

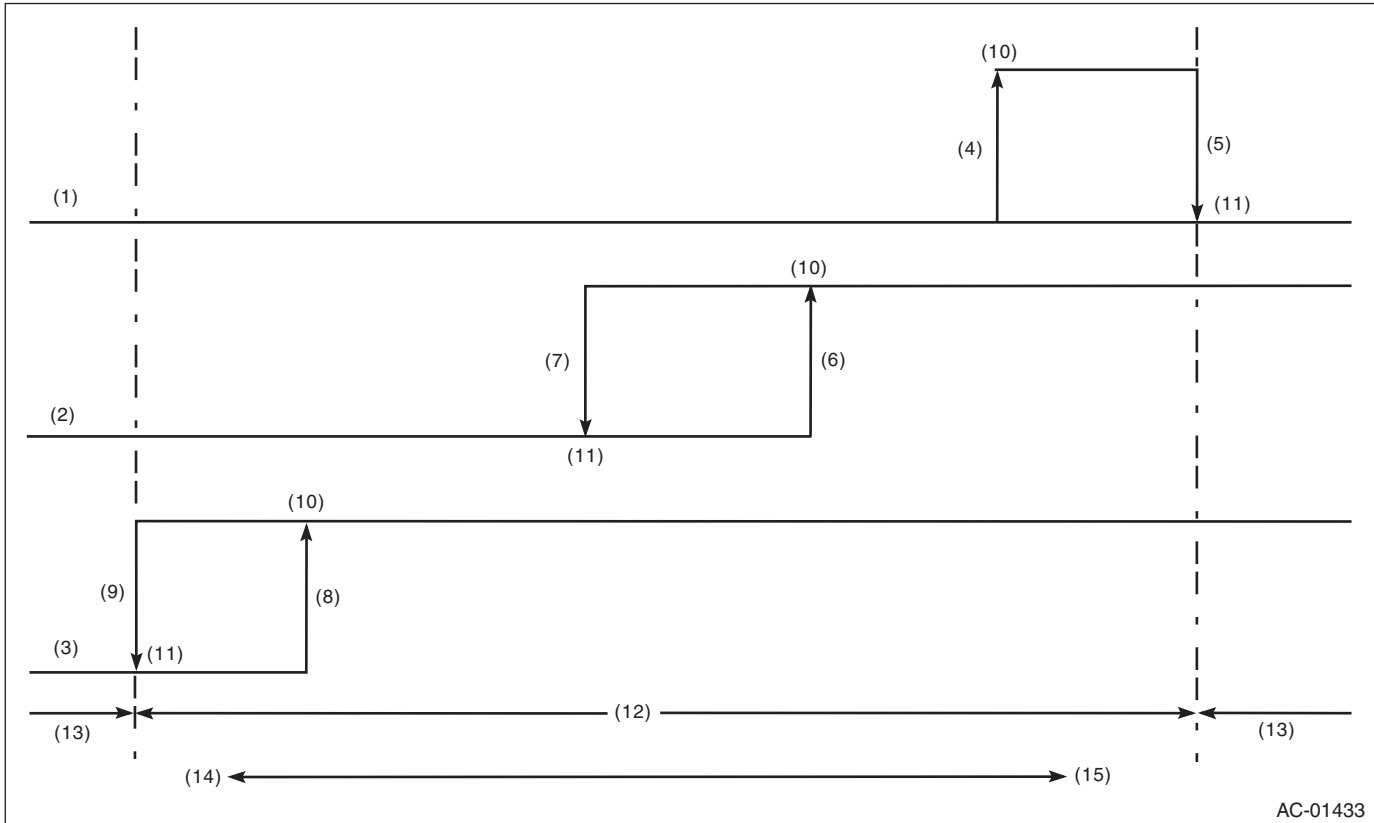
## Pressure Switch (Triple Pressure Switch)

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)

### 20. Pressure Switch (Triple Pressure Switch)

#### A: INSPECTION

- 1) Connect the manifold gauge to the service valve on the high-pressure side.
- 2) Operate the air conditioner, and check the switch operating pressure on ON/OFF in the compressor (magnet clutch). Each switch operates as follows.



(1) High pressure switch	(6) $1,770 \pm 80$ kPa ( $18 \pm 1$ kg/cm <sup>2</sup> , $256 \pm 14$ psi)	(10) ON
(2) Middle pressure switch	(7) $1,370 \pm 120$ kPa ( $14 \pm 1$ kg/cm <sup>2</sup> , $199 \pm 14$ psi)	(11) OFF
(3) Low pressure switch	(8) $225^{+25}_{-29}$ kPa ( $2.29^{+0.25}_{-0.30}$ kg/cm <sup>2</sup> , $32.6^{+3.6}_{-4.2}$ psi)	(12) Range that compressor operates
(4) $2,550 \pm 200$ kPa ( $26.00 \pm 2.04$ kg/cm <sup>2</sup> , $369.8 \pm 29.0$ psi)	(9) $196 \pm 20$ kPa ( $2.00 \pm 0.20$ kg/cm <sup>2</sup> , $28.4 \pm 2.9$ psi)	(13) Range that compressor does not operate
(5) $3,140^{+50}_{-200}$ kPa ( $32.02^{+0.51}_{-2.04}$ kg/cm <sup>2</sup> , $455.4^{+7.25}_{-29.0}$ psi)		(14) Pressure is low
		(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.