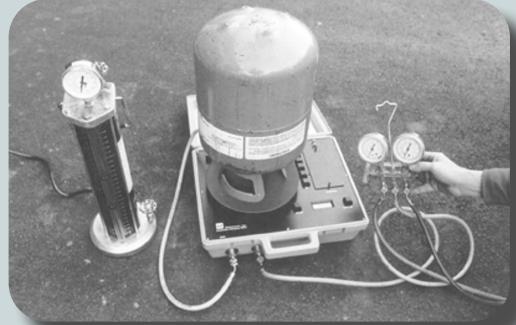


# FLEETRITE®

## ACCURACY OF THE CHARGE

Today's systems simply do not have the reserve capacity that even slightly older ones did! There is way less "fudge factor" now. Most late model systems have less than two ounces of charge tolerance. Do not even think about can charging with the level of accuracy needed on the systems today. A good accurate weight scale can still be used though.



Can charging will require the engine to be run so refrigerant can be pulled into the system. Majority of the compressors require oil to be carried by the refrigerant to lubricate the internal components of the compressor and the system controls.

Later compressor designs have centrifugal oil separators that retain most of the oil in the compressor body; however, this type of design still requires positive refrigerant pressure to move oil throughout the compressor's internals.

A couple of ounces short in a 14 to 16 ounce system might not keep the clutch from engaging, (probably wouldn't) but it will reduce the amount of oil traveling back to the compressor and there will be customer complaints when it gets really hot.

AIR CONDITIONER NISSAN		
	REFRIGERANT	COMPRESSOR LUBRICANT
TYPE (PART NO.)	HFC 134a (R134a)	NISSAN LUMINOUS OIL TYPE DH-PS (KLH00-PAGSO)
AMOUNT	0.55 ± .025 kg (1.21 ± 0.055 lbs)	150 ml (5.03 oz.)

**CAUTION**  
PRECAUTION

- REFRIGERANT UNDER HIGH PRESSURE.
- SYSTEM TO BE SERVICED BY QUALIFIED PERSONNEL.
- IMPROPER SERVICE METHODS MAY CAUSE PERSONAL INJURY.
- CONSULT SERVICE MANUAL.
- THIS AIR CONDITIONER SYSTEM COMPLIES WITH SAE J-639.

Nissan Motor Corporation In USA, Carson, CA  
27090 C9903

With reduced system capacities a small amount of refrigerant loss is a larger percentage of the total charge and the compressor runs hot and starves for lubrication. When slightly overcharged a small capacity system will not have enough storage for the excess refrigerant and it will end up going back to the compressor as a liquid rinsing the oil out of the compressor resulting in shorter service life, internal damage or seizure.

Do it yourselfers can compound the problem by adding refrigerant without purging air from the charging hose or overcharging a system with refrigerant containing sealers, conditioners, lubricant and leak detection dyes.

If the vehicle being serviced has been a victim of a collision and the factory capacity tag is no longer under the hood, is the information the technician using for the system capacity accurate?

1996 and later vehicles with OBDII systems have a pressure transducer that communicates the system operating pressures to the power train module. The power train module can set codes that relate to system pressures resulting in poor fuel mileage or abnormal operation of engine or sub system controls.

Repair facilities only hear the complaint of "the a/c doesn't cool" from the customer which can result in hours of diagnosis to correct a sometimes minor problem.

Refrigerant recovery recycling equipment is a necessity in today's shop to protect the quality of the repair, the life span of the replacement component, the reputation of the shop and ultimately, the customer.