

OPERATION MANUAL AND PARTS

MQ POWER MODEL DCA-800SSK PORTABLE GENERATOR (STANDARD)

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PARTS LIST NO. C5872300004

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FAX: 800-672-7877

SERVICE DEPARTMENT:

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FAX: 310-638-8046



WARNING



CALIFORNIA — Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800/427-1244 or 310/537-3700

FAX: 800/672-7877 or 310/637-3284

SERVICE DEPARTMENT

800/835-2551 or 310/537-3700

FAX: 310/638-8046

WARRANTY DEPARTMENT

800/835-2551 or 310/537-3700

FAX: 310/638-8046

MAIN

800/421-1244 or 310/537-3700

FAX: 310 - 537-3927

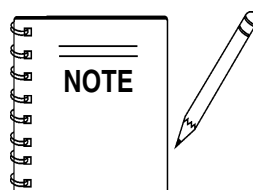
MQ Power DCA-600SSK AC Generator

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Specification and part number are subject to change without notice.

PARTS ORDERING PROCEDURES

When ordering parts, please supply the following information:

- ☐ Dealer account number
- ☐ Dealer name and address
- ☐ Shipping address (if different than billing address)
- ☐ Return fax number
- ☐ Applicable model number
- ☐ Quantity, part number and description of each part
- ☐ Specify preferred method of shipment:
 - ✓ FedEx or UPS Ground
 - ✓ FedEx or UPS Second Day or Third Day
 - ✓ FedEx or UPS Next Day
 - ✓ Federal Express Priority One
 - ✓ DHL
 - ✓ Truck

Note: Unless otherwise indicated by customer, all orders are treated as "Standard Orders", and will ship within 24 hours. We will make every effort to ship "Air Shipments" the same day that the order is received, if prior to 2PM west coast time. "Stock Orders" must be so noted on fax or web forms.



Here's how to get help...

Please have the model and serial number on hand when calling.

Parts Department

800-427-1244
310-537-3700

Fax: 800-672-7877
Fax: 310-637-3284

Mayco Parts

800-306-2926
310-537-3700

Fax: 800-672-7877
Fax: 310-637-3284

Service Department

800-478-1244
310-537-3700

Fax: 310-537-4259

MQ Power Service Department

800-835-2551
310-537-3700

Fax: 310-638-8046

Warranty Department

800-421-1244, Ext. 279
310-537-3700, Ext. 279

Fax: 310-537-1173

Multiquip's Main Phone Numbers

800-421-1244
310-537-3700

Fax: 310-537-3927

Place Your Parts Order Via Web or Fax For Even More Savings!

Extra Discounts!

All parts orders which include complete part numbers and are received by our automated web parts order system, or by fax qualify for the following extra discounts:

Ordered via	Standard orders	Stock orders (\$750 list and above)
Fax	3%	10%
Web	5%	10%

Special freight allowances when you order 10 or more line items via Web or Fax! **

FedEx Ground Service **at no charge for freight**

No other allowances on freight shipped by any other carrier.

NOTE: DISCOUNTS ARE SUBJECT TO CHANGE



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Direct TOLL-FREE access to our Parts Department:

Toll-free nationwide — 800-427-1244

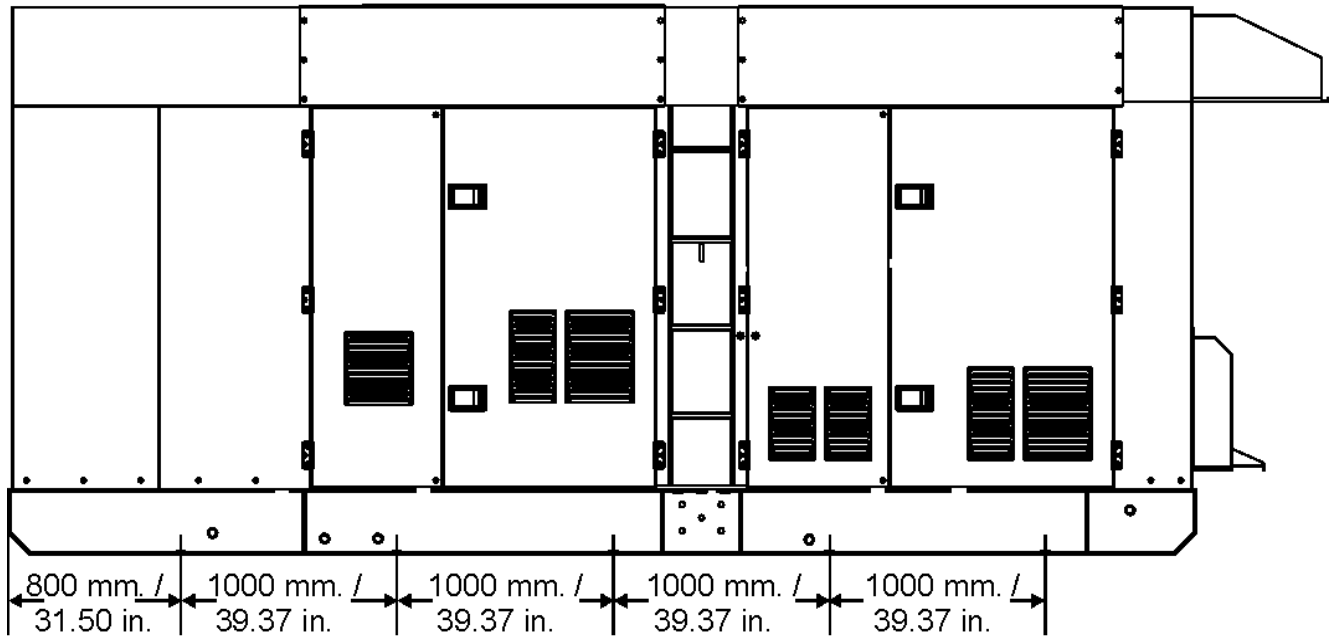
DCA-800SSK — SPECIFICATIONS

Table 7. Specifications		
Generator Specifications		
Model	DCA-800SSK	
Type	Revolving field, self ventilated, open protected type synchronous generator	
Armature Connection	Star with Neutral	
Phase	3	
Standby Output	880KVA (740 KW)	
Prime Output	800 KVA (640 KW)	
Voltage	208,220,240,416,440,480 reconnectable (3 phase) 1200,127,139,240,254,277 adjustable (single phase)	
Frequency	60 Hz	
Speed	1800 rpm	
Power Factor	0.8	
Sound Level dB(A)	73 (full load at 23 feet)	
Engine Specifications		
Model	KOMATSU SV12V140	
Type	direct injection, turbo-charged with after-cooler	
No. of Cylinders	12 cylinders	
Bore x Stroke	5.5 in. x 6.5 in. (140 mm x 165 mm)	
Rated Output	986 HP/1800 rpm	
Displacement	1858 cu. in. (30480 cc)	
Starting	Electric	
Coolant Capacity	45 gal. (163 liters)	
Lube Oil Capacity	40 gal. (151.0 liters)	
Fuel Consumption	43 gal. (163 L)/hr at full load	31.7 gal.(120 L)/hr at 3/4 load
	23.1 gal. (87.6 L)/hr at 1/2 load	14.9 gal. (56.4L)/hr at 1/4 load
Battery	12V- 200 AH x 4	
Fuel	#2 Diesel Fuel	

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DCA-800SSK — DIMENSIONS (TOP AND SIDE)

SIDE VIEW



(BOLT HOLE LOCATION)

TOP VIEW

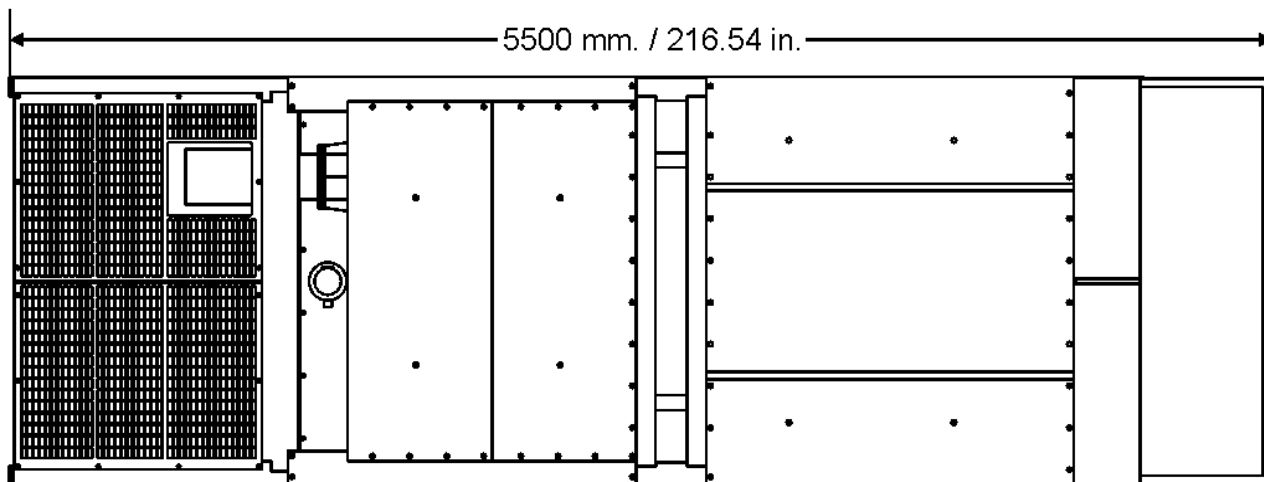
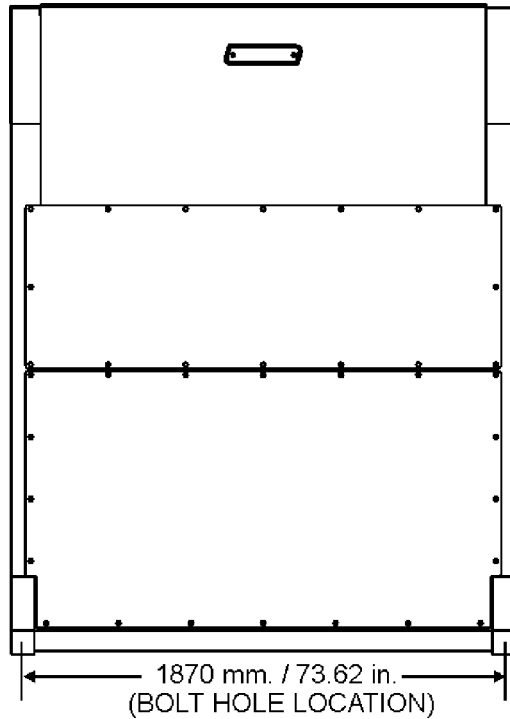


Figure 1. Dimensions

DCA-800SSK— DIMENSIONS (FRONT , REAR AND DOORS)

FRONT VIEW



**REAR VIEW
CONTROL PANEL VIEW**

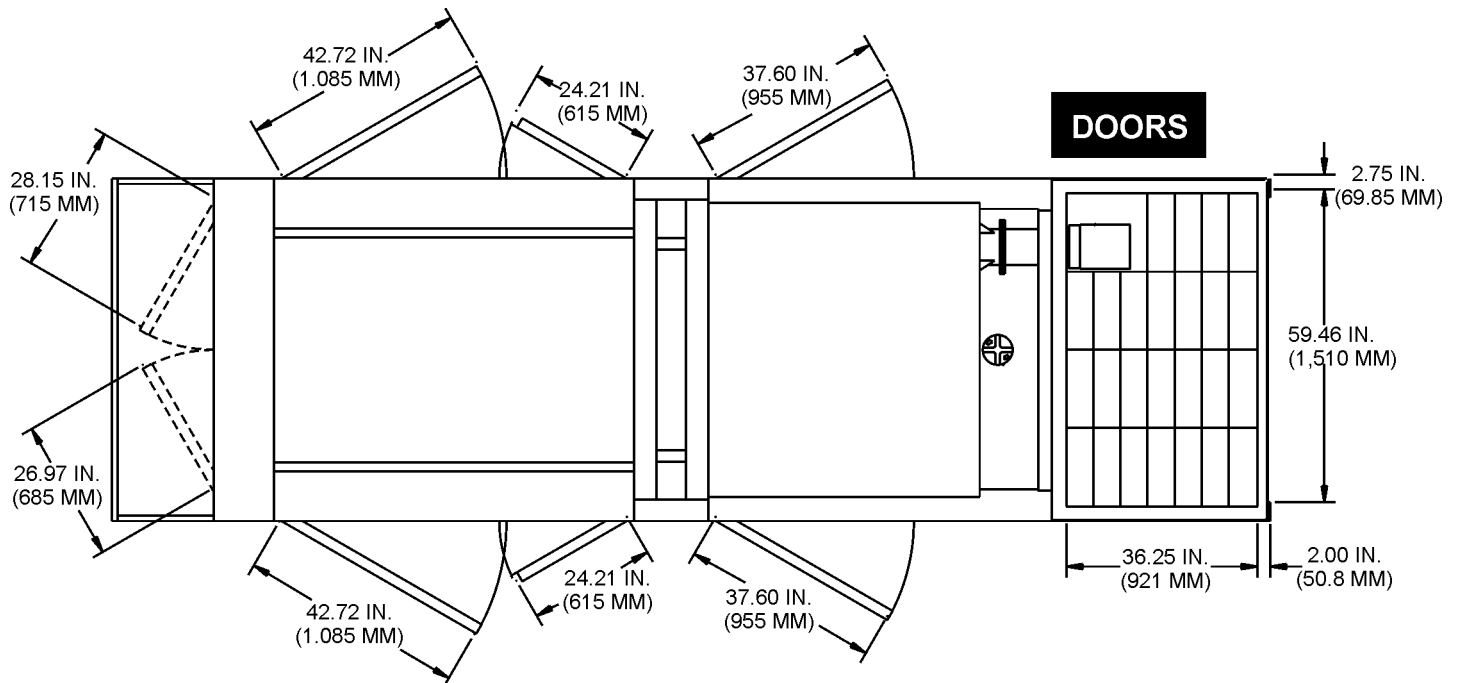
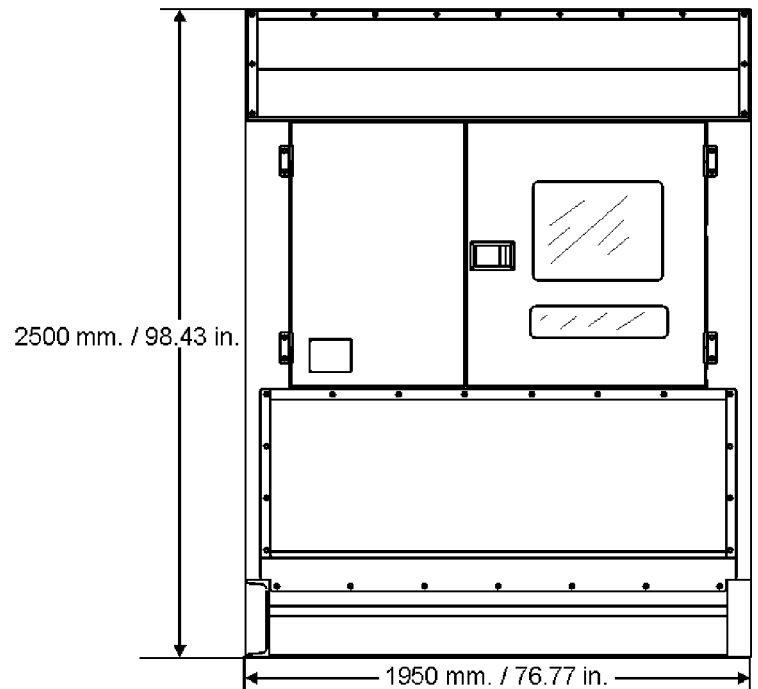
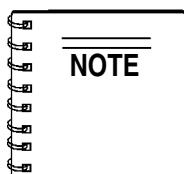


Figure 2. Dimensions

DCA-800SSK — SAFETY MESSAGE ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.



This **Operation and Parts** Manual has been developed to provide complete instructions for the safe and efficient operation of the MQ Power **Model DCA-800SSK (60Hz) Whisperwatt™ Generator**.

Before using this generator, ensure that the operating individual has read and understands all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three (3) Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**, **WARNING**, or **CAUTION**.

DANGER

You **WILL** be **KILLED** or **SERIOUSLY** injured if you do not follow directions.

WARNING

You **COULD** be **KILLED** or **SERIOUSLY** injured if you do not follow directions.

CAUTION

You **CAN** be injured if you do not follow directions

HAZARD SYMBOLS

Potential hazards associated with the operation of this equipment will be referenced with "**Hazard Symbols**" which appear throughout this manual, and will be referenced in conjunction with Safety "**Message Alert Symbols**".

WARNING - LETHAL EXHAUST GASES



Gasoline engine exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause **DEATH** if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.

WARNING - EXPLOSIVE FUEL



Gasoline is extremely flammable, and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids. **DO NOT** fill the fuel tank while the engine is running or hot.

DO NOT overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system. Store fuel in approved containers, in well-ventilated areas and away from sparks and flames. **NEVER** use fuel as a cleaning agent.

WARNING - BURN HAZARDS



Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operations. **NEVER** operate the engine with heat shields or heat guards removed.

DANGER - ELECTROCUTION HAZARDS

During operation of this generator, there exists the possibility of **electrocution, electrical shock or burn**, which can cause **severe bodily harm** or even **DEATH!**



DCA-800SSK — SAFETY MESSAGE ALERT SYMBOLS



WARNING - ROTATING PARTS



NEVER operate equipment with covers, or guards removed. Keep ***fingers, hands, hair*** and clothing away from all moving parts to prevent injury.



CAUTION - RESPIRATORY HAZARDS



ALWAYS wear approved ***respiratory*** protection.



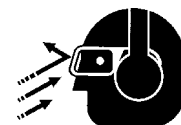
CAUTION - ACCIDENTAL STARTING



ALWAYS place the **engine ON/OFF** switch in the **OFF** position when the generator is not in use.



CAUTION - SIGHT AND HEARING HAZARDS



ALWAYS wear approved ***eye*** and ***hearing*** protection.



CAUTION - OVER-SPEED CONDITIONS

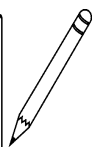
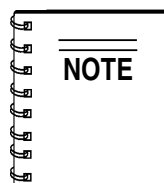


NEVER tamper with the factory settings of the engine governor or settings. Personal injury and damage to the engine or equipment can result if operating in speed ranges above maximum allowable.



CAUTION - EQUIPMENT DAMAGE MESSAGES

Other important messages are provided throughout this manual to help prevent damage to your generator, other property, or the surrounding environment.



This generator, other property, or the surrounding environment could be damaged if you do not follow instructions.

DCA-800SSK — RULES FOR SAFE OPERATION

DANGER - READ THIS MANUAL!

Failure to follow instructions in this manual may lead to **serious injury** or even **DEATH!** This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the **DCA-800SSK (60 Hz) Whisperwatt™ Generator**

General Safety:

- **DO NOT** operate or service this equipment before reading this entire manual.



The operator **MUST BE** familiar with proper safety precautions and operations techniques before using generator.

- This equipment should not be operated by persons under 18 years of age.
- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other



protective devices required by the job.

- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.



- **NEVER** operate this equipment under the influence or



drugs or alcohol.

- **NEVER** use accessories or attachments, which are not recommended by MQ Power for this equipment. Damage to the equipment and/or injury to user may result.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.

- **ALWAYS** check the machine for loosened threads or bolts before starting.

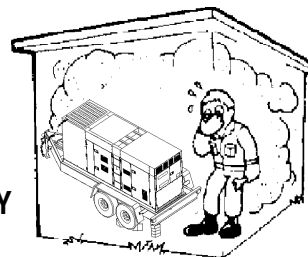
- **NEVER** operate the generator in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death.**

- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing engine or generator.



- **High Temperatures** – Allow the engine to cool before performing service and maintenance functions. Contact with **hot!** components can cause serious burns.

- The engine of this generator requires an adequate free flow of cooling air. **NEVER** operate the generator in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause serious damage to the generator or engine and may cause injury to people. The generator engine gives off **DEADLY** carbon monoxide gas.



- **DO NOT** place hands or fingers inside generator engine compartment when engine is running.
- **NEVER** run engine without air filter. Severe engine damage may occur.
- **DO NOT** leave the generator running in the **manual mode** unattended.
- Refer to the **John Deere Engine Owner's Manual** for engine technical questions or information.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.

Generator Grounding

To guard against electrical shock and possible damage to the equipment, it is important to provide a good **EARTH** ground.

Article 250 (Grounding) of the **National Electrical Code** (NEC) provides guide lines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

The following safety recommendations should also be followed:

- **ALWAYS** make sure generator is properly grounded.
- **NEVER** use gas piping as an electrical ground.
- **ALWAYS** make sure that electrical circuits are properly **grounded** per the **National Electrical Code** (NEC) and local codes before operating generator. Severe **injury** or **DEATH!** by electrocution can result from operating an ungrounded generator.
- **ALWAYS** be sure to use the ground terminal (green wire) when connecting a load to the U,V, and W output terminal lugs.

Electrical Safety

- **ALWAYS** have a qualified electrician perform the generator wiring installation.
- **ALWAYS** make sure generator installation is accordance with the **National Electrical Code** (NEC) and local codes before operating generator.
- **NEVER** use a defective or frayed power cable. Check the cable for cuts in the insulation.
- **NEVER** use a extension cord that is frayed or damaged where the insulation has been cut.
- **ALWAYS** make certain that proper extension cord has been selected for the job. See Table 6.
- **NEVER** power cables or cords **lay in water**.
- **NEVER** **stand in water** while AC power from the generator is being transfer to a load.



DANGER - ELECTROCUTION HAZARDS

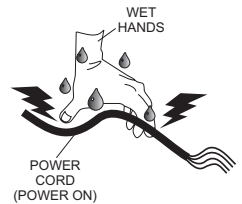
During operation of this generator, there exists the possibility of **electrocution, electrical shock or burn**, which can cause **severe bodily harm** or even **DEATH!**



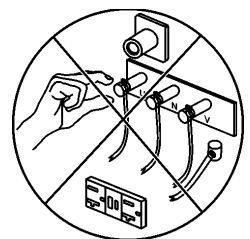
To avoid these hazards:

NEVER use damaged or worn cables when connecting equipment to the generator. Make sure power connecting cables are securely connected to the generator's output terminals, insufficient tightening of the terminal connections may cause damage to the generator and electrical shock.

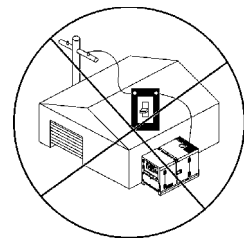
NEVER grab or touch a live power cord with wet hands.



NEVER touch output terminals during operation. This is extremely dangerous. **ALWAYS** stop the machine and place the circuit breaker in the **OFF** position when contact with the output terminals is required.



Backfeed to a utility system can cause **electrocution** and or property damage. **DO NOT** connect to any building's electrical system except through an approved device or after building main switch is opened. **ALWAYS** have a licensed electrician perform the installation



DCA-800SSK — RULES FOR SAFE OPERATION

Maintenance Safety

- The electrical voltage required to operate the generator can cause severe injury or even death through physical contact with live circuits. Turn all circuit breakers **OFF** before performing maintenance on the generator.
- **NEVER** lubricate components or attempt service on a running machine.
- **ALWAYS** disconnect the **NEGATIVE battery terminal** before performing service on the generator.
- Follow all Battery Safety Guidelines listed in this manual when handling or servicing the generator.
- **ALWAYS** allow the machine a proper amount of time to cool before servicing.
- Keep the machinery in proper running condition.
- Fix damage to the machine immediately and always replace broken parts.
- **ALWAYS** service air cleaner frequently to prevent engine malfunction.

WARNING - BURN HAZARDS

To prevent burns, **DO NOT** touch or open any of the below mentioned components while the engine is running or immediately after operations. Always allow sufficient time for the engine and generator to cool before performing maintenance.



- **Radiator Cap** - Removing the radiator cap while the engine is hot will result in high pressurized, boiling water to gush out of the radiator, causing severe scalding to any persons in the general area of the generator.
- **Coolant Drain Plug** - Removing the coolant drain plug while the engine is hot will result in hot coolant gushing out of the coolant drain plug, therefore causing severe scalding to any persons in the general area of the generator.
- **Engine Oil Drain Plug** - Removing the engine oil drain plug while the engine is hot will result in hot oil gushing out of the oil drain plug, therefore causing severe scalding to any persons in the general area of the generator.

Battery Safety

Use the following guidelines when handling the battery:

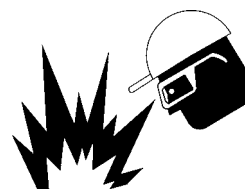
- The battery contains acids that can cause injury to the eyes and skin. To avoid eye irritation, **always** wear safety glasses.
- Use well insulated gloves when picking up the battery.



DANGER - EXPLOSION HAZARDS

The risk of an explosion exists when performing service on the battery. To avoid **severe injury** or **DEATH**:

- **DO NOT** drop the battery. There is the possibility of risk that the battery may explode.
- **DO NOT** expose the battery to open flames, sparks, cigarettes etc. The battery contains combustible gases and liquids. If these gases and liquids come in contact with a flame or spark, an explosion could occur.



- **ALWAYS** keep the battery charged. If the battery is not charged a buildup of combustible gas will occur.
- **ALWAYS** keep battery charging and cables in good working condition. Repair or replace all worn cables.
- **ALWAYS** recharge the battery in a vented air environment, to avoid risk of a dangerous concentration of combustible gases.
- In case the battery liquid (dilute sulfuric acid) comes in contact with **clothing or skin**, rinse skin or clothing immediately with plenty of water.
- In case the battery liquid (dilute sulfuric acid) comes in contact with your **EYES**, rinse eyes immediately with plenty of water and contact the nearest doctor or hospital to seek medical attention.

DCA-800SSK — RULES FOR SAFE OPERATION

Towing & Transporting Safety

To reduce the possibility of an accident while transporting the generator on public roads, always make sure the trailer that supports the generator and the towing vehicle are in good operating condition and both units are mechanically sound.

The following list of safety precautions should be followed when towing your generator:

CAUTION - FOLLOW TOWING REGULATIONS

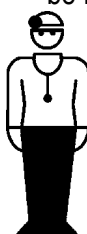
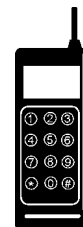
Check with your local county or state safety towing regulations, in addition to meeting **Department of Transportation (DOT) Safety Towing Regulations**, before towing your generator.

- **ALWAYS** shutdown engine before transporting.
- Tighten both fuel tank caps securely.
- If generator is mounted on a trailer, make sure trailer complies with all local and state safety transportation laws. Follow the listed **Towing & Transporting Safety** guidelines for basic towing techniques.
- Make sure the hitch and coupling of the towing vehicle are rated equal to, or greater than the trailer "gross vehicle weight rating."
- **ALWAYS** inspect the hitch and coupling for wear. **NEVER** tow a trailer with defective hitches, couplings, chains etc.
- Check the tire air pressure on both towing vehicle and trailer. **Trailer tires should be inflated to 50 psi cold.** Also check the tire tread wear on both vehicles.
- **ALWAYS** make sure the trailer is equipped with a "Safety Chain".
- **ALWAYS** attach trailer's safety chains to towing vehicle properly.
- **ALWAYS** make sure the vehicle and trailer directional, backup, brake, and trailer lights are connected and working properly.
- DOT Requirements include the following:
 - Connect and test electric brake operation.
 - Secure portable power cables in cable tray with tie wraps.

- The maximum speed for highway towing is **55 MPH** unless posted otherwise. Recommended off-road towing is not to exceed **15 MPH** or less depending on type of terrain.
- Place **chock blocks** underneath wheel to prevent **rolling**, while parked.
- Use the trailer's swivel jack to adjust the trailer height to a level position while parked.
- Avoid sudden stops and starts. This can cause skidding, or jack-knifing. Smooth, gradual starts and stops will improve towing.
- Avoid sharp turns.
- Trailer should be adjusted to a level position at all times when towing.
- Raise and lock trailer wheel stand in up position when transporting.
- The maximum speed for highway towing is **55 MPH** unless posted otherwise. Recommended off-road towing is not to exceed **15 MPH** or less depending on type of terrain.
- Place **support blocks** underneath the trailer's bumper to prevent **tipping**, while parked.
- Avoid sharp turns to prevent rolling.
- **DO NOT** transport generator with fuel in tank.

Emergencies

- **ALWAYS** know the location of the nearest **fire extinguisher**.
- **ALWAYS** know the location of the nearest and **first aid kit**.
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**, in case of emergencies.
- **ALWAYS** have easy access to the phone numbers of the nearest **Ambulance, Doctor** and **Fire Department**. This information will be invaluable in the case of an emergency.



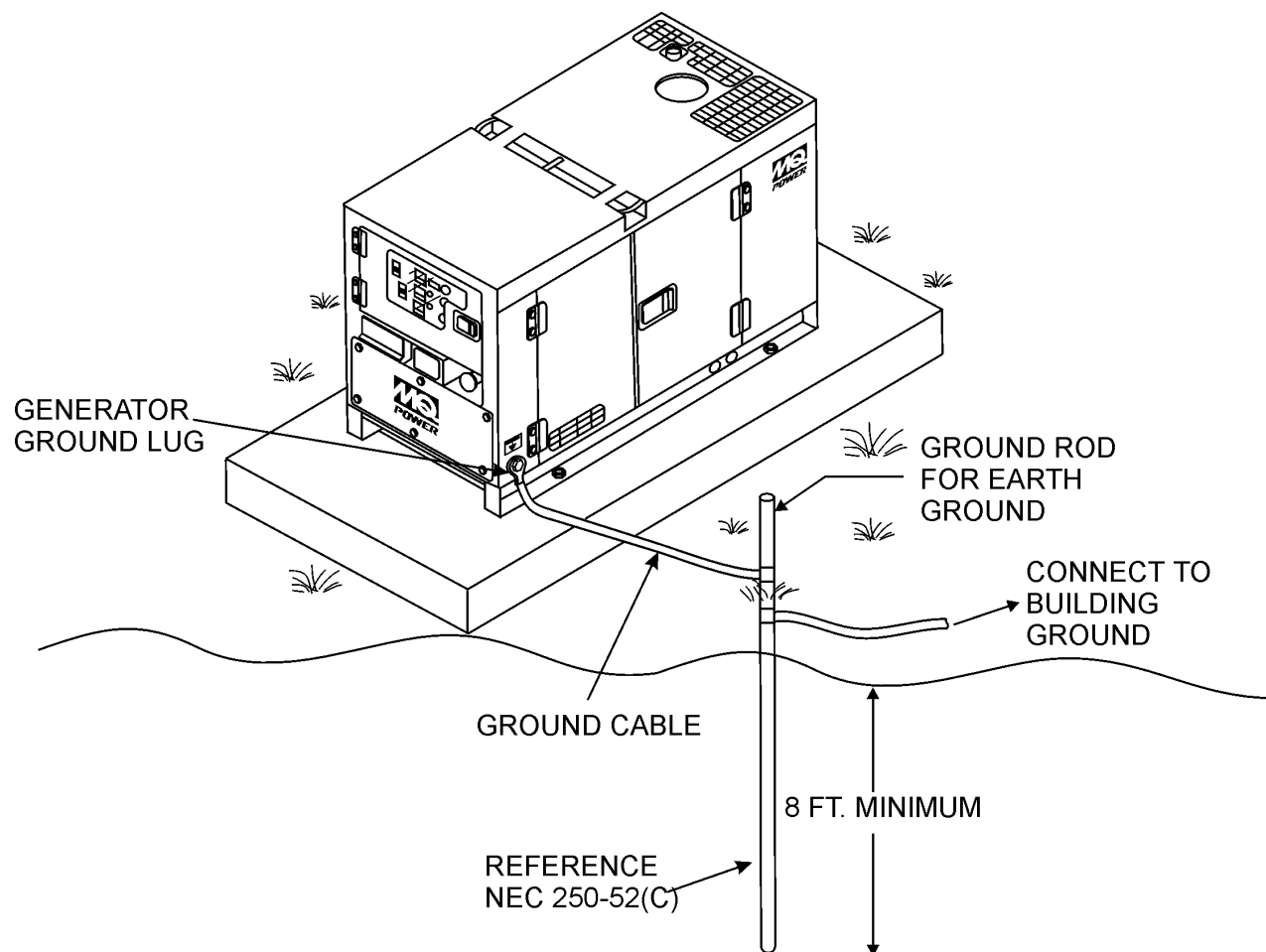


Figure 3. Typical Generator Grounding Application

Outdoor Installation

Install the generator in a area that is free of **debris**, **bystanders**, and **overhead obstructions**. Make sure the generator is on secure level ground so that it cannot slide or shift around. Also install the generator in a manner so that the exhaust will not be discharged in the direction of nearby homes.

The installation site must be relatively free from moisture and dust. All electrical equipment should be protected from excessive moisture. Failure to do will result in deterioration of the insulation and will result in short circuits and grounding.

Foreign materials such as dust, sand, lint and abrasive materials have a tendency to cause excessive wear to engine and alternator parts.



CAUTION - EXHAUST HAZARD

Pay close attention to ventilation when operating the generator inside tunnels and caves. The engine exhaust contains noxious elements. Engine exhaust must be routed to a ventilated area.

Indoor Installation

Exhaust gases from diesel engines are extremely poisonous. Whenever an engine is installed indoors the exhaust fumes must be vented to the outside. The engine should be installed at least two feet from any outside wall. Using an exhaust pipe which is too long or too small can cause excessive back pressure which will cause the engine to heat excessively and possibly burn the valves.

Mounting

The generator must be mounted on a solid foundation (such as concrete) and set firmly on the foundation to isolate vibration of the generator when it is running. The generator must set at least 6 inches above the floor or grade level (in accordance to NFPA 110, Chapter 5-4.1). **DO NOT** remove the metal skids on the bottom of the generator. They are to resist damage to the bottom of the generator and to maintain alignment.

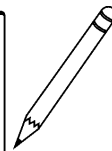
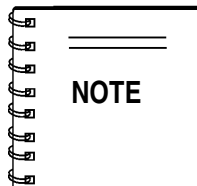
Generator Grounding

To guard against electrical shock and possible damage to the equipment, it is important to provide a good **EARTH** ground.

Article 250 (Grounding) of the National Electrical Code (NEC) provides guide lines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

NEC articles 250-64(b) and 250-66 set the following grounding requirements:

1. Use one of the following wire types to connect the generator to earth ground.
 - a. Copper - 10 AWG (5.3 mm²) or larger.
 - b. Aluminum - 8 AWG (8.4 mm²) or larger.
2. When grounding the generator (Figure 3) connect the ground cable between the lock washer and the nut on the generator and tighten the nut fully. Connect the other end of the ground cable to earth ground.
3. NEC article 250-52(c) specifies that the earth ground rod should be buried a minimum of 8 ft. into the ground.



When connecting the generator to any buildings electrical system **ALWAYS** consult with a licensed electrician.

DCA-800SSK — TOWING RULES FOR SAFE OPERATION

Towing Safety Precautions

CAUTION - TOWING REGULATIONS

Check with your county or state safety towing regulations before towing your generator.

To reduce the possibility of an accident while transporting the generator on public roads, always make sure the trailer (Figure 4) that supports the generator and the towing vehicle are in good operating condition and both units are mechanically sound.

The following list of suggestions should be used when towing your generator:

- Make sure the hitch and coupling of the towing vehicle are rated equal to, or greater than the trailer "gross vehicle weight rating" (GVWR).
- **ALWAYS** inspect the hitch and coupling for wear. **NEVER** tow a trailer with defective hitches, couplings, chains etc.
- Check the tire air pressure on both the towing vehicle and the trailer. Also check the tire tread wear on both vehicles.
- **ALWAYS** make sure the trailer is equipped with a "Safety Chain".
- **ALWAYS** attach trailer's safety chain to bumper of towing vehicle.
- **ALWAYS** make sure the vehicle and trailer directional, backup, brake, and trailer lights are connected and working properly.
- Remember the maximum speed unless otherwise posted for highway towing is **45 MPH**. Recommended off-road towing is not to exceed **10 MPH** or less depending on type of terrain.
- Place *chocked blocks* underneath wheel to prevent **rolling**, while parked.
- Place *support blocks* underneath the trailer's bumper to prevent **tipping**, while parked.
- Use the trailer's hand winch to adjust the height of the trailer, then insert locking pin to lock wheel stand in place, while parked.
- Avoid sudden stops and starts. This can cause skidding, or jackknifing. Smooth, gradual starts and stops will improve gas mileage.
- Avoid sharp turns to prevent rolling.
- Remove wheel stand when transporting.
- **DO NOT** transport generator with fuel in tank.

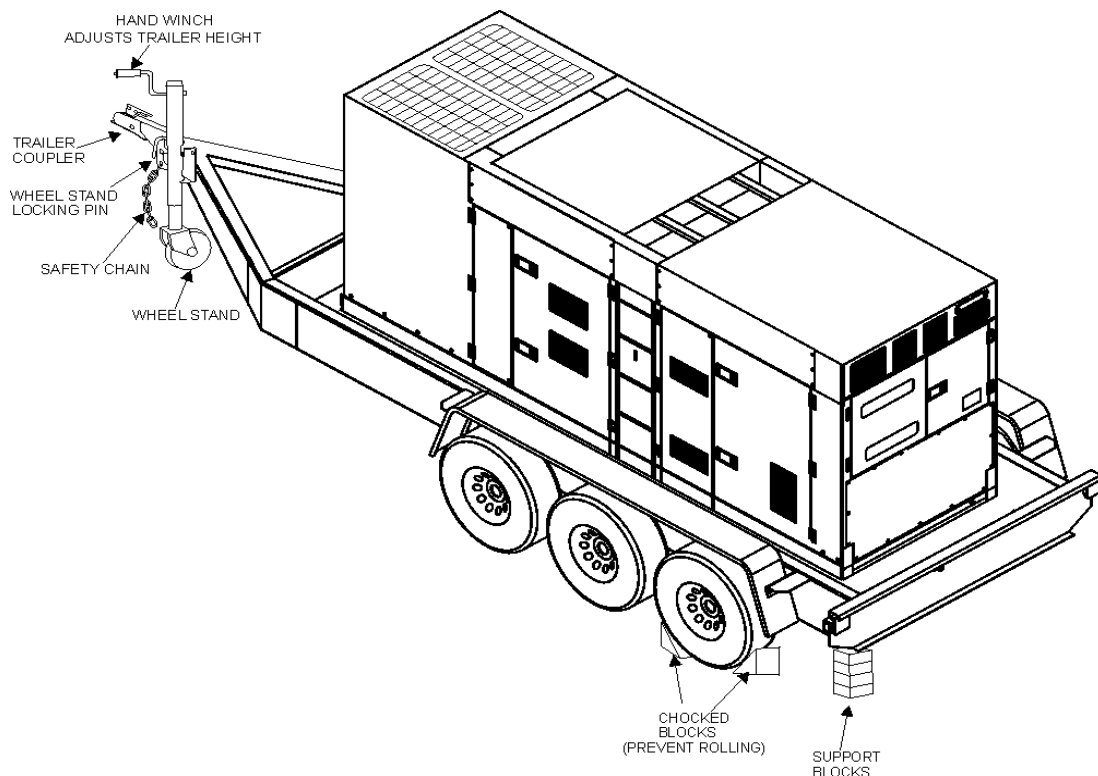


Figure 4. Generator and Trailer



CAUTION - TRAILER INSPECTION

ALWAYS make sure the trailer is in good operating condition. Check the tires for proper inflation and wear. Also check the wheel lug nuts for proper tightness.

Explanation of Chart:

This section is intended to provide the user with trailer service and maintenance information. The service and maintenance guidelines referenced in this section apply a wide range of trailers. Remember periodic inspection of the trailer will ensure safe towing of the equipment and will prevent damage to the equipment and personal injury.

It is the purpose of this section to cover the major maintenance components of the trailer. The following trailer components will be discussed in this section:

- Brakes
- Tires
- Lug Nut Torquing
- Suspension
- Electrical
- Brake Troubleshooting Tables

Use the following definitions when reading Table 3.

1. **Fuel Cell** - Provides an adequate amount of fuel for the equipment in use. Fuel cells must be empty when transporting equipment.
2. **Braking System** - System employed in stopping the trailer. Typical braking systems are electric, surge, hydraulic, hydraulic-surge and air.
3. **GVWR**- Gross Vehicle Weight Rating (GVWR), is the maximum number of pounds the trailer can carry, including the fuel cell (empty).
4. **Frame Length** - Measurement is from the ball hitch to the rear bumper (reflector).

5. **Frame Width** - Measurement is from fender to fender
6. **Jack Stand** - Trailer support device with maximum pound requirement from the tongue of the trailer.
7. **Coupler** - Type of hitch used on the trailer for towing.
8. **Tire Size** - Indicates the diameter of the tire in inches (10,12,14, etc.), and the width in millimeters (175,185,205, etc.). The tire diameter must match the diameter of the tire rim.
9. **Tire Ply** - The tire ply (layers) number is rated in letters; 2-ply,4-ply,6-ply, etc.
10. **Wheel Hub** - The wheel hub is connected to the trailer's axle.
11. **Tire Rim** - Tires mounted on a tire rim. The tire rim must match the size of the tire.
12. **Lug Nuts** - Used to secure the wheel to the wheel hub. Always use a torque wrench to tighten down the lug nuts. See Table 17 and Figure 67 for lug nut tightening and sequence.
13. **Axle** - Indicates the maximum weight the axle can support in pounds, and the diameter of the axle expressed in inches. Please note that some trailers have a double axle. This will be shown as 2-6000 lbs., meaning two axles with a total weight capacity of 6000 pounds.
14. **Suspension** - Protects the trailer chassis from shocks transmitted through the wheels. Types of suspension used are leaf, Q-flex, and air ride.
15. **Electrical** - Electrical connectors (looms) are provided with the trailer so the brake lights and turn signals can be connected to the towing vehicle.
16. **Application** - Indicates which units can be employed on a particular trailer.

DCA-800SSK —TRAILER-SPECIFICATIONS

Table 3. Trailer Specifications

MODEL	APPLICATION	FUEL CELL	BRAKE SYSTEM	GVWR	FRAME LENGTH	FRAME WIDTH	JACK STAND
TRLR-10W	SDW225, SGW250,TLW300	NO	NO	1,900 LBS. 862 Kg.	96 inches 2.43 meters	50 inches 1.27 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-10	DCA10, TLG12, DCA-15	NO	NO	1,900 LBS. 862 Kg.	96 inches 2.43 meters	50 inches 1.27 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-10XF	DCA10, TLG-12, DCA15, TLW-300	52 Gallons 197 Liters	NO	1,900 LBS. 862 Kg.	96 inches 2.43 meters	50 inches 1.27 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-225W	WELDERS, DA7000SS	NO	NO	2,200 LBS. 998 Kg.	85 inches 2.43 meters	42 inches 1.06 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-BLW400	BLW-400	NO	ELECTRIC	2,700 LBS. 1,224 Kg.	W/MAST 154 in. 3.19 meters W/O 124 in. 3.14 meters	55 inches 1.40 meters (78 inches TALL) 1.98 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-50X	DCA-25	NO	NO	2,700 LBS. 1,224 Kg.	124 inches 3.14 meters	55 inches 1.40 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-50XF	DCA-25	41 Gallons 155 Liters	NO	2,700 LBS. 1,224 Kg.	124 inches 3.14 meters	55 inches 1.40 meters	800 LBS. (363 Kg.) FULL TILT WHEEL
TRLR-70W	DCA-45, -60, 70	NO	SURGE	7,000 LBS. 3,175 Kg.	186 inches 4.72 meters	77 inches 1.95 meters	2,000 LBS. (907 Kg.) FLAT PAD
TRLR-70X	DCA-45, -60, 70	OPT	SURGE	7,000 LBS. 3,175 Kg.	138 inches 3.50 meters	66 inches 1.67 meters	2,000 LBS. (907 Kg.) FLAT PAD
TRLR-70XF	DCA-45, -60, 70	53 Gallons 201 Liters	SURGE	7,000 LBS. 3,175 Kg.	138 inches 3.50 meters	66 inches 1.67 meters	2,000 LBS. (907 Kg.) FLAT PAD
TRLR-100XF	DCA-100, 125	150 Gallons 568 Liters	HYDRAULIC SURGE	7,000 LBS. 3,175 Kg.	190 inches 4.82 meters	76 inches 1.93 meters	2,000 LBS. (907 Kg.) FLAT PAD
TRLR-85/125	DCA-85, 100, 125	145 Gallons 549 Liters	HYDRAULIC	10,000 LBS. 4,536 Kg.	186 inches 4.72 meters	77 inches 1.95 meters	2,000 LBS. (907 Kg.) FLAT PAD
TRLR-150XF	DCA-150, 180	200 Gallons 757 Liters	HYDRAULIC SURGE	11,160 LBS. 5,062 Kg.	204 inches 5.18 meters	84 inches 2.13 meters	5,000 LBS. (2,268 Kg.) FLAT PAD
TRLR-220XF	DCA-220	250 Gallons 946 Liters	HYDRAULIC SURGE	14,000 LBS. 3,175 Kg.	222 inches 3.63 meters	83 inches 2.10 meters	5,000 LBS. (2,268 Kg.) FLAT PAD
TRLR-300XF	DCA-300	250 Gallons 946 Liters	HYDRAULIC SURGE	18,000 LBS. 8,165 Kg.	238 inches 6.04 meters	83 inches 2.10 meters	5,000 LBS. (2,268 Kg.) FLAT PAD
TRLR-400XF	DCA-400	350 Gallons 1,324 Liters	ELECTRIC	18,000 LBS. 8,165 Kg.	238 inches 6.04 meters	83 inches 2.10 meters	5,000 LBS. (2,268 Kg.) FLAT PAD
TRLR-600XF	DCA-600, 800	550 Gallons 2,082 Liters	AIR	30,000 LBS. 13,607 Kg.	384 inches 9.75 meters	96 inches 2.43 meters	5,000 LBS. (2,268 Kg.) FLAT PAD
TRLR-800SX	DCA-600, 800	550 Gallons 2,082 Liters	AIR	30,000 LBS. 13,607 Kg.	384 inches 9.75 meters	96 inches 2.43 meters	5,000 LBS. (2,268 Kg.) FLAT PAD

DCA-800SSK —TRAILER-SPECIFICATIONS

Table 3. Specifications (Con't)

MODEL	COUPLER	TIRES	WHEELS	AXLE	HUBS	SUSPENSION	ELECTRICAL
TRLR-10W	2" BALL CLASS 2 ADJUSTABLE	175-13C	13"X4.50"	2200# 2X2	5 LUG	3 LEAF	4 WIRE LOOM W/ 4 POLE FLAT
TRLR-10	2" BALL CLASS 2 ADJUSTABLE	175-13C	13"X4.5"	2200#2X2	5 LUG	3 LEAF	4 POLE FLAT
TRLR-10XF	2" BALL CLASS 2 ADJUSTABLE	175-13C	13"X4.5"	2200#2X2	5 LUG	3 LEAF	4 POLE FLAT
TRLR-225W	2" BALL CLASS 2 ADJUSTABLE	175-13B	13X4.5"	2200#2X2	5 LUG	Q FLEX	4 POLE FLAT
TRLR-BLW 400	2" BALL CLASS 2 ADJUSTABLE	175-13C	13 X 4.5"	2200#2X2	5 LUG	3 LEAF	4 POLE FLAT
TRLR-50X	2" BALL CLASS	B78-13LRC	13"X4.50"	3,500 lbs. 2-3/8"	5 LUG	4 LEAF	4 POLE RUBBER FLAT
TRLR-50XF	2" BALL CLASS	B78-13LRC	13"X4.50"	3,500 lbs. 2-3/8"	5 LUG	4 LEAF	4 POLE RUBBER FLAT
TRLR-70W	2" BALL CLASS 3" ADJUSTABLE	205-14C BIAS (4)	14"X5"	3,500 lbs. 3"	5 LUG	5 LEAF	4 POLE RUBBER FLAT
TRLR-70X	2" BALL CLASS 3" ADJUSTABLE	205-14C BIAS (4)	14"X5"	3,500 lbs. 3"	5 LUG	5 LEAF	4 POLE RUBBER FLAT
TRLR-70XF	2" BALL CLASS 3" ADJUSTABLE	205-14C BIAS (4)	14"X5"	3,500 lbs. 3"	5 LUG	5 LEAF	4 POLE RUBBER FLAT
TRLR-100XF	ADJUSTABLE 2-5/6 OPT 3" EYE	205-15C BIAS (4)	14"X5.5"	3,500 lbs. 3"	5 LUG	5 LEAF	4 WIRE LOOM
TRLR-85/125	ADJUSTABLE 2-5/6 OPT 3" EYE	ST225/75R15D RADIAL (4)	14"x6"	(2)-6,000 lbs.	6 LUG	7 LEAF	4 WIRE LOOM
TRLR-150XF	3" BALL EYE	750-16 E BIAS (4)	16"X7"	(2)-6,000 lbs.	8 LUG	7 LEAF	4 WIRE LOOM
TRLR-220XF	3" EYE ADJUSTABLE	ST235/85R16E RADIAL(4)	16"X7"	(2)-7,000 lbs.	8 LUG	Q FLEX	4 WIRE LOOM
TRLR-300XF	3" EYE ADJUSTABLE	ST235/85R16E RADIAL(6)	16"X7"	(2)-6,000 lbs.	8 LUG	Q FLEX	4 WIRE LOOM
TRLR-400XF	3" EYE ADJUSTABLE	ST235/85R16E RADIAL(6)	16"X7"	(3)-7,000 lbs.	8 LUG	Q FLEX	4 WIRE LOOM
TRLR-600XF	5TH WHEEL	ST215/75R17.5H RADIAL (8)	16"X7"	(3)-10,000 lbs.	8 LUG	7 LEAF	6 WIRE LOOM
TRLR-800AR	5TH WHEEL	ST215/75R17.5H RADIAL (8)	16"X7"	(3)-10,000 lbs.	8 LUG	AIR-RIDE	6 WIRE LOOM

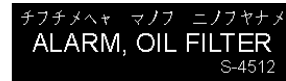
DCA-800SSK — OPERATION AND SAFETY DECALS

Machine Safety Decals

The DCA-800SSK generator is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. The illustrations below and on the preceding pages shows the decals as they appear on the machine. Should any of these decals become unreadable, replacements can be obtained from your dealer.



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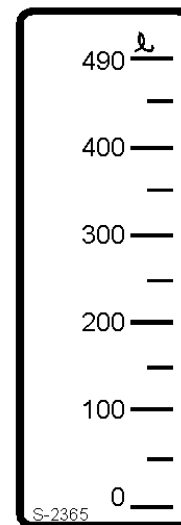
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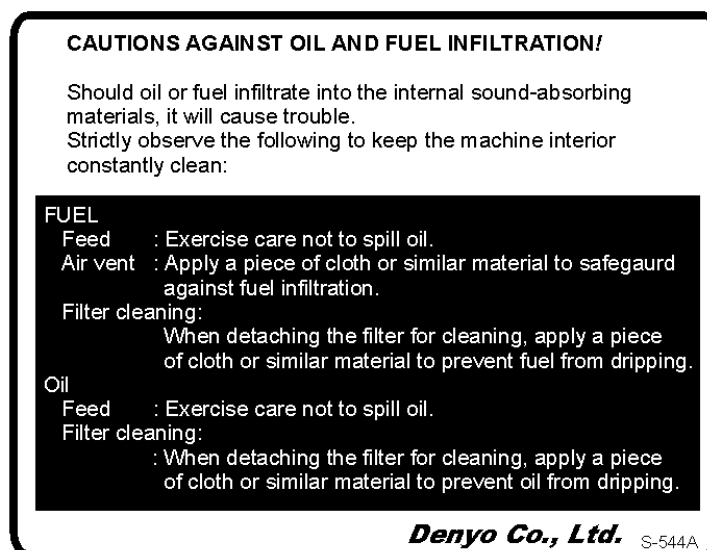
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P/N 0800688504



P/N 0800615102

DCA-800SSK — OPERATION AND SAFETY DECALS

SAFETY INSTRUCTIONS

Improper operation of this machine can cause severe injury or death.

- Read the instruction manual carefully before operating or servicing.

This machine should only be operated by a person with sufficient knowledge and skill to ensure safe operation.

High voltage circuits are located inside the output terminal cover and control panel.

- Close the cover and control panel before operating.

Moving parts and hot surfaces are contained within the enclosure.

- Close all doors and lock them before operating.

B92110040

P/N B9521100404

ENGINE SPEED

S-4452

P/N 9039208704

HIGH



LOW

S-4451

P/N 9039208694

WHISPERWATT 800



MQ POWER CORP.

WHISPERWATT 800

800 KVA AC GENERATOR

MODEL DCA-800SSK

C56110090

P/N C5561100903

ヤナメヘノホチフ デマヨナメ モヤマミミナメ
TERMINAL COVER STOPPER



ラネナホ デマヨナメ ノモ
デフマモナ マメ ヘマヨノホヌ

← WHEN COVER IS
CLOSE OR MOVING

ラネナホ デマヨナメ ノモ
マミナホ

← WHEN COVER IS
OPEN

S-4516

P/N 0840655704

デママフノホヌ ラチヤナメ **COOLING WATER**

ツナ モユメナ ヤマ マミナメチヤナ ヤネノモ ヘチデネノホナ ラノヤネ ノヤモ
メチトノチヤマメ デチミ デマヘミフナヤナフル モナデユメナトヨ メナミフチデナ
ヤネナ デチミ ラノヤネ チ ホナラ マホナ ラネナホ トチヘチヌナトヨ

Be sure to operate this machine with its radiator cap completely secured. Replace the cap with a new one when damaged or deformed.

S-961

P/N 0800689204

Precautions on handling the oil drain pump

(1) Handling procedures

Connect an oil-discharging hose to the the "OUT" side of the pump and turn on the battery switch. Remove the plug from the pump and feed priming oil. Then, turn on the pump main body switch and drain oil from the oil pan.

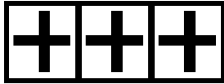
(2) Precautions

1. Operate the pump only after feeding a sufficient amount of priming oil; do not idle the pump. Use the priming oil of the same kind with that to be pumped up.
2. The rating of the pump is 25 minutes.
Do not operate the pump continuously over that value.
3. Always keep the main body switch OFF unless replacing oil.

S-2570

P/N 0840611903

DCA-800SSK — OPERATION AND SAFETY DECALS



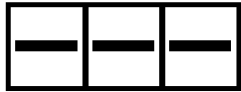
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WATER • OIL CHECK AND FILL DAILY
C05100040

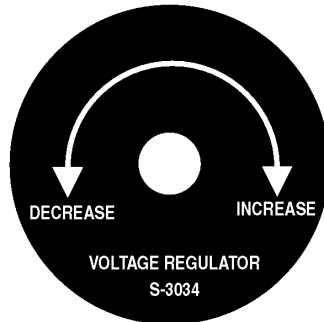
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PANEL LIGHT
SWITCH
S-3033

P/N 0840624604



P/N 08006 89504

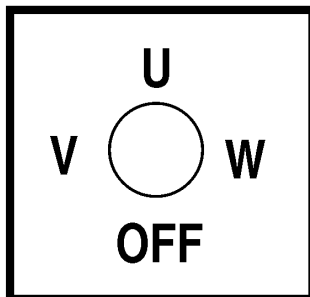


P/N 0840624804

BATTERY SWITCH

DON'T TURN THE SWITCH
OFF DURING OPERATION
C05100050

P/N C0551000704



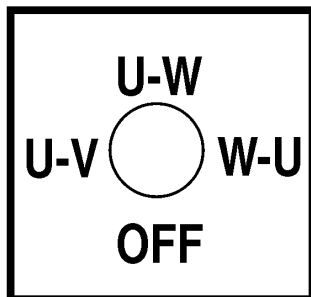
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PREHEAT LAMP
S-3036

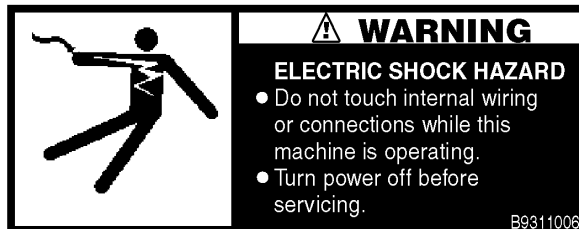
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CIRCUIT
BREAKER
S-3031

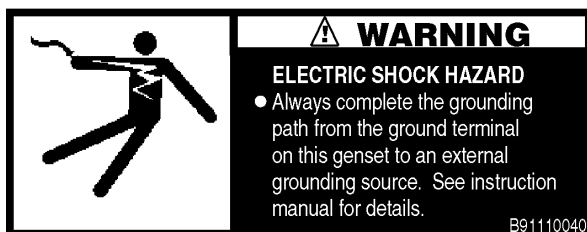
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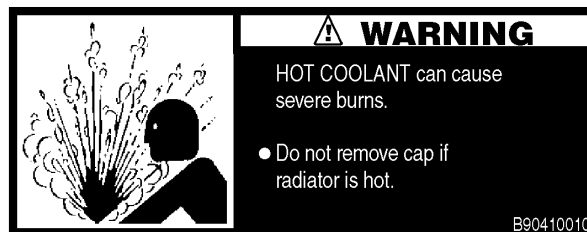
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P/N B9531100604



P/N B9511100404



P/N B9504100104

SUPPORT HOOK

Never use it for lifting the unit.
Use the LIFT HOOK on the roof for lifting.

S-2257

P/N 13206 21504

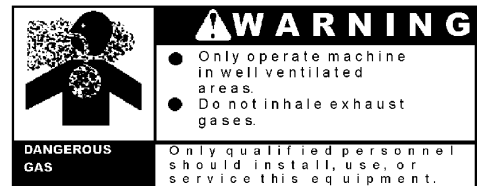
DCA-800SSK — OPERATION AND SAFETY DECALS



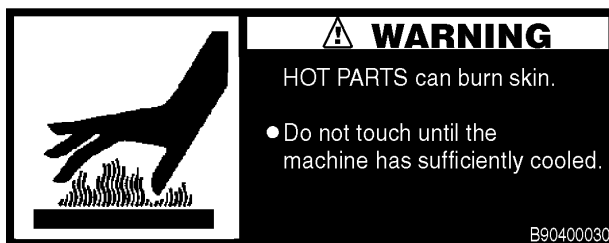
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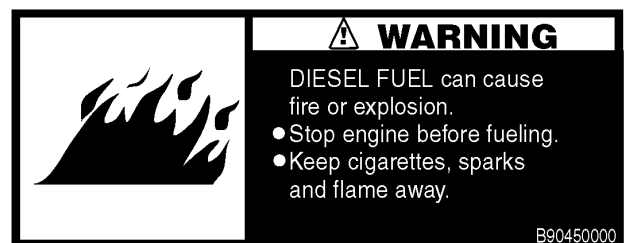
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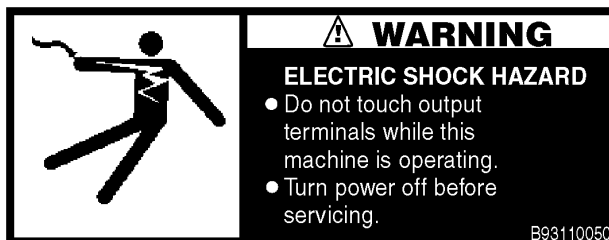
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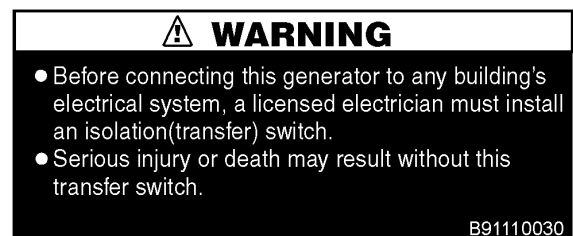
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P/N B9504500004



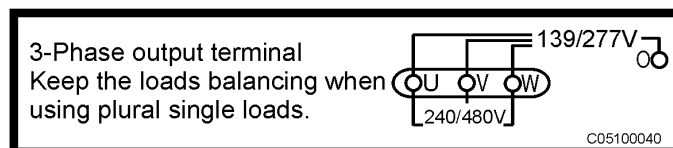
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P/N B9511100304



P/N 0840614104



P/N C0551000404



P/N 1320620904



P/N 6360620004

DCA-600SSK FAMILIARIZATION

Generator

The MQ Power Model DCA-800SSK is a 640 kW **generator** that has been designed as a high quality portable (requires a trailer for transport) power source for telecom sites, lighting facilities, power tools, submersible pumps and other industrial and construction machinery.

Engine Control Panel

The "Engine Control Panel" is provided with the following:

- Tachometer
- Water Temperature Gauge
- Oil Pressure Gauge
- Oil Filter Alarm Lamp
- Charging Ammeter Gauge
- Engine Warning Lamp Module
- Air Cleaner Indicator
- Engine Speed Switch
- Pre-Heat Button
- Pre-Heat Lamp
- Emergency Stop Button
- Battery Switch

Generator Control Panel

The "Generator Control Panel" is provided with the following:

- Output Voltage Adjustment Knob
- Frequency Meter (Hz)
- AC Ammeter (Amps)
- AC Voltmeter (Volts)
- Ammeter Change-Over Switch
- Voltmeter Change-Over Switch
- Panel Light
- Panel Light Switch
- MPEC Module
- Circuit Breaker ON/OFF Lamps
- Circuit Breaker ON Switch
- Circuit Breaker Reset Switch
- Pilot Lamp

Microprocessor Controlled Alarm System

The DCA-800SSK generator is equipped with various alarms and LED status indicators. These alarms and status indicators are provided to add safety to the generator when operating under normal conditions. The DCA-800SSK generator is designed to shutdown in the event of low oil, high coolant temperature, low battery and other operation conditions that may cause severe damage to the generator.

Open Delta Excitation System

The DCA-800SSK generator is equipped with the state of the art "**Open-Delta**" excitation system. The open delta system consist of an electrically independent winding wound among stationary windings of the AC output section.

There are four connections of the open delta A, B, C, and D. During steady state loads, the power from the voltage regulator is supplied from the parallel connections of A to B, A to D, and C to D. These three phases of the voltage input to the voltage regulator are then rectified and are the excitation current for the exciter section.

When a heavy load, such as a motor starting or a short circuit occurs, the automatic voltage regulator (AVR) switches the configuration of the open delta to the series connection of B to C. This has the effect of adding the voltages of each phase to provide higher excitation to the exciter section and thus better voltage response during the application of heavy loads.

The connections of the AVR to the AC output windings are for sensing only. No power is required from these windings.

The open-delta design provides virtually unlimited excitation current, offering maximum motor starting capabilities. The excitation does not have a "**fixed ceiling**" and responds according the demands of the required load up to the horsepower of the engine.

Engine

The **DCA-800SSK** is powered by a 6 cylinder, water cooled, turbocharged KOMATSU Model SA12V140 diesel engine. This engine is designed to meet every performance requirement for the generator. Reference Table 2 for engine specifications.

In keeping with Multiquip's policy of constantly improving its products, the specifications quoted herein are subject to change without prior notice.

The basic controls and indicators for the DCA-800SSK generator are addressed on the following pages.

Electronic Governor System

The electronic governor system is made up of two parts, an electronic controller that monitors frequency variation as the load increases and decreases, and an electronic actuator that controls the engine throttle. The frequency is regulated at ± 0.25 to help protect sensitive equipment.

DCA-800SSK — MAJOR COMPONENTS

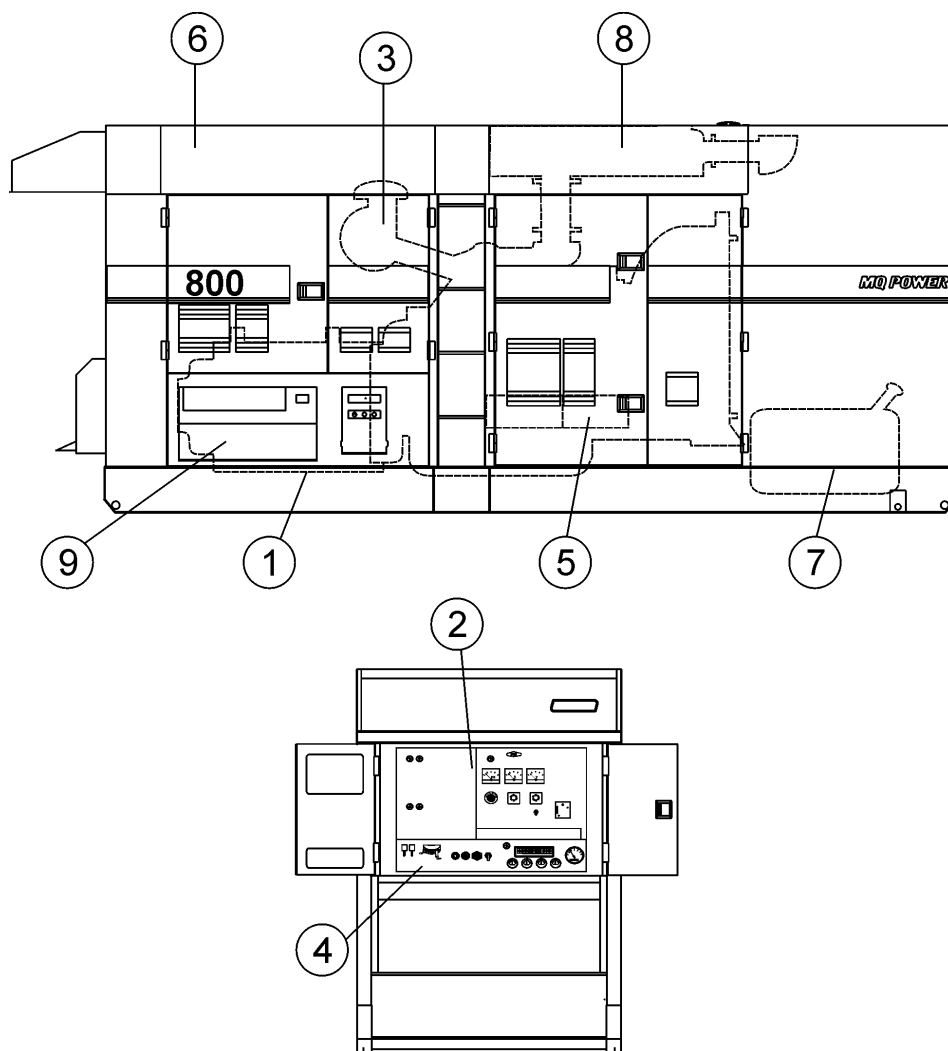
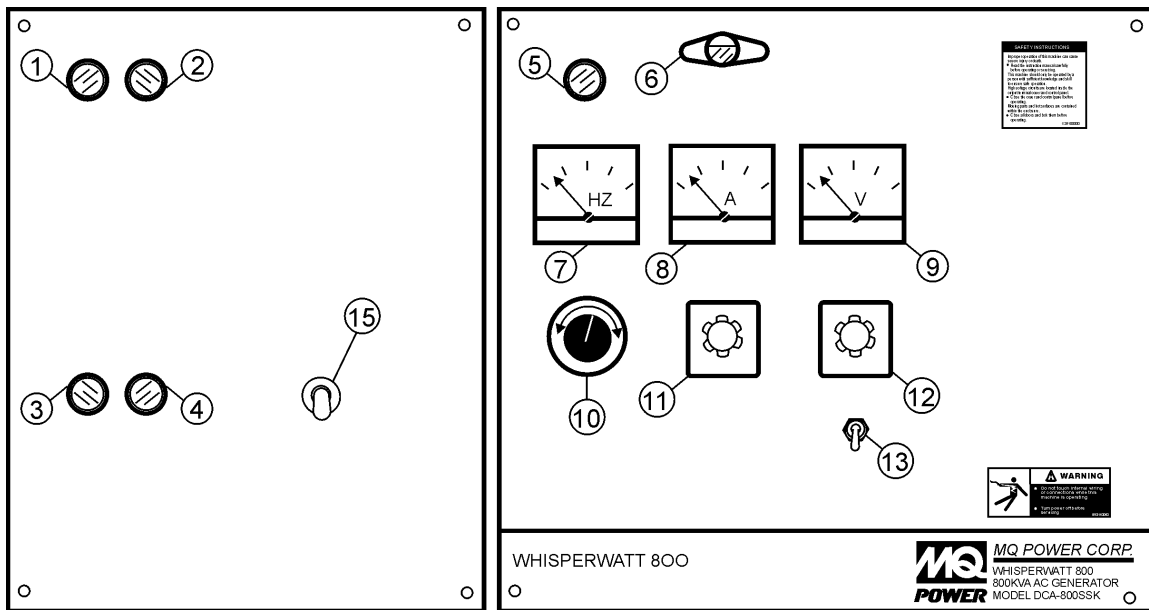


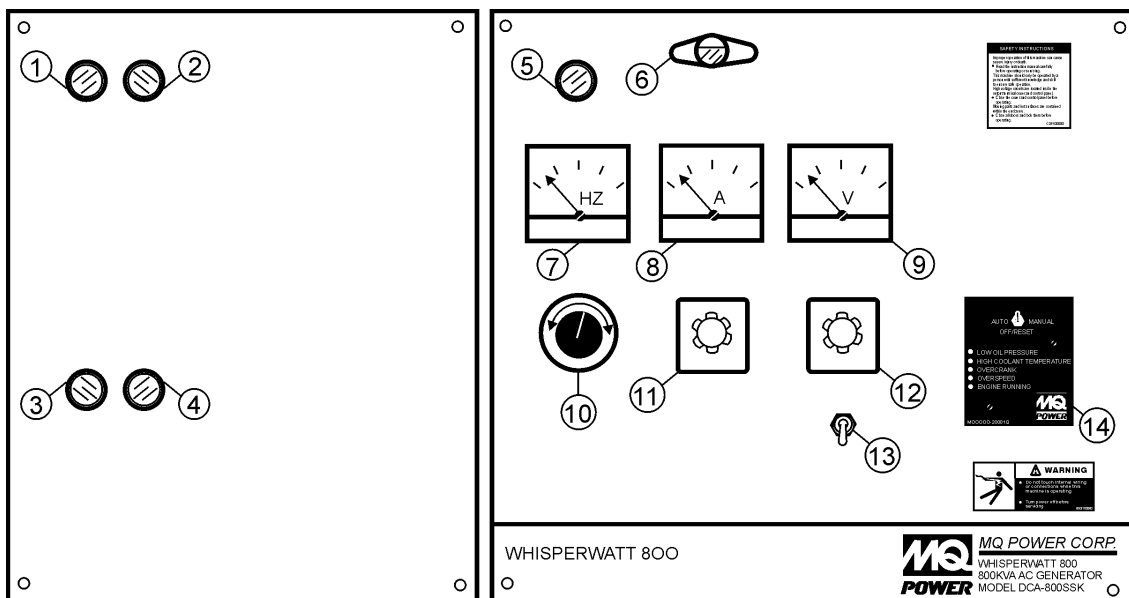
Table 4. Generator Major Components

ITEM NO.	DESCRIPTION
1	Generator Assembly
2	Generator Control Panel Assembly
3	Engine and Radiator Assembly
4	Engine Operating Panel Assembly
5	Battery Assembly
6	Enclosure Assembly
7	Fuel Tank Assembly
8	Muffler Assembly
9	Output Terminal Assembly

DCA-800SSK — GENERATOR CONTROL PANEL



Up to S/N 3699247



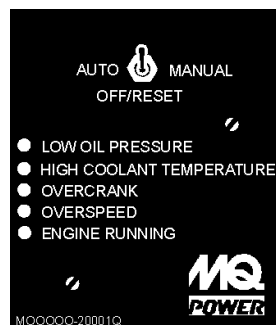
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Figure 6. Generator Control Panel

DCA-800SSK — GENERATOR CONTROL PANEL

The definitions below describe the controls and functions of the DCA-800SSK " **Control Panels** " (Figure 9).

1. **Circuit Breaker OFF lamp** - This indicates the main circuit breaker is "OFF" and the generator is unable to supply power to the load.
2. **Circuit Breaker ON lamp** - This indicates the main circuit breaker is in "ON" and the generator is able to supply power to the load.
3. **Circuit Breaker Reset Switch** - This button will turn off the circuit breaker.
4. **Circuit Breaker Switch** - This button will turn on the main circuit breaker.
5. **Pilot Lamp** – Indicates that the generator is working properly.
6. **Panel Light** – Normally used in dark areas or at night time. When activated, panel lights will illuminate. When lit this light will make it easier to read the meters and gauges. When the generator is not in use be sure to turn the panel light switch to the OFF position.
7. **Frequency Meter** - Indicates the output frequency in hertz (Hz). Typical reading is 60Hz.
8. **AC Ammeter** - Indicates the amount of current the load is drawing from the generator.
9. **AC Voltmeter** - Indicates the single phase output voltage present at the UVW terminals.
10. **Voltage Regulator Control** – Allows manual adjustment of the generator's output voltage.
11. **Ammeter Change-Over Switch** - This switch allows the AC ammeter to indicate the current flow into the load connected to any phase of the output terminals or to be switched off.
12. **Voltmeter Change-Over Switch** - This switch allows the AC voltmeter to indicate phase to phase voltage between any two phases of the output terminals or to be switched off.
13. **Panel Light Switch** - When activated will turn on control panel light.
14. **Engine Controller** - This unit (S/N 3699248~) contains a vertical row of status LED's (inset), that when lit, indicates an engine malfunction (fault) has been detected. When a fault has been detected by the Engine Controller as a major fault, it will shut down the generator.



During **cranking cycle** , The engine controller will attempt to crank the engine for 10 seconds before disengaging.

If the engine does not engage (start) by the third attempt, the engine will be shutdown by the engine controller's " Over Crank Protection" mode. If the engine engages at a speed (RPM's) that is not safe, the controller will shutdown the engine by initializing the "Over Speed Protection" mode.

Also the engine controller will shutdown the generator in the event of low oil pressure, high coolant temperature, low coolant level, and loss of magnetic pickup. These conditions can be observed by monitoring the LED status indicators on the front of the engine controller module.

- A. **Off/ Manual/ Auto Switch** – This switch controls the running of the generator. If this switch is left in the "OFF" position, the generator will not run. When this switch is set to the **manual** position, the generator will start immediately.

If the generator is to be connected to a building's AC power source via a transfer switch (isolation), place the switch in the **auto** position. In this position the generator will monitor the AC line output from the building's power source.

- B. **Low Oil Pressure** – Indicates the engine pressure has fallen below 15 psi. The oil pressure is detected using variable resistive values from the oil pressure sending unit. This is considered a **major** fault.
- C. **High Coolant Temperature** – Indicates the engine temperature has exceeded 215°F. The engine temperature is detected using variable resistive values from the temperature sending unit. This is considered a **major** fault.
- D. **Overcrank Shutdown** – Indicates the unit has attempted to be started a pre- programmed number of times, and has failed to start. The number of cycles and duration are programmable. Typical programmable start settings is 3 cycles with a 10 second duration .This is considered a **major** fault.
- E. **Overspeed Shutdown** – Indicates that the engine is running at an unsafe speed. This is considered a **major** fault.
- F. **Engine Running** – Indicates that engine is running at a safe operating speed.
15. **Throttle Lever** (Up to S/N 3699247) - This handle controls the speed of the engine (low or high).

DCA-800SSK — ENGINE OPERATING PANEL

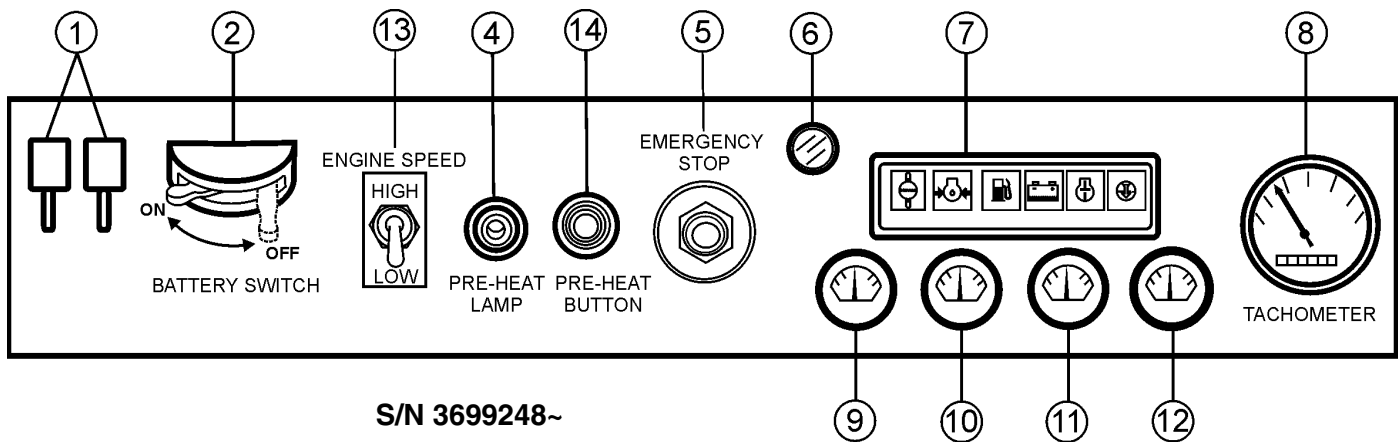
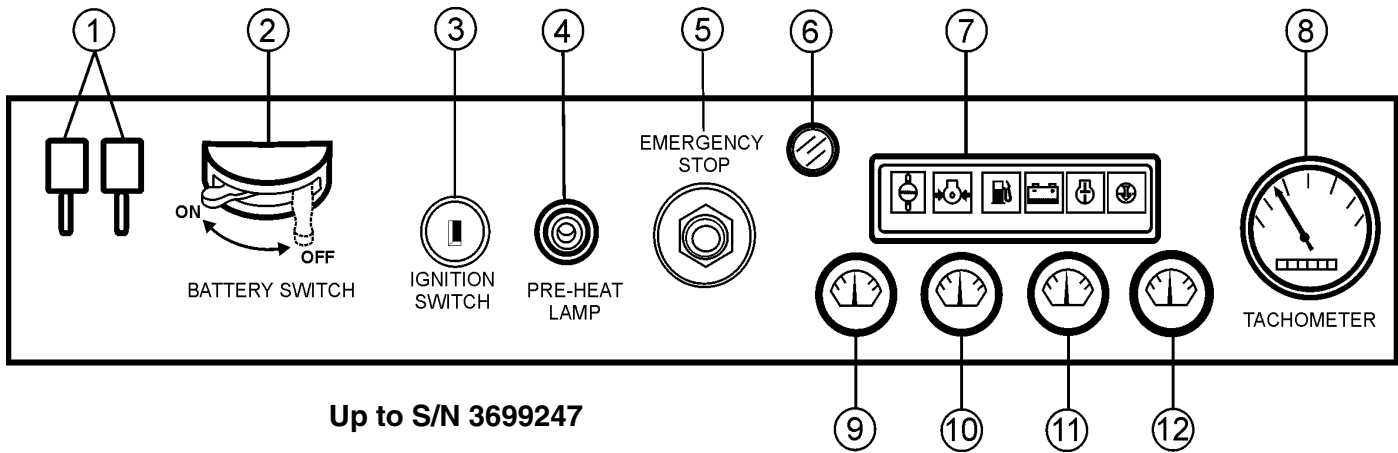


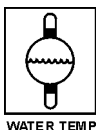
Figure 7. Engine Operating Panels

DCA-800SSK — ENGINE OPERATING PANEL

The definitions below describe the controls and functions of the DCA-800SSK "**Engine Operating Panels**" (Figure 11).

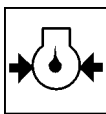
1. **Air Cleaner Indicators** – When lit, indicates air cleaner must be serviced or replaced. This engine of this generator requires two air cleaners.
2. **Battery Switch** – This switch should be set to the "ON" position during normal operation. When the engine has been stopped, place this switch in the "OFF" position. **DO NOT** turn this switch during normal operation; it will cause damage to the electrical equipment.
3. **Ignition Switch (Up to S/N 3699247)** – Four position switch, *pre-heat*, *stop*, *run* and *start*. Insert ignition key to start and stop engine..
4. **Preheat Lamp** – Indicates that the glow plugs of the diesel engine are hot is ready to start.
5. **Emergency Stop Button** – Press this button to stop the engine in the event of an emergency. **DO NOT** use this button as a normal means of stopping the engine.
6. **Oil Filter Alarm Lamp** – Indicates the oil filter is clogged and needs replacement.
7. **Engine Warning Display (LED) Module** – This module display's the following engine failures:

- A. **Overheat Lamp** - This lamp turns on when the cooling water temperature rises beyond normal level. If the this light is on, the emergency shutdown device will stop the engine.



WATER TEMP.

- B. **Low Oil Pressure Lamp** - This lamp will turn on if the Auto-OFF/Reset-Manual switch on the Engine Controller is set in "Manual" position. It will remain lit until the oil pressure is at a normal level. If the lamp turns on at any time during the normal working time of the generator, it will shut down the engine.



OIL PRESS.

- C. **Low Fuel Level Lamp** - When lit, this indicates to add fuel. Let the engine cool before adding diesel fuel.



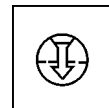
FUEL LEVEL

- D. **Low Battery Fluid Lamp** - This indicates the battery fluid level is low. This indicator will shut down the engine. Refill the battery with distilled water.



BATT. LOW LEVEL

- E. **Clogged Air Filter Lamp** - This indicates the air filter is clogged. Stop the engine and replace the air filter.



AIR FILTER

8. **Tachometer** - Indicates engine speed in RPMs for 60Hz operation. Normal operation is 1800 RPMs when the load is applied. A built in hour meter will record the number of operational hours that the generator has been in use.
8. **Oil Pressure gauge** - This gauge indicates the oil pressure. During normal operation, the gauge should read in the 'green' zone. When starting the generator, the oil pressure may read slightly higher, but after the engine warms up, it should return to the "*green*" zone.
9. **WaterTemp Gauge** - This indicates the temperature of the coolant. During normal operation this gauge should read in the 'green' zone.
11. **Charging Ammeter Gauge** - This gauge indicates the current supplied by the alternator, which supplies current from the generator's control circuits and battery charging system.
12. **Fuel Level Gauge** - This gauge indicates diesel fuel level.
13. **Engine Speed Switch (S/N 3699248~)** – This switch changes the engine speed from *low* (idle) to *high*.
14. **Preheat Button** – Press and hold this button for 30seconds until the preheat lamp is lit (**ON**).

DCA-800SSK — OUTPUT TERMINAL OVERVIEW

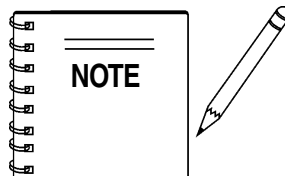
Output Terminal Familiarization

The “**Output Terminal Panel**” (Figure 8) is provided with the following:

- Three 240/139V output receptacles, 50 amp
- Three AUX. circuit breakers 240V @ 50 amps
- Two 120V GFCI receptacles, 20 amp
- Two (2) GFCI circuit breakers 120V @ 20 amps
- Eight (16) output terminal lugs

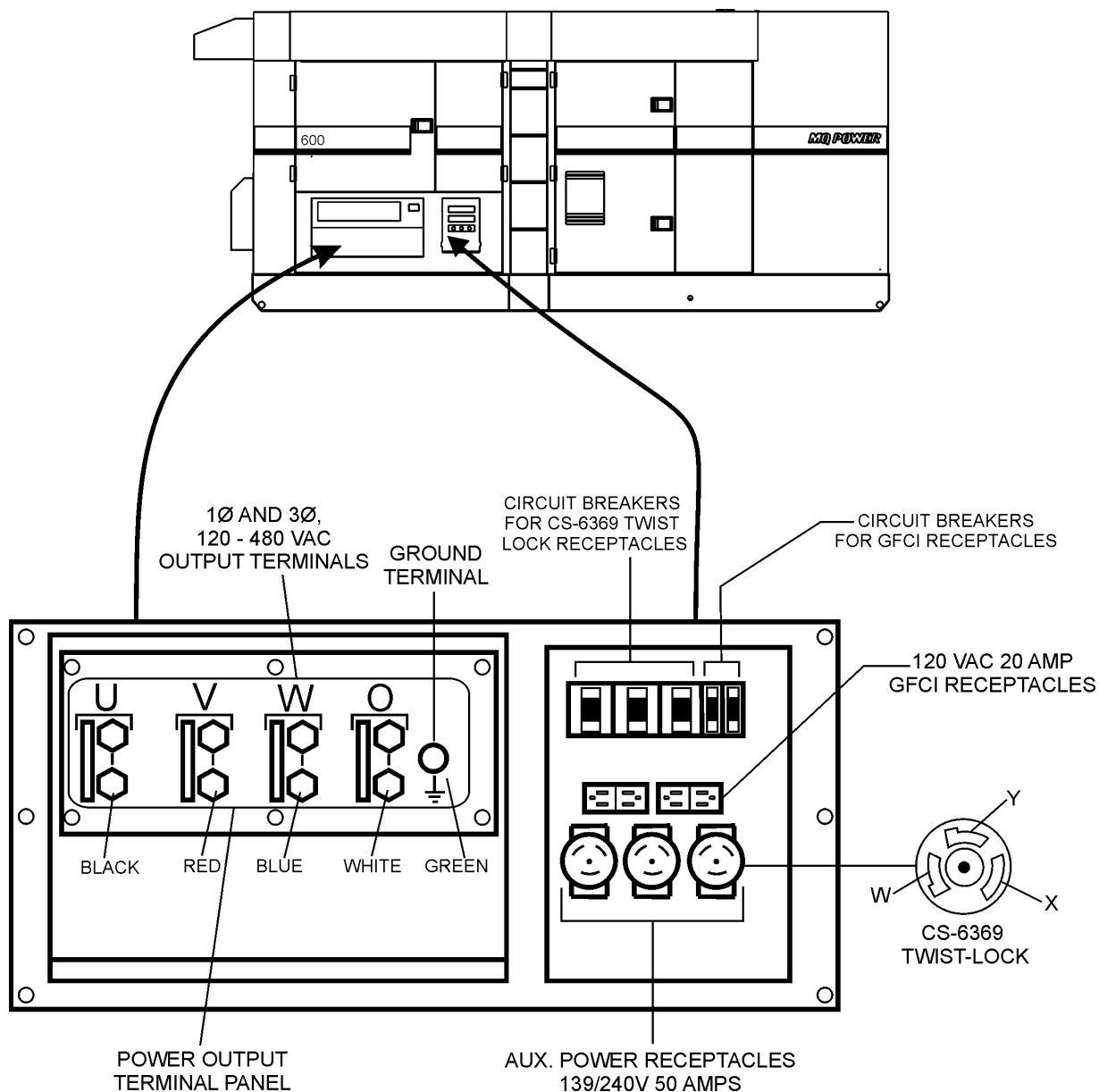
Output Terminal Panel

Shown below (Figure 8) is the **Output Terminal Panel**, lift up on the cover to gain access to receptacles and terminal lugs.



Terminal legs "O" and "Ground" are considered *bonded grounds*.

Figure 8. Output Terminal Panel



DCA-800SSK — OUTPUT TERMINAL PANEL OVERVIEW

120 VAC GFCI Receptacles

There are two 120 VAC, 20 amp GFCI (Duplex Nema 5-20R) receptacles provided on the output terminal panel. These receptacles can be accessed in **any voltage change-over board** position. Each receptacle is protected by a 20 amp circuit breaker. These breakers are located directly above the GFCI receptacles. Remember the load output (current) of both GFCI receptacles is dependent on the load requirements of the UVWO terminals.

Pressing the **reset** button resets the GFCI receptacle after being tripped. Pressing the "**Test Button**" (See Figure 9) in the center of the receptacle will check the GFCI function. Both receptacles should be tested at least once a month.

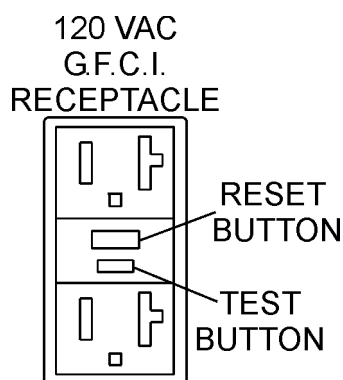


Figure 9. G.F.C.I. Receptacle

Twist Lock Dual Voltage 240/139 VAC Receptacles

There are three 240/139 VAC, 50 amp auxiliary twist-lock (CS-6369) receptacles (Figure 10) provided on the output terminal panel. These receptacles can be accessed in **any voltage change-over board** position.

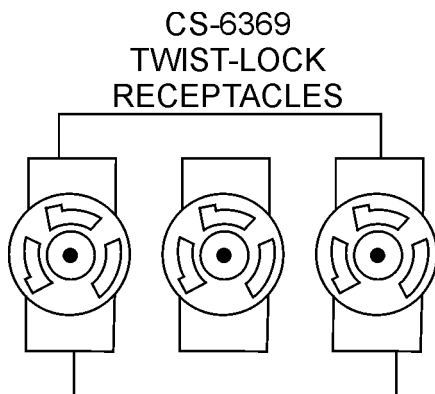


Figure 10. 240/139 VAC Twist-Lock Auxiliary Receptacles

Each auxiliary receptacle is protected by a 50 amp circuit breaker. These breakers are located directly above the GFCI receptacles. Remember the load output (current) on all three receptacles is dependent on the load requirements of the UVWO terminals.

Turn the **voltage regulator control knob** (Figure 11) on the control panel to obtain the desired voltage. Turning the knob clockwise will **increase** the voltage, turning the knob counter-clockwise will **decrease** the voltage.

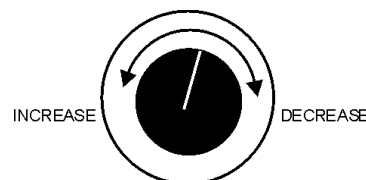


Figure 11. Voltage Regulator Control Knob

Removing the Plastic Face Plate (UVWO Terminals)

The UVWO terminal lugs are protected by a plastic face plate cover (Figure 12). Un-lock the locking latch, and lift the terminal cover to gain access to the plastic face plate. Remove the screws securing the face plate to the terminal enclosure, then lift the plastic hinged face plate.

After the load wires have been securely attached to the UVWO terminals, reinstall the plastic face plate. Place the terminal cover in the down position and secure the locking latch.

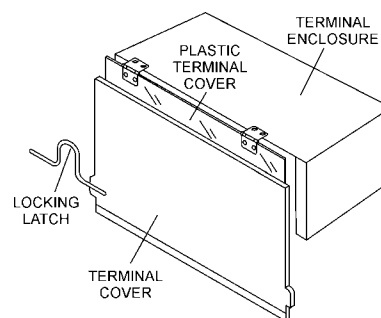


Figure 12. Plastic Face Plate (UVWO Terminals)

DCA-800SSK — OUTPUT TERMINAL PANEL OVERVIEW

Connecting Loads

Loads can be connected to the generator by the **UVWO** terminal lugs or the convenience receptacles. (See Figure 13). Make sure to read the operation manual before attempting to connect a load to the generator.

To protect the UVWO output terminals from overload, a 3-pole, 1,600 amp, **main** circuit breaker is provided. Make sure to switch **ALL** circuit breakers to the "OFF" position prior to starting the engine.

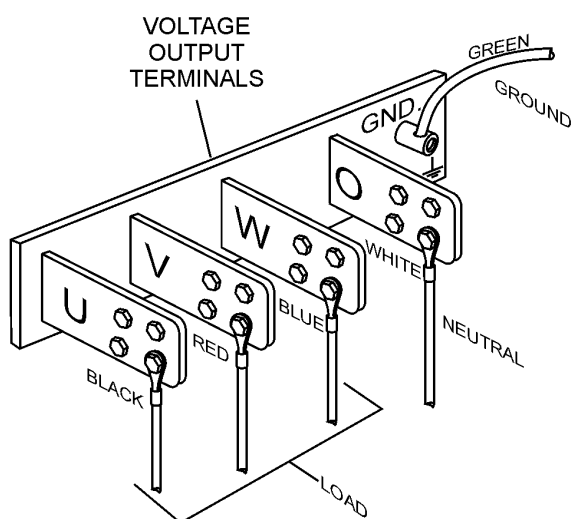
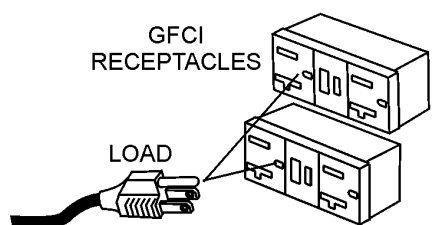
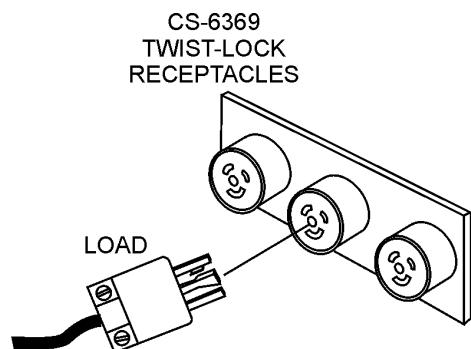


Figure 13. Connecting Loads

Over Current Relay

An **over current relay** (Figure 14) is connected to the main circuit breaker. In the event of an overload, both the circuit breaker and the over current relay may trip. If the circuit breaker can not be reset, the **reset button** on the over current relay must be pressed. The over current relay is located in the control box.

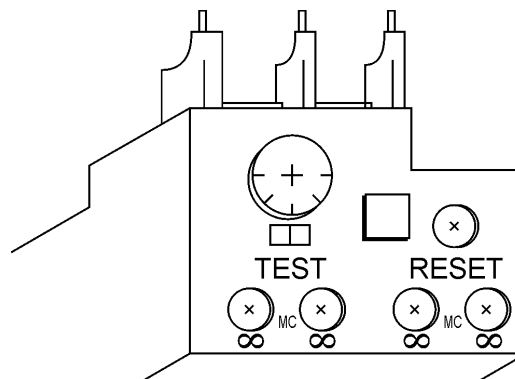


Figure 14. Over Current Relay

Maximum Power Output (KW)

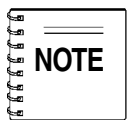
The entire load connected to the UVWO output terminal lugs, duplex and auxiliary receptacles must not exceed 704 kW in standby or 640 kW in prime output.

DCA-800SSK—LOAD APPLICATION

Single Phase Load

Always be sure to check the nameplate on the generator and equipment to insure the wattage, amperage and frequency requirements are satisfactorily supplied by the generator for operating the equipment.

Generally, the wattage listed on the nameplate of the equipment is its rated output. Equipment may require 130—150% more wattage than the rating on the nameplate, as the wattage is influenced by the efficiency, power factor and starting system of the equipment.



If wattage is not given on the equipment's name plate, approximate wattage may be determined by multiplying nameplate voltage by the nameplate amperage.

WATTS = VOLTAGE x AMPERAGE

The power factor of this generator is 0.8. See Table 5 below when connecting loads.

Table 13. Power Factor By Load

Type Of Load	Power Factor
Single-phase induction motors	0.4 - 0.75
Electric heaters, incandescent lamps	1.0
Fluorescent lamps, mercury lamps	0.4 - 0.9
Electronic devices, communication equipment	1.0

Table 6. Cable Selection (60 Hz, Single Phase Operation)

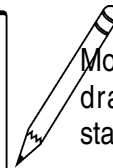
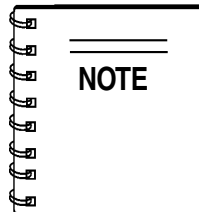
Current in Amperes	Load In Watts		Maximum Allowable Cable Length			
	At 120 Volts	At 240 Volts	#10 Wire	#12 Wire	#14 Wire	#16 Wire
2.5	300	600	1000 ft.	600 ft.	375 ft.	250 ft.
5	600	1200	500 ft.	300 ft.	200 ft.	125 ft.
7.5	900	1800	350 ft.	200 ft.	125 ft.	100 ft.
10	1200	2400	250 ft.	150 ft.	100 ft.	
15	1800	3600	150 ft.	100 ft.	65 ft.	
20	2400	4800	125 ft.	75 ft.	50 ft.	

CAUTION: Equipment damage can result from low voltage.

Three Phase Load

When calculating the power requirements for 3-phase power use the following equation:

$$KVA = \frac{VOLTAGE \times AMPERAGE \times 1.732}{1000}$$



Motors and motor-driven equipment draw much greater current for starting than during operation.

An inadequate size connecting cable which cannot carry the required load can cause a voltage drop which can burn out the appliance or tool and overheat the cable. See Table 5.

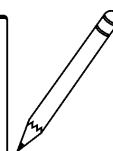
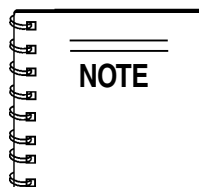
- When connecting a resistance load such as an incandescent lamp or electric heater, a capacity of up to the generating set's rated output (kW) can be used.
- When connecting a fluorescent or mercury lamp, a capacity of up to the generating set's rated output (kW) multiplied by 0.6 can be used.
- When connecting an electric drill or other power tools, pay close attention to the required starting current capacity.

When connecting ordinary power tools, a capacity of up to the generating set's rated output (kW) multiplied by 0.8 can be used.



DANGER - ELECTRICAL SYSTEM HAZARDS

Before connecting this generator to any building's electrical system, a **licensed electrician** must install an **isolation (transfer) switch**. Serious damage to the building's electrical system may occur without this transfer switch.



If 3Ø load (kVA) is not given on the equipment nameplate, approximate 3Ø load output may be determined by multiplying voltage by amperage by 1.732.

DCA-800SSK — GENERATOR OUTPUTS

Generator Output Voltages

A wide range of voltages are available to supply voltage for many different applications. Voltages are selected by applying jumpers (6) to the **voltage change-over board** (Figure 15). To obtain some of the voltages as listed in Table 7 (see below) will require a fine adjustment using the **voltage regulator** (VR) **control knob** located on the control panel.

Voltage Change-Over Board

The **voltage change-over board** (Figure 15) is located on the control box, behind the generator control panel. This board has been provided for ease of voltage selection.

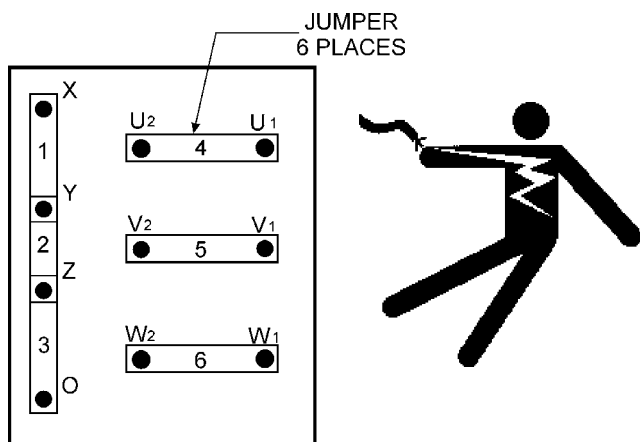


Figure 15. Voltage Change-Over Board
240V Configuration

⚠ CAUTION - CHANGING JUMPER PLATES

NEVER attempt to place jumper plates on the **voltage change-over board** while the generator is in operation. There exists the possibility of **electrocution, electrical shock or burn, which can cause severe bodily harm or even death!**

Table 7. Generator Available Voltages

Three-Phase	208V	220V	240V	416V	440V	480V
Single-Phase	120V	127V	139V	240V	254V	277V

Generator Amperage

Tables 8 and 9 describe the generator's current output capability for both 1Ø-phase and 3Ø phase applications.

Table 8. Generator Ampere Ratings — 1Ø

KW	139V	240V	277V	480V
40	208	120	104	60
100	519	301	261	150
160	831	481	417	241
220	1,142	662	573	331
280	1,454	842	730	421
340	1,765	1,022	886	511
400	2,077	1,203	1,042	601
460	2,388	1,383	1,199	692
520	2,700	1,564	1,355	782
580	3,011	1,744	1,511	872
640	3,323	1,925	1,667	962

Table 9. Generator Ampere Ratings — 3Ø

KW	240V	480V
40	120	60
100	301	150
160	481	241
220	662	331
280	842	421
340	1,022	511
400	1,203	601
460	1,383	692
520	1,564	782
580	1,744	872
640	1,925	962

DCA-800SSK — GENERATOR OUTPUTS/GAUGE READING

Maximum Amps

Table 10 shows the **maximum** amps the generator can provide. **DO NOT** exceed the maximum amps as listed.

Table 9. Maximum Amps	
Model:	DCA600SSK
Rated Voltage	Maximum Amps
Single Phase 120 Volt	1777.8 amps (4 wire)
Single Phase 240 Volt	888.9 amps (4 wire)
Three Phase 240 Volt	1924.6 amps
Three Phase 480 Volt	962.3 amps

How to Read the Output Terminal Gauge.

The AC ammeter and AC voltmeter change-over switches on the control panel **DO NOT** effect the generator output. They are provided to help observe how much power is being supplied, produced at the UVWO terminals lugs.

When the voltage change-over board is jumpered for 3Ø, 240V operation (See Figure 16), place the **AC Voltmeter Change-Over Switch** (Figure 17) to the W-U position and the **AC Ammeter Change-Over Switch** (Figure 19) to the U or W position to read the output on the selected leg.

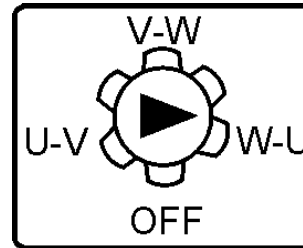


Figure 17. AC Voltmeter Change-Over Switch

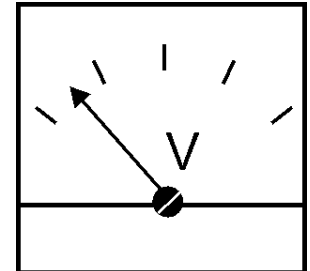


Figure 18 AC Voltmeter Gauge
(Volt reading on W-U Lug)

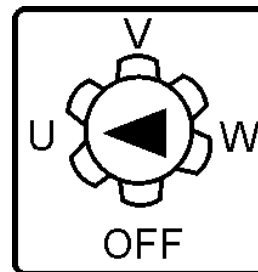


Figure 19. AC Ammeter Change-Over Switch

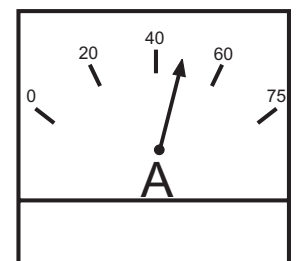


Figure 20. AC Ammeter
(Amp reading on U lug)

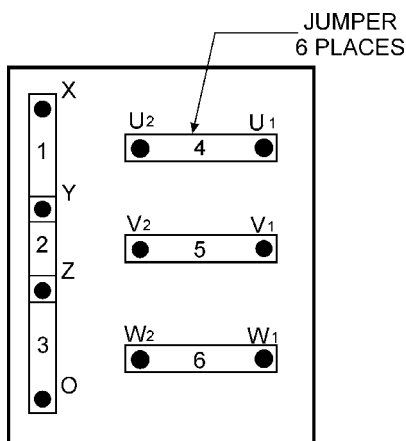
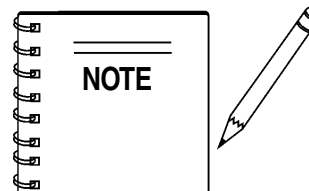


Figure 16. Voltage Change-Over Board
240V Configuration



The **ammeter** and **voltmeter** gauges are only active when the UVWO terminals are in use.

DCA-800SSK — OUTPUT TERMINAL PANEL CONNECTIONS

UVWO Terminal Output Voltages

Various output voltages can be obtained using the UVWO output terminal lugs. The voltages at the terminals are dependent on the placement of the jumper plates (6) on the **Voltage Change-Over Board** and the adjustment of the **Voltage Regulator Control Knob**.

Remember the voltage change-over board determines the **range** of the output voltage and can be configured in two different positions that provide 6 different output voltages at the UVWO output terminals. The generator is shipped from the factory in the 240V configuration. The voltage regulator (VR) allows the user to increase or decrease the selected voltage.

3Ø-240V UVWO Terminal Output Voltages

1. Jumper the voltage change-over board for 240V operation as shown in Figure 21.

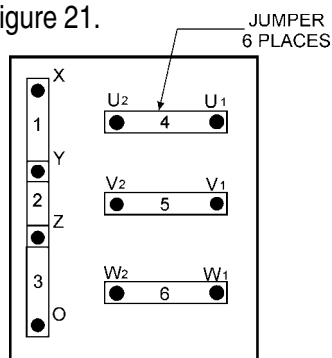


Figure 21. Voltage Change-Over Board 240V Configuration

2. Connect the load wires to the UVWO terminals as shown in Figure 22.

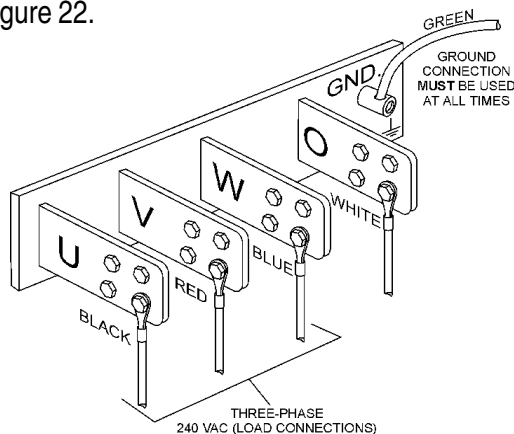


Figure 22. UVWO Terminal Lugs 3Ø-240V Connections

3. Turn the voltage regulator knob (Figure 23) clockwise to increase voltage output, turn counterclockwise to decrease voltage output. Use voltage regulator adjustment knob whenever fine tuning of the output voltage is required

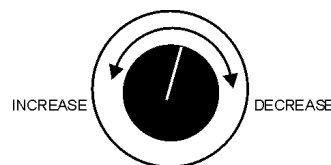


Figure 23. Voltage Regulator Knob

1Ø-240V UVWO Terminal Output Voltages

1. Make sure the voltage change-over board is jumpered for 240V operation as shown in Figure 21.
2. Connect the load wires to the UVWO terminals as shown in Figure 24.

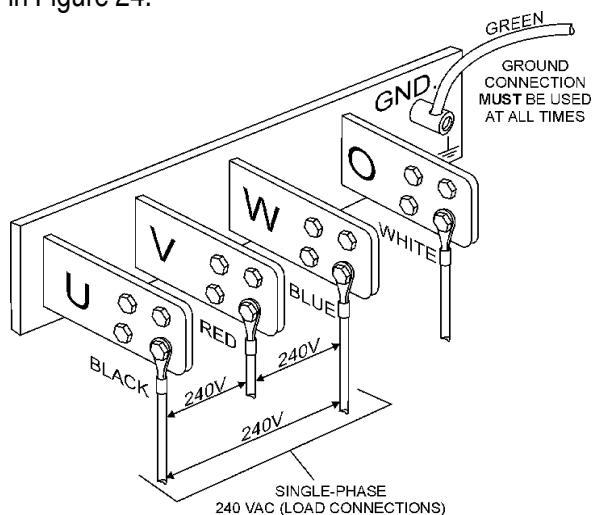


Figure 24. UVWO Terminal Lugs 1Ø-240V Connections

1Ø-139V UVWO Terminal Output Voltages

1. Make sure the voltage change-over board is jumpered for 240V operation as shown in Figure 21.
2. Connect the load wires to the UVWO terminals as shown in Figure 25.

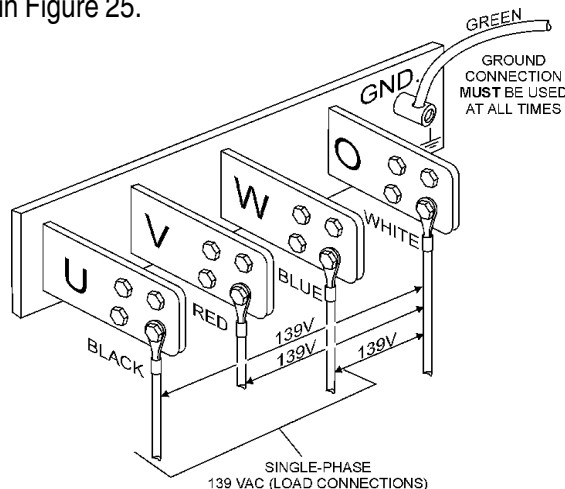


Figure 25. UVWO Terminal Lugs 1Ø-139V Connections

DCA-800SSK — OUTPUT TERMINAL PANEL CONNECTIONS

3Ø-480V UVWO Terminal Output Voltages

1. Jumper the voltage change-over board for 480V operation as shown in Figure 26. This configuration uses 6 jumper plates in 3 different positions. Remember there are 2 jumper plates at every position. Every jumper plate **must** be used.

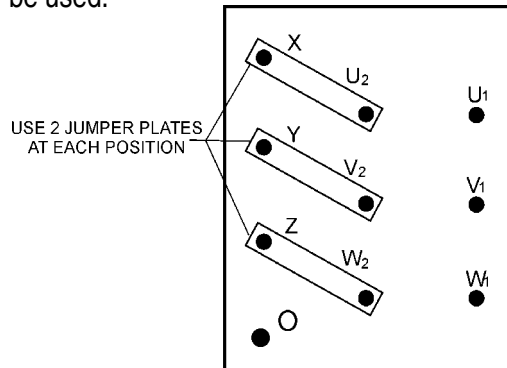


Figure 26. Voltage Change-Over Board 480V Configuration

2. Connect the load wires to the UVWO terminals as shown in Figure 27.

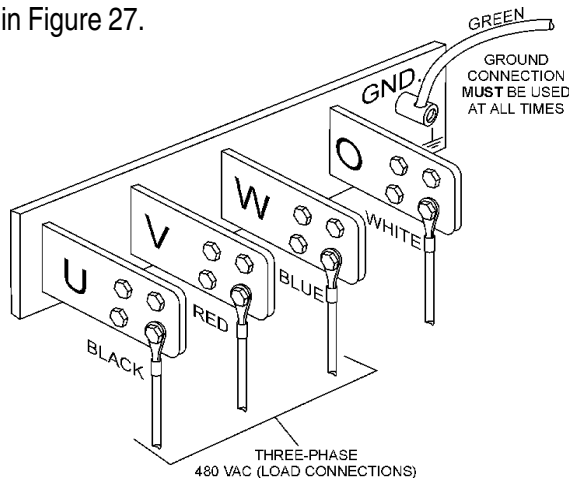
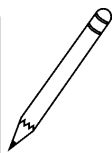
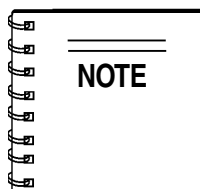


Figure 27. UVWO Terminal Lugs 3Ø-480V Connections



ALWAYS make sure that the connections to the UVWO terminals are **secure** and **tight**. The possibility of arcing exists, that could cause a fire.



DANGER - UVWO OUTPUT TERMINALS

NEVER attempt to connect a load to the **UVWO** output terminals while the generator is operating. The possibility exists of serious injury, electrical shock, electrocution even death.

1Ø-480V UVWO Terminal Output Voltages

1. Make sure the voltage change-over board is jumpered for 480V operation as shown in Figure 26.
2. Connect the load wires to the UVWO terminals as shown in Figure 28.

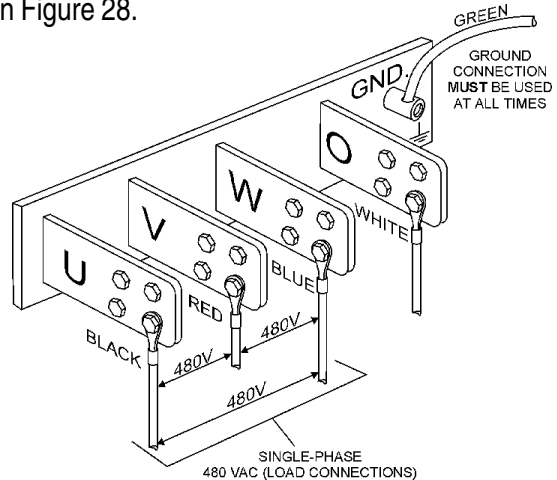


Figure 28. UVWO Terminal Lugs 1Ø-480V Connections

1Ø-277V UVWO Terminal Output Voltages

1. Make sure the voltage change-over board is jumpered for 480V operation as shown in Figure 26.
2. Connect the load wires to the UVWO terminals as shown in Figure 29.

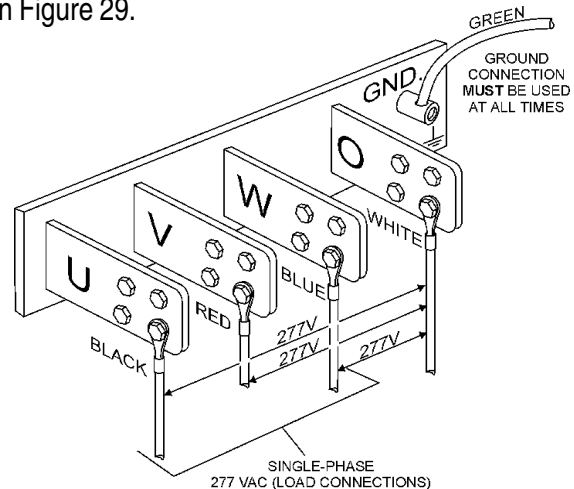


Figure 29. UVWO Terminal Lugs 1Ø-277V Connections



Circuit Breakers

To protect the generator from an overload, a 3-pole, 800 amp, **main** circuit breaker is provided to protect the UVWO output terminals from overload. In addition two single-pole, 20 amp **GFCI** circuit breakers are provided to protect the GFCI receptacles from overload. Three 50 amp **load** circuit breakers have also been provided to protect the auxiliary receptacles from overload. Make sure to switch **ALL** circuit breakers to the "OFF" position prior to starting the engine.

Lubrication Oil

Fill the engine crankcase with lubricating oil through the filler hole, but **DO NOT** overfill. Make sure the generator is level. Also verify that the oil level is maintained between the two notches (Figure 30) on the dipstick. See Table 11 for proper selection of engine oil.

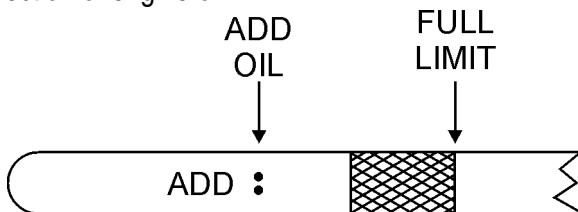


Figure 30. Engine Oil Dipstick

When checking the engine oil, be sure to check if the oil is clean. If the oil is not clean, drain the oil by removing the oil drain plug, and refill with the specified amount of oil as outlined in the **Komatsu Engine Owner's Manual**. Oil should be warm before draining.

Other types of motor oils may be substituted if they meet the following requirements:

- API Service Classification CH-4
- API Service Classification CG-4
- API Service Classification CF-4
- ACEA Specification E3
- ACEA Specification E2

Table 11. Recommended Motor Oil

Temperature Range	Type Oil
104° F ~ 23° F (40° C ~ -5°C)	SAE 30
23° F ~ 5° F (-5° C ~ -15°C)	SAE 20 or SAE 10W-30
Below 5° C (-15°)	SAE 10W or SAE 10W-30

Fuel Check

! DANGER - EXPLOSION/FIRE HAZARDS

Fuel spillage on a **hot** engine can cause a **fire** or **explosion**. If fuel spillage occurs, wipe up the spilled fuel completely to prevent fire hazards. **NEVER** smoke around or near the generator.



REFILLING THE FUEL SYSTEM

The DCA600SSK series generators may (if equipped with a trailer or skid) have a **double fuel tank system** (Figure 31), which consists of an **internal** generator fuel tank, and a **trailer mounted** fuel tank. It is also possible the generator can be equipped with a **skid mounted** fuel tank (Figure 32). The skid type fuel system does not use the internal generator fuel tank.

Use the instructions in this section that applies to your type of fuel tank system.

ALWAYS fill the fuel tank with clean and fresh **#2 diesel fuel**. **DO NOT** fill the fuel tanks beyond their capacities.

Pay attention to the fuel tank capacity when replenishing fuel. The fuel tank cap must be closed tightly after filling. Handle fuel in a safety container. If the container does not have a spout, use a funnel. Wipe up any spilled fuel immediately.

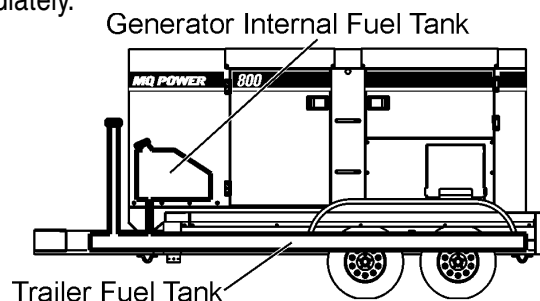


Figure 31 Double Fuel Tank System

! CAUTION - REFUELING THE GENERATOR

ONLY properly trained personnel who have read and understand this section should refill the fuel tank system.

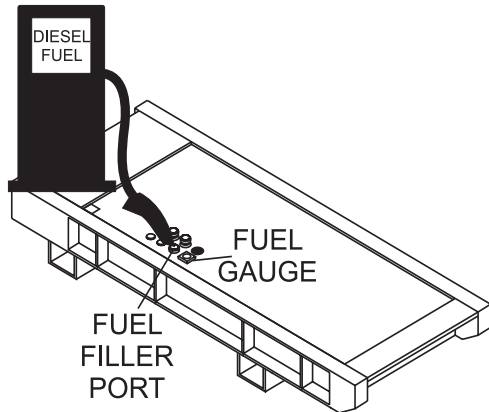


Figure 32. Skid Type Fuel Tank System

Refilling Procedures

! WARNING - RESPIRATORY HAZARDS

Diesel fuel and its vapors are dangerous to your health and the surrounding environment. Avoid skin contact and/or inhaling fumes.



1. **Level Tanks** – make sure fuel cells are level with the ground. Failure to do so will cause fuel to spill from the tank before reaching full capacity. See Figure 33.

! CAUTION - REFUELING THE GENERATOR

ALWAYS place trailer on firm level ground before refueling to prevent spilling and maximize the amount of fuel that can be pumped into the tank.

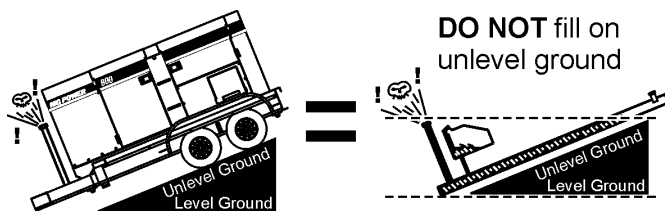


Figure 33. Only Fill on Level Ground

2. **Trailer Fuel Tank First** – The trailer fuel tank is the primary fuel tank and holds a larger capacity of fuel. The fuel in the trailer will be filtered and sent to the engine. **ALWAYS** fill trailer fuel tank (Figure 34) first.

! CAUTION - TRAILER FUEL TANK

ALWAYS! fill trailer tank **first** with **#2 diesel fuel**, before filling secondary internal tank.

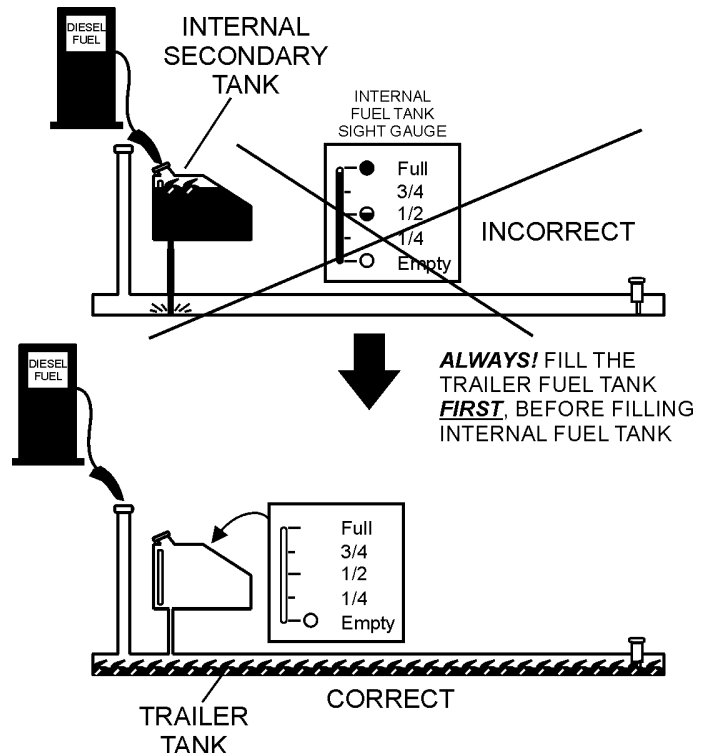
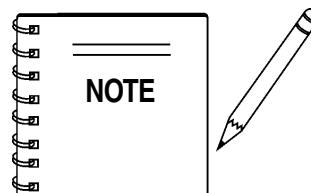
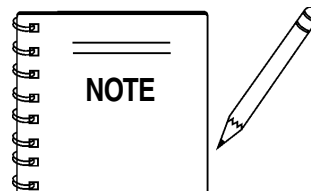


Figure 34. Fuel Tank Filling Order



ONLY! use **#2 diesel fuel** when refueling.



Fuel from the secondary inner tank will eventually drain into the primary trailer tank.

3. **NEVER overfill trailer fuel tank** – It is important to read the trailer fuel gauge when filling trailer fuel tank. **DO NOT** wait for fuel to rise in filler neck. See Figure 35.

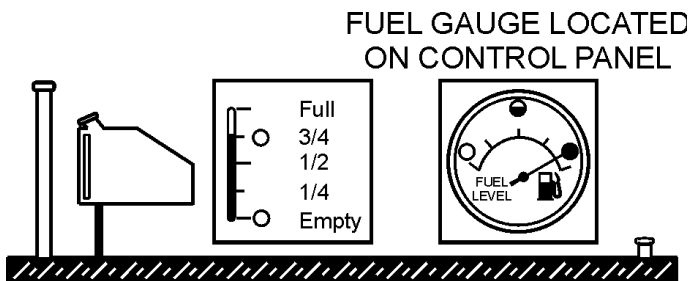


Figure 35. Full Trailer Tank

5. Figure 37 below reflects a full fuel system.

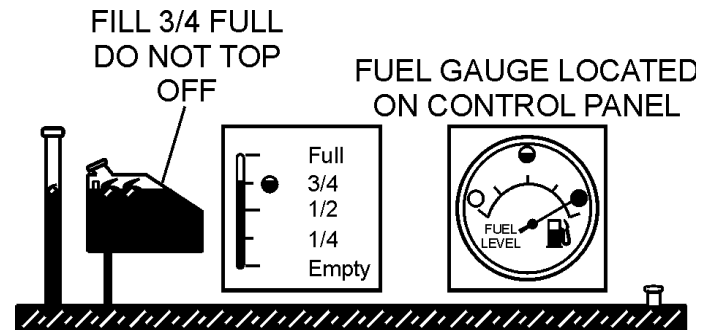


Figure 37. Full Fuel System

CAUTION - REFUELING THE GENERATOR

DO NOT OVERFILL fuel system. Leave room for fuel expansion. Fuel expands when heated (Figure 36).

4. Once the trailer tank is full, the **secondary inner tank** can be filled (See Figure 36). Notice how the trailer filler tube level rises when the internal tank is filled.

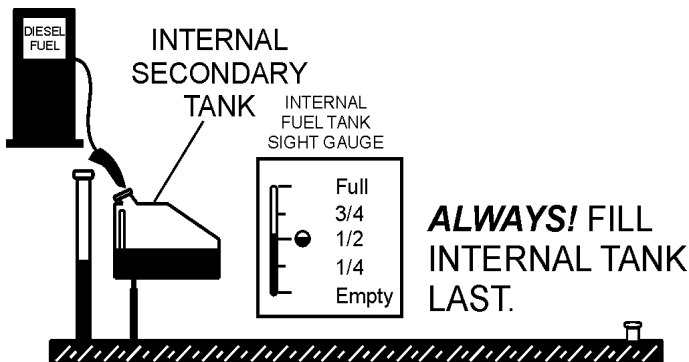


Figure 36. Filling Secondary Internal Fuel Tank

6. Fuel from the engine return line will drain into the secondary internal fuel tank. This fuel will eventually drain into the primary trailer tank in order to return to the engine.

CAUTION - REFUELING SECONDARY FUEL TANK

It is recommended to only fill the internal secondary tank to 3/4 full in order to allow for fuel return, fuel expansion, and to avoid spillage. See Figure 38 for fuel expansion.

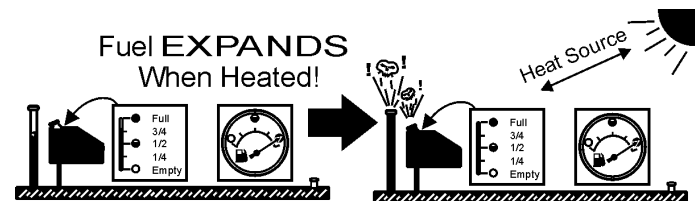


Figure 38. Fuel Expansion

Coolant (Ethylene Glycol [Green] / Water — 50/50 mix)

Use only drinkable tap water. If hard water or water with many impurities is used, the inside of the engine and radiator may become coated with deposits and cooling efficiency will be reduced.

An anticorrosion additive added to the water will help prevent deposits and corrosion in the cooling system. See the engine manual for further details.

WARNING - BURN HAZARDS

If adding coolant/antifreeze mix to the radiator, **DO NOT** remove the radiator cap until the unit has completely cooled. The possibility of **hot!** coolant exists which can cause severe burns.



Day-to-day addition of coolant is done from the recovery tank. When adding coolant to the radiator, **DO NOT** remove the radiator cap until the unit has completely cooled. See Table 12 for engine and radiator, coolant capacities. Make sure the coolant level in the recovery tank is always between the "H" and the "L" markings.

Table 12. Coolant Capacity

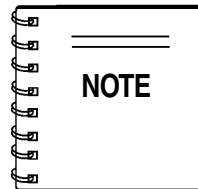
Engine and Radiator	44.9 Gal. (170 Liters)
---------------------	------------------------

Operation Freezing Weather

When operating in freezing weather, be certain the proper amount of antifreeze (Table 13) has been added.

Table 13. Anti-Freeze Operating Temperatures

Vol % Anti-Freeze	Freezing Point		Boiling Point	
	°C	°F	°C	°F
40	-24	-12	106	222
50	-37	-34	108	226



When the antifreeze is mixed with water, the antifreeze mixing ratio **must be** less than 50%.

Cleaning the Radiator

The engine may overheat if the radiator fins become overloaded with dust or debris. Periodically clean the radiator fins with compressed air. Cleaning inside the machine is dangerous, so clean only with the engine turned off and the **negative** battery terminal disconnected.

Air Cleaner

Periodic cleaning/replacement is necessary. Inspect it in accordance with the **Komatsu Engine Owner's Manual**.

Fan Belt Tension

A slack fan belt may contribute to overheating, or to insufficient charging of the battery. Inspect the fan belt for damage and wear and adjust it in accordance with the **Komatsu Engine Owner's Manual**.

The fan belt tension is proper if the fan belt bends 10 to 15 mm (Figure 39) when depressed with the thumb as shown below.

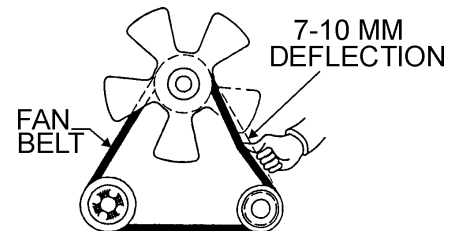


Figure 39. Fan Belt Tension

CAUTION - ROTATING PARTS

NEVER place hands near the belts or fan while the generator set is running.



Battery

This unit is of negative ground **DO NOT** connect in reverse. Always maintain battery fluid level between the specified marks. Battery life will be shortened, if the fluid level are not properly maintained. Add only distilled water when replenishment is necessary.

DO NOT over fill. Check to see whether the battery cables are loose. Poor contact may result in poor starting or malfunctions. **Always** keep the terminals firmly tightened. Coating the terminals with an approved battery terminal treatment compound. Replace battery with only recommended type battery.

The battery is sufficiently charged if the specific gravity of the battery fluid is 1.28 (at 68° F). If the specific gravity should fall to 1.245 or lower, it indicates that the battery is dead and needs to be recharged or replaced.

Battery Cable Installation

ALWAYS be sure the battery cables (Figure 40) are properly connected to the battery terminals as shown below. The **RED** cable is connected to the positive terminal of the battery, and the **BLACK** cable is connected to the negative terminal of the battery.

CAUTION - BATTERY SERVICING SAFETY

ALWAYS disconnect the negative terminal **FIRST** and reconnect negative terminal **LAST**.

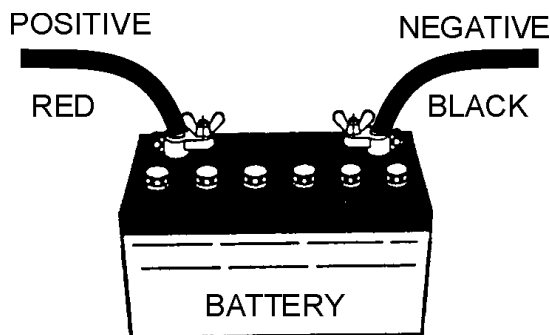
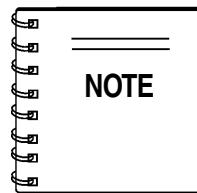


Figure 40. Battery Connections

When connecting battery do the following:

1. **NEVER** connect the battery cables to the battery terminals when the **ignition** switch is in either the **Pre-Heat, RUN, or START** position. **ALWAYS** make sure that the ignition switch is in the **STOP** position when connecting the battery.
2. Place a small amount of battery terminal treatment compound around both battery terminals. This will ensure a good connection and will help prevent corrosion around the battery terminals.



If the battery cable is connected incorrectly, electrical damage to the generator will occur. Pay close attention to the polarity of the battery when connecting the battery.

CAUTION - BATTERY SERVICING SAFETY

Inadequate battery connections may cause poor starting of the generator, and create other malfunctions.

Alternator

The polarity of the alternator is negative grounding type. When an inverted circuit connection takes place, the circuit will be in short circuit instantaneously resulting the alternator failure.

DO NOT put water directly on the alternator. Entry of water into the alternator leads an electrolyte corrosion causing an alternator failure.

Before charging the battery with an external electric source, be sure to disconnect the battery cables.

Wiring

Inspect the entire generator for bad or worn electrical wiring or connections. If any wiring or connections are exposed (insulation missing) replace wiring immediately.

Piping and Hose Connection

Inspect all piping, oil hose, and fuel hose connections for wear and tightness. Tighten all hose clamps and check hoses for leaks.

If any hose (**fuel** or **oil**) lines are defective replace them **immediately**.

DCA-800SSK — GEN. START-UP PROCEDURE (MANUAL)

Before Starting

CAUTION - LETHAL EXHAUST HAZARD

The engine's exhaust contains harmful emissions. **ALWAYS have adequate ventilation when operating.** Direct exhaust away from nearby personnel.

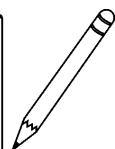
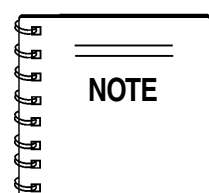
If applicable perform the following:

- Apply commercial power to the internal battery charger receptacle (to ensure good starting) via commercial power. An external power cord will be required. This capability is an **option**.
- Apply commercial power to the jacket water heater receptacle (not necessary for warm climates) via commercial power. An external power cord will be required. This capability is an **option**.

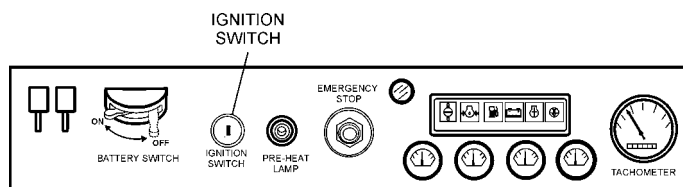
Generator and Control Panel

WARNING - STARTING THE GENERATOR

NEVER! manually start the engine with the **main**, **GFCI** or **auxiliary** circuit breakers in the **ON** (closed) position.

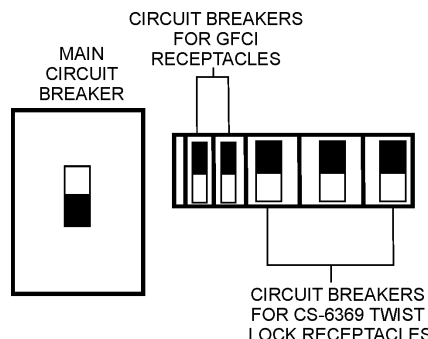


Steps 1 thru 19 are referenced for Engine Operating Panel up to S/N 3699247. See Figure 41 below. This panel has an **ignition switch**.



**Figure 41. Engine Operating Panel
Up To S/N 3699247**

1. Place the **main**, **G.F.C.I.** and **aux.** circuit breakers (Figure 42) in the **"OFF"** position prior to starting the engine.



**Figure 42. Main, Aux. and GFCI
Circuit Breakers (OFF)**

2. Connect the load to the **UVWO** terminals or **auxiliary receptacles** as shown in Figure 43. These load connection points can be found on the output terminal panel. To gain access to the UVWO terminals or other power receptacles, unlock the access cover and lift the door.
3. The UVWO terminals are protected by a plastic cover, remove this cover to gain access to the terminals. Tighten terminal nuts securely to prevent load wires from slipping out.

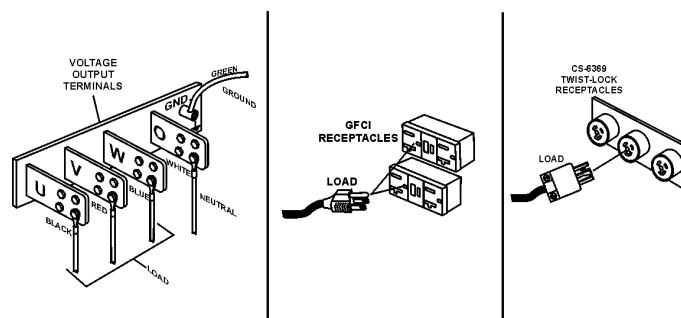


Figure 43. Load Connections

4. Close all engine enclosure doors (Figure 44).

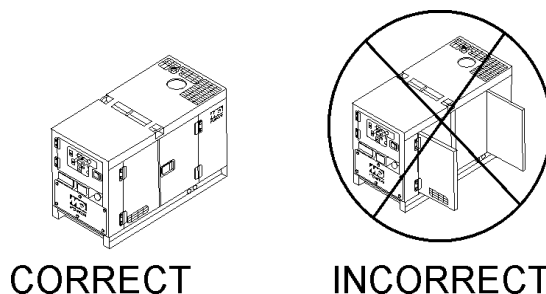


Figure 44. Engine Enclosure Doors

DCA-800SSK — GENERATOR START-UP PROCEDURE (MANUAL)

5. Set the **battery ON/OFF switch** (Figure 45) to the “ON” position.

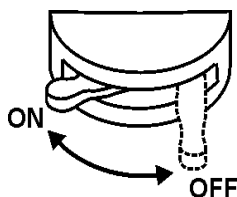


Figure 45. Battery ON/OFF Switch

6. When starting the generator in **COLD** weather conditions, turn the **ignition key** to the “PREHEAT” position (Figure 46),

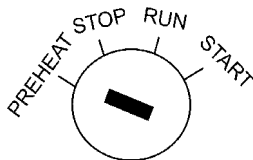


Figure 46. Ignition Switch (Pre-Heat)

8. Place the **engine throttle lever** in the “LOW” position (Figure 48). This lever is located on the generator control panel.

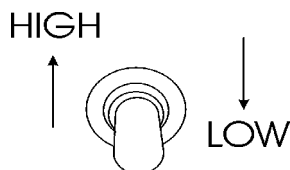


Figure 48. Engine Throttle Control

9. Turn the ignition key to the “START” position (Figure 49) and listen for the engine to begin cranking. After the engine starts release the ignition key.

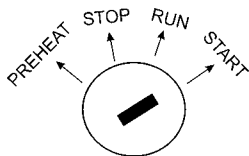


Figure 49. Engine Ignition Switch

10. Once the engine has started, let it run for 3-5 minutes, then turn the throttle handle control (Figure 48) to the “HIGH” position.

11. The generator's frequency meter (Figure 50) should be displaying the 60 cycle output frequency in **HERTZ**.

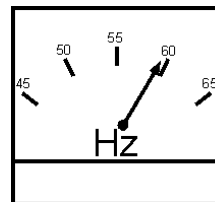


Figure 50. Frequency Meter (Hz)

12. The generator's AC-voltmeter (Figure 51) will display the generator's output in **VOLTS**. If the voltage is not within the specified tolerance, use the voltage adjustment control knob (Figure 52) to increase or decrease the desired voltage.

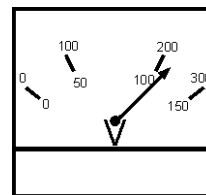


Figure 51. AC Voltmeter



Figure 52. Voltage Adjust Control Knob

13. The ammeter (Figure 53) will indicate zero amps with no load applied. When a load is applied, the ammeter will indicate the amount of current that the load is drawing from the generator.

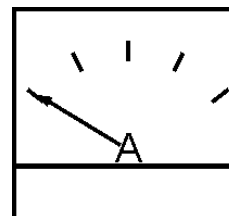


Figure 53. Ammeter (No Load)

DCA-800SSK — GENERATOR START-UP PROCEDURE (MANUAL)

14. The engine oil pressure gauge (Figure 47) will indicate the oil pressure (kg/ cm²) of the engine. Under normal operating conditions the oil pressure is approximately



Figure 47. Oil Pressure Gauge

15. The **coolant temperature gauge** (Figure 48) will indicate the coolant temperature. Under normal operating conditions the coolant temperature should be between 165 and 215 degrees Fahrenheit (**Green Zone**).

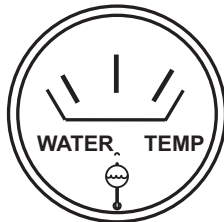


Figure 48. Coolant Temperature Gauge

16. The **tachometer gauge** (Figure 49) will indicate the speed of the engine when the generator is operating. Under normal operating conditions this speed is approximately 1800 RPM's.

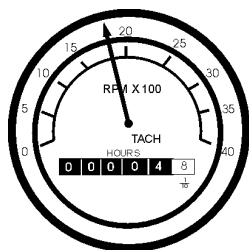


Figure 49. Engine Tachometer Gauge

17. Place the **main**, **GFCI**, and **aux.** circuit breakers in the "ON" position (Figure 50).

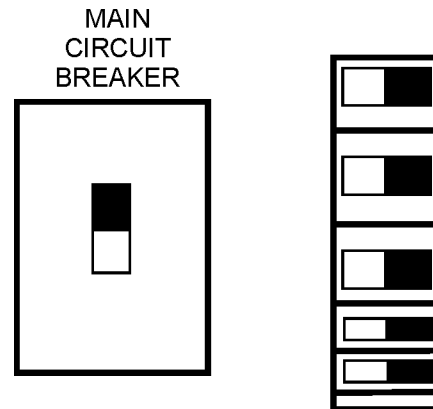


Figure 50. Main, Aux. and GFCI Circuit Breakers (ON)

18. Observe the generator's ammeter (Figure 51) and verify it reads the anticipated amount of current with respect to the load. The ammeter will only display a current reading if a load is in use.

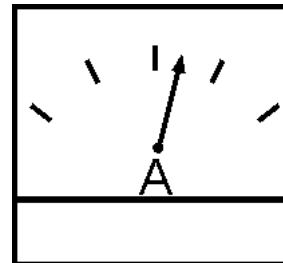


Figure 51. Ammeter (Load)

19. The generator will run until manually stopped or an abnormal condition occurs.

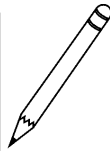
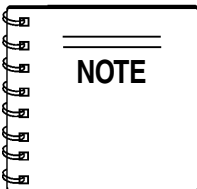
DCA-800SSK — GENERATOR START-UP PROCEDURE (MANUAL)

BEFORE STARTING

Generator and Control Panel

WARNING - STARTING THE GENERATOR

NEVER! manually start the engine with the *main*, *GFCI* or *auxiliary* circuit breakers in the **ON** (closed) position.



Steps 20 thru 26 are referenced for Engine Operating Panel S/N 3699248~. See Figure 59 below. This panel does not have an ignition switch. It does have a "**pre-heat button**" and a "**engine speed switch**" that is used in conjunction with the MPEC unit.

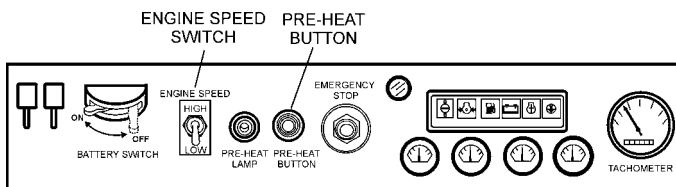


Figure 59. Engine Operating Panel
S/N 3699248~

20. Set the **battery ON/OFF switch** (Figure 60) to the "**ON**" position.

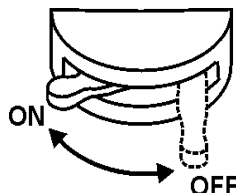


Figure 60. Battery ON/OFF Switch

21. Press and hold the engine preheat button (Figure 59) until the preheat lamp is lit (**ON**).

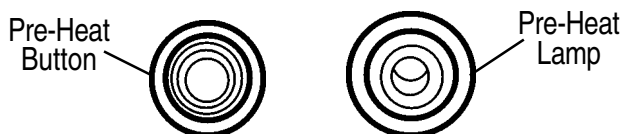


Figure 60. Pre-Heat Button/ Lamp

22. Place the engine speed switch in the "**LOW**" position (Figure 62).

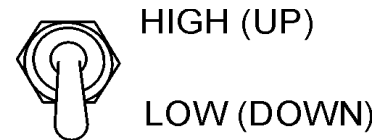


Figure 62. Engine Speed Switch (High)

23. Place the Auto-Off/Reset-Manual switch in the "**Manual**" position to start the engine (Figure 63). Once the engine starts, let the engine run for 1-2 minutes. Listen for any abnormal noises.



Figure 63. Auto-Off/Reset-Manual Switch

24. Once the engine is warm and the engine is running properly, place the engine speed switch in the "**HIGH**" position (Figure 64).

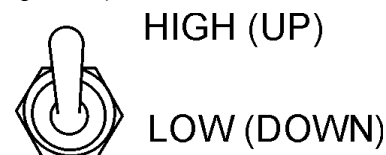


Figure 64. Engine Speed Switch (High)

25. Verify that the "**Engine Running**" status LED on the MPEC unit (Figure 65) is "**ON**" (lit) after the engine has been started.



Figure 65. Engine Running LED (ON)

26. Continue operating the generator as outlined in steps 11 thru 19 (pages 46-47).

DCA-800SSK — GENERATOR SHUT-DOWN PROCEDURE (AUTO)

Starting (Auto Mode)

DANGER - ELECTRICAL SYSTEM HAZARDS

Before connecting this generator to any building's electrical system, a **licensed electrician** must install an **isolation (transfer) switch**. Serious damage to the building's electrical system may occur without this transfer switch.



CAUTION - BACKUP GENERATOR USE

When connecting the generator to a isolation (transfer) switch, **ALWAYS** have power applied to the generator's internal battery charger. This will ensure that the engine will not fail due to a dead battery.

WARNING - AUTO MODE MAINTENANCE

When running the generator in the **AUTO** mode, remember the generator can start up at any time without warning. **NEVER** attempt to perform any maintenance when the generator is in the auto mode.

When starting generator in **AUTO** mode use the "**Manual Start-up**" procedure except where noted (see below).

1. Perform steps 1 through 4 in the **Before Starting** section (page 45) as outlined in the **Manual Starting Procedure**.
2. Set the **battery ON/OFF switch** (Figure 66) to the "**ON**" position.

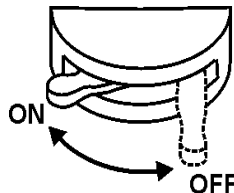
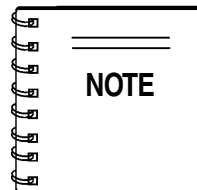


Figure 66. Battery ON/OFF Switch

CAUTION - ENGINE SPEED SWITCH

The **Engine Speed Switch** **must** be set to the "**High**" position when running in the **Auto-Start** mode. Failing to set the switch in the proper position can result in damage to your generator when it turns on.



When the generator is set in the "**AUTO**" mode, the generator will **automatically start** in the event of commercial power falling below a prescribed level by means of a contact closure that is generated automatically by a transfer switch.

3. Set the engine speed switch (Figure 67) to the "**High**" position.

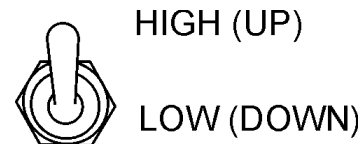


Figure 67. Engine Speed Switch (High)

4. Place the Off/Manual/Auto switch (Figure 68) on the MPEC unit to the **AUTO** position.



Figure 68. Off/Manual Auto Switch (AUTO)

5. Continue operating the generator as outlined in steps 11 thru 19 (pages 46-47).

DCA-600SSK — GENERATOR SHUT-DOWN PROCEDURE

Engine Shutdown Ignition Key (Up to S/N 3699247)

To shutdown the generator use the following procedure:

1. Place both the **MAIN**, **GFCI** and **LOAD** circuit breakers (Figure 69) to the "OFF" position".

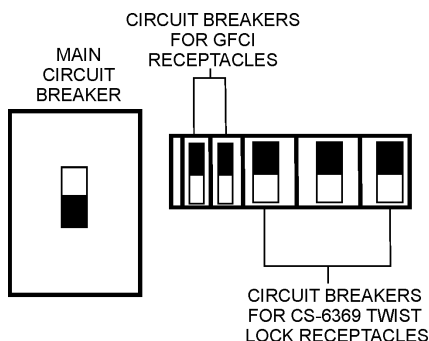


Figure 69. Main, Aux. and GFCI Circuit Breakers (OFF)

2. Place the throttle control (Figure 70) in the "LOW" position.

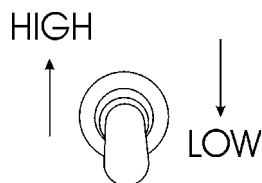


Figure 70. Engine Throttle Control

3. Let the engine cool by running it for 3-5 minutes with no load applied.
4. Place the ignition key (Figure 71) in the "STOP" position.



Figure 71. Ignition Key Switch (STOP position)

5. Remove all loads from the generator.

Emergency Shutdown Procedure

1. **PUSH** inward the emergency stop button located on the **engine operating panel** (Figure 72) to turn off the generator in the event of an emergency. This button is located on either Engine Operating Panel.

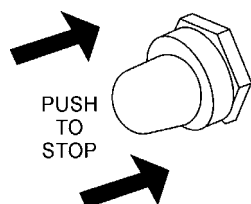


Figure 72. Emergency Stop Button

Engine Shutdown Controller (S/N 3698617~)

To shutdown the generator use the following procedure:

1. Place both the **MAIN**, **GFCI** and **LOAD** circuit breakers as shown in Figure 67 to the "OFF" position".
2. Place the engine speed switch in the "LOW" position (Figure 73).

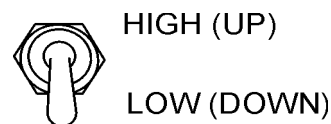


Figure 73. Engine Speed Switch (High)

3. Let the engine cool by running it for 3-5 minutes with no load applied.
4. Place the Auto-Off/Reset-Manual switch (Figure 74) to the **OFF/Reset** position.

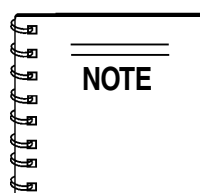


Figure 74. Off/Manual Auto Switch (AUTO)

5. Verify that the all status LED on the MPEC display are "OFF" (not lit).
6. Remove all loads from the generator.

! WARNING - EMERGENCY STOP SWITCH

NEVER stop the engine suddenly except in an emergency. **DO NOT** use the emergency stop switch as a method of shutting down the generator. This switch is **ONLY** to be used in the event of an emergency.



To disengage the emergency stop function, pull the emergency stop button outward to its original position. This will allow the generator to operate normally. Remember the generator will not start if the emergency stop button is engaged.

Use Table 14 shown below as a general checklist to be performed on a daily basis.



TABLE 14.

INSPECTION / MAINTENANCE		10 Hrs DAILY	250 Hrs	500 Hrs	1000 Hrs
ENGINE	Check Engine Fluid Levels	X			
	Check Air Cleaner	X			
	Check Battery Acid Level	X			
	Check Fan Belt Condition	X			
	Check for Leaks	X			
	Check for Loosening of Parts	X			
	Replace Engine Oil and Filter * ¹		X		
	Clean Air Filter		X		
	Drain Bottom of Fuel Tank		X		
	Clean Unit, Inside and Outside		X		
	Change Fuel Filter * ²			X	
	Clean Radiator and Check Coolant Protection Level			X	
	Replace Air Filter Element				X
	Change Corrosion Resistor				X
	Check all Hoses and Clamps				X
	Clean Inside of Fuel Tank				X
GENERATOR	Measure Insulation Resistance Over 3M ohms		X		

*¹ Replace engine oil and filter at 100 hours, first time only.

*² Replace fuel filter at 250 Hours, first time only.

General Inspection

Prior to each use, the generating set should be cleaned and inspected for deficiencies. Check for loose, missing or damaged nuts, bolts or other fasteners. Also check for fuel or oil leaks.

Air Cleaner

Every **50 hours**: If dust indicator is **RED**, clean the air cleaner element.

Outer Element:

1. Loosen wing bolt, remove dust cup, then remove wing nut and take out element.
2. Clean the inside of the body and cover using a damp cloth.
3. Blow dry with compressed air (0.69Mpa {7kgf.cm², 99.4 PSI} maximum) against the side of the element along the pleats. Then blow dry against outside along the pleats, then against inside again.
4. Remove one seal each time the element is cleaned.
5. Replace the outer element after cleaning it 6 times or after one year. Replace the outer element if indicator is red even after cleaning it.
6. Check the inner cylinder element clamping nut for looseness, and retighten if necessary.
7. If seal washer is damaged or the threads of wing nut are damaged, replace.
8. Remove evacuator valve and clean it with compressed air. Reinstall.

Inner element (if equipped)

1. Remove the cover and outer element, then remove the inner element.
2. Cover the air connector opening (outer side) with clean cloth or cloth tape.
3. Clean the inside of the body. Remove air connector opening protection.
4. Install a new inner cylinder element to the cylinder and tighten the nut.
5. Install element.
6. After replacing the element, press the button of the dust indicator to return the red piston to its original position.

Fuel Addition

Add diesel fuel (the grade may vary according to season and locations). Always pour through the mesh filter.

Removing Water from the Tank

After prolonged use, water and other impurities accumulate in the bottom of the tank. Occasionally remove the drain cock and drain the contents. During cold weather, the greater the empty volume inside the tank, the easier it is for water to condense. This can be reduced by always keeping the tank as full as possible.

Air Removal

If air enters the fuel injection system of a diesel engine, starting becomes impossible. After running out of fuel, or after disassembling the fuel system, bleed the system according to the following procedure.

To restart after running out of fuel, turn the key switch to the **"START"** position for 15-30 seconds. Try again, if needed. This unit is equipped with an automatic air bleeding system.

Service Daily

If engine is operating in very dusty and dry grass conditions, a clogged air cleaner will result in high fuel consumption, loss of power and excessive carbon buildup in the combustion chamber.

Cleaning the Fuel Strainer

Clean the fuel strainer if it contains dust or water. Remove dust or water in the strainer cap and wash it in diesel. Securely fasten the fuel strainer cap so that fuel will not leak. Check the fuel strainer every 200 hours of operation or once a month.

Check Oil Level

Check the crankcase oil level prior to each use, or when the fuel tank is filled. Insufficient oil may cause severe damage to the engine. Make sure the generator is level. The oil level must be between the two notches on the dipstick as shown in Figure 30.

Check Electric Heater (If equipped)

Before starting in cold weather (once a year), please contact your Komatsu distributor for inspection. Remove electric heater from the engine intake manifold and check for disconnections or dirt. When checking or installing the electric heater, replace the gasket with a new part.

**WARNING - BURN HAZARDS**

Allow engine to **cool** when flushing out radiator. Flushing the radiator while hot could cause serious burns from water or steam.

**Flushing Out Radiator and Changing Coolant**

1. Stop the engine and allow to cool. Tighten valve of the corrosion resistor (if equipped).
2. Turn water filler cap slowly and remove it.
3. Prepare a container to catch the coolant, then open drain plug of the radiator or heat exchanger and drain plug of the engine, and drain the coolant.
4. After draining the coolant, close drain plugs and fill with tap water.
5. When the water level is near the mouth of the water filler, open drain plugs and start the engine, and run at low idling. Keep the engine running at low idling and flush the radiator for about 10 minutes.
6. Adjust the flow of the water flowing in and draining out to ensure that the radiator is always full during the flushing operation. While flushing water through the system, watch carefully the water inlet hose does not come out of the radiator filler port.
7. After flushing, stop the engine, open drain plug and drain the water, then close drain plugs.
8. After draining the water, flush the system with a flushing agent. See instructions on flushing agent label.
9. After flushing, open drain plugs and drain out all the water, then close drain plugs and add tap water so the water level is near the mouth of the water filler.
10. When the water level is near the mouth of the water filler, open drain plugs and start the engine, run at low idling and continue to flush the system until clean water comes out. Adjust the flow of the water flowing in and draining out to ensure the radiator is always full during the flushing operation.
11. When clean water comes out, stop the engine, drain all the water, then close drain plugs.
12. Remove the corrosion resistor (if equipped) and open valve.
13. Supply water until it flows over the water filler.

14. Drain the water inside reserve tank, clean the inside of the reserve tank, then fill with coolant/water mixture to between the full and low lines.
15. Stop the engine, wait for 3 minutes, add tap water until the water level reaches near the water filler port, then tighten the radiator cap.

Changing Oil

1. Make sure the oil is cool before changing.
2. Set a container directly under the drain plug of the oil pan. Loosen the drain plug slowly.
3. Check the drained oil for excessive metal particles or foreign material. Contact the distributor if there is metal particles or foreign material.
4. Using a filter wrench, turn filter cartridge to the left to remove it. If the filter cartridge is filled with a large amount of oil, wait 10 minutes or so before removing. Make sure there is no old gasket stuck on the filter holder.
5. Tighten drain plug. Clean the filter holder, fill the new filter cartridge with clean engine oil, coat the packing and thread of the new filter cartridge with engine oil, then install it to the filter holder. Tighten until the gasket surface contacts the seal surface of the filter holder, then tighten it a further 3/4 to 1 turn.
6. Add engine oil through oil filler until the oil level is between the H and L marks on the dipstick.
7. Run the engine at idling for a short time, then stop the engine. Recheck the oil level and fill as necessary.

Replacing Fuel Filter

1. Set the container under the filter cartridge to catch fuel.
2. Using a filter wrench, turn the filter cartridge to the left to remove it.
3. Clean the filter holder, fill the new filter cartridge with fuel, coat the packing surface of the filter cartridge with engine oil, then install the cartridge to the filter holder.
4. When installing, tighten until the packing surface contacts the seal surface of the filter holder then tighten a further 2/3 of a turn. If the filter cartridge is tighten too much, the packing will be damaged and will cause fuel leakage. Fuel leakage will occur if the filter cartridge is not tightened enough. Always tighten to the correct angle.

5. After replacing filter cartridge, loosen air bleed plug.
6. Loosen the knob of feed pump, and pump it up and down until no bubbles come out with the fuel from air bleed plug.
7. After bleeding the air, tighten air bleed plug, then push in the knob of feed pump and lock it in position.
8. Replace Corrosion resistor cartridge (if equipped)
9. Screw in valves at the top of the corrosion resistor.
10. Using a filter wrench, turn the cartridge to the left to remove it.
11. Coat the seal surface of the new cartridge with engine oil and install it to the filter holder.
12. Tighten until the packing surface contacts the seal surface of the filter holder, then tighten a further 2/3 of a turn.
13. Open valves.

Cleaning Breather Element

1. Loosen the clamp, then remove the hose and take out breather. Wipe off the dirt around the breather. Check the O-ring, and replace if necessary.
2. Wash the breather in diesel fuel or flushing oil, blow dry with compressed air, then reinstall it.
3. Inspect the hose and if there is any deteriorated oil stuck inside the hose. Replace hose if necessary.

Greasing

1. Using a grease pump, grease the fan hub (1 place) and tension pulley (2 places).

Generator Storage:

For storage of the generator for over 30 days, the following is required:

- Fill the fuel tank completely. Treat with fuel stabilizer if necessary.
- Completely drain oil from the crankcase and refill if necessary with fresh oil.
- Clean the entire generator, internal and external.
- Disconnect the negative terminals of the battery and cover it, or remove it from the generator and store it separately.
- If the ambient temperature is expected to drop below 0°C, add antifreeze to the radiator.
- Cover the generator set and store in a clean, dry place

Removal From Long Term Storage:

- Apply oil to the engine valve and rocker arms, and examine the operating condition of the valves.
- Remove the oil filler pipe from the turbocharger oil inlet port, add 0.5-1L (0.13-0.26 gal) of oil to the turbocharger, reinstall the oil filler pipe.
- Change the oil in engine oil pan.
- Replace all the filters.
- Flush the inside of the cooling system.
- Drain the water from the fuel tank and bleed the air from the fuel system.
- If the engine has not been started for more than one year, contact your Komatsu distributor to have engine overhauled.

Jacket Water Heater and Internal Battery Charger 120 VAC Input Receptacles (OPTIONAL)

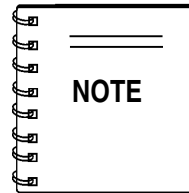
This generator is equipped with two 120 VAC, 20 amp input receptacles located on the output terminal panel.

The purpose of these receptacles is to provide power via commercial power to the **jacket water heater** and **internal battery charger**.

These receptacles will **ONLY** function when commercial power has been supplied to them (Figure 75). To apply commercial power to these receptacles, a power cord of adequate size will be required (See Table 6).

When using the generator in **hot** climates there is no reason to apply power to jacket water heater. However, if the generator will be used in **cold** climates it is always a good idea to apply power to the jacket water heater at all times. To apply power to the jacket water heater simply apply power to the jacket water heater receptacle via commercial power using an power cord of adequate size.

If the generator will be used daily, the battery should normally not require charging. If the generator will be idle (not used) for long periods of time, apply power to the battery charger receptacle via commercial power using an power cord of adequate size.



To ensure adequate starting capability, **always** have power applied to the generator's **internal battery charger**.

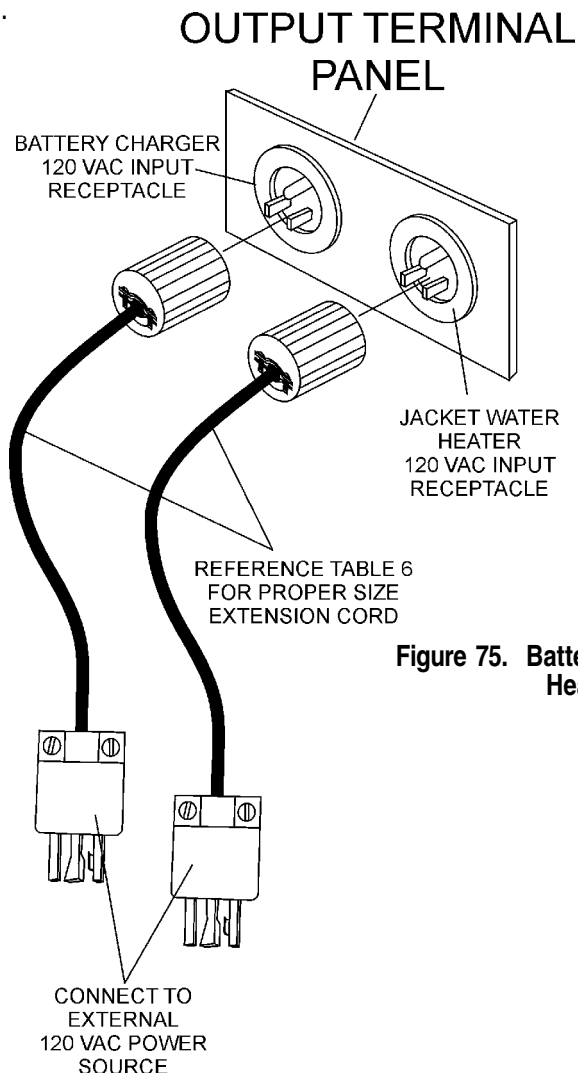


Figure 75. Battery Charger/Jacket Water Heater Power Connections

Brakes

Trailer brakes should be inspected the **first 200 miles** of operation. This will allow the brake shoes and drums to seat properly. After the first 200 mile interval, inspect the brakes **every 3,000 miles**. If driving over rough terrain, inspect the brakes more frequently.

Air Brake System

Air brakes use compressed air to make the brakes function. Air brakes are a good and safe way of stopping large and heavy vehicles. There are many components that make up an air-brake system, such as the air compressor, air compressor governor, air storage tanks and air tank drains. These components need to be maintained by **qualified** and **trained technicians**.

S-Cam Brakes

When the brake pedal is pushed, air is let into each brake chamber (Figure 76). Air Pressure pushes the rod out, moving the slack adjuster, thus twisting the brake cam shaft. This turns the s-cam (so called because it is shaped like the letter "S").

The s-cam forces the brake shoes away from one another and presses them against the inside of the brake drum. When the brake pedal has been released, the s-cam rotates back and a spring pulls the brake shoes away from the drum, letting the wheels roll freely.

Air Tank Drains

Compressed air usually has some water in it which is **bad** for the air brake system. Water can freeze in cold weather and thus cause brake failure. The water tends to collect in the bottom of the air tank. **Daily air tank drainage is required to remove water from the air tank.**

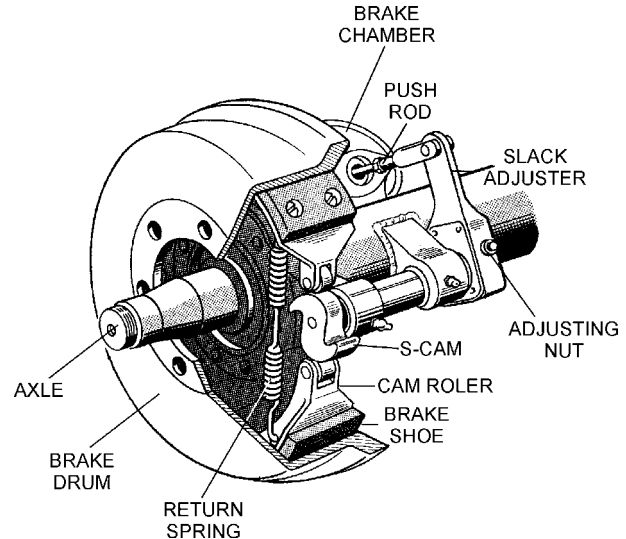


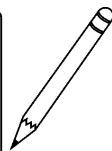
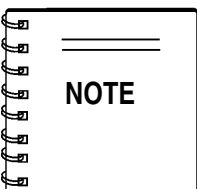
Figure 76. Hydraulic Brake Components

Brake Drums (or discs), Linings, and Hoses

Brake drums or discs must not have cracks longer than one half the width of the friction area. Linings must not be loose, soaked with oil or grease or be dangerously thin. Mechanical parts must be in place, not broken or missing. Check that all air hoses connected to the brake chambers are not worn or cut due to rubbing.

Air Leaks

Always check for brake air leaks before towing the trailer. **NEVER** tow the trailer with an brake air leak problem. The possibility exists of brake failure.



Use Table 15 as a basic troubleshooting guide when brake problems occur.

Table 15. Air Brake Troubleshooting

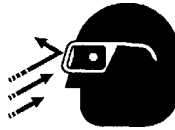
Symptom	Possible Cause	Solution
No Brakes	Air Brake line broken or kinked?	Repair or replace.
	Worn lining?	Replace lining.
	Slack adjustment incorrect?	Adjust correctly.
Weak Brakes or Brakes Pull to One Side	Brake lining glazed?	Reburnish or replace.
	Trailer overloaded?	Correct weight.
	Brake drums scored or grooved?	Machine or replace.
	Tire pressure correct?	Inflate all tires equally.
	Tires unmatched on the same axle?	Match tires.
Locking Brakes	Brake components loose, bent or broken?	Replace components.
	Brake drums out-of-round?	Replace.
	Brake lining glazed?	Replace brake lining.
Noisy Brakes	Drums and lining glazed?	Replace brake lining and drum.
Dragging Brakes	Brake lining thickness incorrect or not adjusted correctly?	Install new shoes and linings.
	Zerk fittings lubricated?	Lubricate zerk fittings.

Tires/Wheels/Lug Nuts

Tires and wheels are a very important and critical components of the trailer. When specifying or replacing the trailer wheels it is important the wheels, tires, and axle are properly matched.

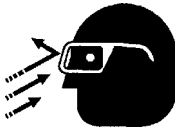
CAUTION - EYESIGHT HAZARD

ALWAYS wear safety glasses when removing or installing force fitted parts. Failure to comply may result in serious injury.



CAUTION - REPAIRING TRAILER WHEELS

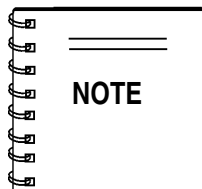
DO NOT attempt to repair or modify a wheel. **DO NOT** install in inner tube to correct a leak through the rim. If the rim is cracked, the air pressure in the inner tube may cause pieces of the rim to explode (break off) with great force and cause serious eye or bodily injury.



Tire Wear/Inflation

Tire inflation pressure is the most important factor in tire life. Pressure should be checked cold before operation **DO NOT** bleed air from tires when they are **hot!** Check inflation pressure weekly during use to insure the maximum tire life and tread wear.

Table 16 (Tire Wear Troubleshooting) will help pinpoint the causes and solutions of tire wear problems.



ALWAYS wear safety glasses when removing or installing force fitted parts. Failure to comply may result in serious injury.

TABLE 16. TIRE WEAR TROUBLESHOOTING

WEAR PATTERN		CAUSE	SOLUTION
	Center Wear	Over Inflation.	Adjust pressure to particular load per tire manufacturer.
	Edge Wear	Under Inflation.	Adjust pressure to particular load per tire manufacturer.
	Side Wear	Loss of camber or overloading.	Make sure load does not exceed axle rating. Align wheels.
	Toe Wear	Incorrect toe-in.	Align wheels.
	Cupping	Out-of-balance.	Check bearing adjustment and balance tires.
	Flat Spots	Wheel lockup & tire skidding.	Avoid sudden stops when possible and adjust brakes.

Suspension

The **leaf suspension** springs and associated components (Figure 77) should be visually inspected **every 6,000** miles for signs of excessive wear, elongation of bolt holes, and loosening of fasteners. Replace all damaged parts (suspension) immediately. Torqued suspension components as detailed in Table 17.

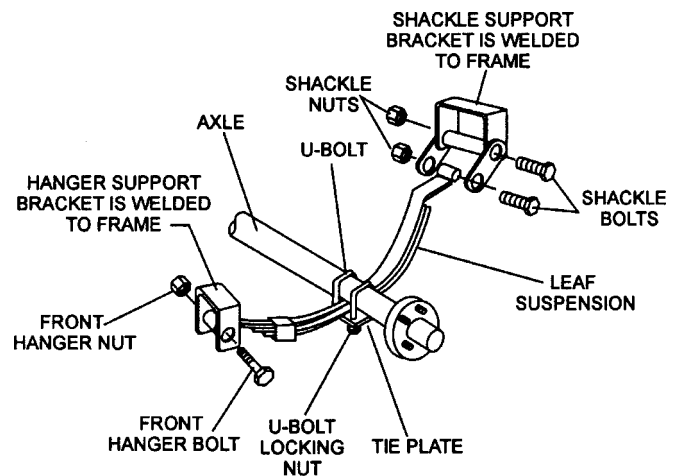


Figure 77. Major Suspension Components

Table 17. Suspension Torque Requirements

Item	Torque (Ft.-Lbs.)
3/8" U-BOLT	MIN-30 MAX-35
7/16" U-BOLT	MIN-45 MAX-60
1/2" U-BOLT	MIN-45 MAX-60
SHACKLE BOLT SPRING EYE BOLT	SNUG FIT ONLY. PARTS MUST ROTATE FREELY. LOCKING NUTS OR COTTER PINS ARE PROVIDED TO RETAIN NUT-BOLT ASSEMBLY.
SHOULDER TYPE SHACKLE BOLT	MIN-30 MAX-50

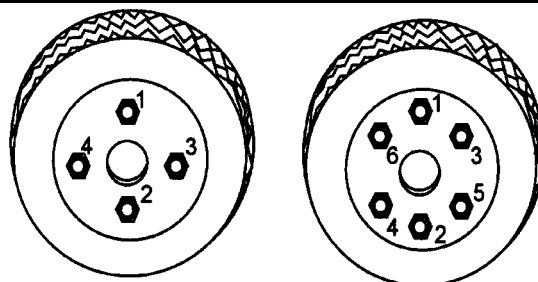
Lug Nut Torque Requirements

It is extremely important to apply and maintain proper wheel mounting torque on the trailer. Be sure to use only the fasteners matched to the cone angle of the wheel. Proper procedure for attachment of the wheels is as follows:

1. Start all wheel lug nuts by hand.
2. Torque all lug nuts in sequence. See Figure 78. **DO NOT** torque the wheel lug nuts all the way down. Tighten each lug nut in 3 separate passes as defined by Table 18.
3. After first road use, retorque all lug nuts in sequence. Check all wheel lug nuts periodically.

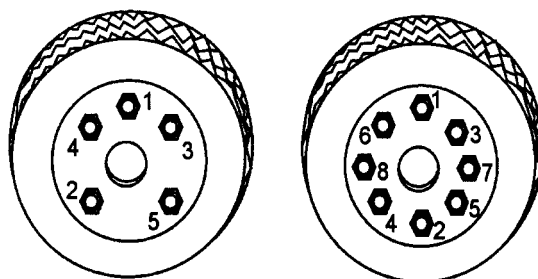
Table 18. Tire Torque Requirements

Wheel Size	First Pass FT-LBS	Second Pass FT-LBS	Third Pass FT-LBS
12"	20-25	35-40	50-65
13"	20-25	35-40	50-65
14"	20-25	50-60	90-120
15"	20-25	50-60	90-120
16"	20-25	50-60	90-120



4-LUG NUTS

6-LUG NUTS



5-LUG NUTS

8-LUG NUTS

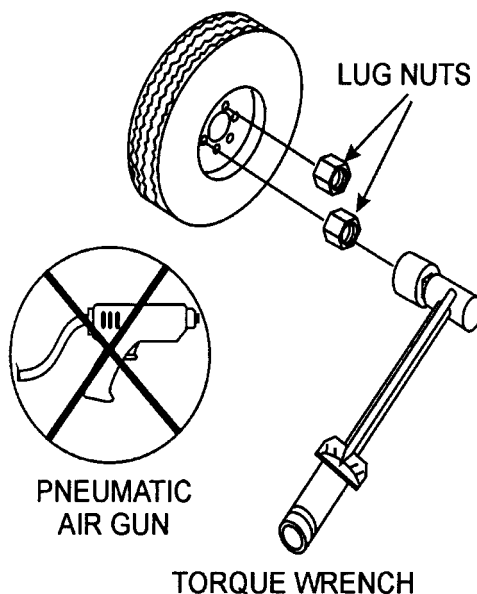
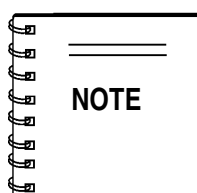


Figure 78. Wheel Lug Nuts Tightening Sequence



NEVER use an pneumatic air gun to tighten wheel lug nuts. Use a **torque wrench** to tighten lug nuts.

DCA-800SSK —TRAILER-WIRING DIAGRAM

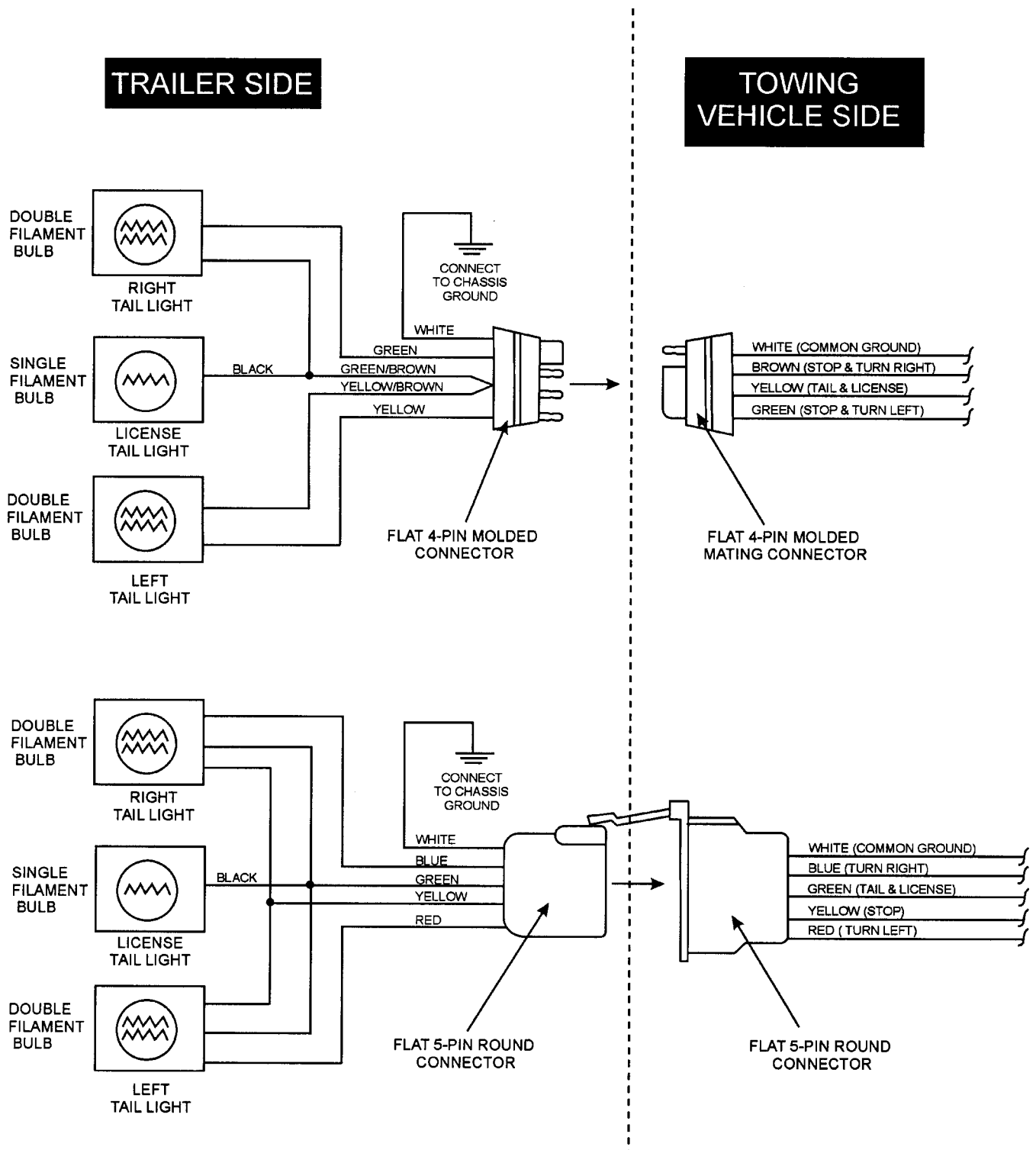


Figure 79. Trailer Wiring Diagram (5-Pin)

TYPICAL 7 POLE TRAILER WIRE DIAGRAM

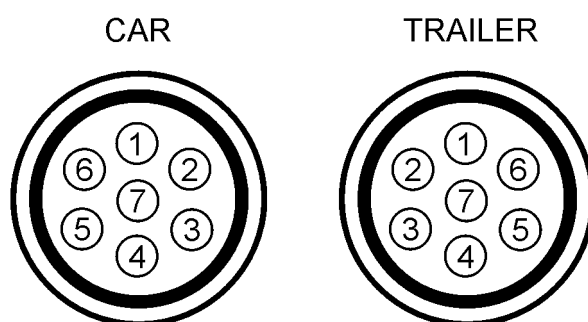


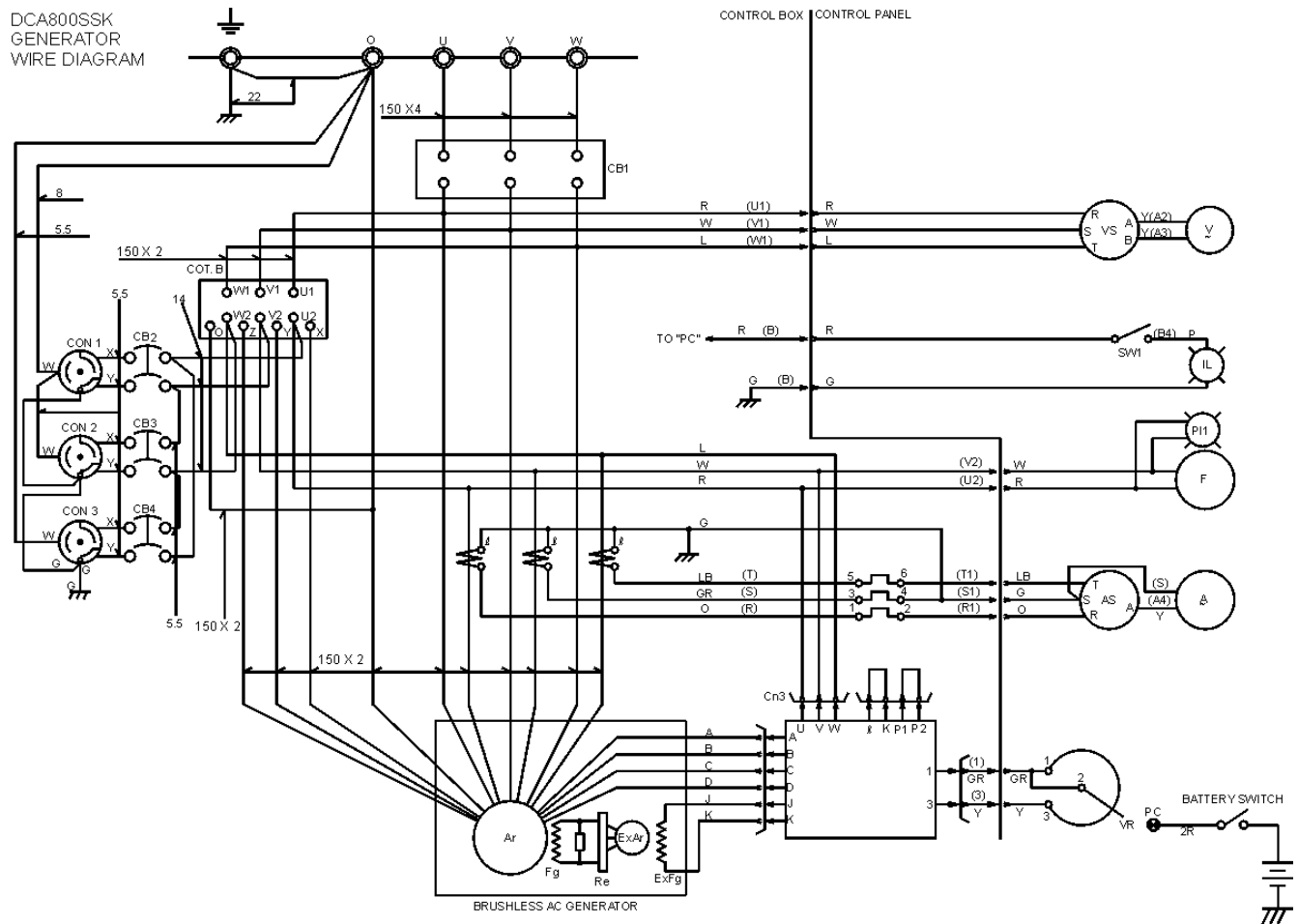
TABLE 19. TRAILER WIRE DIAGRAM

POLE	DESCRIPTION	COLOR
1 / L	LEFT TURN	YELLOW
2 / 54G	REVERSE	BLACK
3 / 31	EARTH	WHITE
4 / R	RIGHT TURN	GREEN
5 / 58R	SERVICE BRAKES	BLUE
6 / 54	STOP LAMP	RED
7 / 58L	TAIL LAMPS	BROWN

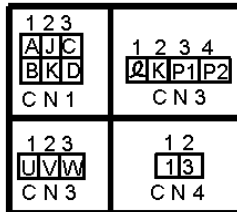
Figure 80. Trailer Wiring Diagram (7-Pin)

DCA-800SSK — GENERATOR WIRING DIAGRAM

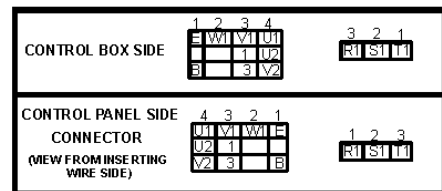
DCA800SSK
GENERATOR
WIRE DIAGRAM



AVR CONNECTOR



(VIEW FROM INSERTING WIRE SIDE)



COT. B

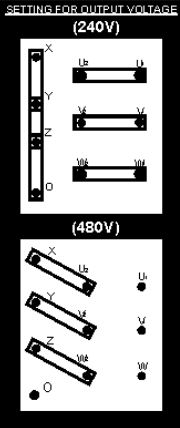
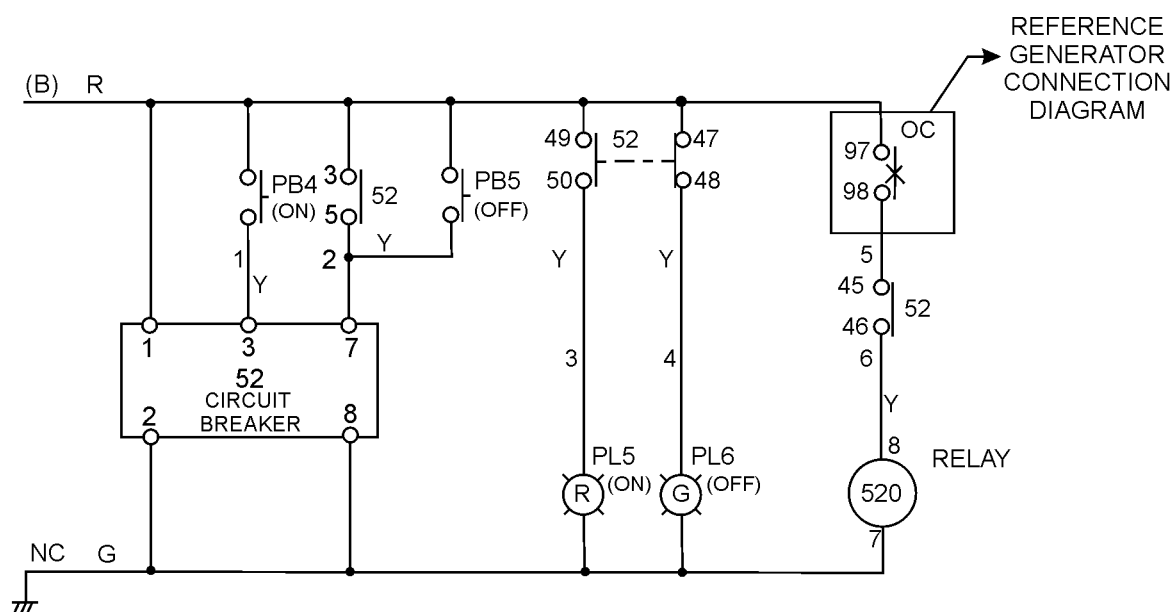


Figure 81. Generator Wiring Diagram

MARK	NAME
AR	MAIN GENERATOR ARMATURE WINDING
Fg	MAIN GENERATOR FIELD WINDING
ExAr	EXCITER ARMATURE WINDING
ExFg	EXCITER FIELD WINDING
AVR	AUTOMATIC VOLTAGE REGULATOR
VR	VOLTAGE REGULATING RHEOSTAT
Re	RECTIFIER
CT1~3	CURRENT TRANSFORMER (1500/5A)
C B 1	CIRCUIT BREAKER (2500A)
OC	OVER CURRENT RELAY
COT. B	BOLTAGE CHANGE-OVER BOARD
AS	AMMETER CHANGE-OVER SWITCH
A	AC AMMETER (0~1500 3000A)
VS	VOLTMETER CHANGE-OVER SWITCH
V	AC VOLTMETER (0~600)
F	FREQUENCY METER (45~65HZ)
PI1	PILOT LAMP
CB2~4	AUX. CIRCUIT BREAKER (50A)
CON1~5	AUX POWER RECEPTACLE (50A)
IL	PANEL LIGHT
SW1	PANEL LIGHT SWITCH

WIRE SIZE	COLOR CODE
125: 125 mm ²	CODE/ WIRE COLOR
100: 100 mm ²	B BLACK R RED
80: 80 mm ²	L BLUE W WHITE
22: 22 mm ²	BR BROWN Y YELLOW
14: 14 mm ²	G GREEN LB LIGHT BLUE
8: 8 mm ²	GR GRAY LG LIGHT GREEN
5.5: 5.5 mm ²	V VIOLET O ORAGNE
	P PINK
NO MARK WIRE SIZE: 1.25 mm ²	

DCA-800SSK — GENERATOR WIRING DIAGRAM (MAIN BREAKER)

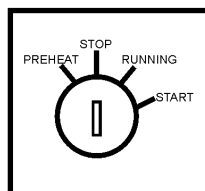
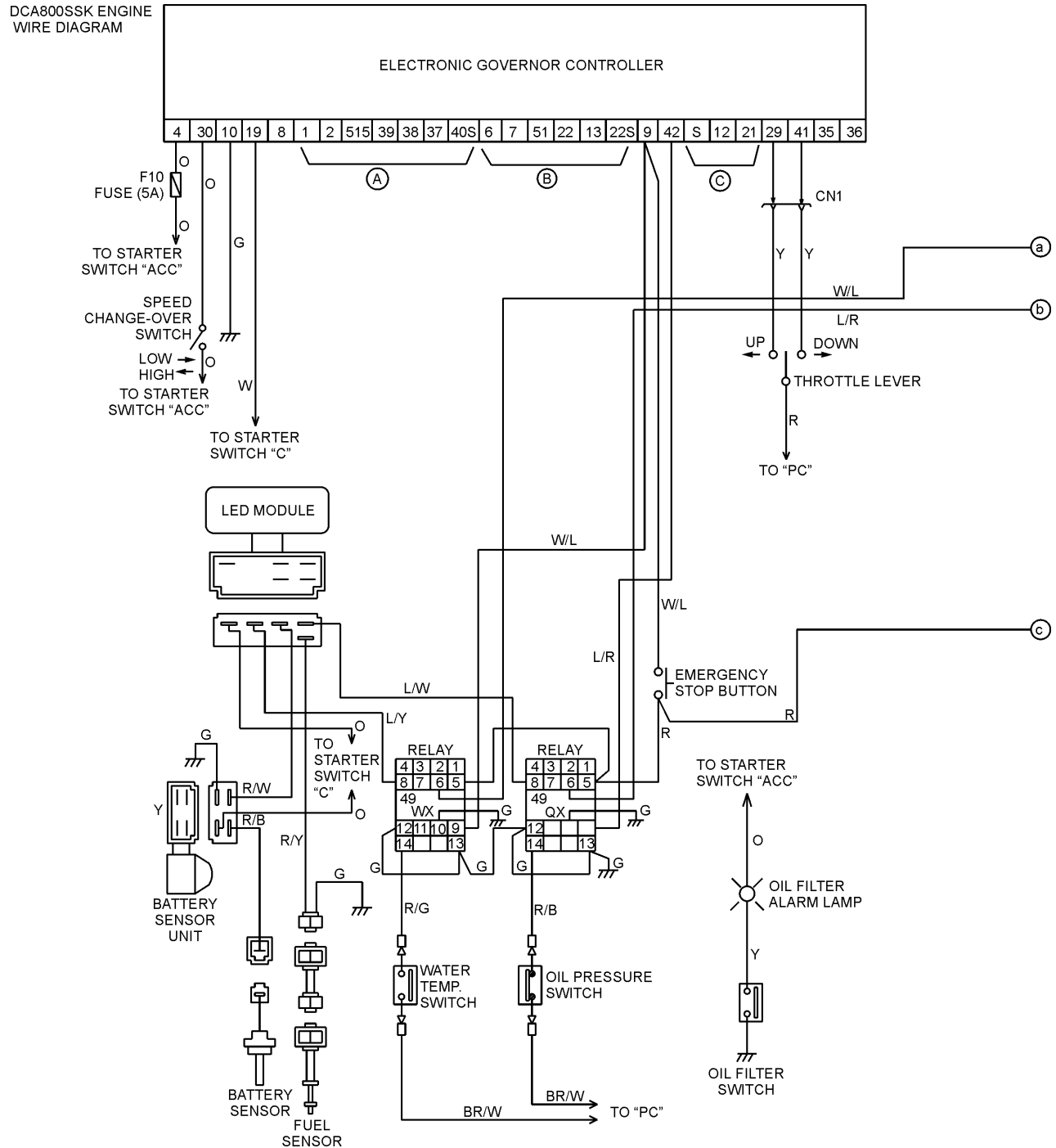


WIRE SIZE	COLOR CODE			
	CODE/ WIRE COLOR			
125: 125 mm ²	B	BLACK	R	RED
100: 100 mm ²	L	BLUE	W	WHITE
80: 80 mm ²	BR	BROWN	Y	YELLOW
22: 22 mm ²	G	GREEN	LB	LIGHT BLUE
14: 14 mm ²	GR	GRAY	LG	LIGHT GREEN
8: 8 mm ²	V	VIOLET	O	ORANGE
5.5: 5.5 mm ²	P	PINK		
NO MARK WIRE SIZE: 1.25 mm ²				

SYMBOL	DESIGNATION
PB4	CIRCUIT BREAKER (ON) SWITCH
PB5	CIRCUIT BREAKER (OFF) SWITCH
PL5	CIRCUIT BREAKER (ON) LAMP
PL6	CIRCUIT BREAKER (OFF) LAMP

Figure 82. Main Circuit Breaker Wiring Diagram

DCA-800SSK — ENGINE WIRING DIAGRAM



	STARTER SWITCH CONNECTION					
	B	BR	R1	R2	C	ACC
STOP	●					
PREHEAT	●	●	●			●
RUNNING	●	●				●
START	●	●		●	●	●

WIRE SIZE	COLOR CODE			
	CODE	WIRE COLOR		
150: 150 mm ²	B	BLACK	R	RED
100: 100 mm ²	L	BLUE	W	WHITE
20: 20 mm ²	BR	BROWN	Y	YELLOW
5: 5 mm ²	G	GREEN	LB	LIGHT BLUE
2: 2 mm ²	GR	GRAY	LG	LIGHT GREEN
NO MARK	V	VIOLET	O	ORAGNE
SIZE: 1.25 mm ²	P	PINK		

Figure 83. Engine Wiring Diagram

DCA-800SSK — ENGINE WIRING DIAGRAM

DCA800SSK ENGINE WIRE DIAGRAM

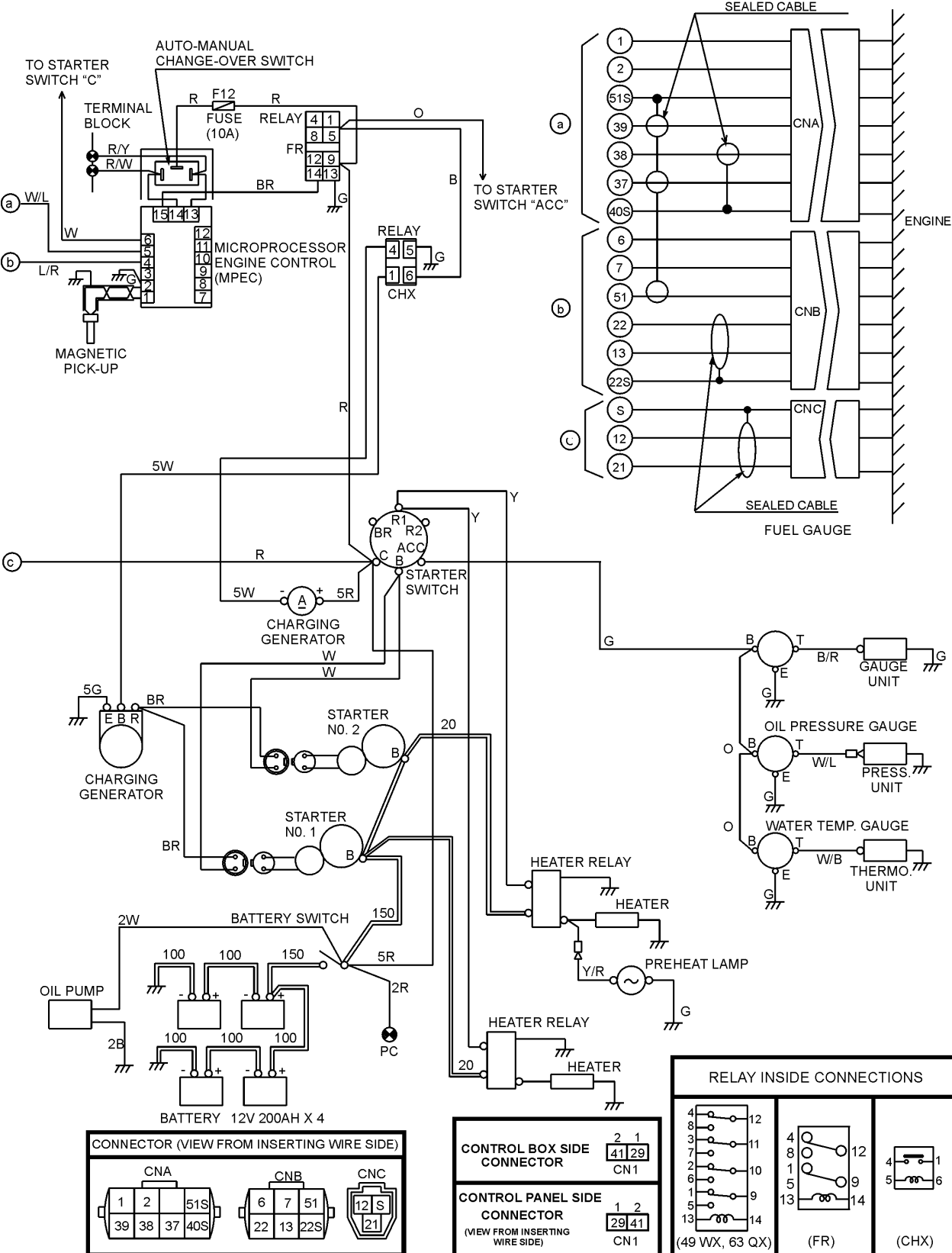
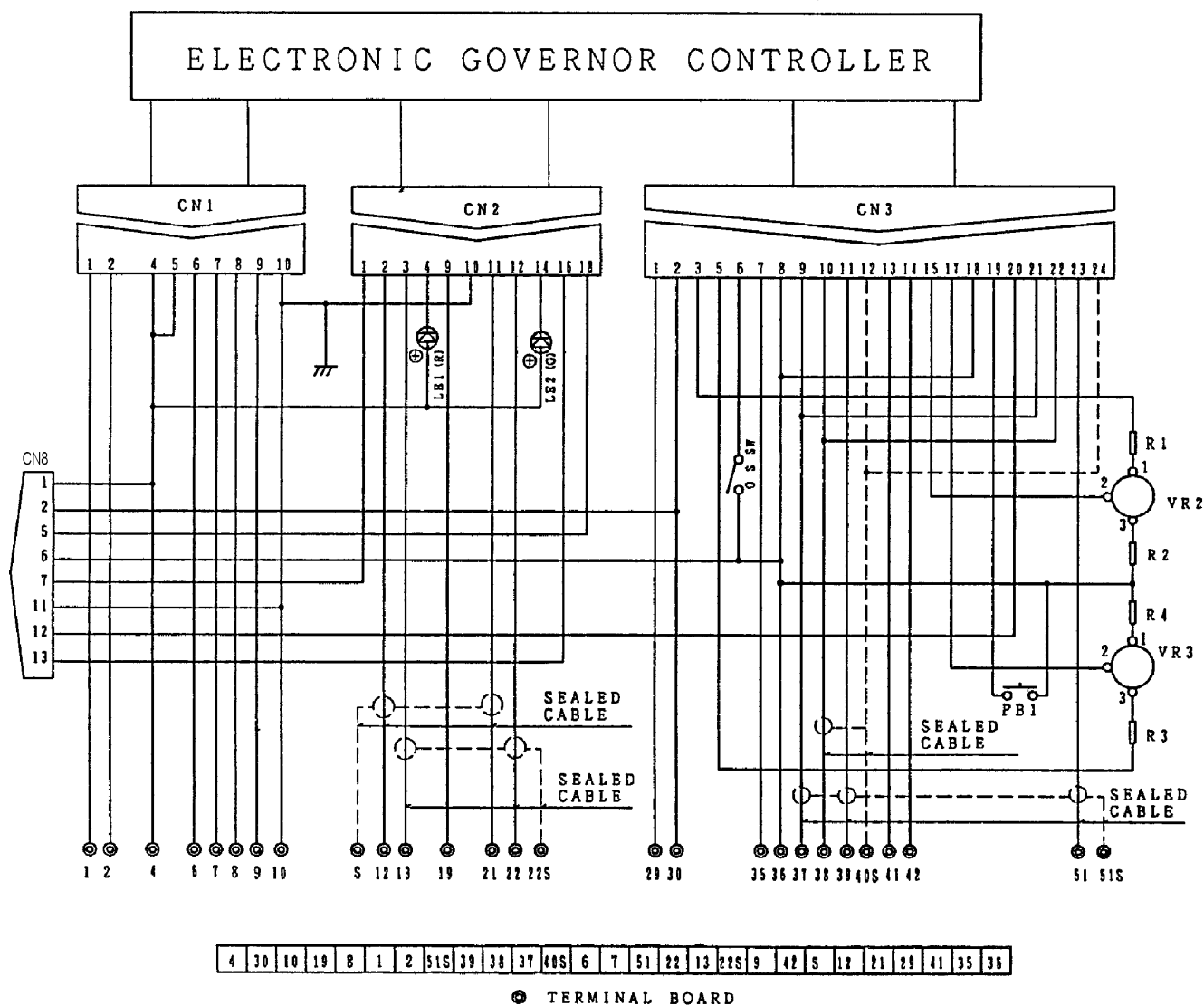


Figure 84. Engine Wiring Diagram(Continued)

DCA-800SSK — ELECTRONIC GOV. CONTROLLER WIRING DIAGRAM



VIEW FROM INSERTING
WIRE SIDE

SYMBOL	DESIGNATION
O.S. SW	OVERSPEED TEST SWITCH
PB1	RESET BUTTON
LE1-2	TROUBLE INDICATOR LAMPS
VR2	HIGH IDLE ADJUST TRIMMER
VR3	IDLE ADJUST TRIMMER
R1~R4	RESISTOR

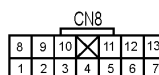
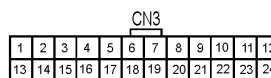
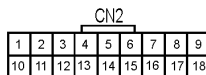
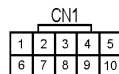


Figure 85. Electronic Governor Controller

DCA-600SSK — TROUBLESHOOTING (ENGINE)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, use Table 20 (Engine Troubleshooting) as a basic guideline for troubleshooting the engine. If the problem cannot be remedied, consult our company's business office or service plant.

TABLE 20. ENGINE TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Engine does not start.	No fuel?	Replenish fuel.
	Air in the fuel system?	Bleed system.
	Water in the fuel system?	Remove water from fuel tank.
	Fuel pipe clogged?	Clean fuel pipe.
	Fuel filter clogged?	Clean or change fuel filter.
	Excessively high viscosity of fuel or engine oil at low temperature?	Use the specified fuel or engine oil.
	Fuel with low cetane number?	Use the specified fuel.
	Fuel leak due to loose injection pipe retaining nut?	Tighten nut.
	Incorrect injection timing?	Adjust.
	Fuel cam shaft worn?	Replace.
	Injection nozzle clogged?	Clean injection nozzle.
	Injection pump malfunctioning?	Repair or replace.
	Seizure of crankshaft, camshaft, piston, cylinder liner or bearing?	Repair or replace.
	Compression leak from cylinder?	Replace head gasket, tighten cylinder head bolt, glow plug and nozzle holder.
	Improper valve timing?	Correct or replace timing gear.
	Piston ring and liner worn?	Replace.
	Excessive valve clearance?	Adjust.
Starter does not run.	Battery discharged?	Charge battery.
	Starter malfunctioning?	Repair or replace.
	Key switch malfunctioning?	Repair or replace.
	Wiring disconnected?	Connect wiring.

TABLE 20. ENGINE TROUBLESHOOTING (CONTINUED)

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Engine revolution is not smooth.	Fuel filter clogged or dirty?	Clean or change.
	Air cleaner clogged?	Clean or change.
	Fuel leak due to loose injection pipe retaining nut?	Tighten nut.
	Injection pump malfunctioning?	Repair or replace.
	Incorrect nozzle opening pressure?	Adjust.
	Injection nozzle stuck or clogged?	Repair or replace.
	Fuel over flow pipe clogged?	Clean.
	Governor malfunctioning?	Repair.
Either white or blue exhaust gas is observed.	Excessive engine oil?	Reduce to the specified level.
	Piston ring and liner worn or stuck?	Repair or replace.
	Incorrect injection timing?	Adjust.
	Deficient compression?	Adjust top clearance.
Either black or dark gray exhaust gas is observed.	Overload?	Lessen the load.
	Low grade fuel used?	Use the specified fuel.
	Fuel filter clogged?	Clean or change.
	Air cleaner clogged?	Clean or change.
	Deficient nozzle injection?	Repair or replace the nozzle.
Deficient output.	Incorrect injection timing?	Adjust.
	Engine's moving parts seem to be seizing?	Repair or replace.
	Uneven fuel injection?	Repair or replace the injection pump.
	Deficient nozzle injection?	Repair or replace the nozzle.
	Compression leak?	Replace head gasket, tighten cylinder head bolt, glow plug and nozzle holder.

DCA-800SSK —TROUBLESHOOTING (GENERATOR/ENGINE)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, use Table 21 (Generator Troubleshooting) as a basic guideline for troubleshooting the generator. If the problem cannot be remedied, consult our company's business office or service plant.

TABLE 21. GENERATOR TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
No Voltage Output	AC Voltmeter defective?	Check output voltage using a voltmeter.
	Is wiring connection loose?	Check wiring and repair.
	Is AVR defective?	Replace if necessary.
	Defective Rotating Rectifier?	Check and replace.
Low Voltage Output	Is engine speed correct?	Turn engine throttle lever to "High".
	Is wiring connections loose?	Check wiring and repair.
	Defective AVR?	Replace if necessary.
High Voltage Output	Is wiring connections loose?	Check wiring and repair.
	Defective AVR?	Replace if necessary.
Circuit Breaker Tripped	Short Circuit in load?	Check load and repair.
	Over current?	Confirm load requirements and reduce.
	Defective circuit breaker?	Check and replace.
	Over current Relay actuated?	Confirm load requirement and replace.

DCA-800SSK — TROUBLESHOOTING (MPEC)

Use Table 22 (Engine Controller Troubleshooting) as a basic guideline for troubleshooting the MPEC. If the problem cannot be remedied, consult our company's business office or service plant.

TABLE 22. ENGINE CONTROLLER TROUBLESHOOTING (MPEC)

Symptom	Possible Cause	Solution
Low oil pressure light is on.	Low oil level?	Fill oil level.
	Oil pressure sending unit failure?	Replace oil pressure sending unit.
	Time delay malfunction in Controller?	Refer to dealer.
	Wire shorted?	Inspect/repair wire.
Low coolant level light is on.	Low coolant level?	Fill coolant level.
	Sending unit failure?	Replace sending unit.
	Low battery voltage?	Replace/charge battery.
High coolant temperature light is on.	Fan belt tension incorrect?	Tighten/replace fan belt.
	Air flow is not circulation through radiator?	Clean/repair radiator grill.
	Doors open?	Close doors.
	Exhaust leaking?	Replace/repair gaskets or faulty part.
	Generator being overloaded?	Check/reduce load.
	Thermostat failure?	Replace thermostat.
	Air intake blocked?	Clear all air intakes.
	Temperature switch failure?	Replace temperature switch.
Overcrank light is on.	No or low Fuel?	Fill fuel level.
	Controller needs to be calibrated?	Refer to dealer.
Overspeed light is on.	RPM engine speed too high?	Adjust RPM.
	Governor actuator needs to be adjusted?	Adjust governor actuator.
	Governor controller needs to be adjusted?	Adjust governor controller.
	Engine Controller needs to be calibrated?	Refer to dealer.
Loss of MPU light(s) or on.	Magnetic pick up out of adjustment?	Adjust magnetic pick up.
	Magnetic pick up dirty?	Clean magnetic pick up.

EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

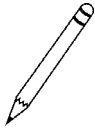
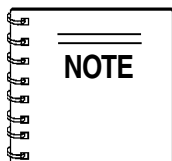
Sample Parts List:

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/*
2*		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2*	12347	WASHER, 3/8 IN.	1	MQ-45T ONLY
3	12348	HOSE	A/R ..	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols - All items with same unique symbol (*, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the "Remarks" column.

Duplicate Item Numbers - Duplicate numbers indicate multiple part numbers are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.



When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used - Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the "Remarks" Column.

QTY. Column

Numbers Used - Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the "Remarks" Column.

REMARKS Column

Some of the most common notes found in the "Remarks" Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit - All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

"INCLUDES ITEMS W/(unique symbol)"

Serial Number Break - Used to list an effective serial number range where a particular part is used.

Indicated by:

"S/N XXXXX AND BELOW"

"S/N XXXX AND ABOVE"

"S/N XXXX TO S/N XXX"

Specific Model Number Use - Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

"XXXXX ONLY"

"NOT USED ON XXXX"

"Make/Obtain Locally" - Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

"Not Sold Separately" - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

DCA-800SSK — SUGGESTED SPARE PARTS

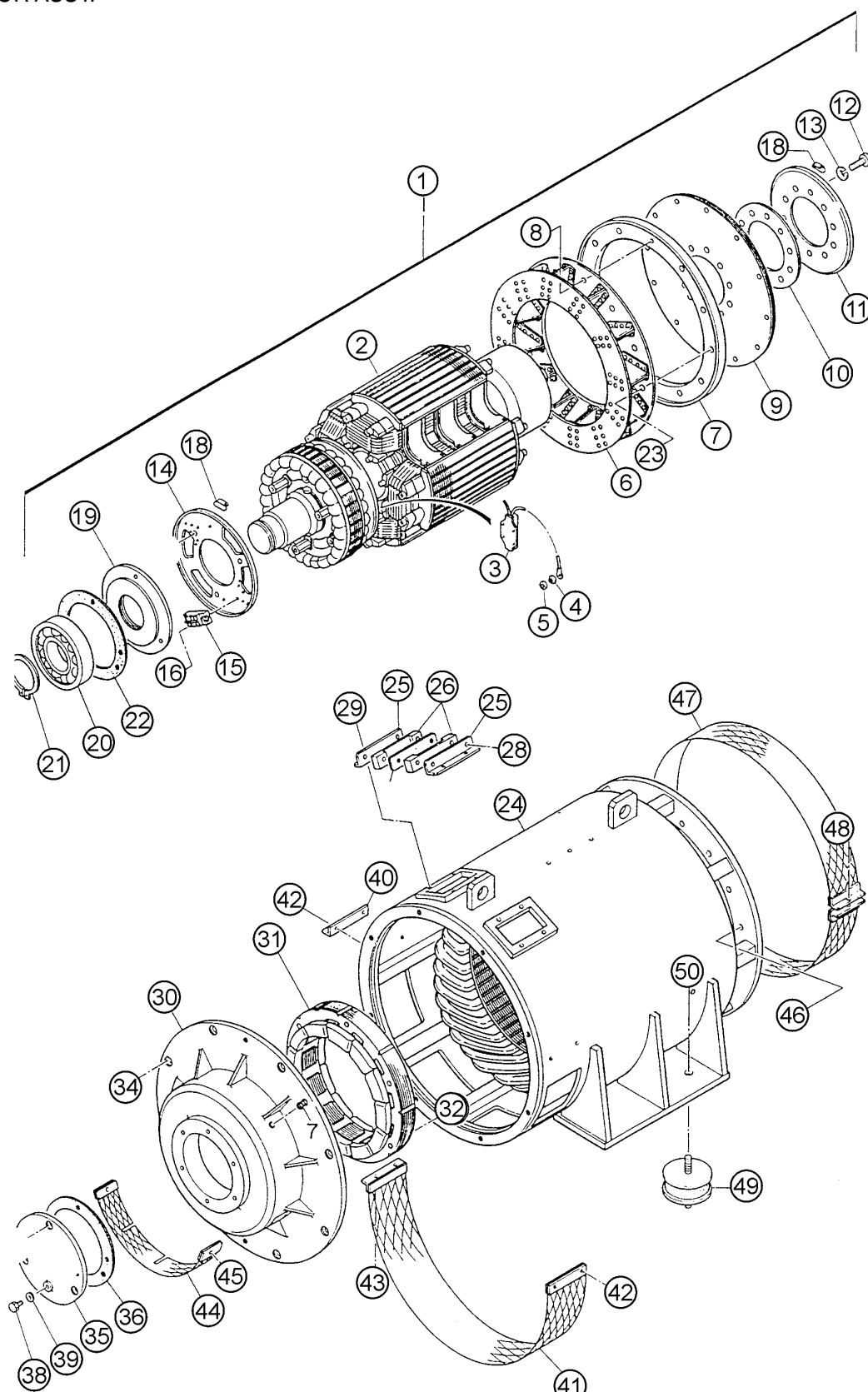
DCA-800SSK W/KOMATSU SA12V140 DIESEL ENGINE 1 TO 3 UNITS

1 to 3 Units

Qty.	P/N	Description
6	5610262520	AIR FILTER, INNER
12	5610262530	AIR FILTER, OUTER
12	6003117111	FUEL FILTER
24	6002111231	OIL FILTER
6	6004111171	CARTRIDGE, CORROSION RESISTOR
6	0810105400	FUEL FILTER, FUEL TANK
1	0601810575	PILOT LAMP, ENGINE TROUBLE
1	0601810576	PILOT LAMP, ENGINE TROUBLE
1	0412222274	FAN BELT, ENGINE (SET OF 3)
2	6008155390	SWITCH, STARTER TO S/N 3699247
6	615	KEY SET, STARTER SWITCH (2) TO S/N 3699247
1	6215619720	RADIATOR HOSE (UPPER)
1	6215619750	RADIATOR HOSE (LOWER)
1	0605505030	FUEL CAP, TANK W/KEY
1	0601850590	KEY, FUEL TANK CAP
1	0601820625	AUTOMATIC VOLTAGE REGULATOR
1	7520150704	CIRCUIT BREAKER, AT25 UP TO S/N 3706720
1	0601840073	RHEOSTAT, (VOLTAGE REGULATOR)
2	0601840121	KNOB, RHEOSTAT
1	0601810072	PILOT LAMP
2	0601810261	BULB, PILOT LAMP
1	0602122200	UNIT, OIL PRESSURE
1	0602123206	UNIT, WATER TEMPERATURE
1	0601807515	CIRCUIT BREAKER, S8V 2500A S/N 3706721~
1	ECU9988N600/800	ECU, ENGINE CONTROLLER ... S/N 3699248~

DCA-800SSK — GENERATOR ASSY.

GENERATOR ASSY.

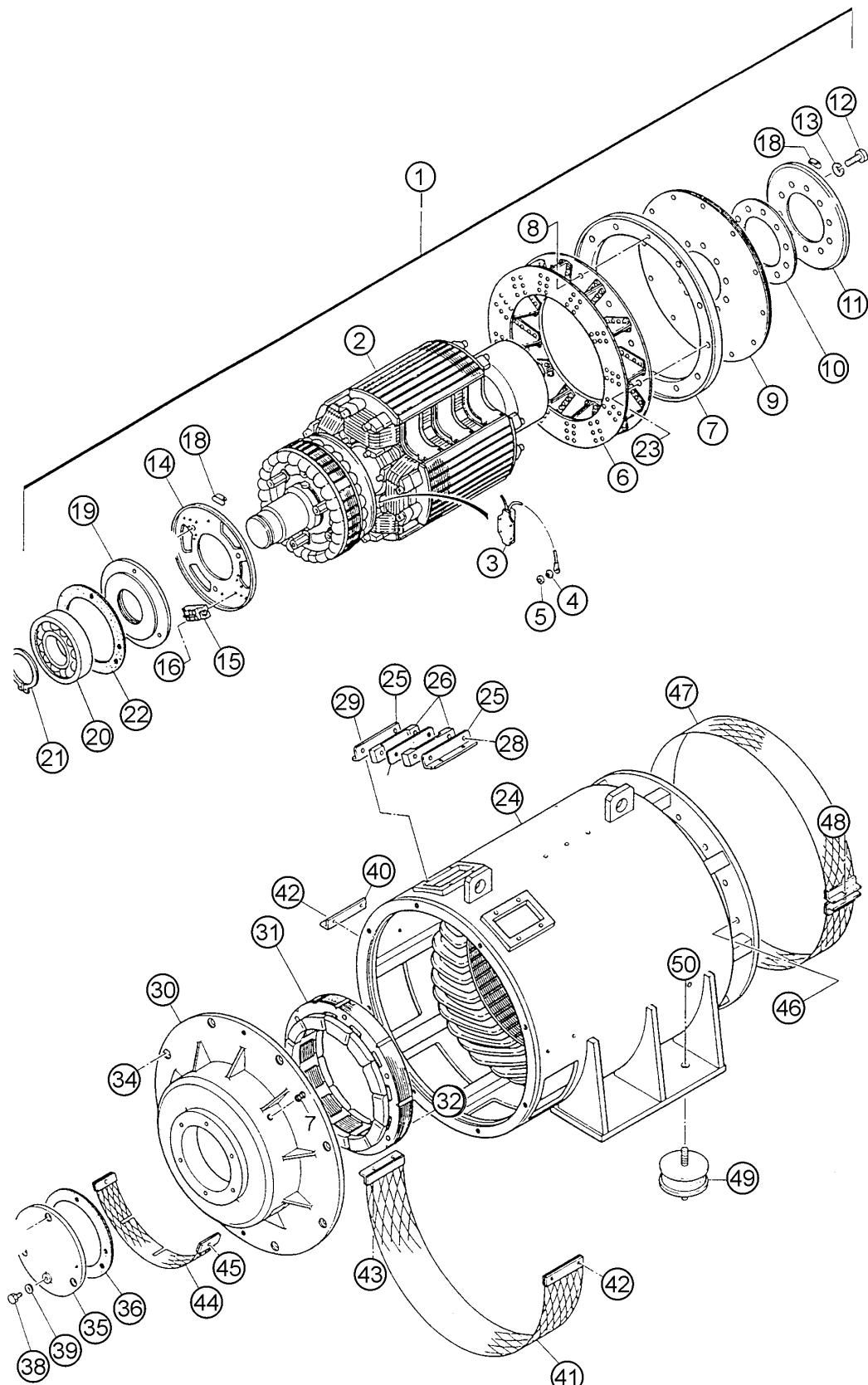


GENERATOR ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5110000102	ROTOR ASSY.....	1	INCLUDE ITEMS W/*
1-1*		FIELD ASSY.	1	
1-2*	0601842366	RESISTOR	4	SMRK 80W 50K OHM
1-3*	8171020004	INSULATOR WASHER	6	
1-4*	8171020504	INSULATOR WASHER	6	
1-5*	C5111100002	FAN	6	
1-6*	C5163400003	COUPLING RING	1	
1-7*	0010312025	HEX. HEAD BOLT	1	
1-7*	0042512000	LOCK WASHER	2	
1-8*	C5163100104	COUPLING DISK ASSY.	2	
1-9*	C5163200004	WASHER, COUPLING HUB	1	
1-10*	C5111300003	BALANCING PLATE	1	
1-11*	0012724060	HEX. HEAD BOLT	10	
1-12*	0042524000	LOCK WASHER	10	
1-13*	8461026023	SET PLATE, RECTIFIER	1	
1-14*	0601823282	RECTIFIER	2	RM50TC-24
1-15*	0018205020	HEX. SOCKET HEAD CAP SCREW	4	
1-15*	0040005000	LOCK WASHER	4	
1-15*	0041205000	PLAIN WASHER	4	
1-16*	0010112020	HEX. HEAD BOLT	6	
1-16*	0040012000	LOCK WASHER	6	
1-17*	060100020	BALANCING WEIGHT KIT	1	
1-18*	C5111500003	BEARING FLANGE	1	
1-19*	0070106322	BEARING	1	
1-20*	0080000110	SNAP RING	1	
1-21*	C5153300104	GASKET, BEARING	1	
2	0012116065	HEX. HEAD BOLT	10	
2	0042516000	LOCK WASHER	10	
3	C5130000003	STRATOR ASSY.	1	
3-1	C5131200404	CLAMPER	4	
3-2	C5131200014	CLAMPER	4	
3-3	C5131200504	CLAMPER	2	
3-4	0016310090	HEX. HEAD BOLT	4	
3-4	0030010000	HEX. NUT	4	
3-4	0040010000	LOCK WASHER	8	
3-4	0041210000	PLAIN WASHER	4	
3-5	0017110020	HEX. HEAD BOLT	8	

DCA-800SSK — GENERATOR ASSY.

GENERATOR ASSY.



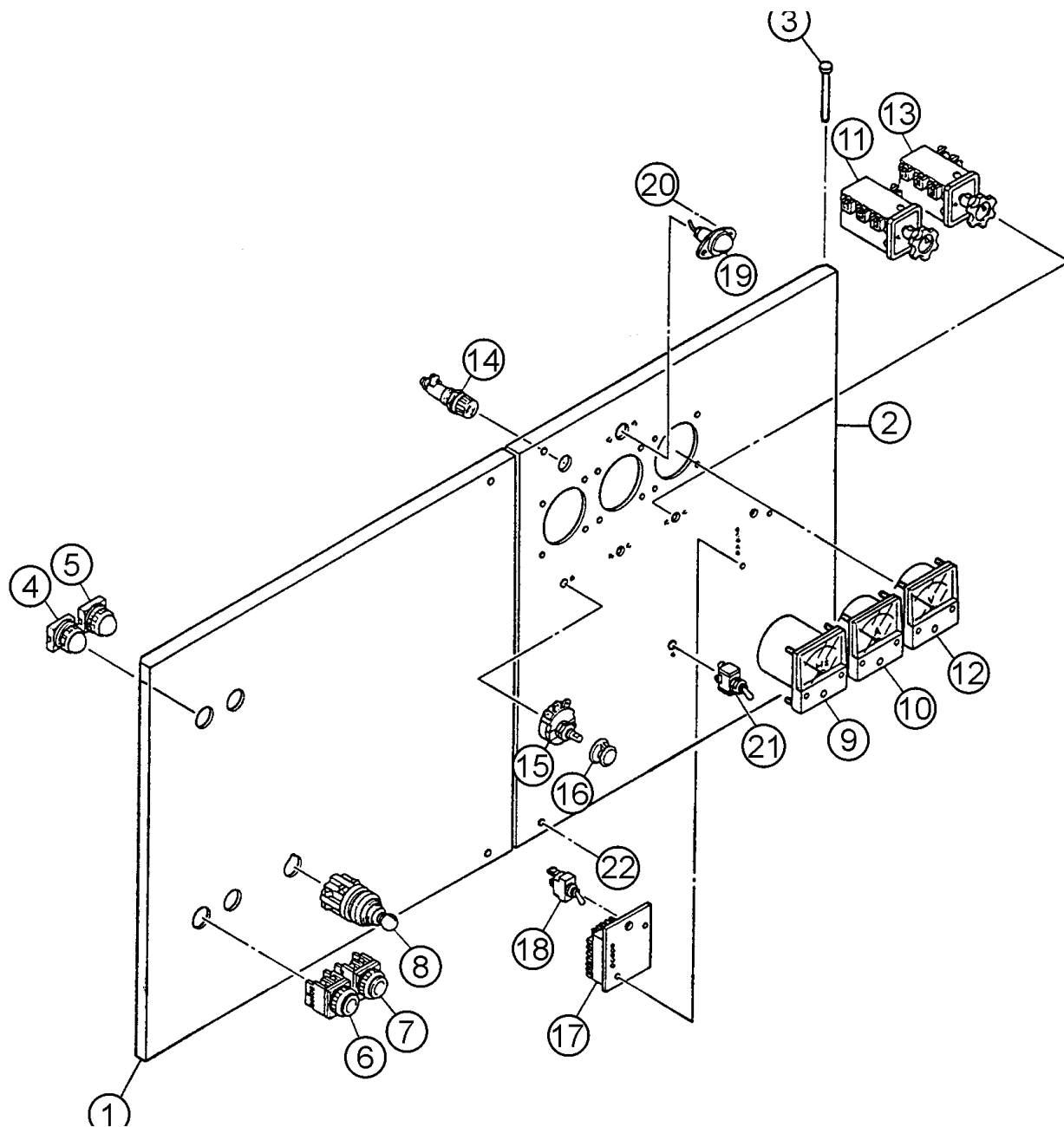
DCA-800SSK — GENERATOR ASSY.

GENERATOR ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
4	C5153000002	END BRACKET	1	
5	C4137000003	FIELD ASSY., EXCITER	1	
6	0012110075	HEX. HEAD BOLT	6	
6	0042610000	LOCK WASHER	6	
6	0041210000	PLAIN WASHER	6	
7	0845044904	GROMMET	1	
8	0016316045	HEX. HEAD BOLT	8	
8	0040016000	LOCK WASHER	8	
8	0041216000	PLAIN WASHER	8	
9	C5153300003	COVER, BEARING	1	
10	C5153300104	GASKET, BEARING	1	
11	0016308095	HEX. HEAD BOLT	3	
11	0040008000	LOCK WASHER	3	
11	0041208000	PLAIN WASHER	3	
12	0010110016	HEX. HEAD BOLT	1	
13	0803000104	PACKING	1	
14	8461335004	BRACKET, COVER	1	
15	C5131300103	COVER, STATOR	1	
16	0017106012	HEX. HEAD BOLT	4	
17	0017106050	HEX. HEAD BOLT	2	
18	8461333003	COVER, EXCITER	1	
19	0017106012	HEX. HEAD BOLT	2	
20	0012112040	HEX. HEAD BOLT	16	
20	0042512000	LOCK WASHER	16	
21	C5131300003	COVER, FAN	1	
22	0017106050	HEX. HEAD BOLT	1	
23	0605000012	RUBBER SUSPENSION	4	
24	0030020000	HEX. NUT	8	
24	0040020000	LOCK WASHER	8	

DCA-800SSK — CONTROL PANEL ASSY.

CONTROL PANEL ASSY.



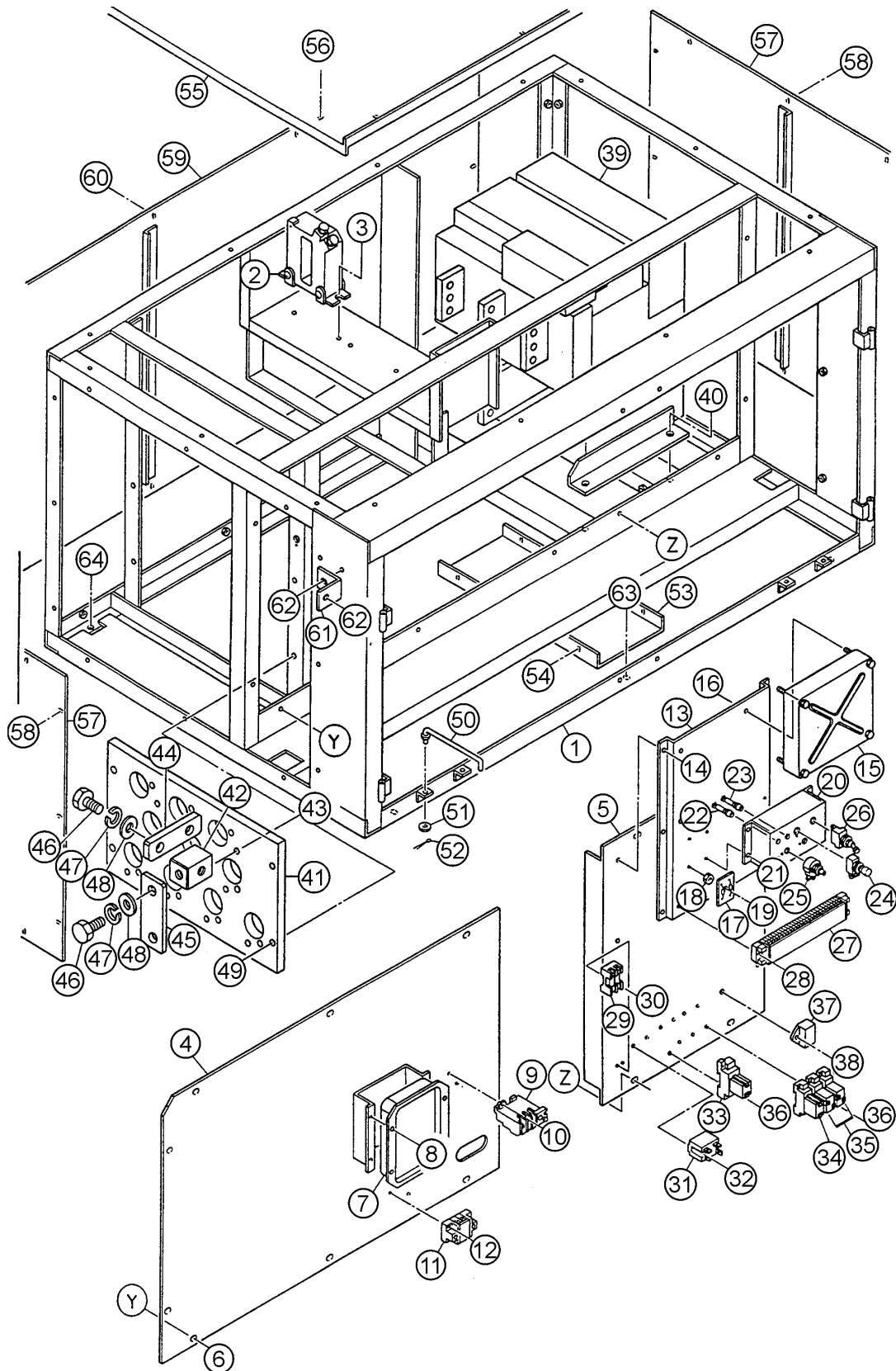
DCA-800SSK — CONTROL PANEL ASSY.

CONTROL PANEL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5224000503	CONTROL PANEL	1	
2	C5224000403	CONTROL PANEL	1	
3	0605011211	PIN	4	
4	0601810476	OFF LAMP, CIRCUIT BREAKER	1	APN133-G
4	0601810235	BULB	1	LS-3
5	0601810467	ON LAMP, CIRCUIT BREAKER	1	APN133-R
5	0601810235	BULB	1	LS-3
6	0601830498	OFF SWITCH, CIRCUIT BREAKER	1	AH30-FR10
7	0601831224	ON SWITCH, CIRCUIT BREAKER	1	AH30-FB10
8	0601830780	THROTTLE LEVER	1	ARNS1-2020 UP TO S/N 3699247
8	0601850267	GROMMET	1	S/N 3693886~
9	0601800480	FREQUENCY METER	1	PAK-100 0~1500A 0~3000A
10	0601800795	AC AMMETER	1	SL-2 AS
11	0601801040	CHANGE-OVER SWITCH, AMMETER ...	1	PCK-100 0~6000V
12	0601800252	AC VOLTMETER	1	SL-2 VS
13	0601801041	CHANGE-OVER SWITCH, VOLTMETER	1	SP-132DC 220V
14	0601810072	PILOT LAMP	1	CT-13W
14	0601810261	BULB	1	
15	0601840073	RHEOSTAT (VOLTAGE REGULATOR)	1	RA20A2SE102BJ 2W 1K OHMS
16	0601840121	KNOB	1	
17	ECU9988N600/800	ENGINE CONTROLLER	1	S/N 3699248~
17	0602202471	SEALED CABLE	1	S/N 3699248 ~REPL.060220254+0601827395
17	DYNT11200	SPEED SENSOR	1	S/N 3699248~ REPLACES 0602120498
18	0601831340	SWITCH	1	S/N 3692434 TO 3698625
18	0601830765	SWITCH, S303T	1	S/N 3698626~
19	0601810161	PANEL LIGHT	1	
19	0601810214	BULB	1	
20	0207004000	HEX. NUT	2	
21	0601830710	SWITCH, PANEL LIGHT	1	
22	C9221100004	HEX. HEAD BOLT	4	
22	0040008000	LOCK WASHER	4	
22	0041208000	PLAIN WASHER	4	
22	0080200007	SNAP RING	4	

DCA-800SSK — CONTROL BOX ASSY.

CONTROL BOX ASSY.



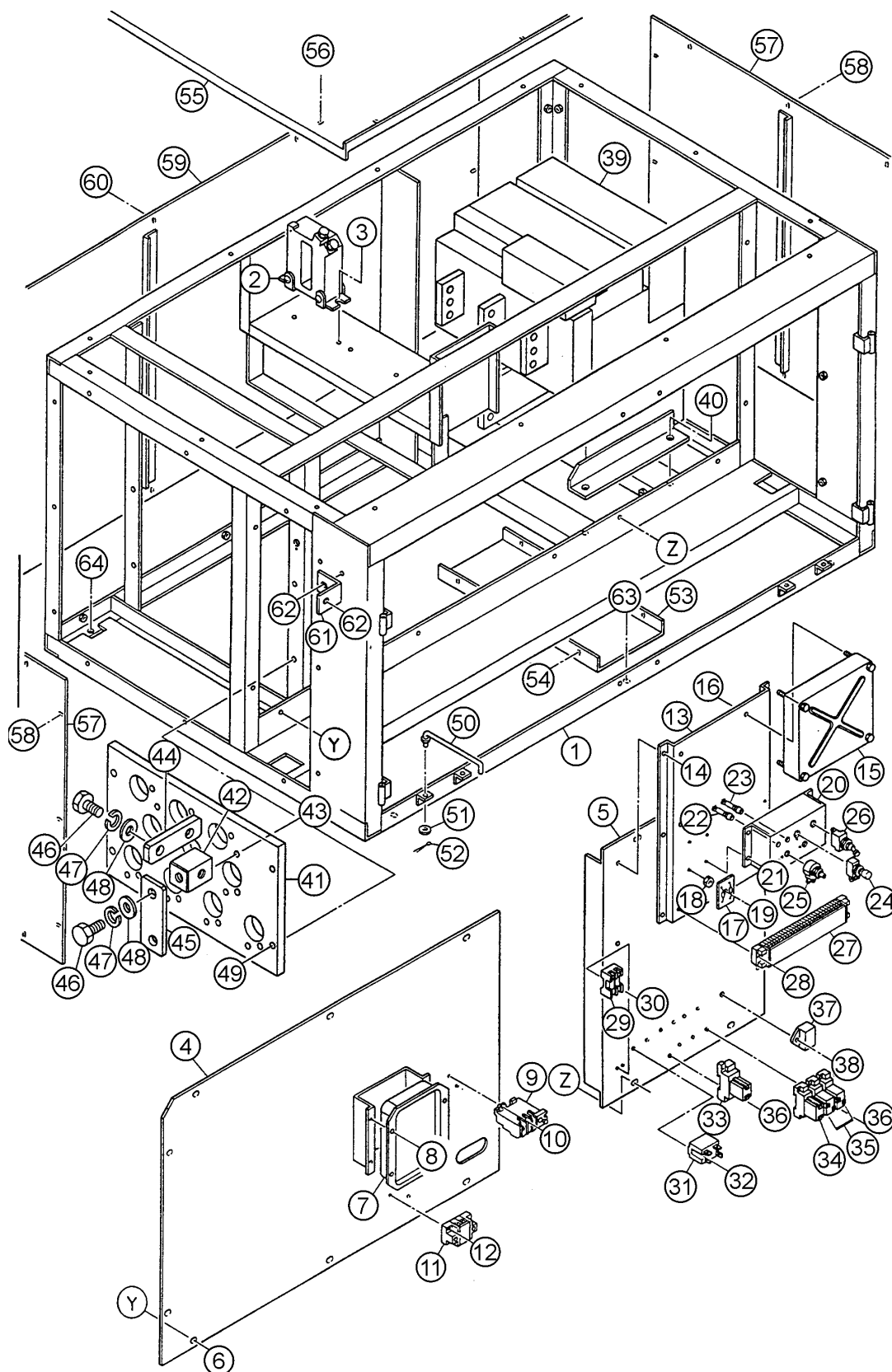
DCA-800SSK — CONTROL BOX ASSY.

CONTROL BOX ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5214000002	CONTROL BOX	1	S/N 3692434 TO S/N 3706720
1	C52140100502	CONTROL BOX	1	S/N 3706721~
2	0601806166	CURRENT TRANSFORMER, AMMETER	3	CW040LM 1500/5A
3	0017108020	HEX. HEAD BOLT	6	
4	C5261500603	SET PANEL, ELECTRIC PARTS	1	UP TO S/N 3698625
4	C5252500303	SET PANEL, ELECTRIC PARTS	1	S/N 3698626~
5	C5261500703	SET PANEL, ELECTRIC PARTS	1	UP TO S/N 3698625
5	C5262500203	SET PANEL, ELECTRIC PARTS	1	S/N 3698626~
6	0017108020	HEX. HEAD BOLT	14	
7	0601820625	AUTOMATIC VOLTAGE REGULATOR	1	NTA-5A-2T
8	0027105016	MACHINE SCREW	4	
9	0601820892	OVER CURRENT RELAY	1	TH-N20 HZKP 3.6A
10	0027104016	MACHINE SCREW	2	
11	0601815020	TERMINAL BOARD	1	UP TO 3698625
11	0601815402	TERMINAL BOARD	1	S/N 3698626~
12	0027104020	MACHINE SCREW	2	
13	C5352800003	BRACKET, CONTROLLER	1	
14	0017106016	HEX. HEAD BOLT	6	
15	6215819121	CONTROLLER	1	REPLACES 0602202553
16	0207006000	HEX. NUT	4	
17	Z0110000904	RESISTOR UNIT	2	1/4W 560 OHMS x4
18	0030006000	HEX. NUT	2	
19	0027105020	MACHINE SCREW	2	
20	C5352800104	BRACKET	1	
21	0017105016	HEX. HEAD BOLT	4	
22	0601810575	PILOT LAMP, ENGINE TROUBLE	1	KRE-108-4R DC24V
23	0601810576	PILOT LAMP, ENGINE TROUBLE	1	KRE-108-4G DC24V
24	0601831205	RESET SWITCH, PILOT LAMP	1	SB-221N/0
25	0601840009	RHEOSTAT (DROOP & IDLE SPEED	2	RA20A2SE502BJ 2W 5K OHMS
		CONTROLLER)		
26	0601831323	SWITCH, OVER SPEED TEST	1	S-1AL
27	0601815802	TERMINAL BOARD	1	
28	0027104020	MACHINE SCREW	2	
29	0601802133	FUSE (LEFT SIDE), 5A	1	
29	0601802149	FUSE (RIGHT SIDE), 10A	1	
29	0601802211	HOLDER, FUSE	1	
30	0021004020	MACHINE SCREW	2	
30	0021003020	MACHINE SCREW	2	S/N 3702703~
31	0601823706	RELAY	1	HE1A DC24V AHE1212
32	0027104016	MACHINE SCREW	2	
33	0601823732	RELAY	1	LY2 DC24V
33	PTF08A	SOCKET	1	REPLACES 0601823109
33	PYCA1	HOLDER	1	REPLACES 0601824400

DCA-800SSK — CONTROL BOX ASSY.

CONTROL BOX ASSY.



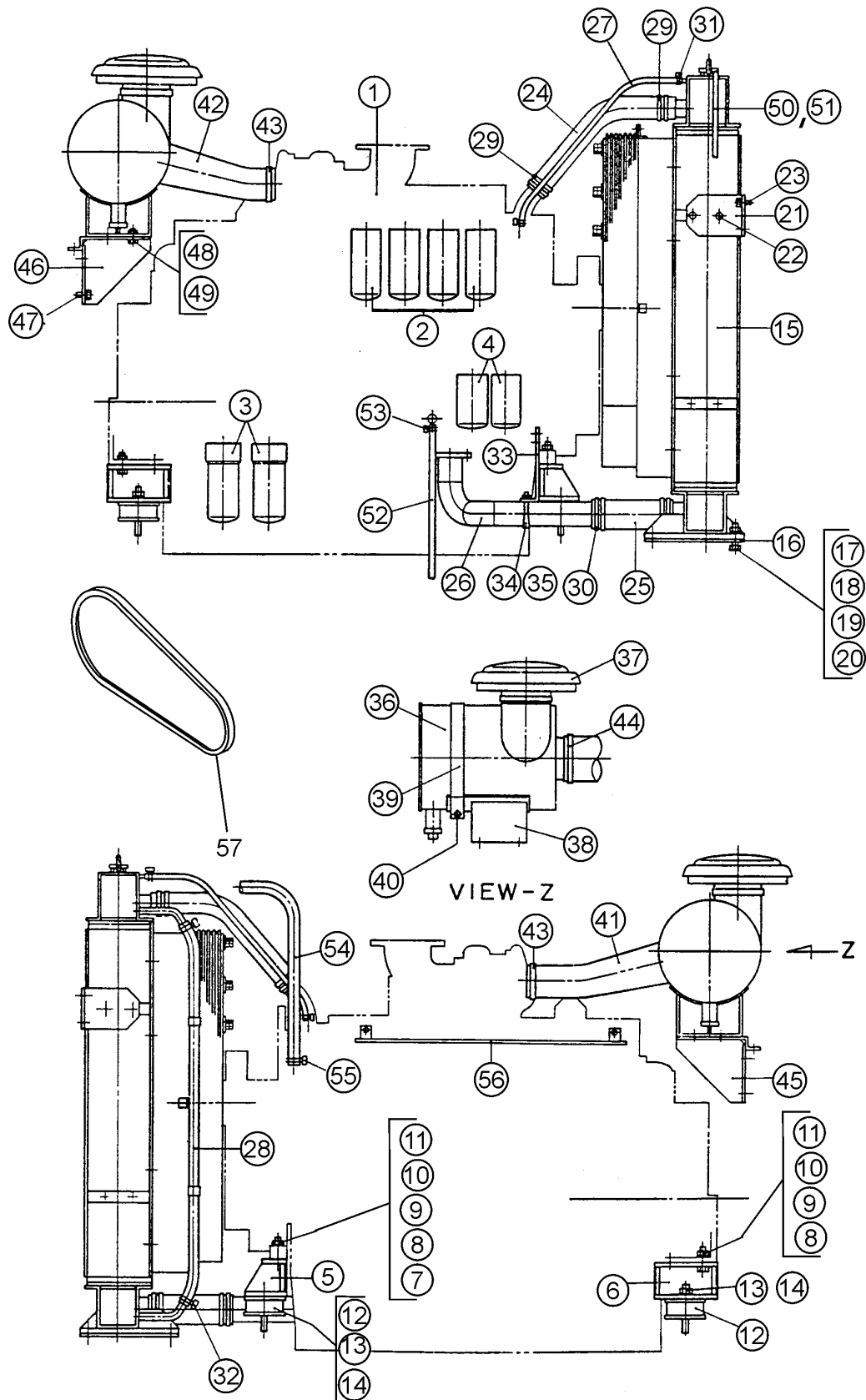
DCA-800SSK — CONTROL BOX ASSY.

CONTROL BOX ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
34	0601823757	RELAY, MY2DC24V	1	UPTO S/N 3698625
34	0601823143	SOCKET, PYF08A	1	UPTO S/N 3698625
34	PYCA1	HOLDER	1	REPLACES 0601824400
34	0601823732	RELAY, LY2DC24V	1	UP TO S/N 3699247
34	0601827655	RELAY, LY2DC24V	1	S/N 3699248~
34	PTF08A	SOCKET	1	S/N 3698626~ REPL. 0601823109
35	0601823759	RELAY	2	MY4 DC24V
35	0601823146	SOCKET	2	
35	0601824400	HOLDER	2	
36	0027104016	MACHINE SCREW	8	
37	0602201911	UNIT, BATTERY SENSOR	1	C7038A-00-00
38	0017106016	HEX. HEAD BOLT	1	
39	7520150704	CIRCUIT BREAKER, AT25	1	UP TO S/N 3706720
39	0601807515	CIRCUIT BREAKER, S8V2500A	1	S/N 3706721~
40	0017112030	HEX. HEAD BOLT	4	UP TO 3706720
40	0010308050	HEX. HEAD BOLT	8	S/N 3706721~
40	0042508000	SPRING WASHER	8	S/N 3706721~
40	0041208000	PLAIN WASHER	8	S/N 3706721~
41	7521861303	CHANGE-OVER BOARD, VOLTAGE	1	
42	C5277000004	CHANGE TERMINAL	10	
43	0017108035	HEX. HEAD BOLT	20	
44	C5277200004	TERMINAL PLATE	10	
45	C5277300004	CHANGE PLATE	6	
46	0801832504	HEX. HEAD BOLT	20	
47	0040020000	LOCK WASHER	20	
48	0041420000	PLAIN WASHER	20	
49	0010110040	HEX. HEAD BOLT	4	
49	0040010000	LOCK WASHER	4	
49	0041210000	PLAIN WASHER	4	
50	3871824004	STOPPER, CONTROL PANEL	2	
51	0041206000	PLAIN WASHER	2	
52	0605010502	SNAP PIN	2	
53	7521828704	FLOOR PANEL	1	UP TO S/N 3706720
54	0017106016	HEX. HEAD BOLT	4	UP TO S/N 3706720
55	7521814703	COVER, CONTROL BOX	1	UP TO 3706720
55	C5214500003	COVER, CONTROL BOX	1	S/N 3706721~
56	0017106016	HEX. HEAD BOLT	14	
57	7521826704	SIDE PANEL, CONTROL BOX	2	
58	0017106016	HEX. HEAD BOLT	24	
59	7521827603	PANEL, CONTROL BOX	1	
60	0017106016	HEX. HEAD BOLT	15	
61	7521811904	BRACKET	2	
62	0017110025	HEX. HEAD BOLT	4	
63	0017108020	HEX. HEAD BOLT	3	
64	0017110030	HEX. HEAD BOLT	4	
64	0207010000	HEX. NUT	4	

DCA-800SSK — ENGINE AND RADIATOR ASSY.

ENGINE AND RADIATOR ASSY.



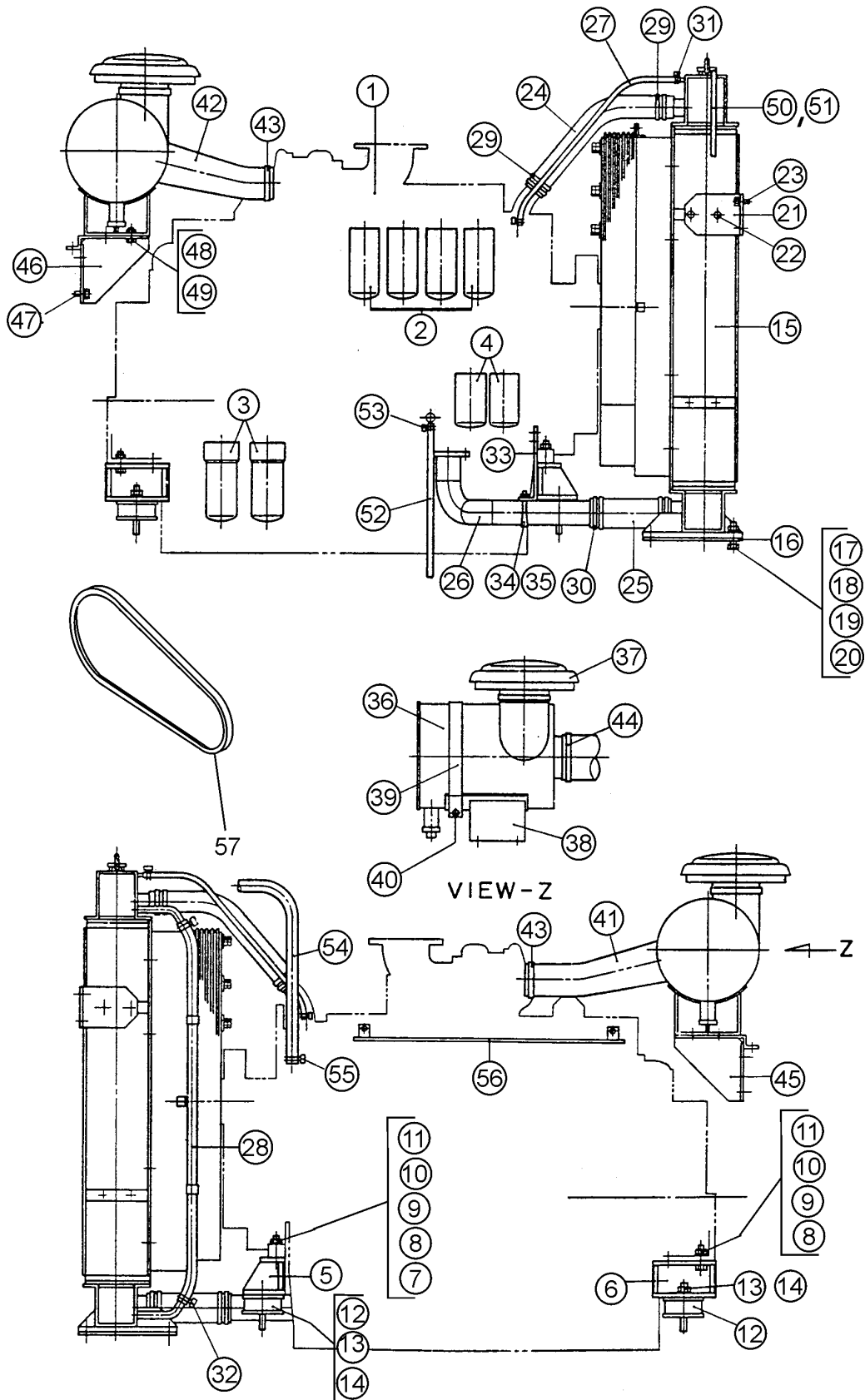
DCA-800SSK — ENGINE AND RADIATOR ASSY.

ENGINE AND RADIATOR ASSY.

NO	PART NO	PART NAME	QTY.	REMARKS
1	C5924200024	ENGINE, KOMATSU SA12V140	1	TO S/N 3700267
1	C5924200024	ENGINE, KOMATSU SA12V140E	1	S/N 3700268~
2	6002111231	CARTRIDGE, OIL FILTER	4	REPLACES 0602041146
3	6003117111	CARTRIDGE, FUEL FILTER	2	REPLACES 0602042157
4	6004111171	CARTRIDGE, CORROSION RESISTOR..	2	REPLACES 0602045144
5	C5304200004	ENGINE FOOT	1	
6	C5304200104	ENGINE FOOT	2	
7	0010120100	HEX. HEAD BOLT	2	
8	0010120060	HEX. HEAD BOLT	6	
9	0030020000	HEX. NUT	6	
10	0040020000	LOCK WASHER	6	
11	0041220000	PLAIN WASHER	6	
12	0605000012	RUBBER SUSPENSION	5	
13	0030020000	HEX. NUT	10	
14	0040020000	LOCK WASHER	10	
15	6215619711	RADIATOR	1	REPLACES 0602011987
16	6995621350	RUBBER SHEET	2	REPLACES 0605000098
17	0010118080	HEX. HEAD BOLT	8	
18	0030018000	HEX. NUT	8	
19	0040018000	LOCK WASHER	8	
20	0041218000	PLAIN WASHER	8	
21	C5311100004	BRACKET, RADIATOR	2	
22	0017112025	HEX. HEAD BOLT	4	
23	0017110025	HEX. HEAD BOLT	4	
24	6215619720	RADIATOR HOSE, UPPER	2	REPLACES 0602014595
25	6215619750	RADIATOR HOSE, LOWER	1	REPLACES 0602014643
26	6215619730	RADIATOR PIPE	1	REPLACES 0602013369
27	0726120914	RADIATOR HOSE	2	REPLACES 0602014596
28	0726122620	RADIATOR HOSE	1	REPLACES 0602014597
29	0728100909	HOSE BAND	8	REPLACES 0602014056
30	0728101159	HOSE BAND	4	REPLACES 0602014356
31	0728001920	HOSE BAND	4	REPLACES 0602014058
32	0728100419	HOSE BAND	2	REPLACES 0602014057
33	6215619740	BRACKET	1	REPLACES 0602013860
34	0728328973	U BOLT	1	REPLACES 0602011548
35	0159901214	NUT	2	REPLACES 0602011650
36	6152817500	AIR CLEANER, ASSY.	2	REPLACES 0602046254
36	5610262520	ELEMENT, AIR CLEANER, INNER	2	REPLACES 0602046348
36	5610262530	ELEMENT, AIR CLEANER, OUTER	2	REPLACES 0602046348

DCA-800SSK — ENGINE AND RADIATOR ASSY.

ENGINE AND RADIATOR ASSY.



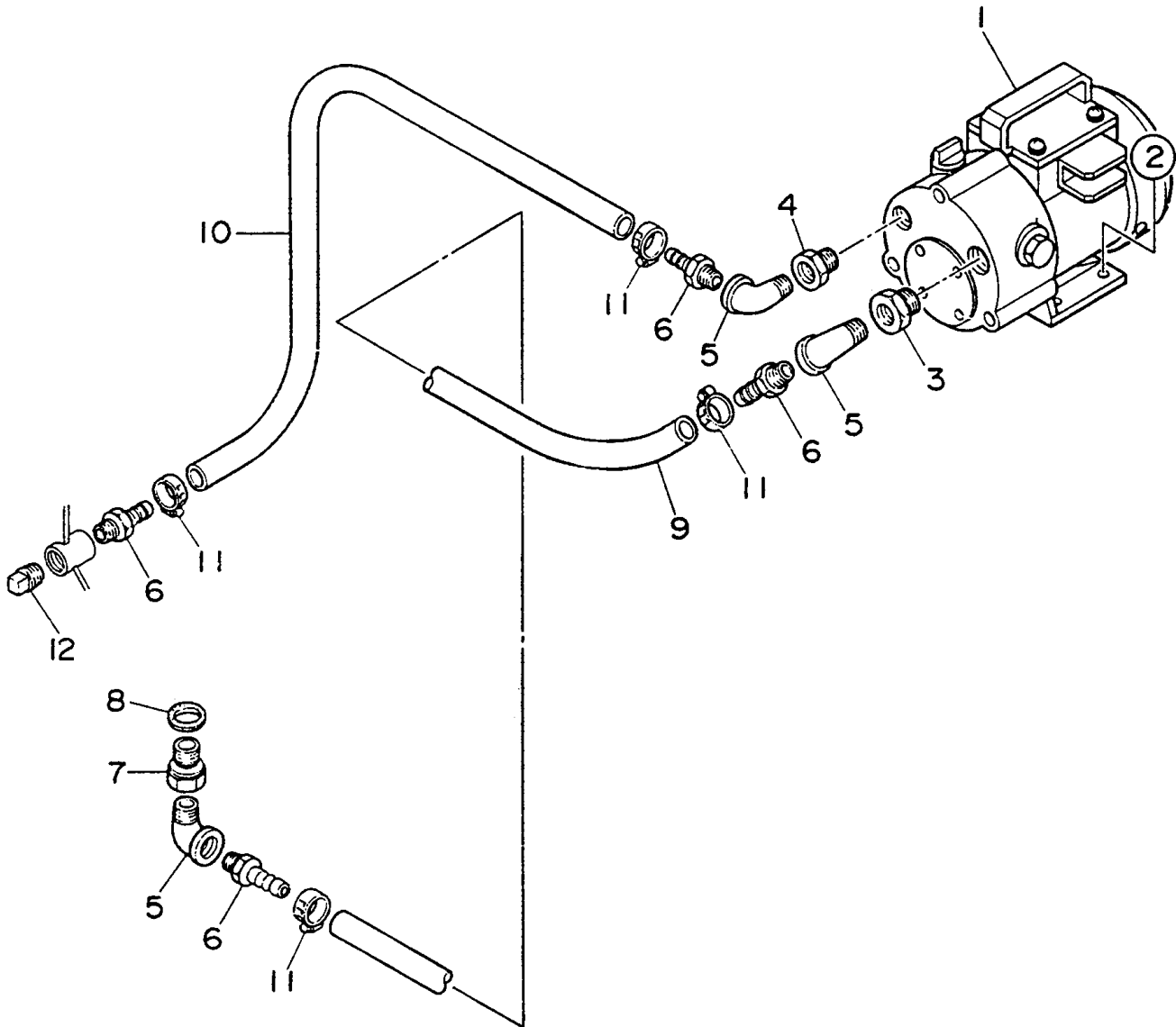
DCA-800SSK — ENGINE AND RADIATOR ASSY.

ENGINE AND RADIATOR ASSY.

NO	PART NO	PART NAME	QTY.	REMARKS
37	6001813960	CAP, AIR CLEANER	2	REPLACES 0602040752
38	6215114410	BRACKET, AIR CLEANER	2	REPLACES 0602040950
39	6151119970	BAND, AIR CLEANER	2	REPLACES 0602040560
40	6643114641	BOLT	2	REPLACES 0602011547
41	6215114470	HOSE, AIR CLEANER	1	REPLACES 0602040353
42	6215114480	HOSE, AIR CLEANER	1	REPLACES 0602040354
43	1252151H1	HOSE BAND	2	REPLACES 0602040450
44	0728900170	HOSE BAND	2	REPLACES 0602040451
45	C5374200103	BRACKET, AIR CLEANER	1	
46	C5374200003	BRACKET, AIR CLEANER	1	
47	0017110030	HEX. HEAD BOLT	8	
48	0017110030	HEX. HEAD BOLT	8	
49	0207010000	HEX. NUT	8	
50	0193602800	HOSE	1	
51	0605515170	HOSE CLIP	1	
52	0194201500	HOSE	1	
53	0605515019	HOSE BAND	1	
54	0728100549	BREATHER HOSE	1	UP TO S/N 3692433 REPL. 0602014069
54	7700751310	BREATHER HOSE	1	S/N 3692434~
55	0728100549	HOSE BAND	2	REPLACES 0602014069
56	C5358300204	CLAMPER	1	
57	0412222274	FAN BELT, ENGINE (SET OF 3)	1	

DCA-800SSK — OIL DRAIN ASSY.

OIL DRAIN ASSY.

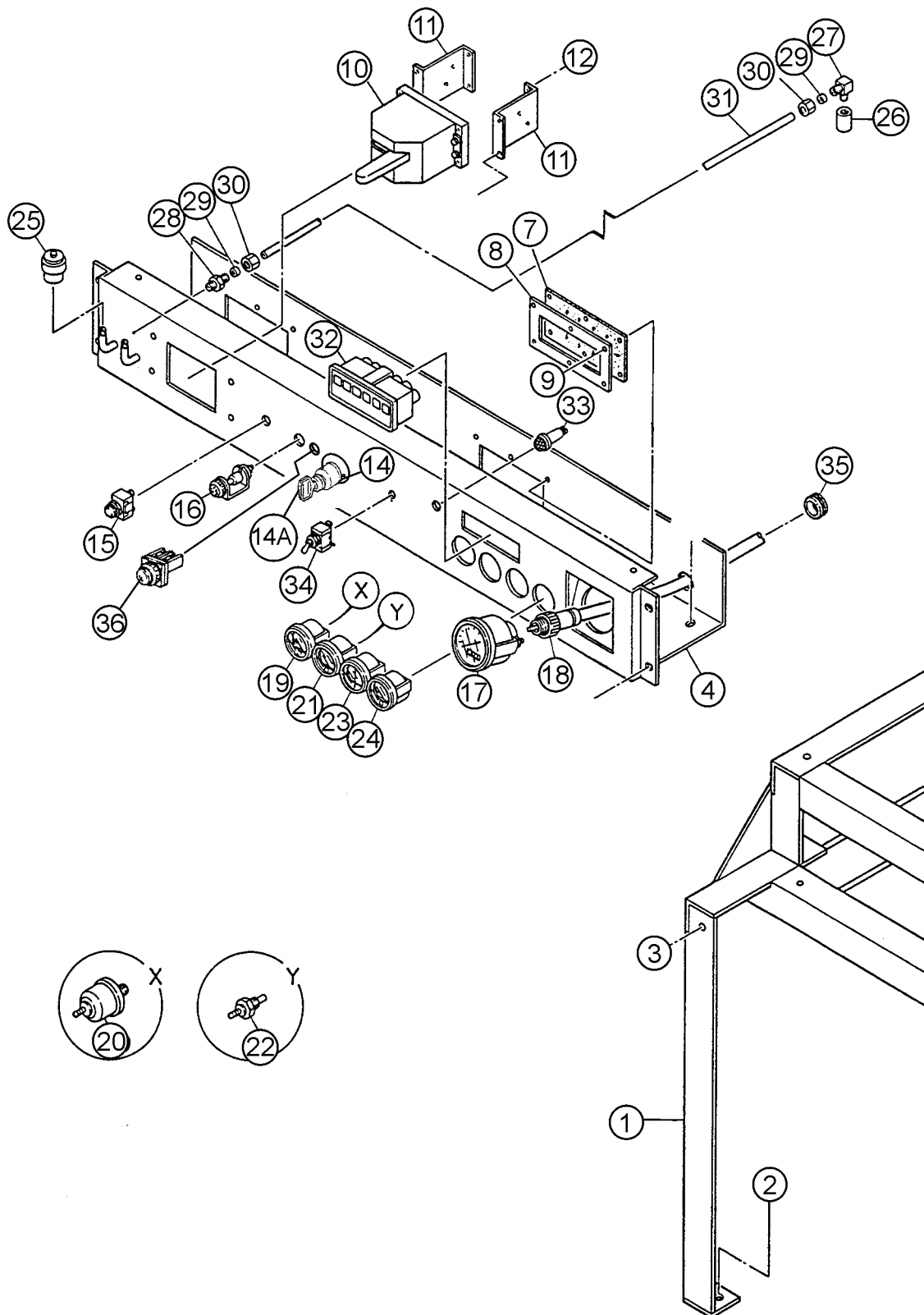


OIL DRAIN ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0602023160	PUMP	1	GM-2524H
2	0017108040	HEX. HEAD BOLT	4	
2	0207008000	HEX. NUT	4	
3	0131710060	BUSHING, 1 x 1/2	1	
4	0131708060	BUSHING 3/4 x 1/2	1	
5	0130206000	STREET ELBOW, 1/2	3	
6	0602022202	HOSE JOINT	4	
7	3502054124	DRAIN JOINT	1	
8	0802024004	PACKING	1	
9	0191602700	HOSE	1	
10	0191601600	HOSE	1	
11	0605515134	HOSE BAND	4	
12	0132006000	PLUG, 1/2	1	

DCA-800SSK — ENGINE OPERATING PANEL ASSY.

ENGINE OPERATING PANEL ASSY.



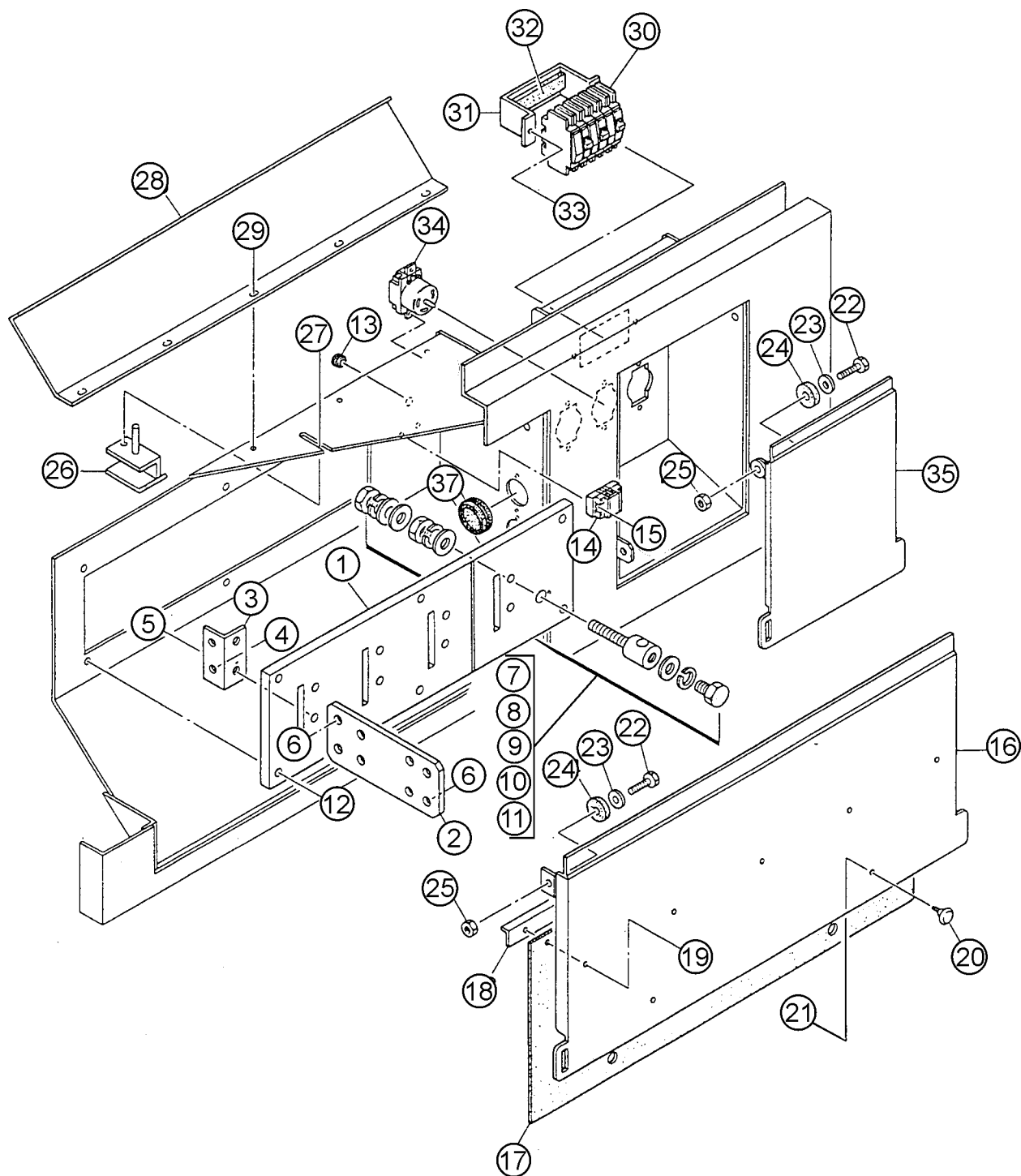
DCA-800SSK — ENGINE OPERATING PANEL ASSY.

ENGINE OPERATING PANEL ASSY.

NO	PART NO	PART NAME	QTY.	REMARKS
1	C5484000002	SUPPORT LEG	1	
2	0017112045	HEX. HEAD BOLT	4	
2	0030012000	HEX. NUT	4	
2	0041212000	PLAIN WASHER	4	
3	0017110025	HEX. HEAD BOLT	2	
3	0207010000	HEX. NUT	2	
4	C5352100203	OPERATING PANEL	1	UP TO S/N 3698625
4	C5352100213	OPERATING PANEL	1	S/N 3698626~
5	0017108020	HEX. HEAD BOLT	4	
6	0017108020	HEX. HEAD BOLT	3	
7	8085182004	RUBBER COVER	3	
8	8085183004	SET FRAME, RUBBER COVER	3	
9	0017106020	HEX. HEAD BOLT	18	
10	0602101016	BATTERY SWITCH	1	0315251001
11	7522258304	BRACKET, BATTERY SWITCH	2	
12	0017106030	HEX. HEAD BOLT	4	
12	0207006000	HEX. NUT	4	
13	0025006016	MACHINE SCREW	4	
13	0042306000	LOCK WASHER	4	
13	0042506000	PLAIN WASHER	4	
14	6008155390	STARTER SWITCH	1	UP TO S/N3699247 REPL. 0602100049
14A	615	KEY, STARTER SWITCH	1	UP TO S/N3699247
15	0806410000	EMERGENCY STOP BUTTON	1	REPLACES 0602104045
16	6008153730	PREHEAT INDICATOR	1	REPLACES 0602102055
17	0602120054	TACHOMETER	1	25000-KX4110
18	0602120173	CABLE, TACHOMETER	1	62500-KA4110 L=4000
19	0602122060	OIL PRESSURE GAUGE	1	4200-KX1410
20	0602122200	UNIT, OIL PRESSURE	1	53000-AC0101
21	0602123061	WATER TEMPERATURE GAUGE	1	40000-KX0910
22	0602123206	UNIT, WATER TEMPERATURE	1	51400-KS0600
23	0602121052	CHARGING AMMETER	1	43000-KV0300
24	0602125060	FUEL GAUGE	1	41000-KW0110
25	0602040692	INDICATOR, AIR CLEANER	2	RBX00-2254
26	6203306104	SOCKET	2	
27	0603301000	ELBOW UNION	2	UP TO S/N 3702700
27	0603301030	ELBOW UNION	2	S/N 3702701~
28	0603300000	HALF UNION	2	UP TO S/N 3702700
28	0603300040	HALF UNION	2	S/N 3702701~
29	0603302000	SLEEVE	4	UP TO S/N 3702700
29	0603302020	SLEEVE	4	S/N 3702701~
30	0603303000	NUT	4	UP TO S/N 3702700
30	0603303030	NUT	4	S/N 3702701~
31	0190002900	NYLON PIPE	2	UP TO S/N 3702700
31	0190302500	NYLON PIPE, LEFT SIDE	1	S/N 3702701~
31	0190302800	NYLON PIPE, RIGHT SIDE	1	S/N 3702701~
32	0602115008	LED MODULE	1	V33676A
33	0602103091	ALARM LAMP, OIL FILTER	1	REPLACES 0602103090
33	0601810244	BULB	1	
34	0601830710	ENGINE SPEED SWITCH	1	S-301T
35	0601850267	GROMMET	1	
36	0601830448	PREHEAT BUTTON, AH25FB101	1	S/N3699248~

DCA-800SSK — OUTPUT TERMINAL ASSY.

OUTPUT TERMINAL ASSY.



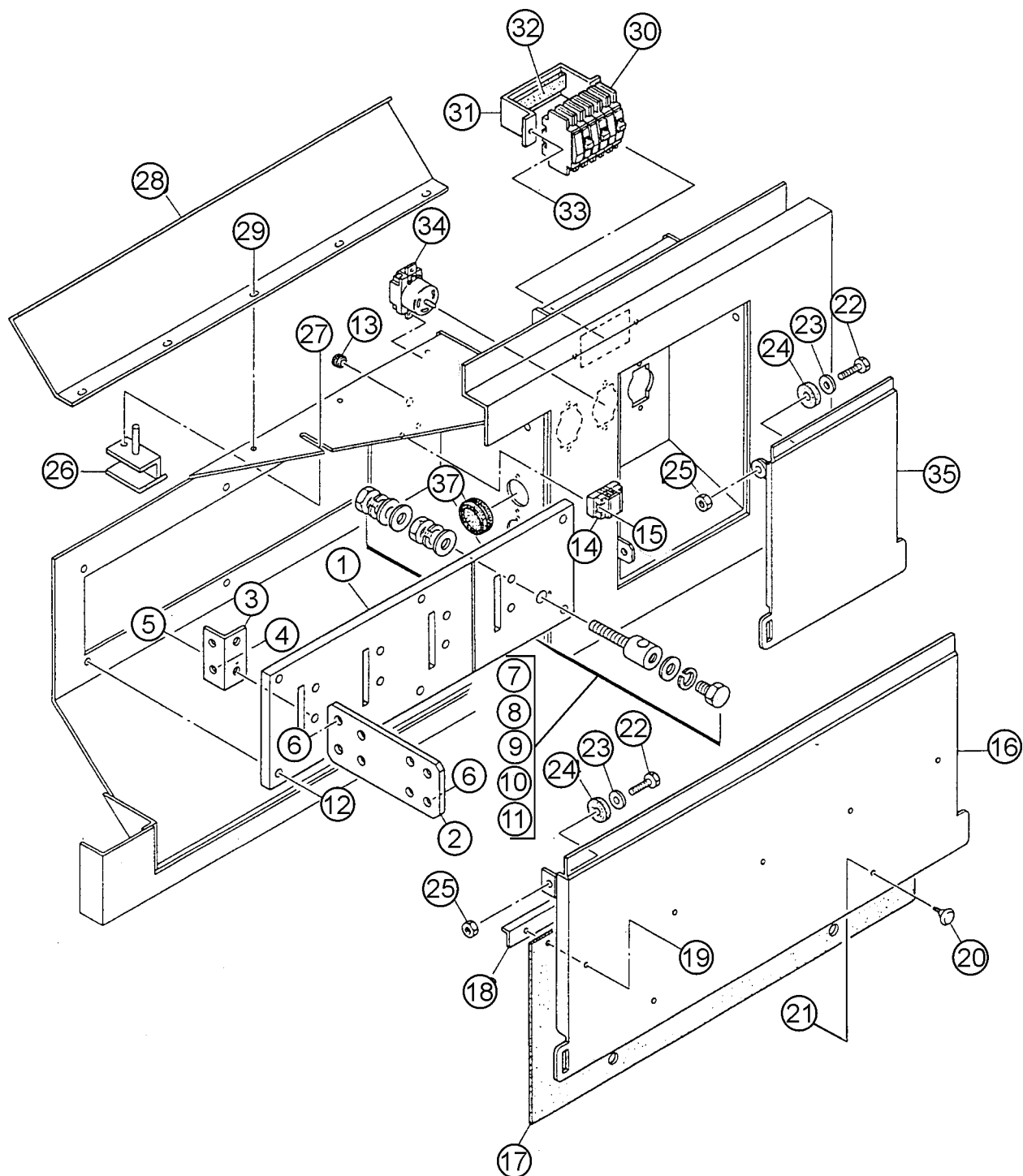
DCA-800SSK — OUTPUT TERMINAL ASSY.

OUTPUT TERMINAL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5231700003	SET BOARD, OUTPUT TERMINAL	1	
2	7521860504	OUTPUT TERMINAL	4	
3	7521850504	BRACKET, OUTPUT TERMINAL	4	
4	0010112040	HEX. HEAD BOLT	8	
4	0030012000	HEX. NUT	8	
4	0040012000	LOCK WASHER	8	
4	0041212000	PLAIN WASHER	16	
5	0010112060	HEX. HEAD BOLT	8	
5	0030012000	HEX. NUT	8	
5	0040012000	LOCK WASHER	8	
5	0041212000	PLAIN WASHER	16	
6	0010112040	HEX. HEAD BOLT	24	
6	0030012000	HEX. NUT	24	
6	0040012000	LOCK WASHER	24	
6	0041212000	PLAIN WASHER	48	
7	C5234000004	TERMINAL	1	
8	0801830904	HEX. HEAD BOLT	1	
9	0039320000	HEX. NUT	2	
10	0040020000	LOCK WASHER	3	
11	0041420000	PLAIN WASHER	5	
12	0019112060	HEX. HEAD BOLT	6	
12	0042312000	LOCK WASHER	6	
12	0042412000	PLAIN WASHER	6	
13	0601850275	GROMMET	1	
14	0601815324	TERMINAL BOARD	1	
15	0027104020	MACHINE SCREW	2	
16	C4237101304	COVER, OUTPUT TERMINAL	1	
17	7971867114	RUBBER SHEET	1	
18	7521865804	SET PLATE, RUBBER SHEET	1	
19	0019106020	HEX. HEAD BOLT	5	
19	0042306000	LOCK WASHER	5	
19	0442406000	PLAIN WASHER	5	
20	0605010660	KNOB	2	
21	0207006000	HEX. NUT	2	
22	0010112045	HEX. HEAD BOLT	4	
23	0041212000	PLAIN WASHER	4	
24	0805009804	STAY RUBBER	4	

DCA-800SSK — OUTPUT TERMINAL ASSY.

OUTPUT TERMINAL ASSY.



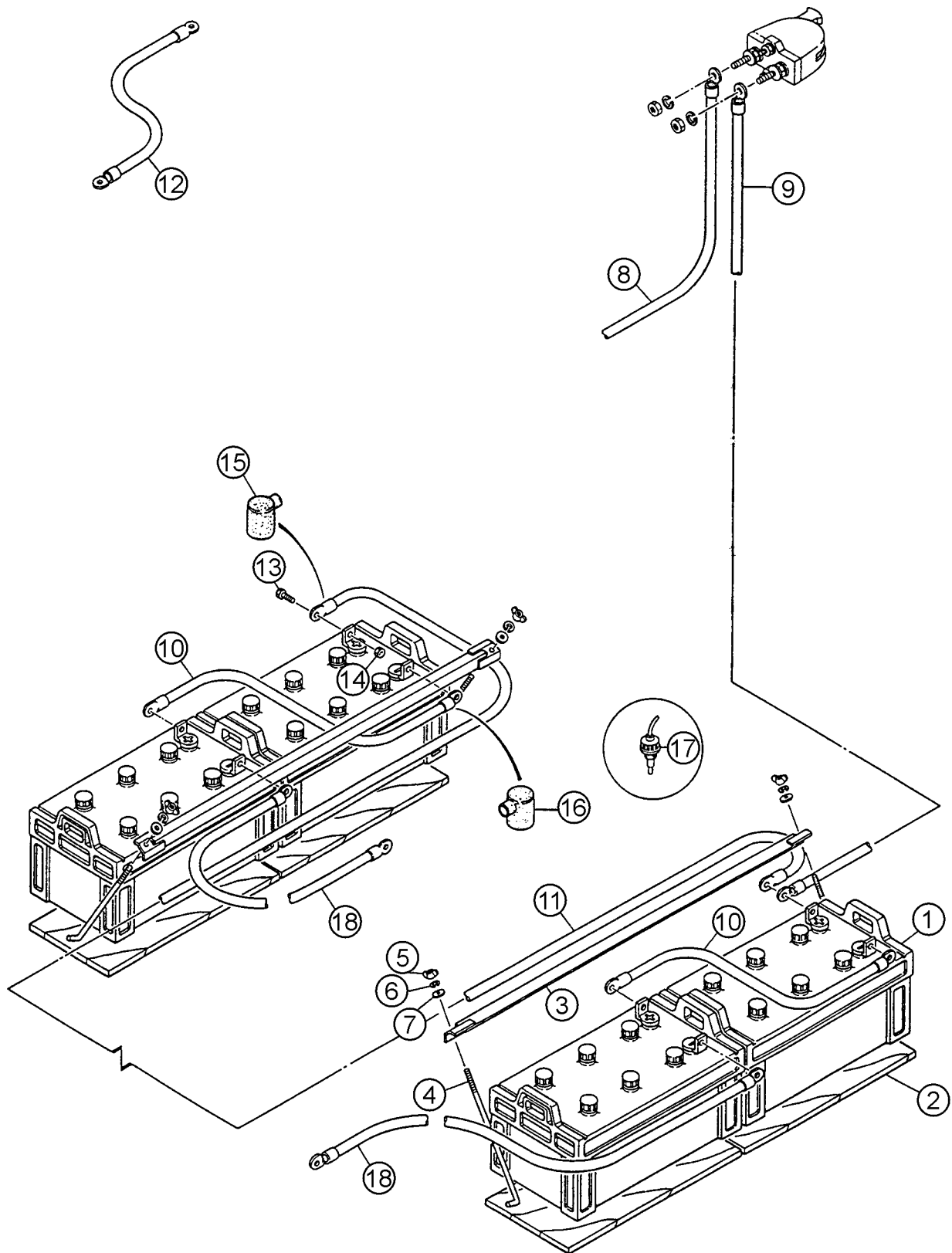
DCA-800SSK — OUTPUT TERMINAL ASSY.

OUTPUT TERMINAL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
25	0030012000	HEX. NUT	4	
26	7521865603	STOPPER	1	
27	0010108030	HEX. HEAD BOLT	1	
27	0030008000	HEX. NUT	1	
27	0041208000	PLAIN WASHER	2	
28	C4237100504	COVER	1	
29	0017108020	HEX. HEAD BOLT	5	
30	0601805840	CIRCUIT BREAKER, KM-52 265V 50A	3	S/N 3692434 TO 3706720
30	0601808804	CIRCUIT BREAKER, QOU 250B 50A	1	S/N 3706721~
31	C5261600004	BRACKET, CIRCUIT BREAKER	1	INCL. ITEMS W/* UPTO S/N 3706720
31	G5261600204	BRACKET, CIRCUIT BREAKER	1	INCLUDES ITEMS W/# S/N 3706721~
32*	0223300150	RUBBER CUSHION	1	UP TO S/N 3706720
32#	0221200110	RUBBER CUSHION	1	S/N 3706721~
33	0017106030	HEX. HEAD BOLT	2	
34	0601811034	RECEPTACLE	3	REPLACES 0601812565 & 0601812535
35	0027104015	MACHINE SCREW	6	
35	0030004000	HEX. NUT	6	
35	0041204000	PLAIN WASHER	6	
36	C4237101203	COVER	1	
37	0601851780	GROMMET	1	S/N 3700699~

DCA-800SSK — BATTERY ASSY.

BATTERY ASSY.

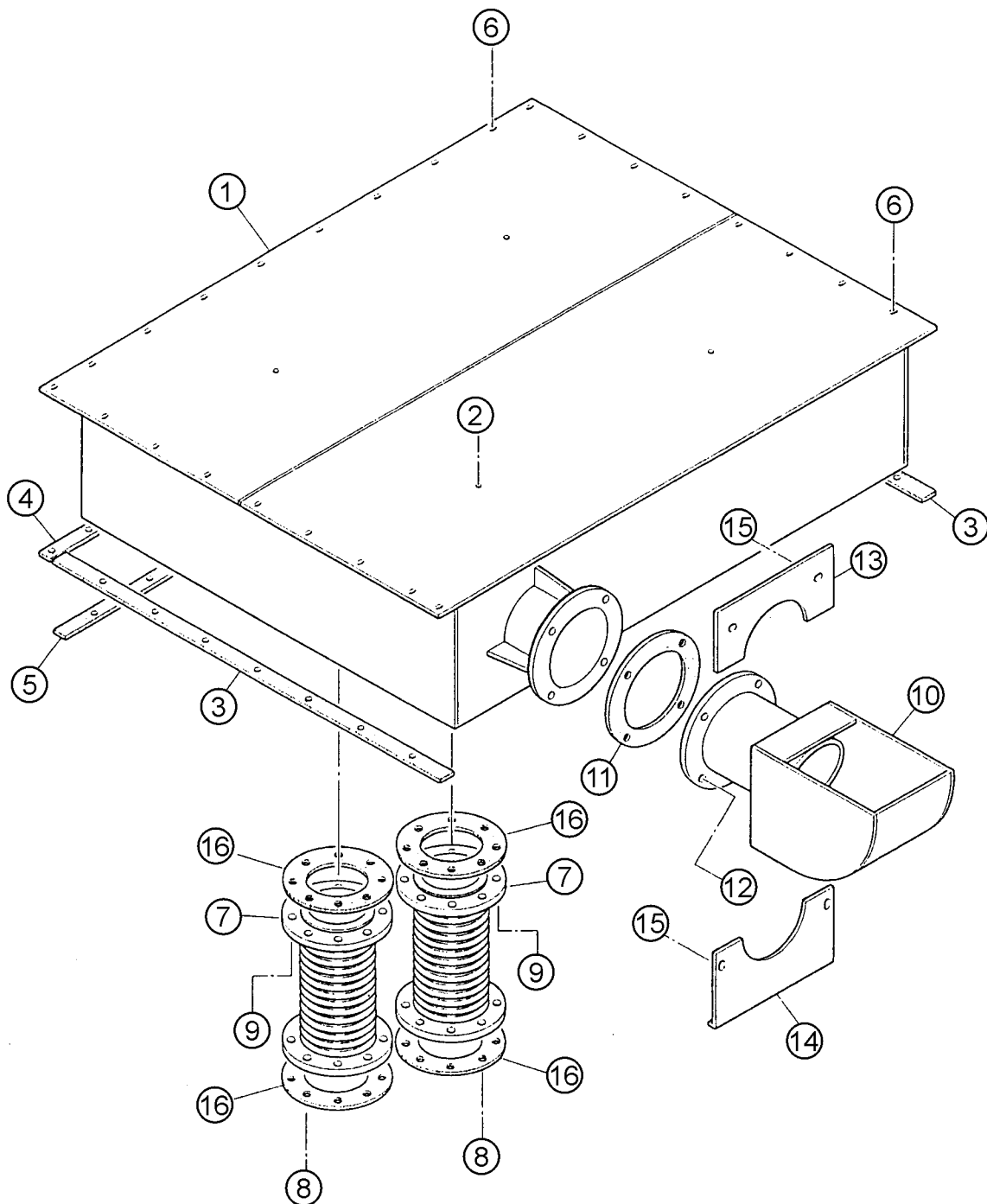


BATTERY ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0168719052	BATTERY	4	
2	0805018904	BATTERY SHEET	4	
3	0805006404	BATTERY BAND	2	
4	0805006504	BATTERY BOLT	4	
5	0037808000	WING NUT	4	
6	0040008000	LOCK WASHER	4	
7	0041208000	PLAIN WASHER	4	
8	C5347800104	BATTERY CABLE	1	
9	C5347800004	BATTERY CABLE	1	
10	7522280904	BATTERY CABLE	2	
11	C5347600104	BATTERY CABLE	1	
12	C5347400004	EARTH CABLE	1	
13	0347010030	HEX. HEAD BOLT	8	
14	0208110000	HEX. NUT	8	
15	0845040114	TERMINAL CAP (+)	4	
16	0845041004	TERMINAL CAP (-)	4	
17	0602220205	BATTERY SENSOR	1	
18	C5347600004	BATTERY CABLE	2	

DCA-800SSK — MUFFLER ASSY.

MUFFLER ASSY.



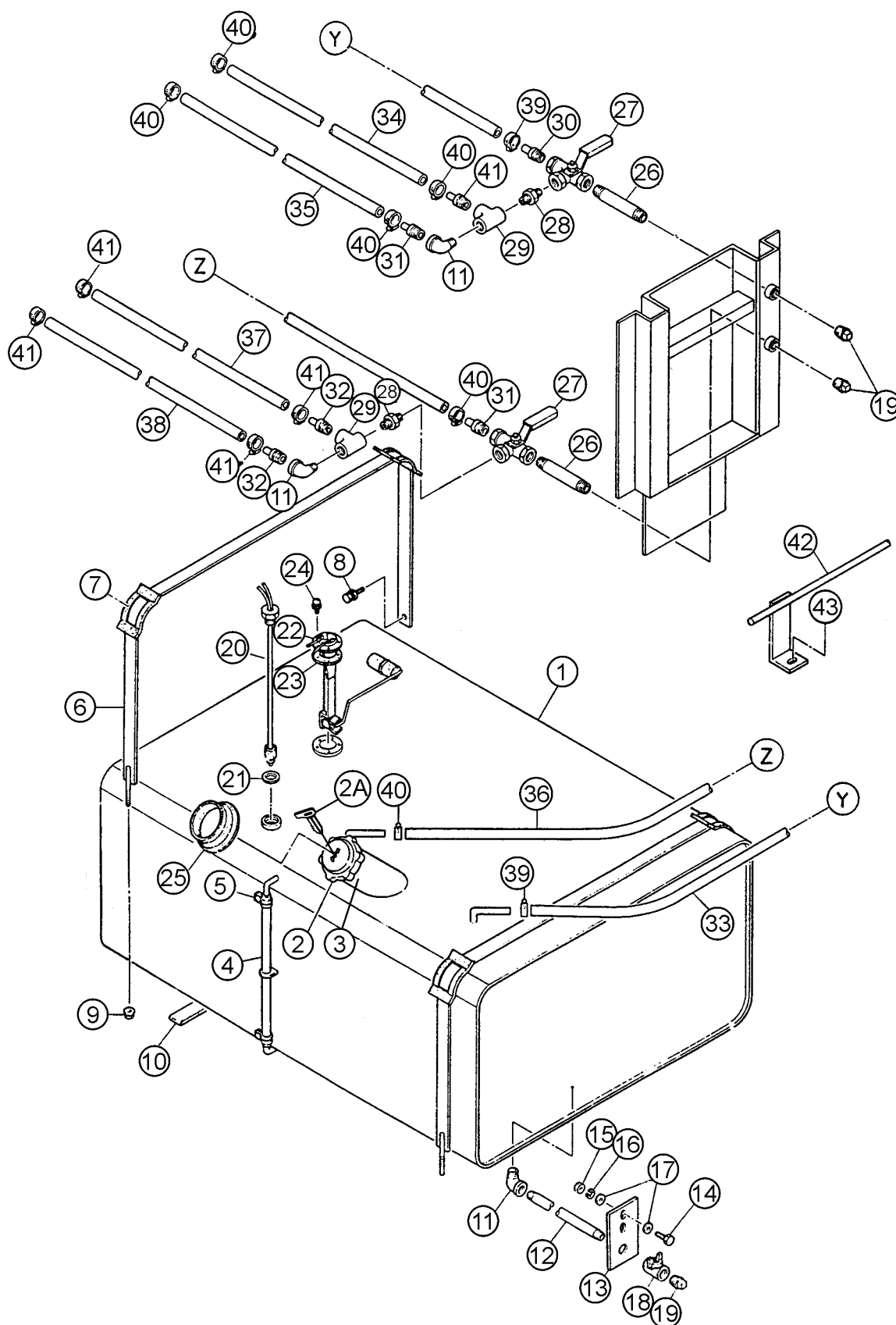
DCA-800SSK — MUFFLER ASSY.

MUFFLER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5331100002	MUFFLER	1	
2	0019112030	HEX. HEAD BOLT	4	
2	0042312000	LOCK WASHER	4	
2	0042412000	PLAIN WASHER	4	
3	C5335200104	PACKING	2	
4	C5335200204	PACKING	1	
5	C5335200304	PACKING	1	
6	0019110035	HEX. HEAD BOLT	24	
6	0042310000	LOCK WASHER	24	
6	0042410000	PLAIN WASHER	24	
7	C5334000103	EXHAUST PIPE	2	
7	C4334200504	GASKET	4	
8	0010116070	HEX. HEAD BOLT	16	
8	0030016000	HEX. NUT	16	
8	0040016000	LOCK WASHER	16	
8	0041216000	PLAIN WASHER	32	
9	0010116050	HEX. HEAD BOLT	16	
9	0040016000	LOCK WASHER	16	
9	0041216000	PLAIN WASHER	16	
10	7522355103	OUTLET PIPE	1	
11	C5335200004	GASKET	1	
12	0010116070	HEX. HEAD BOLT	4	
12	0030016000	HEX. NUT	4	
12	0040016000	LOCK WASHER	4	
12	0041216000	PLAIN WASHER	8	
13	7525125704	COVER	1	
14	C5331300004	COVER	1	
15	0017108020	HEX. HEAD BOLT	4	

DCA-800SSK — FUEL TANK ASSY.

FUEL TANK ASSY.



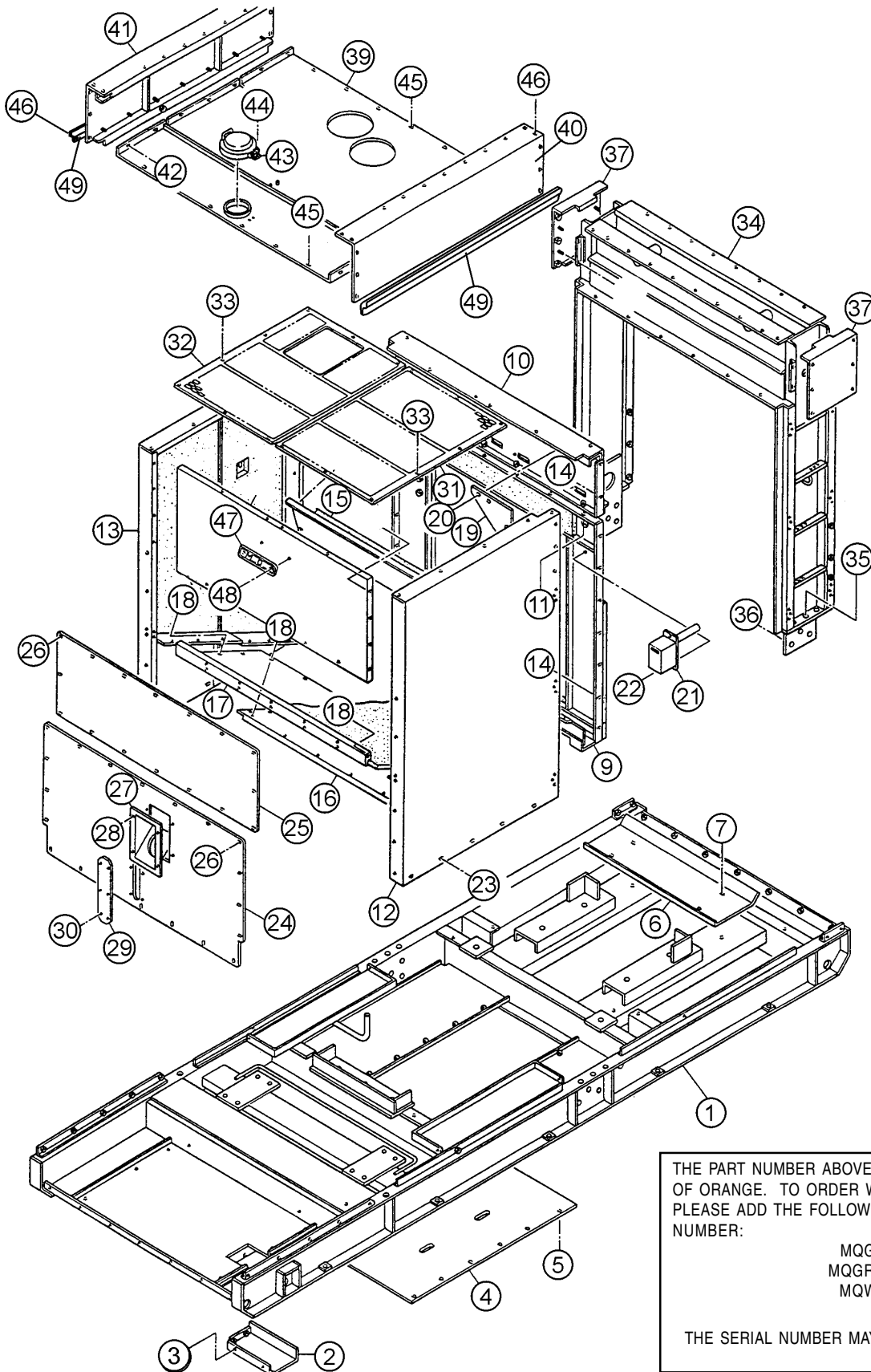
DCA-800SSK — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5364000303	FUEL TANK	1	
2	0605505030	CAP, FUEL TANK	1	REPLACES 0605505005
2A	0601850590	KEY, FUEL TANK CAP	1	
3	0810105400	FUEL FILTER	1	
4	0264100425	HOSE, FUEL GAUGE	1	
5	0605515079	HOSE BAND	2	
6	7435523104	TANK BAND	2	
7	0805003414	PAD, TANK BAND	4	
8	0017108020	HEX. HEAD BOLT	2	
9	0207308000	HEX. NUT	2	
10	0222100600	TANK SHEET	6	
11	0130206000	STREET ELBOW, 1/2	3	
12	7525512104	DRAIN PIPE	1	
13	7525516504	BRACKET	1	
14	0019108030	HEX. HEAD BOLT	2	
15	0205008000	HEX. NUT	2	
16	0042308000	LOCK WASHER	2	
17	0042408000	PLAIN WASHER	2	
18	0603325011	VALVE	1	
19	0132006000	PLUG, 1/2	3	
20	0605503009	FUEL SENSOR	1	
21	0802120604	PACKING	1	
22	0605501050	UNIT, FUEL	1	52000-KA9810
23	0602021155	PACKING	1	52391-KW3700
25	0022905015	MACHINE SCREW	5	
25	0845039604	RUBBER SEAL	1	
26	7435512104	LONG NIPPLE	2	
27	0605511033	THREE WAY VALVE	2	
28	0131506000	NIPPLE, 1/2	2	
29	0130406000	T JOINT, 1/2	2	
30	0602022293	HOSE JOINT	1	
31	0602022203	HOSE JOINT	3	
32	6185517204	HOSE JOINT	2	
33	0191504300	SUCTION HOSE	1	
34	0191302500	SUCTION HOSE	1	
35	0191301100	SUCTION HOSE	1	
36	0191004500	RETURN HOSE	1	
37	0191002500	RETURN HOSE	1	
38	0191001100	RETURN HOSE	1	
39	0605515032	HOSE BAND	2	
40	0605515014	HOSE BAND	6	
41	0605515155	HOSE BAND	4	
42	C5358300104	CLAMPER	1	
43	0017110025	HEX. HEAD BOLT	2	

DCA-800SSK — ENCLOSURE #1 ASSY.

ENCLOSURE #1 ASSY.



THE PART NUMBER ABOVE INDICATES DEFAULT COLOR OF ORANGE. TO ORDER WITH DIFFERENT COLOR, PLEASE ADD THE FOLLOWING LETTERS WITH THE PART NUMBER:

MQGR-GRAY
MQGRN-GREEN
MQW-WHITE

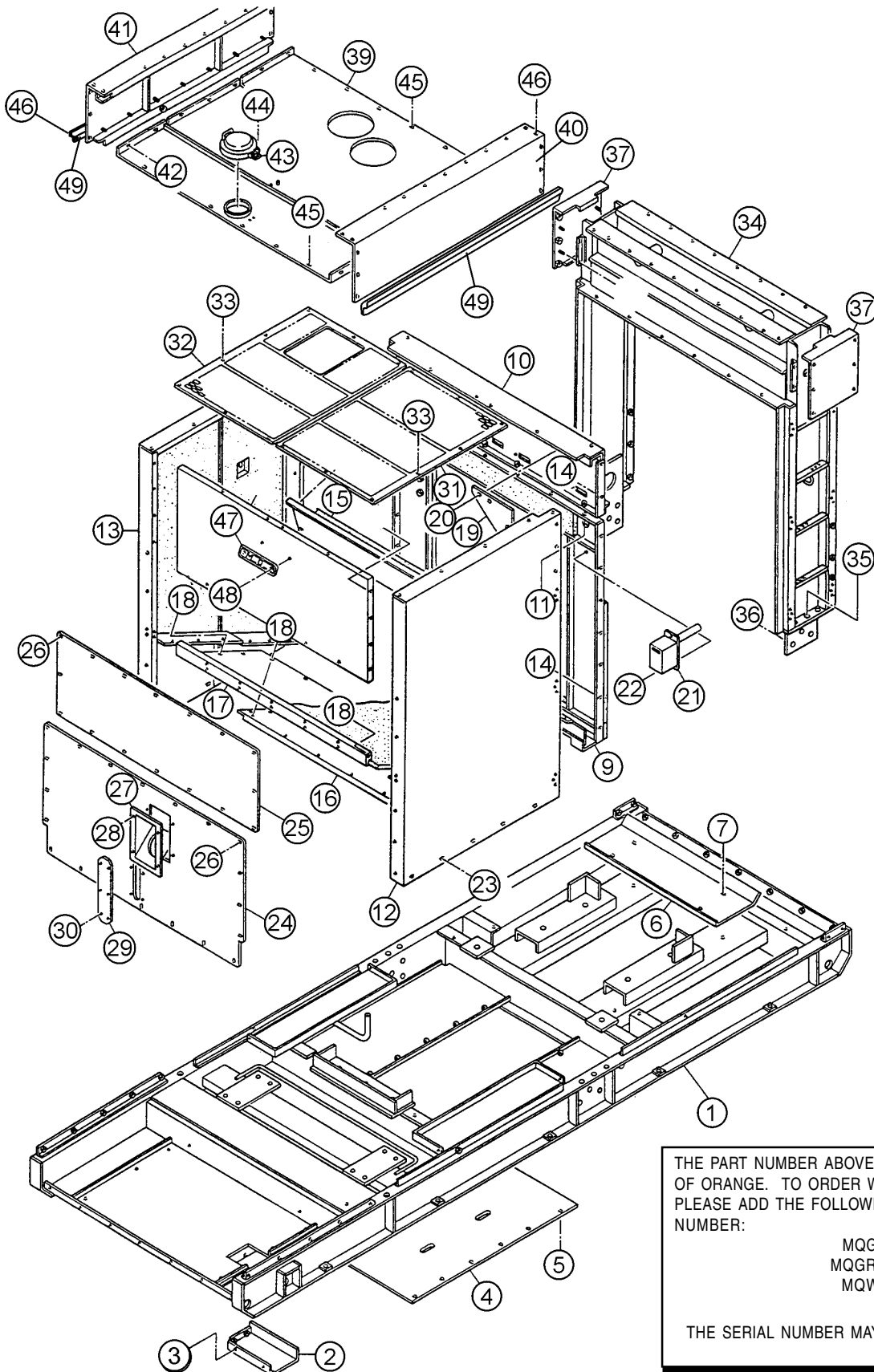
THE SERIAL NUMBER MAY BE REQUIRED.

DCA-800SSK — ENCLOSURE #1 ASSY.**ENCLOSURE #1 ASSY.**

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	C5414000002	BASE	1	
2	7525116004	FLOOR PANEL	1	
3	0019110030	HEX. HEAD BOLT	4	
3	0042310000	LOCK WASHER	4	
3	0042410000	PLAIN WASHER	4	
4	C5414100004	FLOOR PANEL	1	
5	0019208020	HEX. HEAD BOLT	12	
6	C5414600004	GUIDE PANEL, AIR	1	
7	0017108020	HEX. HEAD BOLT	4	
8	C5424001303	FRONT FRAME	1	
8	C5494100003	LINING	1	
9	C5424000803	FRONT FRAME	1	
9	C5494100003	LINING	1	
10	C5424000003	FRONT FRAME	1	
11	0017108020	HEX. HEAD BOLT	6	
12	C5424000202	FRONT FRAME	1	
12	C5494100003	LINING	1	
13	C5424000302	FRONT FRAME	1	
13	C5494100003	LINING	1	
14	0017108020	HEX. HEAD BOLT	26	
15	C5424000603	GUIDE PANEL, AIR	1	
15	C5494100003	LINING	1	
16	C5424000403	GUIDE PANEL, AIR	1	
16	C5494100003	LINING	1	
17	C5424000503	GUIDE PANEL, AIR	1	
17	C5494100003	LINING	1	
18	0017108020	HEX. HEAD BOLT	36	
19	C5424000704	GUSSET	2	
20	0017110025	HEX. HEAD BOLT	8	
21	C5327100003	BREATHING PIPE	1	
22	0017110025	HEX. HEAD BOLT	2	
23	0019210025	HEX. HEAD BOLT	10	
24	7525125403	COVER, FRONT FRAME	1	
25	7525125103	COVER, FRONT FRAME	1	
25	C5494100304	LINING	1	
26	0019208020	HEX. HEAD BOLT	36	
27	0845042703	FILLER BRACKET	1	
28	0019208020	HEX. HEAD BOLT	4	
29	7525125304	COVER	1	
30	0019106020	HEX. HEAD BOLT	6	
30	0042306000	LOCK WASHER	6	
30	0042406000	PLAIN WASHER	6	

DCA-800SSK — ENCLOSURE #1 ASSY.

ENCLOSURE #1 ASSY.



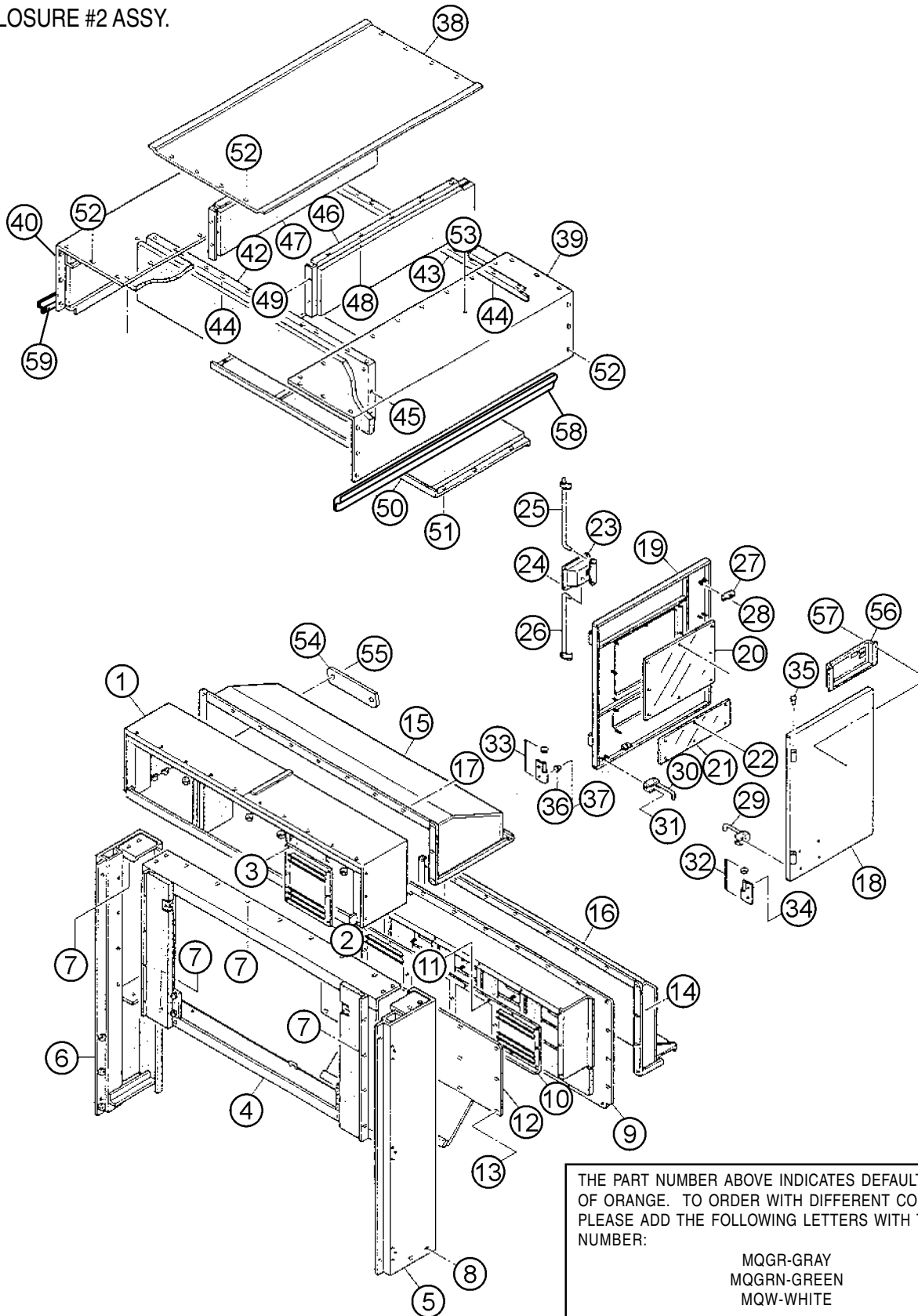
DCA-800SSK — ENCLOSURE #1 ASSY.

ENCLOSURE #1 ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
31	C5424200103	COVER, FRONT FRAME	1	
32	C5424200203	COVER, FRONT FRAME	1	
33	0019208020	HEX. HEAD BOLT	16	
34	C5434000002	CENTER FRAME	1	
35	0010120075	HEX. HEAD BOLT	6	
35	0030020000	HEX. NUT	6	
35	0040020000	LOCK WASHER	6	
35	0041220000	PLAIN WASHER	6	
36	0010120065	HEX. HEAD BOLT	10	
36	0030020000	HEX. NUT	10	
36	0040020000	LOCK WASHER	10	
36	0041220000	PLAIN WASHER	10	
37	C5434200003	COVER	2	
38	0207008000	HEX. NUT	8	
39	C5464100203	ROOF PANEL	1	UP TO S/N 3707480
39	C5464100903	ROOF PANEL	1	S/N 3707481~
40	C5464100003	ROOF PANEL	1	UP TO S/N 3707480
40	C5464100703	ROOF PANEL	1	S/N 3707481~
41	C5464100103	ROOF PANEL	1	UP TO S/N 3707480
41	C5464100103	ROOF PANEL	1	S/N 3707481~
42	0207008000	HEX. NUT	14	
43	0800251701	FILLER COVER	1	
44	0019206016	HEX. HEAD BOLT	2	
45	0019208020	HEX. HEAD BOLT	12	
46	0019210025	HEX. HEAD BOLT	20	
47	0600500090	EMBLEM	1	
48	0021106016	MACHINE SCREW	2	
49	C5464500004	BRACKET	2	S/N 3707481~

DCA-800SSK — ENCLOSURE #2 ASSY.

ENCLOSURE #2 ASSY.



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MQGR-GRAY
MQGRN-GREEN
MQW-WHITE

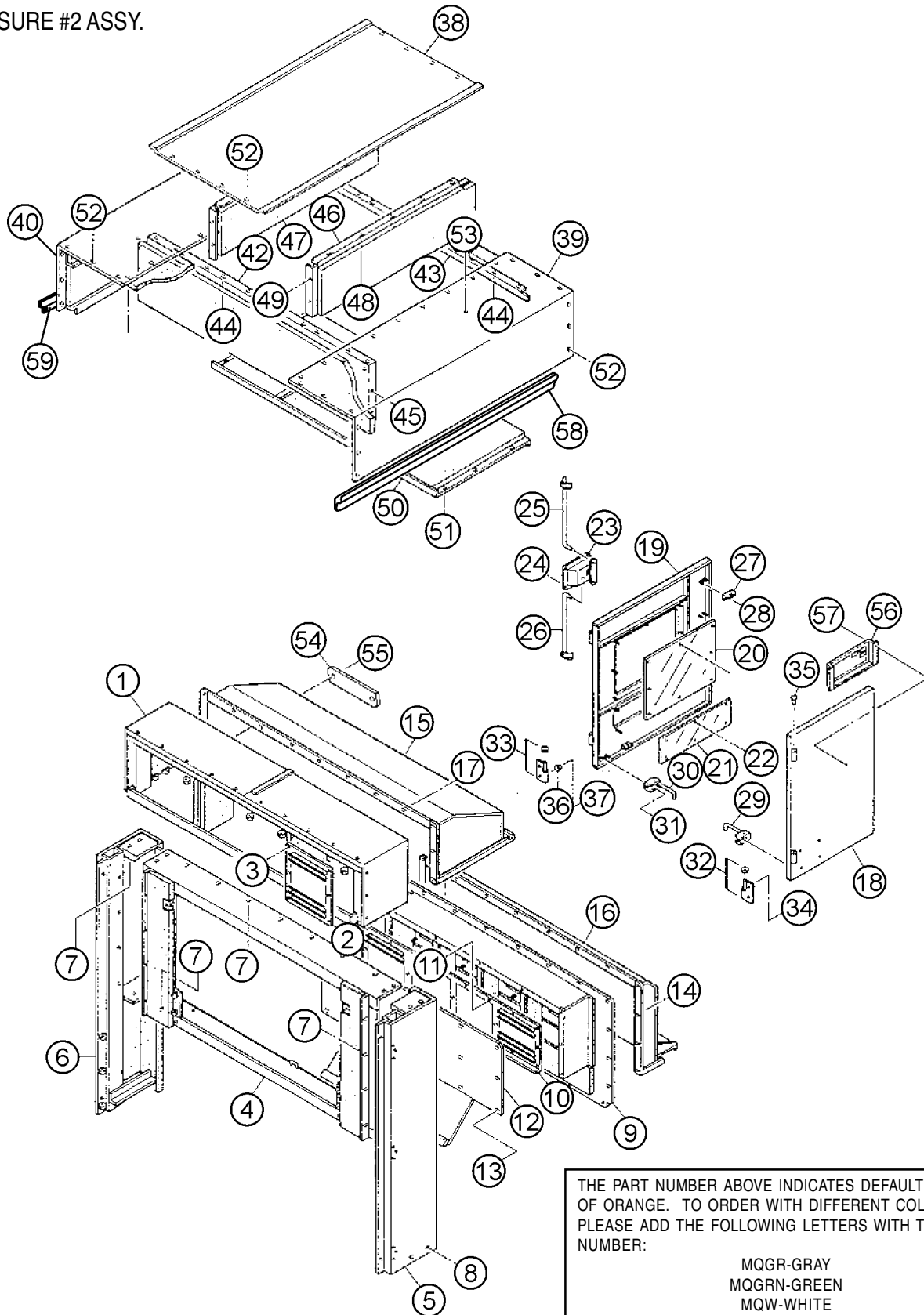
THE SERIAL NUMBER MAY BE REQUIRED.

DCA-800SSK — ENCLOSURE #2 ASSY.**ENCLOSURE #2 ASSY.**

NO	PART NO	PART NAME	QTY.	REMARKS
1	C5444000313	REAR FRAME	1	
1	C5494300104	LINING	1	
2	7525151004	LOUVER PANEL	5	
3	0207006000	NEX. NUT	40	
4	C5444000203	REAR FRAME	1	
4	C5494300004	LINING	1	
5	C5444000003	REAR FRAME	1	
5	C5494300004	LINING	1	
6	C5444400103	REAR FRAME	1	
6	C5494300004	LINING	1	
7	0017110025	HEX. HEAD BOLT	23	
8	0019210025	HEX. HEAD BOLT	4	
9	7525155403	COVER, REAR FRAME	1	
9	7525944304	LINING	1	
10	7525151804	LOUVER PANEL	1	
11	0205006000	HEX. NUT	21	
11	0042306000	LOCK WASHER	21	
11	0042406000	PLAIN WASHER	21	
12	C5444300004	DUCT COVER	1	
12	C5494300204	LINING	1	
13	0017108020	HEX. HEAD BOLT	15	
14	0019208020	HEX. HEAD BOLT	21	
15	C5444300303	VISOR	1	
16	7525165603	VISOR	1	
17	0019208020	HEX. HEAD BOLT	13	
18	C5444200113	DOOR, REAR FRAME	1	
19	C5444200003	DOOR, REAR FRAME	1	
20	7525147014	WINDOW PLATE	1	
21	7525147114	WINDOW PLATE	1	
22	0207306000	HEX. NUT	14	
23	B9114000102	DOOR HANDLE	1	
24	0021806016	MACHINE SCREW	4	
25	7525146404	DOOR ROD	1	
26	7525146504	DOOR ROD	1	
27	0845050704	STAY	4	
28	0205006000	HEX. NUT	8	
28	0042306000	LOCK WASHER	8	
28	0042406000	PLAIN WASHER	8	

DCA-800SSK — ENCLOSURE #2 ASSY.

ENCLOSURE #2 ASSY.



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MQGRN-GREEN
MQW-WHITE

THE SERIAL NUMBER MAY BE REQUIRED.

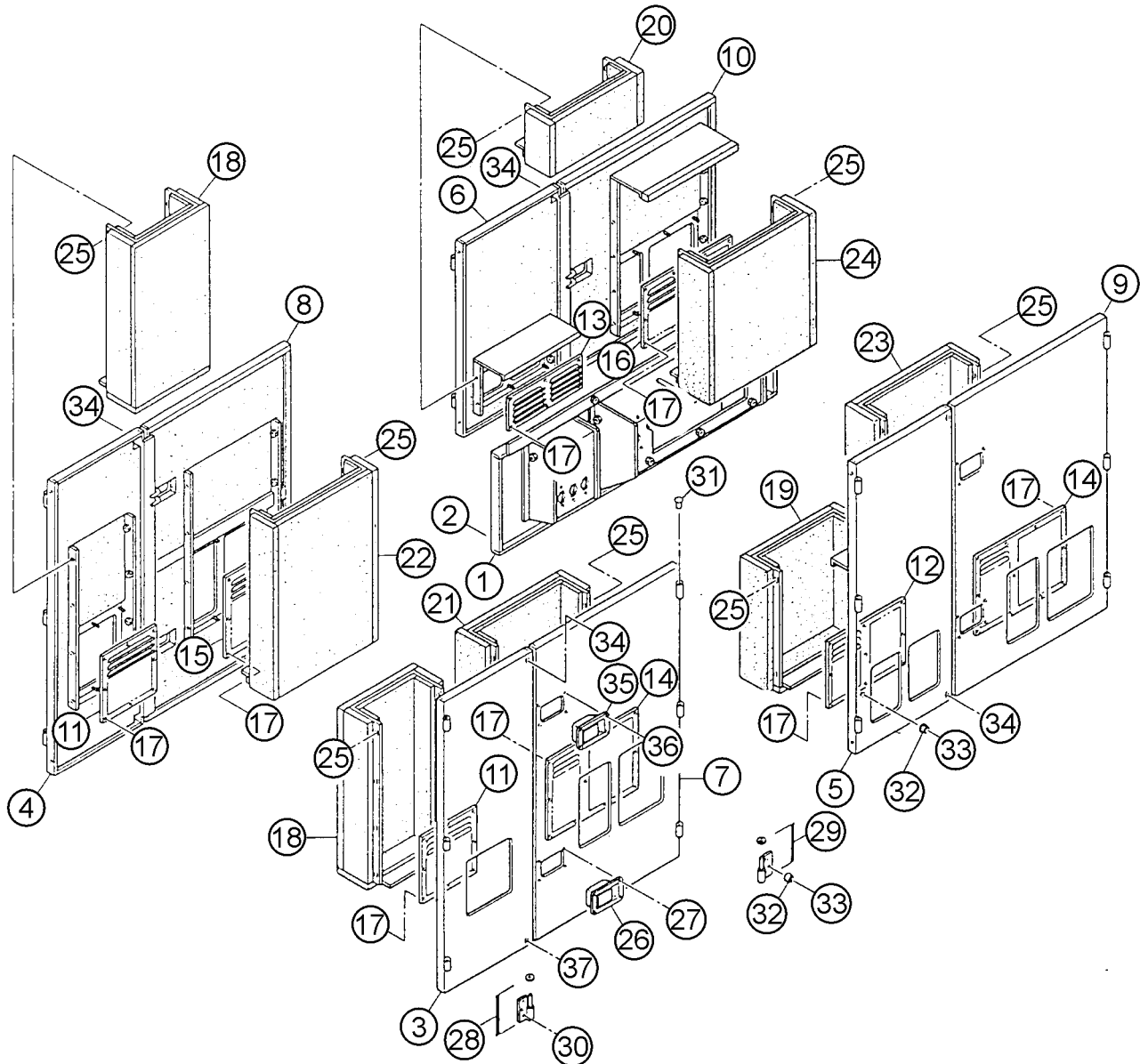
DCA-800SSK — ENCLOSURE #2 ASSY.

ENCLOSURE #2 ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
29	0805011304	STOPPER, DOOR	1	
30	0805011204	STOPPER, DOOR	1	
31	0205006000	HEX. NUT	4	
31	0042306000	LOCK WASHER	4	
31	0042406000	PLAIN WASHER	4	
32	M9110100204	HINGE	2	REPLACES 0845047104
32	0845045004	WASHER	2	
33	M9110100304	HINGE	2	REPLACES 0845047204
33	0845045004	WASHER	2	
34	0019208020	HEX. HEAD BOLT	4	
35	0845031504	CAP	4	
36	0601850097	STOPPER	4	
37	0021008025	MACHINE SCREW	4	
38	C5464200203	ROOF PANEL	1	
38	C5494500003	LINING	1	
39	C5464200003	ROOF PANEL	1	UP TO S/N 3707480
39	C5464200103	ROOF PANEL	1	S/N 3707481~
39	C5494500003	LINING	1	
40	C5464200103	ROOF PANEL	1	UP TO S/N 3707480
40	C5464200803	ROOF PANEL	1	S/N 3707481~
40	C5494500003	LINING	1	
41	0207008000	HEX. NUT	18	
42	C5464200504	PANEL	1	
42	C5494500003	LINING	1	
43	C5464200604	GUIDE	1	
44	0207008000	HEX. NUT	20	
45	0017108020	HEX. HEAD BOLT	4	
46	C5464200404	PANEL	1	
46	C5494500003	LINING	1	
47	C5464200304	PANEL	1	
47	C5494500003	LINING	1	
48	0207008000	HEX. NUT	10	
49	0017108020	HEX. HEAD BOLT	4	
50	C5464400004	COVER, ROOF PANEL	1	
50	C5494500104	LINING	1	
51	0017108020	HEX. HEAD BOLT	12	
52	0019210025	HEX. HEAD BOLT	34	
53	0019112030	HEX. HEAD BOLT	4	
53	0042312000	LOCK WASHER	4	
53	0042412000	PLAIN WASHER	4	
54	0600500090	EMBLEM	1	
55	0021106016	MACHINE SCREW	2	
56	B9114500104	DOOR POCKET	1	
57	0207006000	HEX. NUT	4	
58	C5464500104	BRACKET	1	S/N 3707481~
59	C5464500204	BRACKET	1	S/N 3707481~

DCA-800SSK — ENCLOSURE #3 ASSY.

ENCLOSURE #3 ASSY.



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MQGR-GRAY
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MQW-WHITE

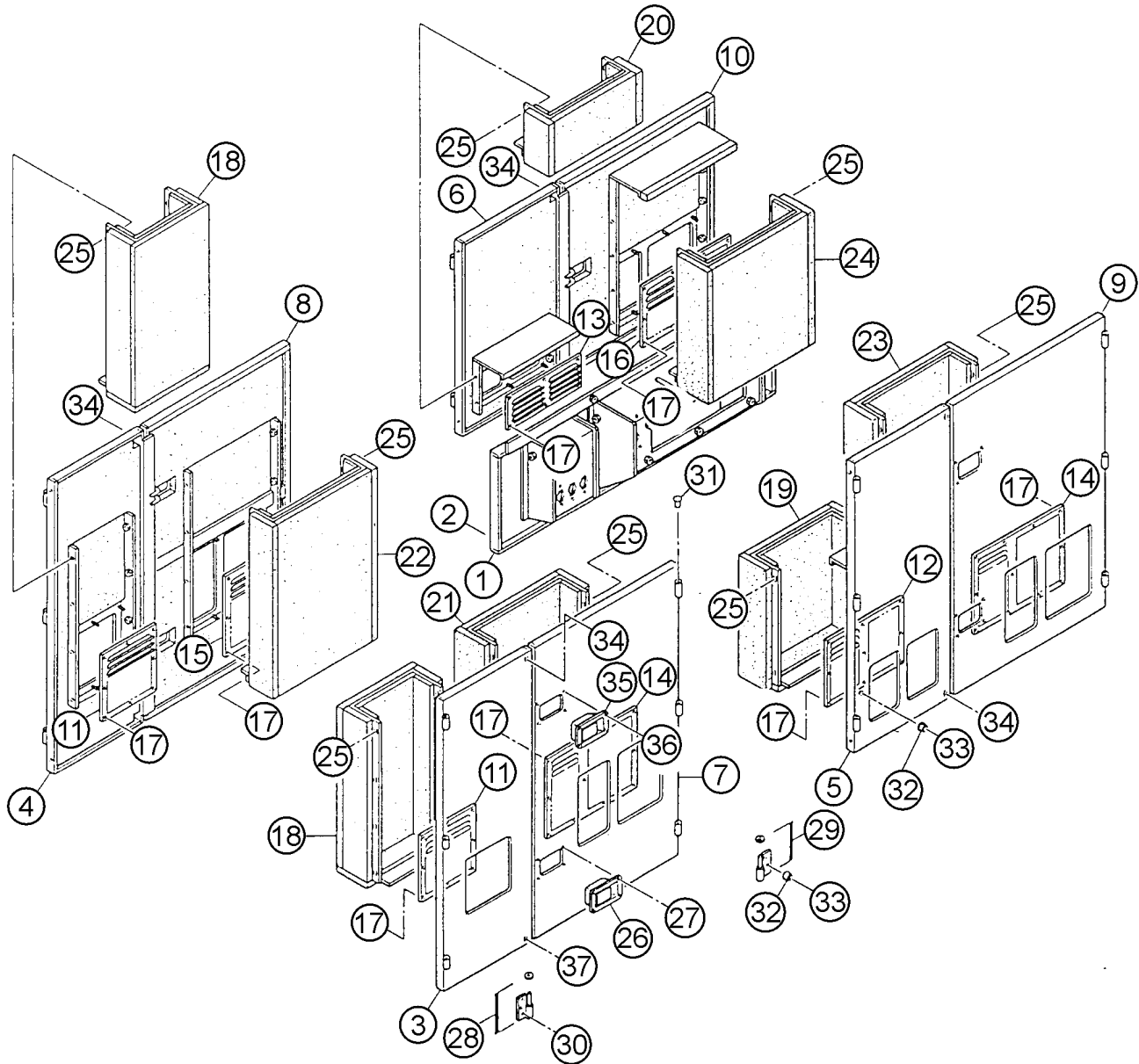
THE SERIAL NUMBER MAY BE REQUIRED.

DCA-800SSK — ENCLOSURE #3 ASSY.**ENCLOSURE #3 ASSY.**

NO	PART NO	PART NAME	QTY.	REMARKS
1	C5454200403	SPLASHER PANEL	1	S/N 3692434 TO 3700698
1	C5454200413	SPLASHER PANEL	1	S/N 3700699 TO 3706720
1	C5454200423	SPLASHER PANEL	1	S/N 3706721~
2	0019110070	HEX. HEAD BOLT	6	
2	0042310000	LOCK WASHER	6	
2	0042410000	PLAIN WASHER	6	
3	C5454100003	SIDE PANEL	1	
3	C5494400004	LINING	1	
4	C5454100103	SIDE PANEL	1	
4	C5494400104	LINING	1	
5	7525173803	SIDE PANEL	1	
5	7525972504	LINING	1	
6	7525173903	SIDE PANEL	1	
6	7525972704	LINING	1	
7	7525173203	SIDE DOOR	1	
7	7525970904	LINING	1	
8	7525173303	SIDE DOOR	1	
8	7525971104	LINING	1	
9	7525173403	SIDE DOOR	1	
9	7525971304	LINING	1	
10	7525173503	SIDE DOOR	1	
10	7595971504	LINING	1	
11	7525151004	LOUVER PANEL	2	
12	7525151604	LOUVER PANEL	1	
13	7525151704	LOUVER PANEL	1	
14	7525151304	LOUVER PANEL	2	
15	7525151404	LOUVER PANEL	1	
16	7525151504	LOUVER PANEL	1	
17	0205006000	HEX. NUT	75	
17	0042306000	LOCK WASHER	75	
17	0042406000	PLAIN WASHER	75	
18	7435176204	DUCT	2	
18	C5494400204	LINING	2	
19	7525176504	DUCT	1	
19	7525966904	LINING	1	
20	7525176604	DUCT	1	
20	7525967104	LINING	1	
21	7525176004	DUCT	1	
21	7525967304	LINING	1	
22	C5454300004	DUCT	1	
22	C5497400004	LINING	1	
23	7525176004	DUCT	1	
23	7525966504	LINING	1	

DCA-800SSK — ENCLOSURE #3 ASSY.

ENCLOSURE #3 ASSY.



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MQW-WHITE

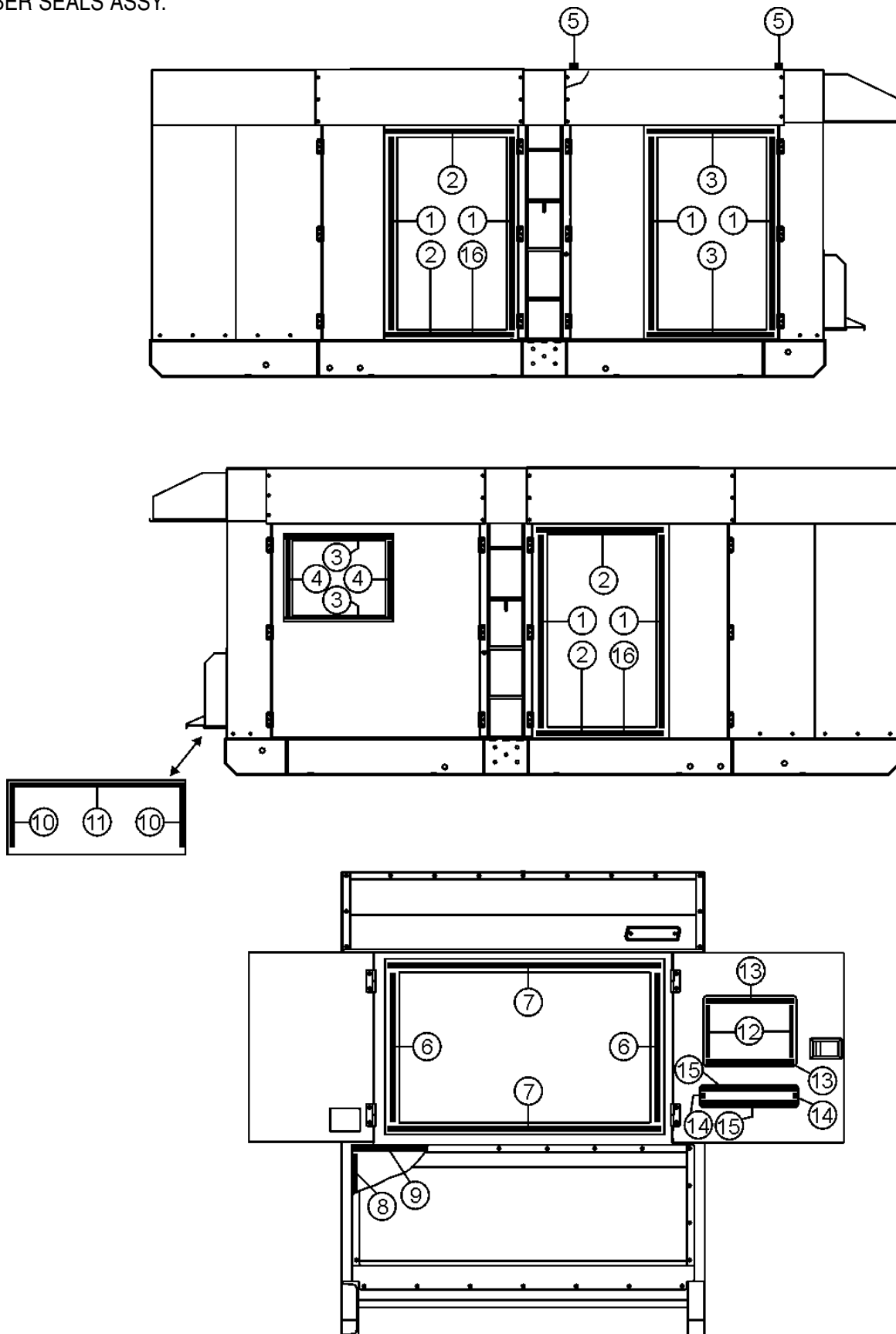
THE SERIAL NUMBER MAY BE REQUIRED.

ENCLOSURE #3 ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
24	7525176704	DUCT	1	
24	7525966704	LINING	1	
25	0019208020	HEX. HEAD BOLT	58	
26	0825007362	DOOR HANDLE	3	
27	0021806016	MACHINE SCREW	12	
28	0845046904	HINGE	11	
28	0845045004	WASHER	11	
29	0845047004	HINGE	11	
29	0845045004	WASHER	11	
30	0019208020	HEX. HEAD BOLT	52	
31	0845031504	CAP	22	
32	0601850097	STOPPER	15	
33	0021008025	MACHINE SCREW	15	
34	0019110070	HEX. HEAD BOLT	8	
34	0042310000	LOCK WASHER	8	
34	0042410000	PLAIN WASHER	8	
35	B9114000002	DOOR HANDLE	4	
36	0021806016	MACHINE SCREW	16	
37	0019110055	HEX. HEAD BOLT	2	
37	0042310000	LOCK WASHER	2	
37	0042410000	PLAIN WASHER	2	

DCA-800SSK — RUBBER SEALS ASSY.

RUBBER SEALS ASSY.



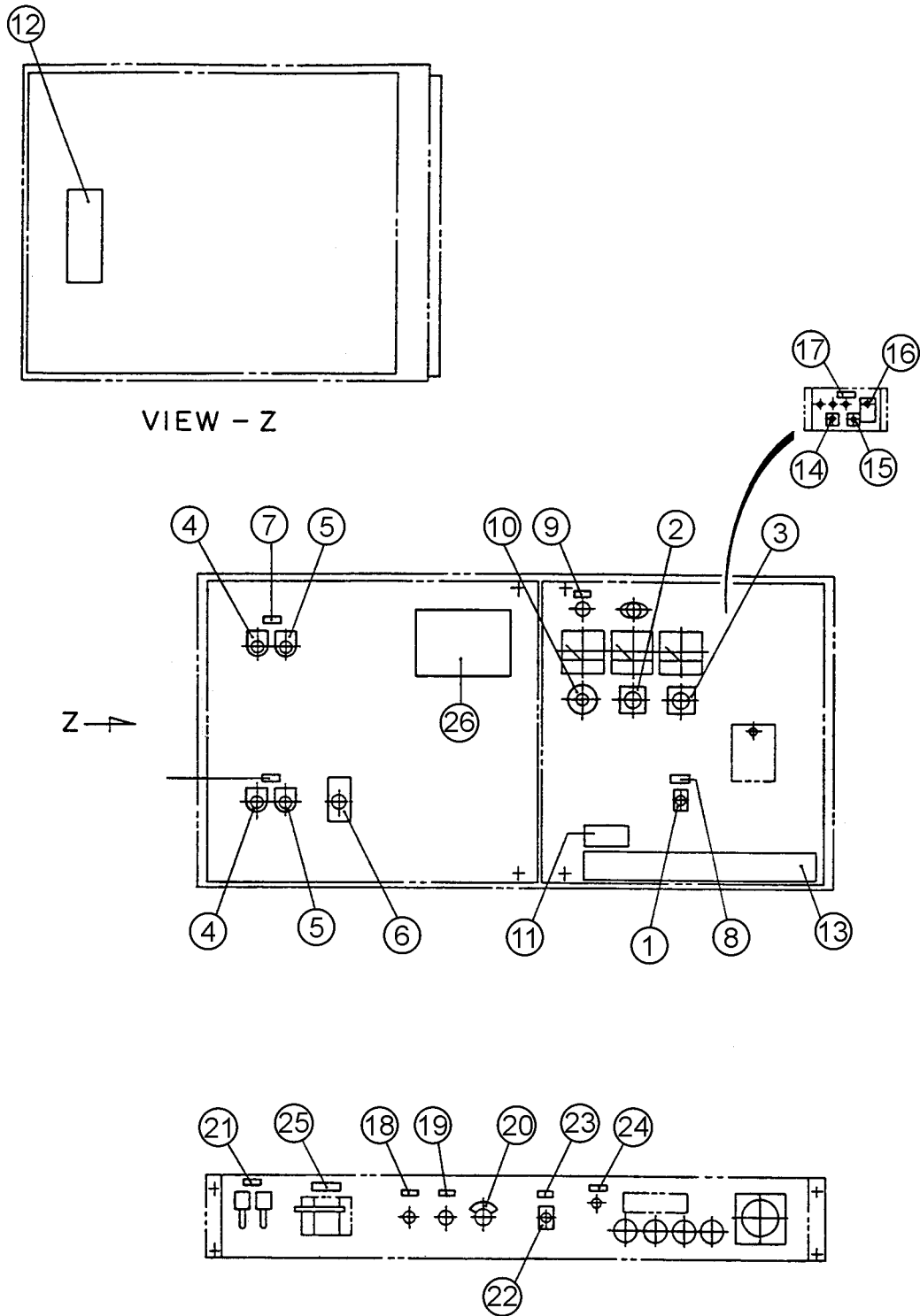
DCA-800SSK — RUBBER SEALS ASSY.

RUBBER SEALS ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0228901690	RUBBER SEAL	8	
2	0228900995	RUBBER SEAL	4	
3	0228901035	RUBBER SEAL	4	
4	0228901090	RUBBER SEAL	2	
5	0229201950	RUBBER SEAL	2	
6	0228801030	RUBBER SEAL	2	
7	0228801590	RUBBER SEAL	2	
8	0229200710	RUBBER SEAL	2	
9	0229201840	RUBBER SEAL	1	
10	0229200625	RUBBER SEAL	2	
11	0229201840	RUBBER SEAL	1	
12	0228100380	RUBBER SEAL	2	
13	0228100550	RUBBER SEAL	2	
14	0228100120	RUBBER SEAL	2	
15	0228100580	RUBBER SEAL	2	
16	0228901000	RUBBER SEAL	2	

DCA-800SSK — NAME PLATE AND DECALS

NAME PLATE AND DECALS



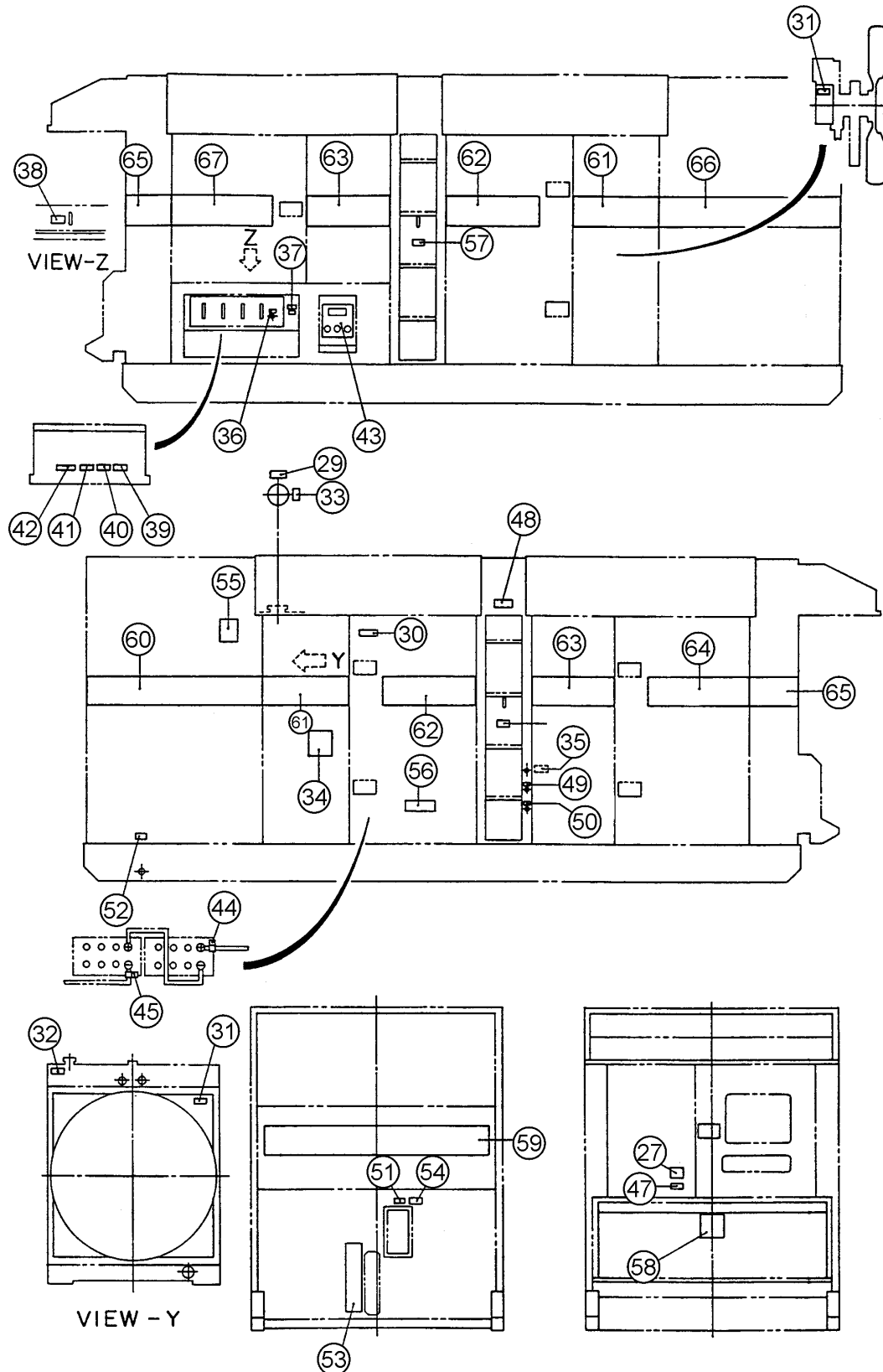
DCA-800SSK — NAME PLATE AND DECALS

NAME PLATE AND DECALS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
CONTROL PANEL GROUP				
1	0800520904	PLATE; ON-OFF	1	AT-202
2	0800520904	PLATE; AMMETER CHANGE-OVER SWITCH	1	N-2438
3	0800520814	PLATE; VOLTMETER CHANGE-OVER SWITCH	1	N-2439
4	0800564004	PLATE; OFF	2	N-3805
5	0800565004	PLATE; ON	2	N-3806
6	0800588004	PLATE; THROTTLE LEVER	1	N-3808 UP TO S/N 3693885
7	0840624504	DECAL; CIRCUIT BREAKER	2	S-3031
8	0840624604	DECAL; PANEL LIGHT SWITCH	1	S-3032
9	0840624704	DECAL; PILOT LAMP	1	S-3033
10	0840624804	DECAL; VOLTAGE REGULATOR	1	S-3034
11	B9531100604	DECAL; WARNING ELECTRIC SHOCK HAZARD	1	B93110060
12	C5551000303	DECAL; SETTING FOR OUTPUT VOLTAGE	1	C55100030
13	C5561100903	DECAL; WHISPERWATT 800	1	C56110090
14	Z0110001204	DECAL; DROOP	1	Z01000120
15	Z0110001304	DECAL; IDLE SPEED	1	Z01001230
16	Z0110001404	DECAL; O.S.SW	1	Z01000140
17	Z0110001504	DECAL; RESET	1	Z01000150
ENGINE OPERATING PANEL GROUP				
18	0800686004	DECAL; STOP BUTTON	1	S-878
19	0840625004	DECAL; PREHEAT LAMP	1	S-3036
20	0840625104	DECAL; STARTER SWITCH		S-3037
21	0840625314	DECAL; AIR CLEANER INDICATOR	1	S-3039A
22	9039208694	DECAL; HIGH-LOW	1	S-4451
23	9039208704	DECAL; ENGINE SPEED	1	S-4452
24	0840655604	DECAL; ALARM, OIL FILTER	1	S-4512
25	C0551000504	DECAL; BATTERY SWITCH	1	C05120050
PROCEDURE GROUP				
26	C5552000003	DECAL; HANDLING PROCEDURES	1	C55200000 UP TO S/N 3693885
26	C5552000012	DECAL; HANDLING PROCEDURES	1	C55200001 UP TO S/N 3698625
26	C1552000403	DECAL; HANDLING PROCEDURES	1	C15200040 S/N 3698626~
27	B9521100404	DECAL; SAFETY INSTRUCTIONS	1	B92110040
28	B1552000103	DECAL: CAUTION	1	B15200010 S/N 3698626~

DCA-800SSK — NAME PLATE AND DECALS

NAME PLATE AND DECALS



DCA-800SSK — NAME PLATE AND DECALS

NO	PART NO	PART NAME	QTY.	REMARKS
ENGINE & RADIATOR GROUP				
29	0800689204	DECAL; COOLING WATER	1	S-961
30	B9504000304	DECAL; CAUTION HOT PARTS	1	B90400030
31	B9504000404	DECAL; WARNING MOVING PARTS	2	B90400040
32	B9504100104	DECAL; WARNING HOT COOLANT	1	B90410010
33	0966810000	DECAL; WARNING	1	REPLACES 0600501100
34	6162937111	DECAL; FUEL PRIMING	1	REPLACES 0600500011
OIL DRAIN GROUP				
35	0840611903	DECAL; PRECAUTIONS ON HANDLING	1	S-2570
OUTPUT TERMINAL GROUP				
36	0840614104	DECAL; GROUND	1	S-2635
37	9039202064	DECAL; START CONTACT	1	S-4468
38	0840655704	DECAL; TERMINAL COVER STOPPER	1	S-4516
39	B9511100304	DECAL; WARNING	1	B91110030
40	B9511100404	DECAL; WARNING ELECTRIC SHOCK HAZARD	1	B91110040
41	B9531100504	DECAL; WARNING ELECTRIC SHOCK HAZARD	1	B93110050
42	C0551000404	DECAL; 3-PHASE OUTPUT TERMINAL	1	C05100040
43	C5551000203	DECAL; RECEPTACLE & CIRCUIT BREAKER ..	1	C55100020 S/N 3692434 TO 3706720
44	C5551000403	DECAL; RECEPTACLE & CIRCUIT BREAKER ..	1	C55100040 S/N 3706721~
BATTERY GROUP				
44	0800689404	DECAL; +	1	S-2090
45	0800689504	DECAL; -	1	S-2091
46	C9505300004	DECAL; CAUTION	1	C90530000 S/N 3698626~
MUFFLER GROUP				
47	B9504200004	DECAL; WARNING ENGINE EXHAUST	1	B90420000
48	B9511100204	DECAL; CAUTION HOT SURFACES	1	B91110020
FUEL TANK GROUP				
50	0800688404	DECAL; FUEL INLET	1	S-1344
51	0800688504	DECAL; FUEL OUTLET	1	S-1345
52	1320620904	DECAL; DIESEL FUEL	1	S-1756
53	6360620004	DECAL; FUEL DRAIN PLUG	1	S-1883
54	0840607104	DECAL; FUEL GAUGE	1	S-2365
55	B9504500004	DECAL; WARNING DIESEL FUEL	1	B90450000
BONNET GROUP				
56	0800615102	DECAL; CAUTION AGAINST OIL AND	1	S-544A
57	1320610603	DECAL; WATER-OIL	1	S-1760
58	1320621504	DECAL; SUPPORT HOOK	2	S-2257
59	0840625902	DECAL; MQ	1	S-3057
60	C5561100703	STRIPE	1	
61	C5561100603	STRIPE	1	
62	C4561101204	STRIPE	2	
63	C5561100804	STRIPE	2	
64	C5561100204	STRIPE	2	
65	C5561100503	STRIPE	1	
66	C5561100004	STRIPE	2	

PAYMENT TERMS

Terms of payment for parts are net 10 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.
5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is listed in the parts price book as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for 5 working days from notification, pending instructions. If a reply is not received within 5 days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$20.00 to \$50.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable here under for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. A part from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

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OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800/427-1244 or 310/537-3700

FAX: 800/672-7877 or 310/637-3284

SERVICE DEPARTMENT

800/835-2551 or 310/537-3700

FAX: 310/638-8046

WARRANTY DEPARTMENT

800/835-2551 or 310/537-3700

FAX: 310/638-8046

MAIN

800/421-1244 or 310/537-3700

FAX: 310 - 537-3927

Manufactured for Multiquip Inc.
by
DENYO, MANUFACTURING, CO., USA



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FAX: 310-537-3927
E-MAIL: mq@multiquip.com
WWW: multiquip.com

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