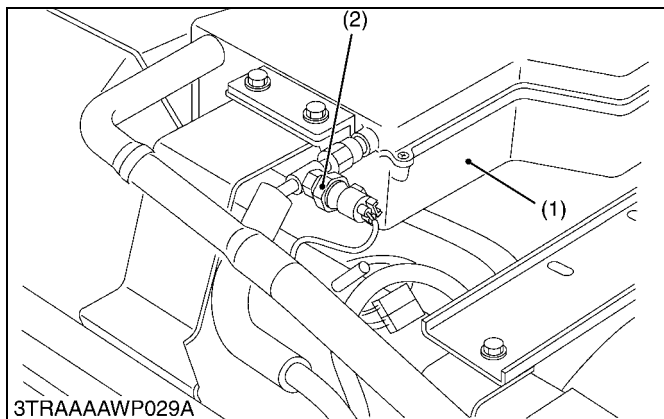


## (4) Pressure Switch

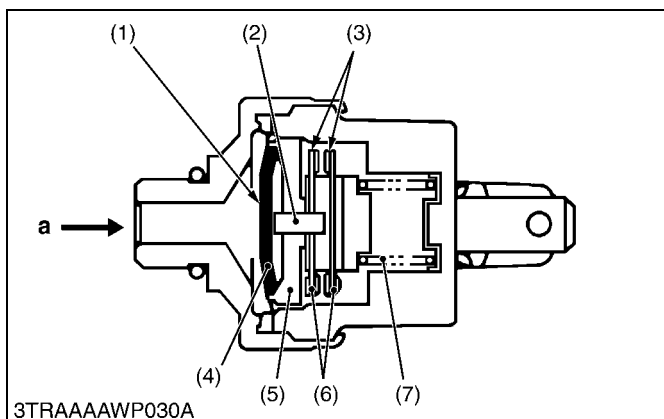


The pressure switch detects the pressure in the refrigerant cycle, and when something is wrong, turns off the magnetic clutch to prevent the component from troubling. This system has dual type pressure switch (2), and this switch controls low pressure cut and high pressure cut.

(1) A/C Unit

(2) Pressure Switch

W1020211



### 1) Pressure Switch (Dual Type)

The pressure switch is installed in inlet line (liquid line) between receiver and expansion valve.

The contact of pressure switch is normally open type.

(1) Diaphragm

(6) Movable Contact

(2) Pin

(7) Spring

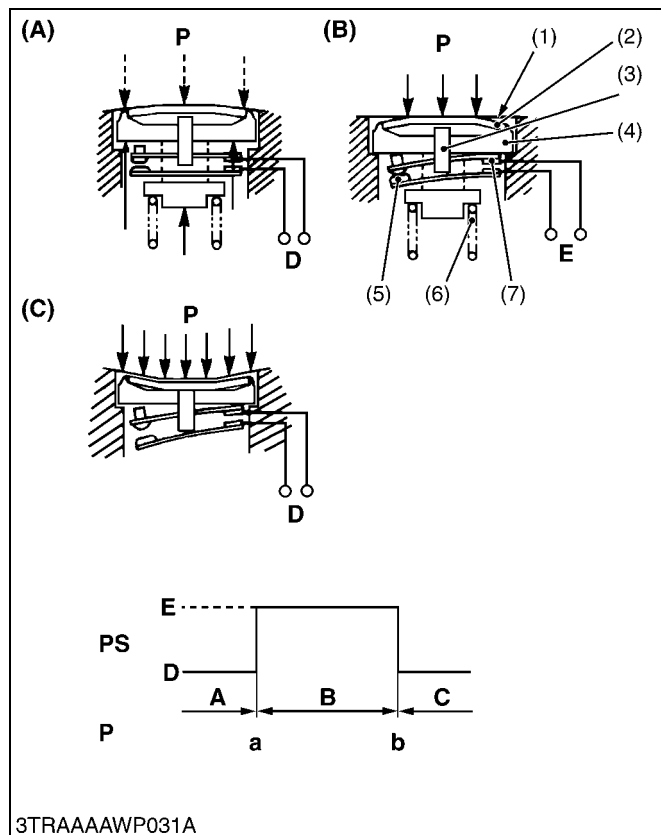
(3) Terminal

**a : Pressure**

(4) Belleville Spring

(5) Plate

W1020479



### ■ OFF Position (A : When the Refrigerant Pressure is Low)

The pressure switch detects the pressure drop when the refrigerant leaks from the system causing compressor seizure. When pressure of refrigerant is less than specified pressure, the switch is turned **OFF** and disengages magnetic clutch.

### ■ ON Position (B : When the Refrigerant Pressure is Normal)

When the pressure in the inlet line is between 0.196 MPa (2.0 kgf/cm<sup>2</sup>, 28.4 psi) and 3.14 MPa (32 kgf/cm<sup>2</sup>, 455 psi), the switch is turned **ON** (the pressure is normal condition), and engages magnetic clutch.

### ■ OFF Position (C : When the Refrigerant Pressure is High)

When the pressure in the inlet line is higher than specified pressure, the switch is turned **OFF**, and disengages magnetic clutch.

#### (Reference)

- Setting pressure

**OFF** (Low pressure side) :

Less than approx. 0.196 MPa (2.0 kgf/cm<sup>2</sup>, 28.4 psi)

**ON** (Normal pressure) :

Between approx. 0.196 MPa (2.0 kgf/cm<sup>2</sup>, 28.4 psi).  
to 3.14 MPa (32 kgf/cm<sup>2</sup>, 455 psi)

**OFF** (High pressure side)

More than approx. 3.14 MPa (32 kgf/cm<sup>2</sup>, 455 psi)

- (1) Diaphragm
- (2) Belleville Spring
- (3) Pin
- (4) Plate
- (5) Terminal
- (6) Spring
- (7) Contact

**A : Refrigerant Pressure is Low**

**B : Refrigerant Pressure is Normal**

**C : Refrigerant Pressure is High**

**D : OFF**

**E : ON**

**P : Pressure**

**PS : Pressure Switch**

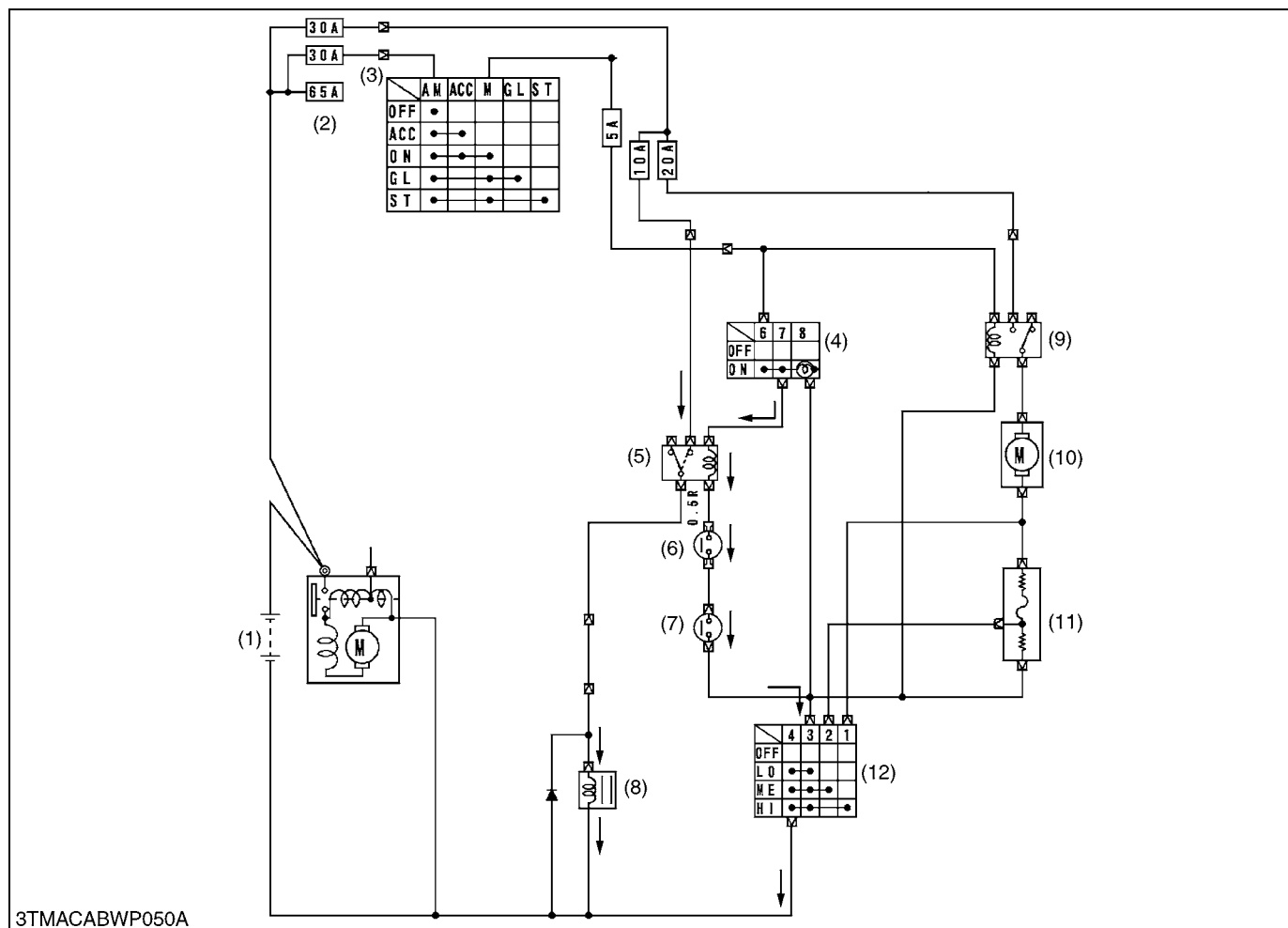
**a : 0.196 MPa**

(2.0 kgf/cm<sup>2</sup>, 28.4 psi)

**b : 3.14 MPa**

(32 kgf/cm<sup>2</sup>, 455 psi)

W1020626



- |                    |                      |                         |                        |
|--------------------|----------------------|-------------------------|------------------------|
| (1) Battery        | (4) A/C Switch       | (7) A/C Pressure Switch | (10) Blower Motor      |
| (2) Slow Blow Fuse | (5) Compressor Relay | (8) Compressor          | (11) Blower Resistance |
| (3) Main Switch    | (6) Thermo Switch    | (9) A/C Main Relay      | (12) Blower Switch     |

## 2) Circuit

The circuit of magnetic clutch including the pressure switches is as shown in the figure. All switches are connected in series. The magnetic clutch can be turned **ENGAGED** when the blower switch (12) and the A/C switch (4) are turned **ON** under the condition that both the pressure switch (7) and the thermo switch (6) are turned **ON**.