

OPERATION MANUAL

PRODUCT : ANTI-FREEZE CHANGER &
COOLING SYSTEM CLEANER



MODEL : IMPACT-460



DESIGNED & MANUFACTURED BY IMPACT CORP

82-31-761-2279

OPERATION INSTRUCTION

BASIC PREPARATION

- * Connect compressor air, maximum 4 Bar
- * Prepare new ANTI-FREEZE "A" & "B"
- * Prepare proper adapter & connector
- * Prepare washing water, minimum 20 liter for washing
- * Selection lever for SUCTION or COOLANT FILL in left side and COOLANT "A" or COOLANT "B" in right side lever

1. PARTS EXPLANATION

RIGHT SIDE connectors

- * Suction line : to use SUCTION from outside, such as water or coolant or any other solution
 - 1) Suction from the outside tank (or new coolant) for machine tank or for washing & flushing purpose
 - 2) Air connection filter : To connect compressor air

LEFT SIDE connectors

- * Pressure hose : Liquid coming out from this hose by machine's pump such as washing water + Air + Coolant A or Coolant B so this pressure hose is always fill function
- * Return hose : Only use return for Air flushing or washing or cleaning, No power, waste liquid will flow to machine's waste tank basically. but If want to discharge to outside , leave return hose end to outside tank

BACK CABINET

- * Waste storage plastic tank (20 liter / hand remove type)

FRONT PANEL

- * Pressure regulator : To control the pump pressure or air flusher pressure, need to control its pressure slowly
- * Pressure gauge : To show liquid pumping pressure and air flusher pressure
- * Left lever : To select New coolant fill or Suction
- * Right lever : To select fill New coolant "A" or "B"
- * Pump switch : to operate pump, in case to use new coolant fill + suction water or any other liquid flow, control by regulator
- * Air flusher switch : to blow out waste residue as much as we can from the cooling system by air blow

REMARK : Before operating machine or cleaning process, must have proper amount of coolant in the glass tube

FILL NEW COOLANT :

- * In case to fill the new Coolant to the machine tank from the outside
Can fill by hand drop or if want to fill from outside drum, then use suction function, drum -> Suction line -> Pump -> Pressure line -> New A or B coolant glass or to Radiator
Therefore, If want to fill to "A" tank, pressure line move into "A" glass

2. HOSE CONNECTION preparation for cleaning process

This system is to flushing or changing coolant or washing by water while engine stop, it is not recommend engine run operation



- * Pressure line shall be connected to the thermostat hose direction whatever in top position or lower position
- * Return line shall be connected to the radiator upper pipe
- * Double check for proper connection in machine & hose line & fittings for safety
- * If need washing by water, Suction hose end soak into washing water

3. CLEANING PROCESS

* After all connection completely, and then

*** AIR FLUSHER function**

Very useful to remove various particles from the entire cooling system by this air flushing process, Air flusher switch ON and slowly increase air pressure by regulator from 0 - 1.5 Bar and then, can see its flow out at certain pressure when its thermostat open

Dirty or contaminated waste liquid shall be come out from the Radiator when pressure reach to Radiator cap pressure and wait until all waste out from radiator

*** Water flushing process**

After air flushing process, flushing by water in same line connection Left lever (Suction in the water) -> Pump switch ON -> -> Water goes to engine through machine pump -> contaminate water will flow out from the return line, then discharge or collecting to back 20 liter storage tank , until clear color

Remark : if want to use outside tank for waste collecting, need to disconnect Return hose coupler to outside tank then waste will flow out to this waste tank

4. OPERATION PRESSURE

* Turn the pressure regulator slowly upto the thermostat open pressure, Normal radiator cap pressure & thermostat open pressure is 0.9 - 1.1 Bar, but Generally will open from 0.7 - 1.3 Bar, it depends on thermostat's present conditions, Refer to Radiator cap pressure This thermostat open pressure is the same as cleaning pressure.. If not open under over 1.1 Bar, can slowly increase pressure upto 2 Bar until open the Thermostat

- * Notice : Few diesel engine may installed Thermostat in the lower side of Radiator, in this case, need to pressure control up to 2.5 Bar when thermostat open

Remark : In the cleaning process, may need to add cleaning detergent or cleaning extender chemical

5. NEW COOLANT CHANGING PROCESS

- * After flushing process, Must change the New coolant on this process
 - * Left lever / Fill Coolant
 - * Right lever / Select among Coolant "A" or "B"
 - * Pump switch ON and slowly turn pressure regulator upto liquid flow when see new color of coolant from the radiator hose side, then stop
- (CAUTION : hot materials can be overfilled from the hot engine)**

6. WASTE DISCHARGE

- * Discharge waste tank by hand to outside

SPECIFICATION

AIR POWER	REQUIRED MAX. 4 kg/cm ²
FLOW RATE	8.5 LITER / MIN.
STORAGE TANK	12 LITER X 2 TANK for new coolant
PRESSURE	CONTROLLABLE BY REGULATOR
DIMENSION	45 x 45 x 105 cm
ADAPTER	STANDARD ADAPTERS
WEIGHT	NET 36 kg, GROSS 39 kg