to take the standard FLOOREX 50mm hose ends to make connection of dust extractors easy and hassle free. Alternatively, water spray using the supplied water connection point can be used to suppress dust.
- 16. Keep machine clear of drainage pits and grates or any such hazard. Failure to comply could result in bodily injury and or could damage the machine or property.
- 17. Ensure machine is on a level surface and handle is not folded (see Handle Positions).
- 18. Switch on the dust extractor or water spray.
- 19. Hold the handles firmly and switch the machine on by pushing the green button.
- 20. If the over-current device trips it indicates a problem. (Undersize power lead or poor power to GPO outlet). Refer above for recommendations on power leads. Rectify problem or decrease load on grinder by using tooling with more surface area. Continuing to use the METEOR 250 when constant tripping occurs, VOIDS THE WARRANTY!

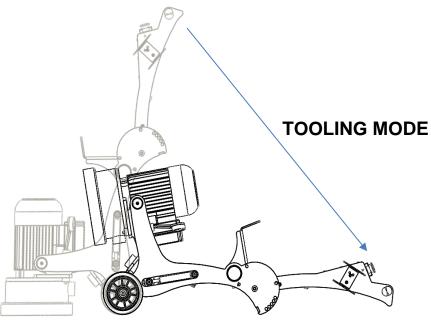
## Operating instructions

- 21. This machine is designed to operate with the wheels in contact with the floor at all times. Do not operate with wheels off the floor.
- 22. Do not attempt to make any adjustments while the machine is in operation. Any adjustments must only be performed when machine is stopped and power disconnected.
- 23. After a few minutes of grinding check the wear of the diamond tooling. This will pay handsomely if the diamonds are wearing out fast due to soft concrete / abrasive concrete. FLOOREX has a wide range of diamonds to suit every need.
- 24. See the chart on page 10 for tips on how to grind faster on tough concrete and other ways problems can be rectified.

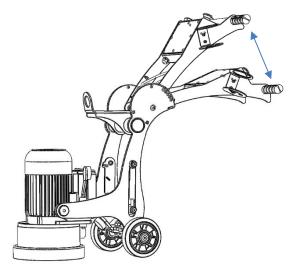
# Handle positions

#### STORAGE AND LIFTING MODE





**OPERATING MODES** 



## **Electrical safety**

- 1. All electrical maintenance and repairs to be carried out by qualified persons only.
- 2. CAUTION Line terminals may be alive when main switch is in the off position. Disconnect all power at source before performing any maintenance or repairs.
- 3. WARNING DO NOT operate the machine with any electrical panels open.
- 4. WARNING The METEOR 250 has an overload switch and will trip when under excessive load and will not allow the machine to be switched on if it is overloaded. (Overload will need to be reset when safe to do so). Continuing to use the METEOR 250 when constant tripping occurs, VOIDS THE WARRANTY!
- 5. Never operate machine in the rain or if heavy moisture is present.
- 6. The overcurrent device is there to protect you and the machine from harm. DO NOT alter or adjust the over load in any way. If it is faulty, only replace with original part that is identical to the faulty one.
- 7. Never bypass over-current devices in this machine.
- 8. Never connect or disconnect power cables with voltage present or while under load.
- 9. Disconnect all power connections and observe lock out / tag out procedures before attempting to carry out any maintenance or repair on any equipment.
- 10. Avoid any contact with any rotating parts or driven parts.
- 11. Never use equipment that has not been tested and tagged (including cords).
- 12. Do not operate METEOR 250 with any covers or doors removed or open.
- 13. Before connecting the machine to power, check the condition of all power leads and cables on, or used in conjunction with the machine. DO NOT USE it if any fault(s) cuts; wear marks, Bare wires out of plugs or sockets, etc. Get qualified persons to repair and re-tag it as required by regulations in your country.

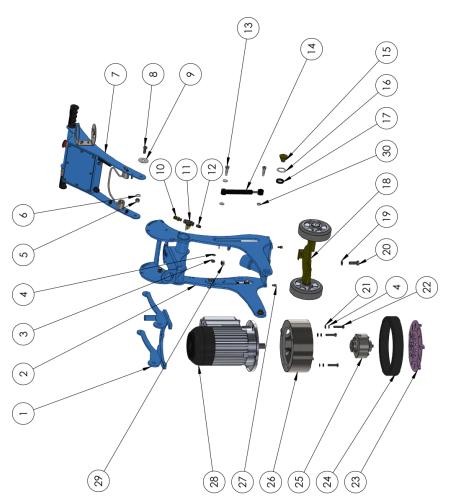
## Problem solving

Diamond Grinding has many variables. When you understand some of these, you can solve many problems without a lot of bother and expense.

PROBLEM	CAUSE	REMEDY	WHAT IS IT DOING?
Machine will not start / run.	No power is present at cable end.	Check the power is present with another tool.	Using another tool confirms power is present
	Machine is trying to start on glue or other sticky substance.	Clear a patch with a scraper and grind into the glue a little at a time.	This means it only tackles a small amount of glue at a time and keeps the glue residue coated with dust, preventing glue build-up on the diamonds.
	Power lead is too small in capacity or too long.	Upgrade the power lead to 2.5mm <sup>2</sup> (20 meters) max or 4mm <sup>2</sup> (50 meters max).	The long / small capacity cable is too restrictive and can't allow enough power through for the machine to start / run properly.
Machine is not grinding at all.	No blade / accessories in unit.	Fit blade. Note; check wear on machine.	
	Very hard concrete or glazed topping on concrete.	Turn dust extractor down / restrict flow. Only just control the dust from escaping.	The extra dust accumulating on the floor acts as an abrasive between the segments and the floor thus exposing the diamonds better.
		Place river sand or equivalent on the floor.	The sand is an abrasive as described above.
		Use softer grade of diamond tooling.	The softer grade will expose the diamonds better.
		Use coarser diamond tooling.	The coarser diamond tooling can get through the hard topping without wearing out the diamonds too fast.
The diamonds are wearing out too fast.	The concrete is: *Soft *Abrasive *Rain Damaged *A rough finish	Use a powerful dust extractor to remove as much dust as possible.	The dust, as described acts as an abrasive between the segments exposing the diamonds prematurely, wasting them.
	(Scarified).	Use harder diamond matrix.	The harder segments don't expose as easily.
		Use tooling with more segments or area <sup>2</sup> of segment.	The tooling with more segments or area <sup>2</sup> doesn't have the same weight on them, reducing wear.

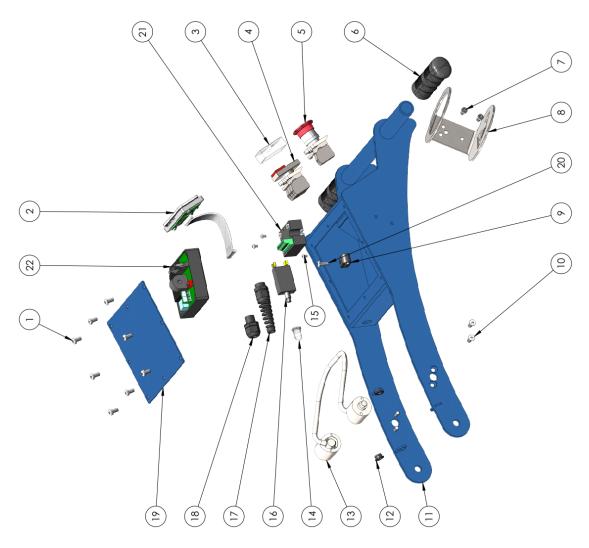
## Parts Diagram – Main

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QTY	1	1	2	2	2	9	1	2	2	1	п	1	4	2	2	2	2	1	1	1	3	3	1	1	1	1	2	1	1	2
DESCRIPTION	Meteor G3 Motor Chassis	Meteor 250 G3 Main Chassis	M10 Standard Nut	M10 Spring Washer	M12 Nyloc Nut	M12 Standard Washer	Meteor Generation3 Handle Complete	12 X 30 Button Head	Meteor Gen3 Handle Spacer Shim 50X12X1mm	Brass Tap adapter	Ball Valve 1/4 Butterfly	1/4" male X 6mm Push in Fitting for Nylon Tube	M10 Shoulder Bolt 12x25mm	Damper For Meteor G3	Meteor Chassis Pivot Nut	Meteor 250 Generation3 Pivot Spacer Washer	Meteor 250 Generation3 Pivot Bush	Meteor 250 G3 Axle Assembly	M14 Spring Washer	M14 X 40 Hex Head Set Screw	M10 Standard Washer	M10 X 45 Hex Head Set Screw	ST 10 Inch X 6 X Segment	Meteor 250 G3 Shroud 48mm Deep	Meteor Generation3 Coupling	Meteor 250 G3 Shroud Assembly	M8 X 12 Socket Head Cap Screw	Motor Ravel 4 Pole 2.2 Kw Complete	M14 Nyloc Nut	M12 Spring Washer
PartNo	MET-302	MET-301	FS-345	FS-317	FS-366	FS-333	See Detail	FS-223	MET-364	MET-063	G3-153	G3-154	FS-021	G3-271	MET-342	MET-340	MET-341	See Detail	FS-319	FS-308	FS-332	FS-288	ST10-X06016	MET-330	See Detail	See Detail	FS-236	MET-032	FS-367	FS-318
ITEM NO.	1	2	m	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18	19	20	21		23	24	25	56	27	28	59	30



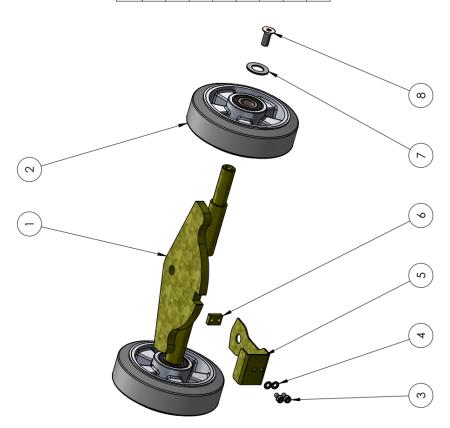
## Parts List – Handle

QTY.	80	_	_	_	_	2	2	_	_	4	-	2	_	_	3	1	1	_	1	_	_	_
DESCRIPTION	Screw Pan Head M6 X 12 Phillips	HVA Meter Screen Assembly	Protective Boot for Start Stop Switch	Start Stop Switch Complete	Emergency Stop Switch Complete	Rubber handle Grip	M6 X 10 Socket Head Cap Screw	Drink Holder	Plastic P Clip 10mm	Screw Countersunk Phillips M6 x 16 ZP	Meteor 250 G3 Handle Frame	Rubber Grommet Quick Fit 12mm	Meteor 250 Lock Mechanisim Complete	Overload Boot	M4 X 6 Screw Pan Head Phillips	Overload 13A	Gland With Support PG11	Nylon Cable gland M16	Meteor 250 G3 Control Box Lid	M5 x 16 Screw Pan Head Phillips	SSR 80 A 240V	HVA Version4
PartNo	FS-565	See Detail	G3-029	G3-030	G3-031	G3-050	FS-230	G3-199	G3-034	FS-495	MET-304	MET-027	See Detail	G3-049	FS-549	MET-003	MET-005	G3-364	MET-305	FS-559	G3-032	G3-440
ITEM NO.	ı	2	က	4	5	9	7	∞	6	10	11	12	13	14	15	16	17	18	19	20	21	22



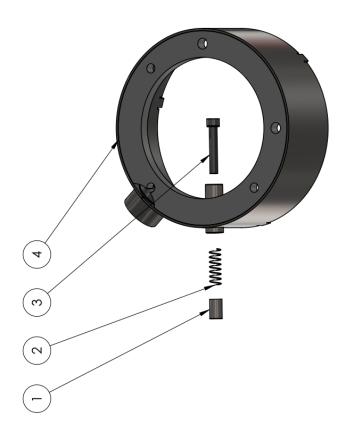
# Parts Diagram – Axle

Default/ QTY.	1	2	2	2	-	1	2	2
DESCRIPTION	Meteor 250 G3 Axle Welded Assembly	Wheel 160mm Grey Rubber 20mm ID	M6 X 10 Socket Head Cap Screw	M6 Spring Washer	Meteor 250 Generation3 Swivel Lock Foot Plate	Meteor 250 Generation3 Axle Lock Block	M18 Standard Washer	M10 X 25 Socket Head Countersunk Screw
PartNo	MET-307	MET-016	FS-230	FS-315	MET-350	MET-306	FS-335	FS-268
ITEM NO.	1	2	က	4	5	9	7	8



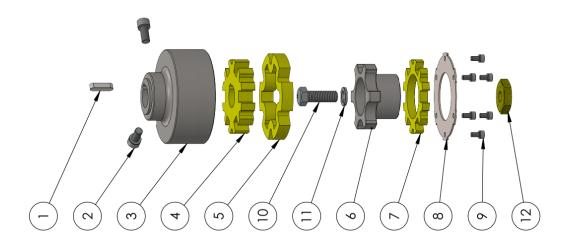
# Parts Diagram - Shroud

l	1	l	1
Plunger Lock Button	Plunger Lock Spring	10 X 60 Socket Head Cap Screw	Meteor 250 G3 Shroud Stainless
MET-019	MET-020	FS-251	MET-308
1	2	3	4
			50



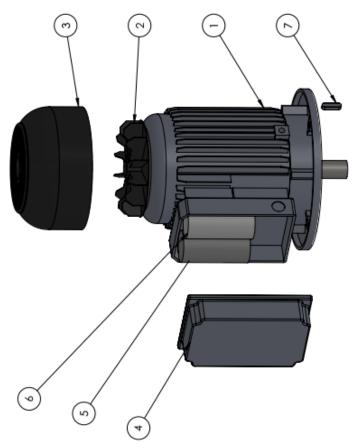
# Parts Diagram – Coupling

QTY.	1	2	_	1	_	_	_	_	9	1	1	_
DESCRIPTION	Key For Keyway 7X8 X 23mm	10 X 20 Socket Head Cap Screw	Spider Coupling Outer Stainless	Spider Coupling Element 3	Spider Coupling Element 2	Spider Coupling Inner Stainless	Spider Coupling Element 1	Spider Coupling Stainless Retainer Plate	M6 X 10 Socket Head Cap Screw	M14 X 40 Hex Head Set Screw	M14 Spring Washer	Meteor 250 Blade Nut
PartNo	MET-066	FS-245	MET-090	MET-093	MET-094	MET-091	MET-095	MET-092	FS-230	FS-308	FS-319	MET-024
ITEM NO.	1	2	က	4	2	9	7	∞	6	10	11	12



# Parts Diagram – Motor

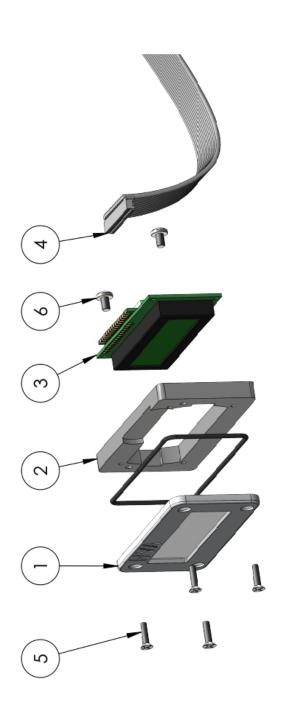
DESCRIPTION	Motor Ravel 4 Pole 2.2 Kw Complete	Ravel 100 Frame Motor Cooling Fan	Ravel 100 Frame Motor Cooling Fan Cover	Ravel 100 Frame Motor Capacitor Box Lid	Starting Capacitor 60uF For Ravel (with 3 Second Timer)	Run Capacitor 65uf for Ravel 4 Pole Motor	Key For Keyway 7X8 X 23mm
PartNo	MET-032	MET-124	MET-125	MET-126	MET-120	MET-122	MET-066
ITEM NO.	1	2	3	4	5	9	7



## Parts Diagram – Handle Lock

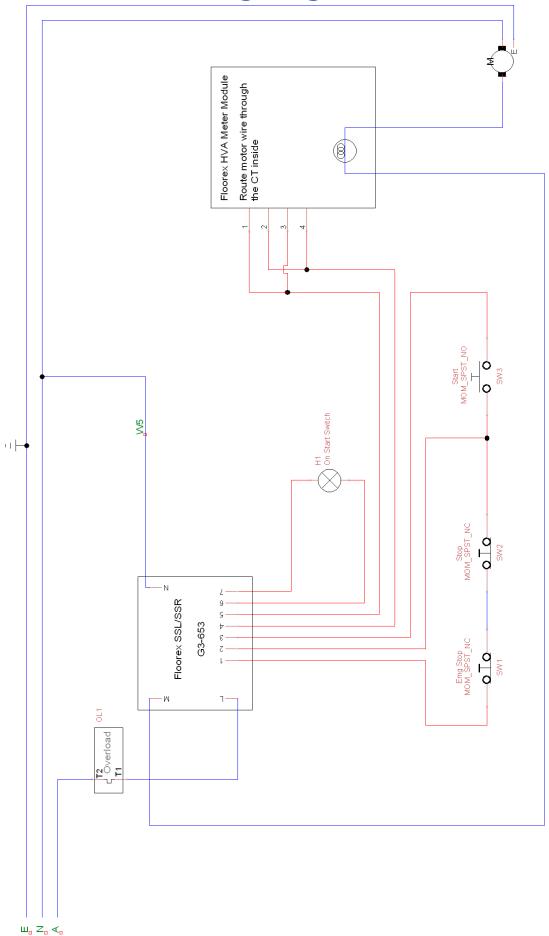
			9			i ilanale Ec
	QTY.	l	2	2	4	
	DESCRIPTION	Meteor 250 Spring Handle with Circlip Grooves	Lock Mechanisim Cam	Lock Mechanisim Pin	Circlip 8mm	
33	PartNo	MET-360	G3-181	G3-182	G3-185	
	ITEM NO.	1	2	3	4	
						4 4 2 2
		7				-

# Parts Diagram – Screen



ITEM NO.	PartNo	DESCRIPTION	RevisionC/QTY.
1	G3-445	HVA Meter Screen with Bezel & Seal	1
2	G3-045	Screen Mount Block PC	1
က	G3-046	HVA Display Screen	1
4	G3-039	HVA Meter Ribbon Cable	1
5	FS-265	M3 x 12 Flat head screw	4
9	FS-549	M4 X 6 Screw Pan Head Phillips	2
7	G3-444	HVA Meter Screen 2mmOD Sealing Ring	1

# Wiring Diagram





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