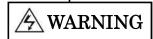
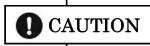
Trouble Shooting

During the operation, an error number shows up at the Display Window on the Operation Panel if something is wrong. Check below List, and take the necessary action.
 Call your dealer or Sankosha if the normal operation does not resume.



It is extremely dangerous in Control Box.

Do not touch anywhere unless otherwise specified.



If any of [EEE], [EE1], [EE2], [EE3], [EE4], or [EE5] shows up, turn the power OFF and turn the power ON again <u>more than 5 seconds later</u>. Call your dealer or Sankosha if the normal operation does not resume.

Error No.	1. Error Item
	2. Error Description
	3. Check Point
	1. Emergency Stop Button
	2. Left Side (Operation Box Side) Emergency Stop Button is being pressed.
E 1	3. (1)Emergency Stop Button is not released. Insuring safety, release the Emergency Stop Button by turning the Button clockwise (→ direction), and press the Reset Button. Normal operation is ready to work.
	(2)Wiring may be the cause if "E1" displays even after releasing it. Check the Button itself or check if the wire is cut.
	1. Emergency Stop Button
	2. Right Side (Control Box Side) Emergency Stop Button is being pressed.
E 2	3. (1) Emergency Stop Button is not released. Insuring safety, release the Emergency Stop Button by turning the Button clockwise (→ direction), and press the Reset Button. Normal operation is ready to work.
	(2) Wiring may be the cause if "E2" displays even after releasing it. Check the Button itself or check if the wire is cut.
	1. Emergency Stop Button
	2. Rear Right Side Emergency Stop Button (SB97) being pressed.
_	3. (1) Emergency Stop Button is not released. Insuring safety, release the Emergency
E 3	Stop Button by turning the Button clockwise (→ direction), and press the Reset
	Button. Normal operation is ready to work.
	(2) Wiring may be the cause if "E3" displays even after releasing it. Check the Button
	itself or check if the wire is cut.
	Front Press Left Safety Bar Front Press Left Safety Bar Switch is being pressed.
	3. (1) Release the Bar. "—— 4" shows up. Also check if something presses the Switch. Press the
E 4	Reset Button after insuring safety. Normal operation is ready to work.
	(2) The Switch itself may be the cause if "E4" displays even after releasing the Bar. Check the Switch
	itself or the Bar. Also check if the wire is cut.
	1. Front Press Right Safety Bar
	2. Front Press Right Safety Bar Switch is being pressed.
E 5	3. (1) Release the Bar. "——— 5" shows up. Also check if something presses the Switch. Press the Reset Button after insuring safety. Normal operation is ready to work.
	(2) The Switch itself may be the cause if "E5" displays even after releasing the Bar. Check the Switch
	itself or the Bar. Also check if the wire is cut.

Error	1. Error Item
No.	2. Error Description
	3. Check Point
E 6	1. Emergency Stop Button
	2. Rear Left Side Emergency Stop Button (SB94) is being pressed.
	3. (1) Emergency Stop Button is not released. Insuring safety, release the Emergency Stop
	Button by turning the Button clockwise (→ direction), and press the Reset Button.
	Normal operation is ready to work.
	(2) Wiring may be the cause if "E6" displays even after releasing it. Check the Button
	itself or check if the wire is cut.
	1. Right Start Button Error
	2. (1) Start Button is being pressed when turning the power ON and pressing the Reset Button.
	(2) Start Button is being pressed while the Body is rotating.
	3. (1) Release the Start Button. The Body returns to the original position and the normal operation is ready to work.
E50	(2) Release the Start Button if it is pressed while the Body is rotating. Make sure the button is not stuck.
	Press the Reset Button. The Body returns to the original position and the normal operation is ready
	to work.
	(3) The Button itself may be the cause if "E50" displays even after releasing it. Check the Button
	itself or check if the wire is cut.
	1. Short Start Button Error
	2. (1) Short Start Button is being pressed when turning the power ON and pressing the Reset Button.
	(2) Short Start Button is being pressed while the Body is rotating.
	3. (1) Release the Short Start Button. The Body returns to the original position and the normal operation is
E51	ready to work.
	(2) Release the Short Start Button if it is pressed while the Body is rotating. Make sure the button is not
	stuck. Press the Reset Button. The Body returns to the original position and the normal operation
	is ready to work.
	(3) The Button itself may be the cause if "E51" displays even after releasing it. Check the Button
	itself or check if the wire is cut.
	1. Reset Button Error
E52	2. Reset Button is being pressed.
	3. The Button itself may be the cause if "E52" displays even after releasing it. Check the Button
	itself or check if the wire is cut.
	1. Long Start Button Error
	2. (1) Long Start Button is being pressed when turning the power ON and pressing the Reset Button.
	(2) Long Start Button is being pressed while the Body is rotating.
E53	3. (1) Release the Long Start Button. The Body returns to the original position and the normal operation is
	ready to work.
	(2) Release the Long Start Button if it is pressed while the Body is rotating. Make sure the button is not
	stuck. Press Reset Button. The Body returns to the original position and the normal operation is
	ready to work. (2) The Potter itself may be the cause if "F52" diamlays even after releasing it. Check the Potter
	(3) The Button itself may be the cause if "E53" displays even after releasing it. Check the Button
	itself or check if the wire is cut.

	1. Error Item
Error	2. Error Description
No.	3. Check Point
	Front Press Open Sensor Error
E55	2. Front Press Open Sensor (SQ55) does not work even if the Front Press opens.
	3. (1) When you lay a magnet to the sensor at the head side of cylinder, the red light of sensor
	① goes on · · · The location of the sensor may be off the point. Loosen the tie and place the sensor at
	the center of the range where the light goes on.
	② goes off · · · The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut.
	(2) Check air pressure. (Main Pressure: 0.6MPa Please see page 15)
	1. Rear Press Open Sensor Error
	2. Rear Press Open Sensor (SQ56) does not work even if Rear Press opens.
	3. (1) When you lay a magnet to the sensor at the head side of cylinder, the red light of sensor
E56	① goes on · · · The location of the sensor may be off the point. Loosen the tie and place the sensor at
	the center of the range where the light goes on.
	② goes off · · · The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut.
	(2) Check air pressure. (Main Pressure: 0.6MPa Please see page 15)
	1. Foot Pedal Error
	2. (1) Foot Pedal is being pressed when turning the power ON and pressing the Reset Button.
	(2) Foot Pedal is being pressed while the Body is rotating.
	3. (1) Release Foot Pedal. The Body returns to the original position and the normal operation is ready to
E58	work. (2) Polosco Foot Podel if it is proceed while the Pody is retating. Make sure if the podel is not stuck.
	(2) Release Foot Pedal if it is pressed while the Body is rotating. Make sure if the pedal is not stuck. Press the Reset Button. The Body returns to the original position and the normal operation is ready to
	work.
	(3) The Pedal itself may be the cause if "E58" displays even after releasing it. Check the Pedal itself or
	check if the wire is cut.
	1. B Body Set Position Limit Switch Error
	2. B Body Set Position Limit Switch (SW59) does not work even if B Body is at front (operator side).
	3. Set "F-90 (Input Test 1) (See page 36 "Test Operation"). Manually turn B Body Set Position Limit Switch
E59	(SW59) On and OFF. On the Display Window, "59" ① shows up The position of the Switch may be off the point. Loosen the bolts (2) and place
	the Switch where it turns ON.
	② does not show up · · · The Switch itself may be the cause. Check the Switch itself or check if the
	wire is cut.
	Body Rotation Center Sensor (SO(0)) does not work over if the D. De to note to a helf the work
E60	2. Body Rotation Center Sensor (SQ60) does not work even if the B Body rotates half the way.
	3. The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut.
	A Body Set Position Limit Switch Error
	2. A Body Set Position Limit Switch (SW61) does not work even if A Body is at front (operator side).
E61	3. Set "F-90 (Input Test 1) (See page 36 "Test Operation"). Manually turn A Body Set Position Limit Switch
	(SW59) On and OFF. On the Display Window, "61" •••
	① shows up · · · The position of the Switch may be off the point. Loosen the bolts (2) and place
	the Switch where it turns ON. One does not show up AAA. The Switch itself may be the course. Check the Switch itself or shock if the
	② does not show up ••• The Switch itself may be the cause. Check the Switch itself or check if the wire is cut.

Error	1. Error Item
No.	2. Error Description
110.	3. Check Point
E62	1. A Body Left Sleeve Arm Up Sensor Error
	2. (1) A Body Left Sleeve Arm Up Sensor (SQ62) does not work even if A Body Left Sleeve Arm goes up.(2) Because of the shock when the Body stops, Sleeve Arm swings out of the range of the Sensor. "E160" shows up at the Display Window.
	3. (1) Set "F-90 (Input Test 1) (See page 36 "Test Operation"). When you lay a metal thing to A Body Left Sleeve Arm Up Sensor (SQ62). On the Display Window, "62" ① shows up *** The range of the sensor may become wide. Loosen the nut. Lay the Sensor closer enough until "62" shows up.
	(The distance is about 1mm) ② does not show up ••• The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut.
	(2) Slow the rotation speed by loosening the lock nut and turning the rotation cylinder speed controller at the rod side (The rotating time: 3.5~3.7sec)
	1. A Body Right Sleeve Arm Up Sensor Error
	2. (1) A Body Right Sleeve Arm Up Sensor (SQ63) does not work even if A Body Right Sleeve Arm goes up.
	(2) Because of the shock when the Body stops, Sleeve Arm swings out of the range of the Sensor. "E160"
	shows up at the Display Window.
	3. (1) Set "F-90 (Input Test 1) (See page 36 "Test Operation"). When you lay a metal thing to A Body Right
E63	Sleeve Arm Up Sensor (SQ63). On the Display Window, "63" ① shows up The range of the sensor may become wide. Loosen the nut. Lay the Sensor closer
	enough until "63" shows up.
	(The distance is about 1mm) ② does not show up ••• The Sensor itself may be the cause. Check the Sensor itself or check if the
	wire is cut.
	(2) Slow the rotation speed by loosening the lock nut and turning the rotation cylinder speed controller at the rod side (The rotating time: 3.5~3.7sec)
	1. B Body Left Sleeve Arm Up Sensor Error
	2. (1) B Body Left Sleeve Arm Up Sensor (SQ67) does not work even if B Body Left Sleeve Arm goes up.
	(2) Because of the heavy shock when the Body stops, Sleeve Arm swings out of the range of the Sensor. "E160" shows up at the Display Window.
	3. (1) Set "F-90 (Input Test 1) (See page 36 "Test Operation"). When you lay a metal thing to B Body Left
E67	Sleeve Arm Up Sensor (SQ67). On the Display Window, "67"
	① shows up ••• The range of the sensor may become wide. Loosen the nut. Lay the Sensor closer enough until "67" shows up.
	(The distance is about 1mm)
	② does not show up ••• The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut.
	(2) Slow the rotation speed by loosening the lock nut and turning the rotation cylinder speed controller at the rod side (The rotating time: 3.5~3.7sec)

_	1. Error Item
Error	2. Error Description
No.	3. Check Point
E68	1. B Body Right Sleeve Arm Up Sensor Error
	2. (1) B Body Right Sleeve Arm Up Sensor (SQ68) does not work even if B Body Right Sleeve Arm goes up. (2) Because of the shock when the Body stops, Sleeve Arm swings out of the range of the Sensor. "E160"
	shows up at the Display Window. 3. (1) Set "F-90 (Input Test 1) (See page 36 "Test Operation"). When you lay a metal thing to B Body Right Sleeve Arm Up Sensor (SQ68). On the Display Window, "68" ① shows up *** The range of the sensor may become wide. Loosen the nut. Lay the Sensor closer enough until "68" shows up. (The distance is about 1mm) ② does not show up *** The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut. (2) Slow the rotation speed by loosening the lock nut and turning the rotation cylinder speed controller at
	the rod side (The rotating time: 3.5~3.7sec)
	1. Vacuum Motor Thermal Switch
E74	2. Thermal of Magnetic Contactor KM01 for Vacuum Motor works. 3. When the thermal works, the green trip of Magnetic Contactor retracts and you cannot see it. Motor overload by wire disconnection or by continuous running under high temperature may be the cause. Press blue Reset Bar at the magnetic Contactor after finding and clearing the causes. Error is cleared and the normal operation is ready to work.
	Blower Motor Thermal Switch
	2. Thermal of Magnetic Contactor KM02 for Blower Motor works.
E75	3. When the thermal works, the green trip of Magnetic Contactor retracts and you cannot see it. Motor overload by wire disconnection or by continuous running under high temperature may be the cause. Press blue Reset Bar at the magnetic Contactor after finding and clearing the causes. Error is cleared and the normal operation is ready to work.
	1. Shoulder Press Start Button Error
	2. Shoulder Press Start Button is being pressed when turning the power ON and pressing Reset Button.
E76	 3. (1) Release Shoulder Press Start Button. Make sure if the button is not stuck. Press the Reset Button. The Body returns to the original position and the normal operation is ready to work. (2) The Button itself may be the cause if "E76" displays even after releasing it. Check the Button itself or check if the wire is cut.
	1. Cuff Unit Go-up Button Error
E77	2. The button is ON when the power is ON.
	3. (1) Check if the button is caught or being press for some reason.(2) The button is malfunctioned. Check if the button is damaged or if there is a short circuit in the wire.
	1. Cuff Unit Go-down Button Error
E78	2. The button is ON when the power is ON.
E/O	3. (1) Check if the button is caught or being press for some reason.

Error No.	1. Error Item
	2. Error Description
	3. Check Point
E81	Shoulder Press Down Sensor Error Shoulder Press Down Sensor (SQ81) does not work even if the Shoulder Press starts.
	3. (1) When you lay a magnet to the sensor at the head side of cylinder, the red light of sensor ① goes on ··· The location of the sensor may be off the point. Loosen the tie and place the sensor at the center of the range where the light goes on. ② goes off ··· The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut. (2) Check air pressure. (Main Pressure: 0.6MPa Please see page 15)
	1. Shoulder Press Up Sensor Error
	2. Shoulder Press Up Sensor (SQ82) does not work even if the Shoulder Press starts.
E82	 3. (1) When you lay a magnet to the sensor at the rod side of cylinder, the red light of sensor ① goes on ··· The location of the sensor may be off the point. Loosen the tie and place the sensor at the center of the range where the light goes on. ② goes off ··· The Sensor itself may be the cause. Check the Sensor itself or check if the wire is cut. (2) Check air pressure. (Main Pressure: 0.6MPa Please see page 15)
	1. Shoulder Press Left Safety Bar
	2. Shoulder Left Press Safety Bar Switch (SW83) is being pressed.
E83	 3. (1) Release the Bar. Also check if something presses the Switch. Press the Reset Button after insuring safety. Normal operation is ready to work. (2) The Switch itself may be the cause if "E83" displays even after releasing the Bar. Check the Switch itself or the Bar. Also check if the wire is cut. (3) Because of the heavy shock of the Shoulder Press, the switch turns ON. → Adjust speed controller of shoulder press cylinder.
	1. Shoulder Press Right Safety Bar
	2. Shoulder Left Press Safety Bar Switch (SW84) is being pressed.
E84	 3. (1) Release the Bar. Also check if something presses the Switch. Press the Reset Button after insuring safety. Normal operation is ready to work. (2) The Switch itself may be the cause if "E84" displays even after releasing the Bar. Check the Switch itself or the Bar. Also check if the wire is cut. (3) Because of the heavy shock of the Shoulder Press, the switch turns ON. → Adjust speed controller of shoulder press cylinder.
	1. Blower Link Down Limit Switch Error
E86	 Blower Link Down Limit Switch (SW86) does not work even if A Body Blower Link goes down. Set "F-90 (Input Test 1) (See page 36 "Test Operation"). Manually turn Blower Link Down Limit Switch (SW86) On and OFF. On the Display Window, "86" shows up ••• The position of the Switch may be off the point. Loosen the bolts (2) and place the Switch where it turns ON. does not show up ••• The Switch itself may be the cause. Check the Switch itself or check if the wire is cut.

	1. Error Item
Error	2. Error Description
No.	3. Check Point
	1. A Body Tuck Left Press Safety Bar
	2. A Body Tuck Left Press Safety Bar Switch (SW89) is being pressed.
	3. (1) Release the Bar. If nothing happens for 2 seconds, the Display returns to show Counter from "E89".
	Only the Tuck Press will open when pressing the Safety Bar while the Tuck Press is working. Other
	process will continue to work. No need to press the Reset Button.
E89	(2) The Switch may be the cause if "E89" displays even after releasing the Bar. Check the Switch itself or
	the Bar. Also check if the wire is cut.
	(3) Because of the heavy shock of the Tuck Press, the switch turns ON.
	→ Adjust speed controller of sleeve arm and tuck press cylinder.
	(See page 37: A-11,12 • A-14 in "Test Operation")
	1. A Body Tuck Right Press Safety Bar
	2. A-Body Tuck Right Press Safety Bar Switch (SW90) is being pressed.
	3. (1) Release the Bar. If nothing happens for 2 seconds, the Display returns to show Counter from "E90".
	Only the Tuck Press will open when pressing the Safety Bar while the Tuck Press is working. Other
E90	process will continue to work. No need to press the Reset Button.
L E9U	(2) The Switch may be the cause if "E90" displays even after releasing the Bar. Check the Switch itself or
	the Bar. Also check if the wire is cut.
	(3) Because of the heavy shock of the Tuck Press, the switch turns ON.
	→ Adjust speed controller of sleeve arm and tuck press cylinder.
	(See page 37: A-11,12 • A-14 in "Test Operation")
	1. B Body Tuck Left Press Safety Bar
	2. B Body Tuck Left Press Safety Bar Switch (SW91) is being pressed.
	3. (1) Release the Bar. If nothing happens for 2 seconds, the Display returns to show Counter from "E91".
	Only the Tuck Press will open when pressing the Safety Bar while the Tuck Press is working. Other
E91	process will continue to work. No need to press the Reset Button.
	(2) The Switch may be the cause if "E91" displays even after releasing the Bar. Check the Switch itself or
	the Bar. Also check if the wire is cut.
	(3) Because of the heavy shock of the Tuck Press, the switch turns ON.
	→ Adjust speed controller of sleeve arm and tuck press cylinder.
	(See page 38: b-11,12 b-14 in "Test Operation")
	1. B Body Tuck Right Press Safety Bar
	2. B Body Tuck Right Press Safety Bar Switch (SW92) is kept activating
	3. (1) Release the Bar. If nothing happens for 2 seconds, the Display returns to show Counter from "E91".
E92	Only the Tuck Press will open when pressing the Safety Bar while the Tuck Press is working. Other
	process will continue to work. No need to press the Reset Button.
	(2) The Switch may be the cause if "E91" displays even after releasing the Bar. Check the Switch itself or
	the Bar. Also check if the wire is cut.
	(3) Because of the heavy shock of the Tuck Press, the switch turns ON.
	→ Adjust speed controller of sleeve arm and tuck press cylinder.
	(See page 38: b-11,12 b-14 in "Test Operation")

Error	1. Error Item
No.	2. Error Description
	3. Check Point
	 Short Sleeve Mode Button Error The Button does not turn ON and the Short Sleeve Unit does not come to the set position even if the Short
E93	Sleeve Mode Button is being pressed.
	3. The Button itself may be the cause. Check the Button itself or check if the wire is cut.
F05	 Tuck Cancel Button Error The Button does not turn ON and the Tuck Press works even if the Tuck Cancel Button is being pressed.
E95	3. The Button itself may be the cause. Check the Button itself or check if the wire is cut.
	Size Adjustment Button Error
EOC	2. The Button does not turn ON and the Sleeve Arm does not open even if the Size Adjustment Button is being
E96	pressed.
	3. The Button itself may be the cause. Check the Button or check if the wire is cut.
	1. 24V Error
5 00	2. Either safety bar operated in an instant in the vibration and so on.
E99	3. The error will be released when you press the reset button.
	When occurring many times, adjust a speed controller at the part where the impact is big (Portion of
	operation when especially an error occurs).
F101	1. Warm-Up Button error
E101	2. The machine regards Warm-Up Button is being pressed.
	3. The button is broken or the indicator panel may be distorted.
	1. Test Button error
E102	2. The machine regards Test Button is being pressed.
	3. The button is broken or the indicator panel may be distorted.
	1. Rotation Button error
E103	2. The machine regards Rotation Button is being pressed.
	3. The button is broken or the indicator panel may be distorted.
	1. Counter Clear Button error
E104	2. The machine regards Counter Clear Button is being pressed.
	3. The button is broken or the indicator panel may be distorted.
	1. Stop/"Short" Start Buttons error
E105	2. The machine regards either Stop Button or "Short" Start Button is being pressed.
	3. Either button is broken or the indicator panel may be distorted.
	1. Enter/"Long" Start Buttons error
E106	2. The machine regards either Enter Button or "Long" Start Button is being pressed.
	3. Either button is broken or the indicator panel may be distorted.
	51 Extract cutton is broken of the indicator punctimal oc distorted.

Error No.	1. Error Item 2. Error Description 3. Check Point
E160 E260	 Body Rotation Speed Error E160: Body rotates too fast within 3.2 seconds. 6 seconds as warning. E260: Body rotates too fast within 3.0 seconds. Machine stops. (1) Check the air pressure. (Main Pressure: 0.6MPa Please see page 15) (2) Slow the rotation speed by loosening the lock nut and turning the rotation cylinder speed controller at the rod side (The rotating time: 3.5~3.7sec)
EC-1 EC-2	 Warning for cover change timing.(Standard) EC-1(A Body), EC-2(B Body) Time to change covers. You have done 25,000 presses/finishes since last time. Press and hold Reset Button for more than 1 second. Buzzer and error message will be cancelled. After cover change, be sure to reset the cover counter referring to "Cover Counter" of page 29.

Caution

If the rotation speed reaches within 3.2 seconds before showing "E260", "E160" shows up for 6 seconds as warning. The normal operation is ready to work later. If you continue to work, "E260" shows up and the machine stops. If "E160" shows up, check and adjust same as "E260" due to the possibility of other errors.

(1) Other Errors (No Error No. is assigned)

	1. Each Button Error (Button in Page 11 and 12)
	2. It does not work even if it is being pressed.
	3. Check the connector or wire of the Button.
	Set "F-90 (Input Test 1) (See page 36 "Test Operation"). Check if the Button works.
	1. A Body and B Body Sleeve Arm Large Size Sensor Error
	2. Sleeve Arm Large Size Sensor (A Body: SQ64, B Body: SQ69) does not work and Sleeve Arm does not stop
	when Size Adjustment Button is being pressed.
	3. Set "F-90 (Input Test 1) (See page 36 "Test Operation"). When you lay a metal thing to the sensor (SQ64
	or Q69). On the Display Window, "67" or "69" · · ·
	① shows up · · · The range of the sensor may become wide. Loosen the nut. Lay the Sensor closer enough until "64" or "69" shows up. (The distance is about 1mm)
	② does not show up · · · The Sensor itself may be the cause. Check the Sensor itself or check if the wire
	is cut.