

Control Guidelines

Location:

- Controls should be placed as close as possible to the displays they affect.
- Distribute the controls so that the operator's hands and feet will not be overburdened:
 - Controls that require precision or high-speed operation should be assigned to the hands.
 - When there is only one major control that at times must be operated by either hand or both hands, place it in front of the operator midway between the hands.
 - Handedness is important only if a task requires skill or dexterity. If the control requires fine adjustment place it on the right since most people (about 85% of the population) are right-handed.
 - Controls that require the application of large forces should be assigned to the feet; otherwise, provide the controls with power assists.
- Locate manually operated control valves from 20 to 50 inches (the range of 30 to 40 inches is preferred) above the floor whenever possible so that they are accessible and maximum strengths can be applied to them.
- The controls should be arranged to allow the operator to adjust posture frequently.
- Levers requiring significant force should be located at shoulder level for standing work and at elbow level for seated work.

Adjustment:

- When controls require fine adjustment provide a support for the hand being used.
- For finger-operated controls provide an armrest: either as part of the seat or on the panel itself.

Sequence:

- Controls should be arranged sequentially with respect to the expected order of operation to allow for continuous movement through an arc, (if this arrangement does not violate any of the basic rules of control location).
- Use the same relative groupings for major controls and displays in all similar models of equipment.
 - If the same relative groupings for major controls and displays in all similar models cannot be kept, make any change drastic and obvious.

Force:

- When the seated operator must apply a force of more than 5 pounds to a control with one hand, provide the operator with a support.
- Levers should be installed so they move toward the axis of the body to reduce the amount of tension on the body.

Emergency Controls:

- Physically separate emergency controls and displays from those used during normal operations.
- Place emergency controls in locations that are easily accessible.
- Place emergency controls and displays within 30 degrees of the operator's optimal line of sight.
- Provide special measures (guards, color coding, etc) for emergency controls to aid in identification and to prevent inadvertent operation.