

## 7. OPERATION PROCEDURE

### 7.1 INSPECTION BEFORE TURNING ON POWER

Make sure that the front and rear doors of the control are firmly closed. The control employs a totally-enclosed, dustproof enclosure to shut out surrounding air. If the door is open, lock it by turning two door lockers with a large screwdriver. In addition, inspect the machine referring to the machine tool builder's manual.

### 7.2 TURNING ON POWER

1. Check to see that the main power is supplied for the control.
2. Depress the POWER ON pushbutton on the operator's panel, and the control power is supplied and then the cooling fans will start running. Make sure that air blows out from the exhaust ports of the upper side of the control.
3. Depress the POWER ON pushbutton again to turn on the servo power supply. When the machine is ready to operate, READY lamp lights.
4. If READY lamp does not light, detect and eliminate the cause according to the alarm code displayed. Refer to 4.3.12 DISPLAYING ALARM CODE.

### 7.3 MANUAL OPERATION

When the MODE SELECT switch on the machine control station is set to RAPID, JOG, STEP or HANDLE position, the machine can be operated manually.

#### Operation in RAPID Mode

1. Set MODE SELECT switch to RAPID.
2. Select the speed using RAPID TRAVERSE RATE OVERRIDE switch.  
Speed setting range: 100% - 50% - 25% - F0
3. Push JOG button to select the axis and direction of movement. The machine moves at the specified speed while the JOG button depressed.

# Manual operation is defined as the operation in RAPID, JOG, STEP, or HANDLE.

#### Operation in JOG Mode

1. Set MODE SELECT switch to JOG.
2. Adjust the feedrate to the desired setting with JOG FEEDRATE switch (Up to 32 steps).
3. Push JOG button to select the axis and direction of movement. The machine moves at the specified speed while the JOG button depressed.

#### Operation in STEP Mode

1. Set MODE SELECT switch to STEP.
2. Select the move amount per step using MANUAL PULSE MULTIPLY switch.  
(Move amount setting range)  
Metric: 0.001 - 0.01 - 0.1 - 1.0 - 10.0-100.0  
mm/step  
Inch: 0.0001 - 0.001 - 0.01 - 0.1 - 1.0-10.0  
inch/step
3. Depress JOG button to select the axis and direction of movement. The machine moves by the move amount per step each time the button is depressed.

#### Operation in HANDLE Mode†

The control with HANDLE dial† can permit the operation described below.

1. Set MODE SELECT switch to HANDLE.
2. Select the axis with HANDLE AXIS switch.
3. Select the move amount of the machine corresponding to one scale of HANDLE dial using MANUAL PULSE MULTIPLY switch.  
Metric: 0.001 - 0.01 - 0.1  
(mm per graduation)  
Inch: 0.0001 - 0.001 - 0.01  
(inch per graduation)  
NOTE: "X1000" or "X10000" is regarded as "X100."
4. Rotate HANDLE dial.  
Turning the dial clockwise:  
The machine moves in the positive direction.  
Turning the dial counterclockwise:  
The machine moves in the negative direction.