

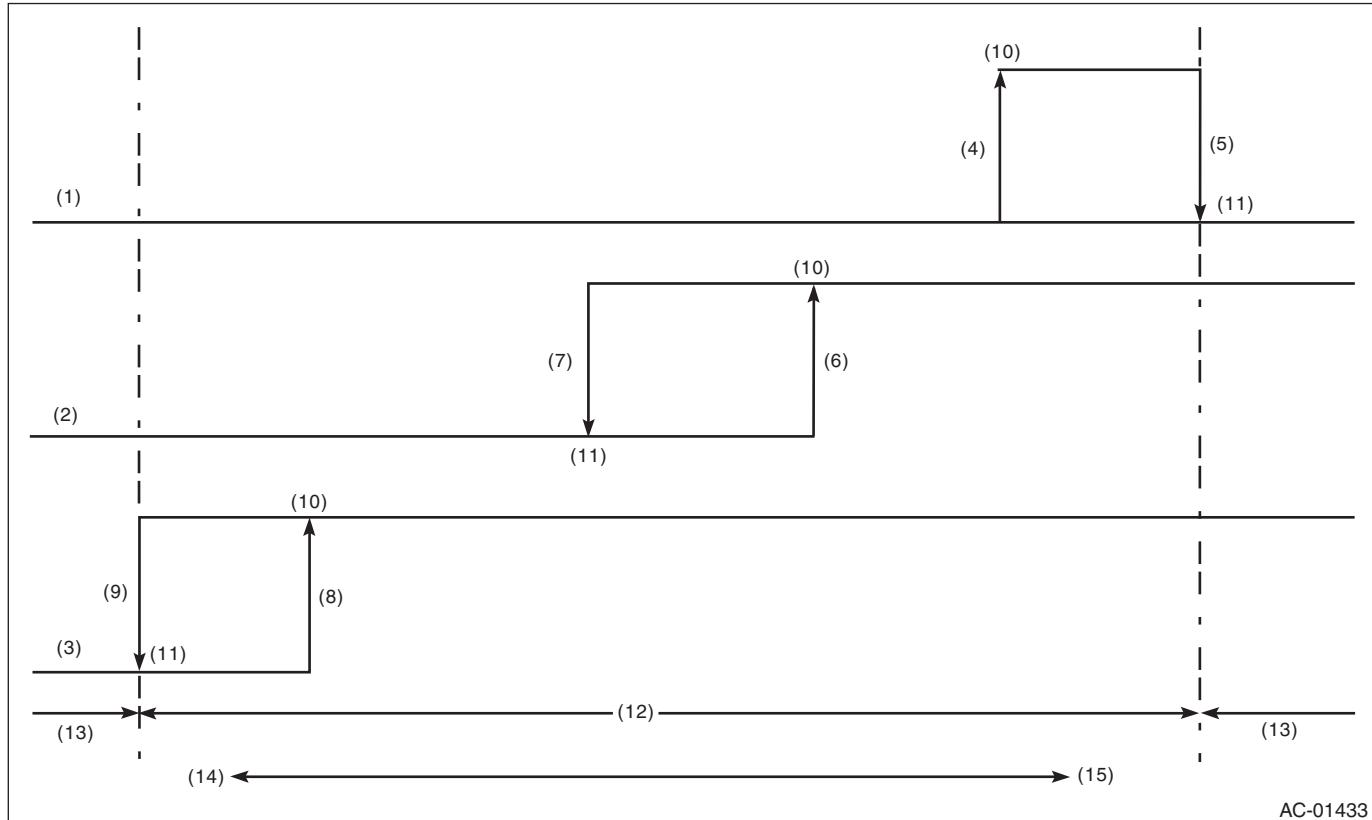
Pressure Switch (Triple Pressure Switch)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

18. Pressure Switch (Triple Pressure Switch)

A: INSPECTION

- 1) Connect the manifold gauge to the service valve on the high-pressure side.
- 2) Start the air conditioner, and check the operating pressure of switch by turning the compressor (magnet clutch) to ON/OFF. Operation of each switch is as follows.



(1) High pressure switch	(7) $1,370 \pm 120 \text{ kPa}$ ($14 \pm 1 \text{ kg/cm}^2$, $199 \pm 14 \text{ psi}$)	(10) ON
(2) Middle pressure switch	(8) $206 \pm 30 \text{ kPa}$ ($2.1 \pm 0.3 \text{ kg/cm}^2$, $30 \pm 4 \text{ psi}$)	(11) OFF
(3) Low pressure switch	(9) $177 \pm 25 \text{ kPa}$ ($1.8 \pm 0.3 \text{ kg/cm}^2$, $26 \pm 4 \text{ psi}$)	(12) Operative range of compressor
(4) $2,350 \pm 200 \text{ kPa}$ ($24 \pm 2 \text{ kg/cm}^2$, $341 \pm 28 \text{ psi}$)		(13) Inoperative range of compressor
(5) $2,940 \pm 200 \text{ kPa}$ ($30.0 \pm 2 \text{ kg/cm}^2$, $427 \pm 28 \text{ psi}$)		(14) Pressure is low
(6) $1,770 \pm 100 \text{ kPa}$ ($18 \pm 1 \text{ kg/cm}^2$, $256 \pm 14 \text{ psi}$)		(15) Pressure is high

NOTE:

- High pressure switch turns the compressor (magnet clutch) to OFF when the refrigerant pressure becomes extremely high, in order to prevent the evaporator, air conditioner piping and expansion valve from getting damaged or frozen.
- Middle pressure switch effectively controls the radiator fan output by judging high load/low load in normal pressure range.
- Low pressure switch turns the compressor (magnet clutch) to OFF, judging as low refrigerant level when the refrigerant pressure becomes extremely low, in order to prevent the possible seizure when the compressor rotates.