

Troubleshooting G9SX Series

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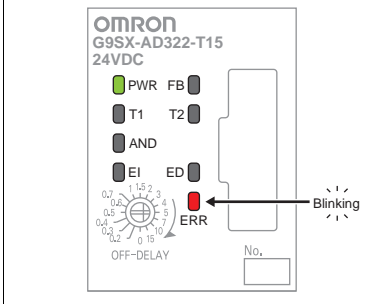
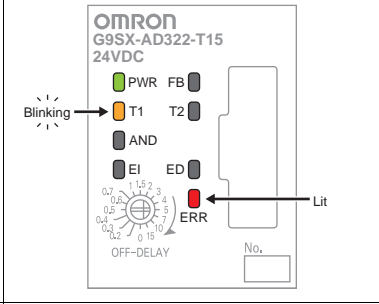
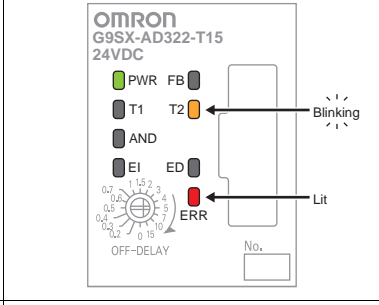
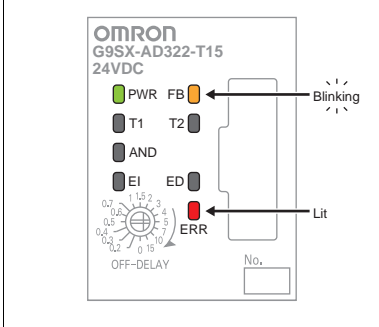
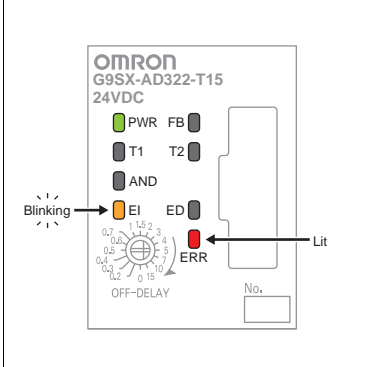


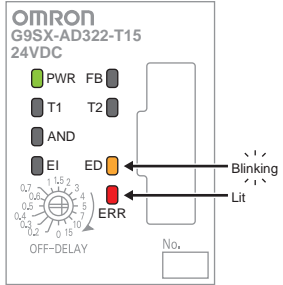
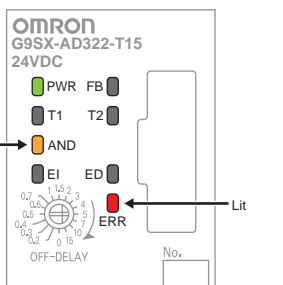
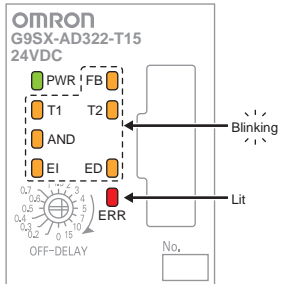
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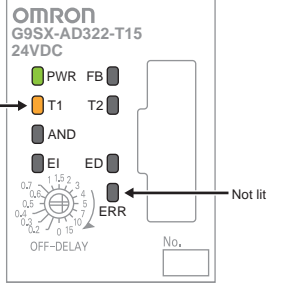
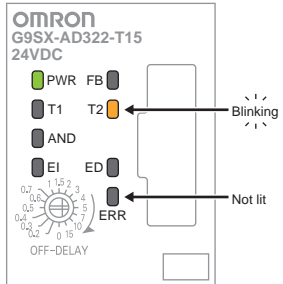
Advanced Unit G9SX-AD322-□ Troubleshooting

When the G9SX-AD322-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-AD322-□.

Indicator	Expected causes	Check points and measures to take
<p>ERR blinks</p> 	<p>Fault due to electro-magnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electro-magnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around the G9SX and the related system. 2) Replace with a new product.
<p>ERR lights up, T1 blinks</p> 	<p>Fault involved with safety input 1</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input 1 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input 1 	<ol style="list-style-type: none"> 1) Check the wiring to T11 and T12. 2) Check the wiring to Y1. 3) Replace with a new product.
<p>ERR lights up, T2 blinks</p> 	<p>Fault involved with safety input 2</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input 2 2) Incorrect setting of cross fault detection input 3) Failure of circuits of safety input 2 	<ol style="list-style-type: none"> 1) Check the wiring to T21 and T22. 2) Check the wiring to Y1. 3) Replace with a new product.
<p>ERR lights up, FB blinks</p> 	<p>Faults involved with feedback/reset input</p> <ol style="list-style-type: none"> 1) Failures involving the wiring of feedback/reset input 2) Failures of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> 1) Improper feedback signals from Expansion Unit 2) Abnormal supply voltage to Expansion Unit 3) Failure of the circuit of safety relay contact outputs 	<ol style="list-style-type: none"> 1) Check the wiring to T31, T32 and T33. 2) Replace with a new product. <ol style="list-style-type: none"> 1) Check the connecting cable of Expansion Unit and the connection of the termination socket. 2) Check the supply voltage to Expansion Unit. Note: Make sure that all Expansion units' PWR indicators are lit. 3) Replace the Expansion Unit with a new one.
<p>ERR lights up, EI blinks</p> 	<p>Fault involved with instantaneous safety outputs or logical AND connection outputs or auxiliary monitor output</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of instantaneous safety outputs 2) Failure of the circuit of Instantaneous safety outputs 3) Failure involving the wiring of the logical AND connection output 4) Failure of the circuit of the logical AND connection output 5) Failure involving the wiring of the auxiliary monitor output 6) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S14, S24, and S34. 2) Replace with a new product. 3) Check the wiring to L1. 4) Replace with a new product. 5) Check the wiring to X1. 6) Check the ambient temperature and spacing around the G9SX.

Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, ED blinks</p> 	<p>Fault involved with OFF-delayed safety outputs</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of OFF-delayed safety relay contact outputs 2) Incorrect set values for OFF-delay time 3) Failure of the circuit of OFF-delayed safety relay contact outputs 4) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S44 and S54. 2) Confirm the set values of the two OFF-delay time preset switches. 3) Replace with a new product. 4) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, AND blinks</p> 	<p>Fault involved with logical AND connection input</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of the logical AND connection input 2) Incorrect setting for the logical AND connection input 3) Failure of the circuit of the logical AND connection input 	<ol style="list-style-type: none"> 1) Check the wiring to T41 and T42. Note: Make sure that the wiring length for the T41 and T42 terminal is less than 100 meters. Note: Make sure that the logical AND connection signal is branched for less than 4 units. 2) Confirm the set value of the logical AND connection preset switch. 3) Replace with a new product.
<p>ERR lights up, all indicators except PWR blink</p> 	<p>Supply voltage outside the rated value</p> <ol style="list-style-type: none"> 1) Supply voltage outside the rated value 	<ol style="list-style-type: none"> 1) Check the supply voltage to the Units.

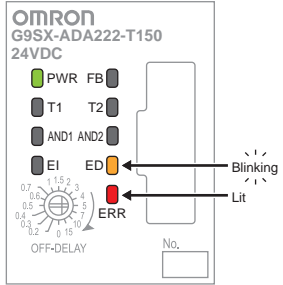
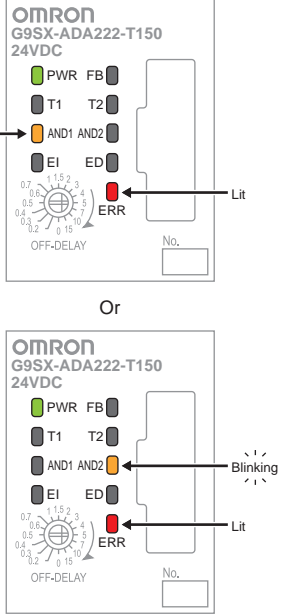
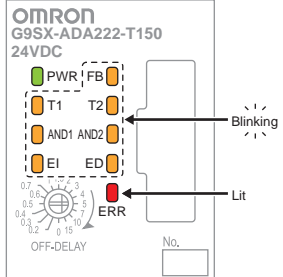
When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, T1 or T2 blinks</p>  <p>Or</p> 	<p>Mismatch between input 1 and input 2.</p> <p>The input status between input 1 and input 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p>	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety inputs to the OFF state.</p>

Advanced Unit G9SX-ADA222-□ Troubleshooting

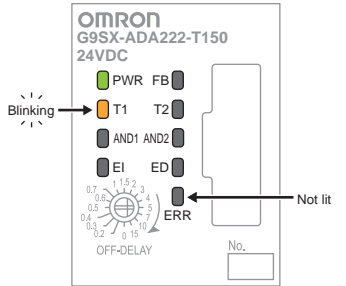
When the G9SX-ADA222-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-ADA222-□.

Indicator	Expected causes	Check points and measures to take
<p>ERR blinks</p> 	<p>Fault due to electro-magnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electro-magnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around the G9SX and the related system. 2) Replace with a new product.
<p>ERR lights up, T1 blinks</p> 	<p>Fault involved with safety input 1</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input 1 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input 1 	<ol style="list-style-type: none"> 1) Check the wiring to T11 and T12. 2) Check the wiring to Y1. 3) Replace with a new product.
<p>ERR lights up, T2 blinks</p> 	<p>Fault involved with safety input 2</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input 2 2) Incorrect setting of cross fault detection input 3) Failure of circuits of safety input 2 	<ol style="list-style-type: none"> 1) Check the wiring to T21 and T22. 2) Check the wiring to Y1. 3) Replace with a new product.
<p>ERR lights up, FB blinks</p> 	<p>Faults involved with feedback/reset input</p> <ol style="list-style-type: none"> 1) Failures involving the wiring of feedback/reset input 2) Failures of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> 1) Improper feedback signals from Expansion Unit 2) Abnormal supply voltage to Expansion Unit 3) Failure of the circuit of safety relay contact outputs 	<ol style="list-style-type: none"> 1) Check the wiring to T31, T32 and T33. 2) Replace with a new product. <ol style="list-style-type: none"> 1) Check the connecting cable of Expansion Unit and the connection of the termination socket. 2) Check the supply voltage to Expansion Unit. Note: Make sure that all Expansion units' PWR indicators are lit. 3) Replace the Expansion Unit with a new one.
<p>ERR lights up, EI blinks</p> 	<p>Fault involved with instantaneous safety outputs or logical AND connection outputs or auxiliary monitor output</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of instantaneous safety outputs 2) Failure of the circuit of Instantaneous safety outputs 3) Failure involving the wiring of the logical AND connection output 4) Failure of the circuit of the logical AND connection output 5) Failure involving the wiring of the auxiliary monitor output 6) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S14 and S24. 2) Replace with a new product. 3) Check the wiring to L1 and L2. 4) Replace with a new product. 5) Check the wiring to X1. 6) Check the ambient temperature and spacing around the G9SX.

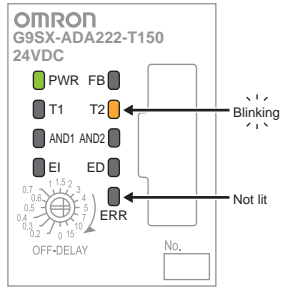
Indicator	Indicator	Expected causes	Check points and measures to take
ERR lights up, ED blinks		<p>Fault involved with OFF-delayed safety outputs</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of OFF-delayed safety relay contact outputs 2) Incorrect set values for OFF-delay time 3) Failure of the circuit of OFF-delayed safety relay contact outputs 4) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S44 and S54. 2) Confirm the set values of the two OFF-delay time preset switches. 3) Replace with a new product. 4) Check the ambient temperature and spacing around the G9SX.
ERR lights up, AND1 or AND2 blinks		<p>Fault involved with logical AND connection input</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of the logical AND connection input 2) Incorrect setting for the logical AND connection input 3) Failure of the circuit of the logical AND connection input 	<ol style="list-style-type: none"> 1) Check the wiring to T41 and T42 (T51 and T52). Note: Make sure that the wiring length for the T41, T42, T51, T52 terminal is less than 100 meters. Note: Make sure that the logical AND connection signal is branched for less than 4 units. 2) Confirm the set value of the logical AND connection preset switch. 3) Replace with a new product.
ERR lights up, all indicators except PWR blink		<p>Supply voltage outside the rated value</p> <ol style="list-style-type: none"> 1) Supply voltage outside the rated value 	<ol style="list-style-type: none"> 1) Check the supply voltage to the Units.

When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, T1 or T2 blinks</p>	<p>Mismatch between input 1 and input 2.</p> <p>The input status between input 1 and input 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p>	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety inputs to the OFF state.</p>



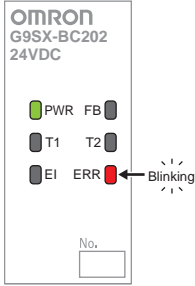
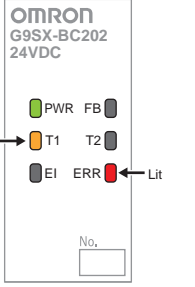
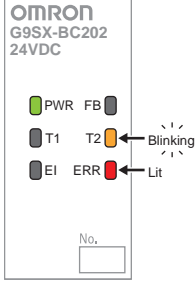
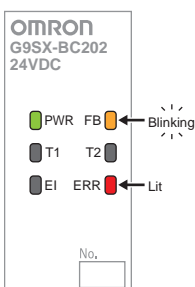
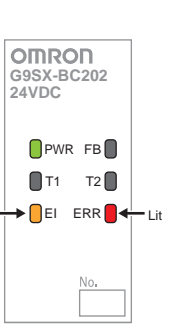
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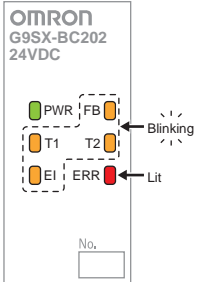


G9SX-BC202-□

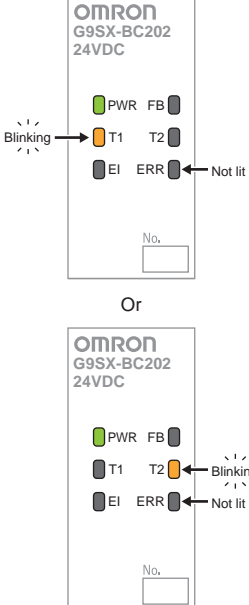
Basic Unit G9SX-BC202-□ Troubleshooting

When the G9SX-BC202-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-BC202-□.

Indicator	Expected causes	Check points and measures to take
ERR blinks		<p>Fault due to electro-magnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> Excessive electro-magnetic disturbance Failure of the internal circuit
ERR lights up, T1 blinks		<p>Fault involved with safety input 1</p> <ol style="list-style-type: none"> Failure involving the wiring of safety input 1 Incorrect setting of cross fault detection input Failure of the circuit of safety input 1
ERR lights up, T2 blinks		<p>Fault involved with safety input 2</p> <ol style="list-style-type: none"> Failure involving the wiring of safety input 2 Incorrect setting of cross fault detection input Failure of circuits of safety input 2
ERR lights up, FB blinks		<p>Faults involved with feedback/reset input</p> <ol style="list-style-type: none"> Failures involving the wiring of feedback/reset input Failures of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> Improper feedback signals from Expansion Unit Abnormal supply voltage to Expansion Unit Failure of the circuit of safety relay contact outputs
ERR lights up, EI blinks		<p>Fault involved with instantaneous safety outputs or logical AND connection outputs or auxiliary monitor output</p> <ol style="list-style-type: none"> Failure involving the wiring of instantaneous safety outputs Failure of the circuit of Instantaneous safety outputs Failure involving the wiring of the logical AND connection output Failure of the circuit of the logical AND connection output Failure involving the wiring of the auxiliary monitor output Impermissible high ambient temperature

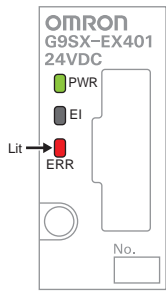
Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, all indicators except PWR blink</p>		<p>Supply voltage outside the rated value</p> <p>1) Supply voltage outside the rated value</p>
<p>1) Check the supply voltage to the Units.</p>		

When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

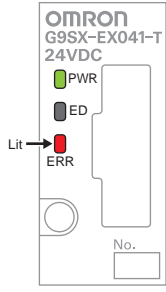
Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, T1 or T2 blinks</p>	<p>Mismatch between input 1 and input 2.</p> <p>The input status between input 1 and input 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p> 	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety inputs to the OFF state.</p>

G9SX-EX401-□/ G9SX-EX041-T-□

Expansion Unit G9SX-EX401-□ Troubleshooting

Indicator	Expected causes	Check points and measures to take
ERR lights up		<p>Fault involved with safety relay outputs of Expansion Units</p> <ol style="list-style-type: none"> 1) Welding of relay contacts 2) Failure of the internal circuit <p>Replace with a new product.</p>

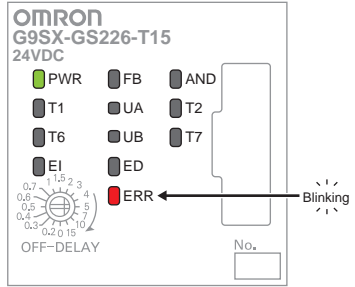
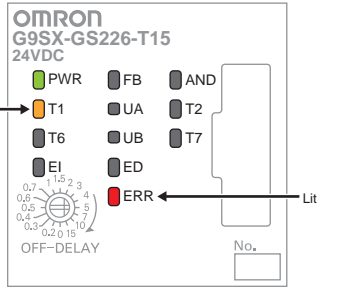
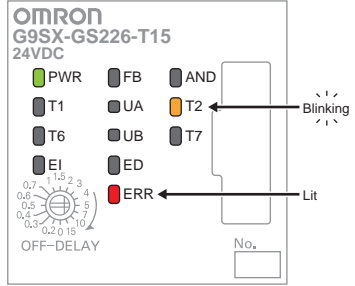
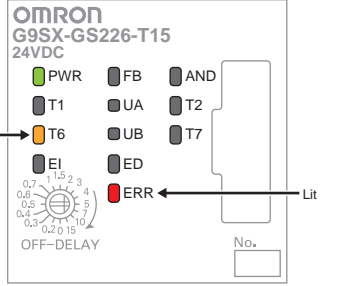
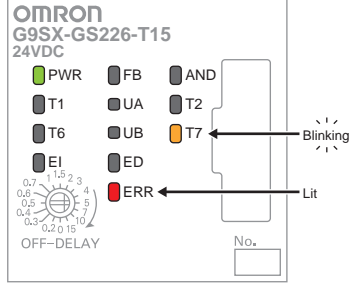
Expansion Unit (OFF-delayed Model) G9SX-EX041-T-□ Troubleshooting

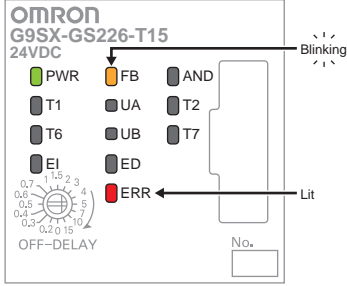
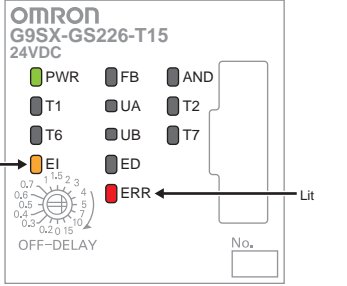
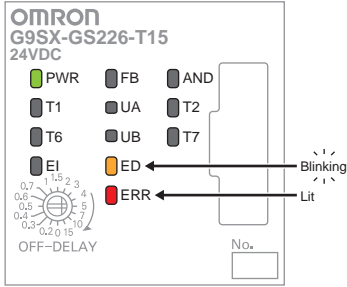
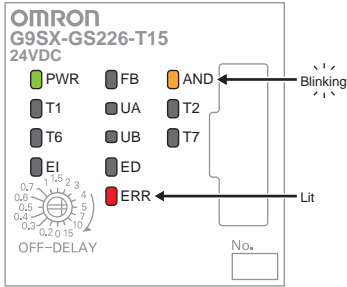
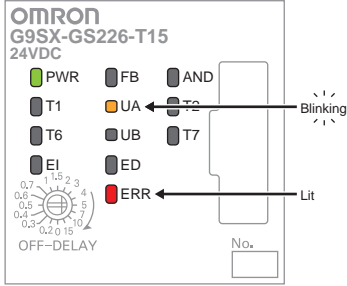
Indicator	Expected causes	Check points and measures to take
ERR lights up		<p>Fault involved with safety relay outputs of Expansion Units</p> <ol style="list-style-type: none"> 1) Welding of relay contacts 2) Failure of the internal circuit <p>Replace with a new product.</p>

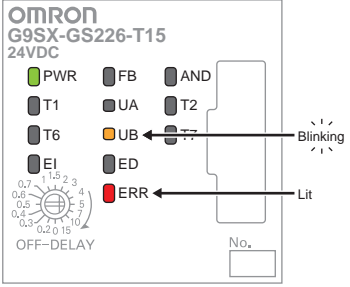
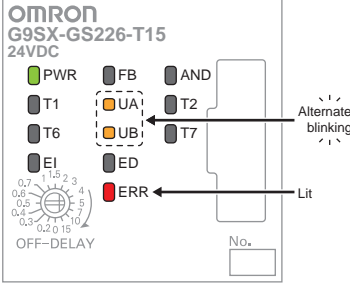
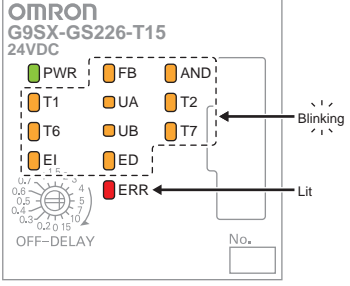
G9SX-GS226-T15-□

Safety Guard Switching Unit G9SX-GS226-T15-□ Troubleshooting

When the G9SX-GS226-T15-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-GS226-T15-□.

	Indicator	Expected causes	Check points and measures to take
ERR blinks		<p>Fault due to electro-magnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electromagnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around the G9SX and the related system. 2) Replace with a new product.
ERR lights up, T1 blinks		<p>Fault involved with safety input A, channel 1</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input A channel 1 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input A channel 1 	<ol style="list-style-type: none"> 1) Check the wiring to T11 and T12. 2) Check the wiring to Y1. 3) Replace with a new product.
ERR lights up, T2 blinks		<p>Fault involved with safety input A, channel 2</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input A channel 2 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input A channel 2 	<ol style="list-style-type: none"> 1) Check the wiring to T21 and T22. 2) Check the wiring to Y1. 3) Replace with a new product.
ERR lights up, T6 blinks		<p>Fault involved with safety input B, channel 1</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input B channel 1 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input B channel 1 	<ol style="list-style-type: none"> 1) Check the wiring to T61 and T62. 2) Check the wiring to Y2. 3) Replace with a new product.
ERR lights up, T7 blinks		<p>Fault involved with safety input B, channel 2</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of safety input B channel 2 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input B channel 2 	<ol style="list-style-type: none"> 1) Check the wiring to T71 and T72. 2) Check the wiring to Y2. 3) Replace with a new product.

Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, FB blinks</p> 	<p>Faults involved with feedback/reset input</p> <ol style="list-style-type: none"> 1) Failures involving the wiring of feedback/reset input 2) Failures of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> 1) Improper feedback signals from Expansion Unit 2) Abnormal supply voltage to Expansion Unit 3) Failure of the circuit of safety relay contact outputs 	<ol style="list-style-type: none"> 1) Check the wiring to T31, T32 and T33. 2) Replace with a new product. <ol style="list-style-type: none"> 1) Check the connecting cable of Expansion Unit and the connection of the terminating connector 2) Check the supply voltage to Expansion Unit. 3) Replace the Expansion Unit with a new one. <p>Note: Make sure that all Expansion units' PWR indicators are lit.</p>
<p>ERR lights up, EI blinks</p> 	<p>Fault involved with instantaneous safety outputs or logical AND connection outputs</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of instantaneous safety outputs 2) Failure of the circuit of Instantaneous safety outputs 3) Failure involving the wiring of the logical AND connection output 4) Failure of the circuit of the logical AND connection output 5) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S14 and S24. 2) Replace with a new product. 3) Check the wiring to L1. 4) Replace with a new product. 5) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, ED blinks</p> 	<p>Fault involved with OFF-delayed safety outputs</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of OFF-delayed safety relay contact outputs 2) Incorrect set values for OFF-delay time 3) Failure of the circuit of OFF-delayed safety relay contact outputs 4) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S44 and S54. 2) Confirm the set values of the OFF-delay time preset switches on the front and back of the Unit. 3) Replace with a new product. 4) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, AND blinks</p> 	<p>Fault involved with logical AND connection input</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of the logical AND connection input 2) Incorrect setting for the logical AND connection input 3) Failure of the circuit of the logical AND connection input 	<ol style="list-style-type: none"> 1) Check the wiring to T41 and T42. 2) Confirm the set value of the logical AND connection preset switch. 3) Replace with a new product. <p>Note: Make sure that the wiring length for the T41, T42 terminal is less than 100 meters.</p> <p>Note: Make sure that the logical AND connection signal is branched for less than 4 units.</p>
<p>ERR lights up, UA blinks</p> 	<p>Fault involved with the external indicator output (UA)</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of the external indicator output 2) Failure involving the wiring of the external indicator diagnosis switching input 3) Failure of the circuit of the external indicator output 4) Failure of the external indicator 	<ol style="list-style-type: none"> 1) Check the wiring to UA. 2) Check the wiring to Y3. 3) Replace with a new product. 4) Replace the connected external indicator. <p>Note: When no indicator is connected, or an LED indicator is connected, connect Y3 to 24 V.</p>

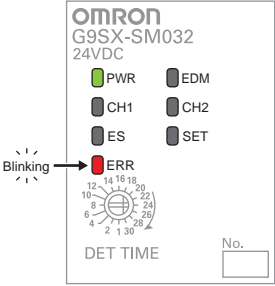
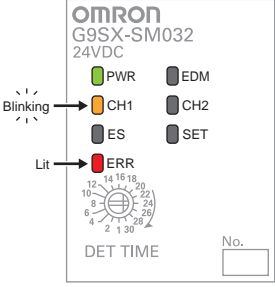
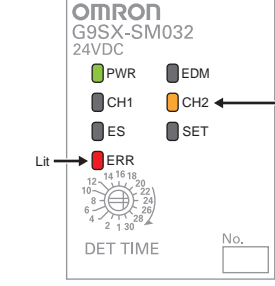
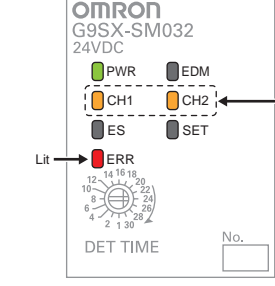
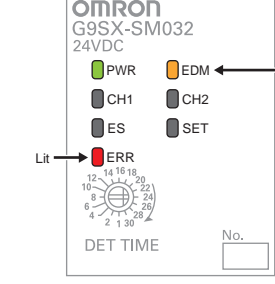
	Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, UB blinks</p>		<p>Fault involved with the external indicator output (UB)</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of the external indicator output 2) Failure involving the wiring of the external indicator diagnosis switching input 3) Failure of the circuit of the external indicator output 4) Failure of the external indicator 	<ol style="list-style-type: none"> 1) Check the wiring to UB. 2) Check the wiring to Y4. Note: When no indicator is connected, or an LED indicator is connected, connect Y4 to 24 V. 3) Replace with a new product. 4) Replace the connected external indicator.
<p>ERR lights up, UA and UB alternately blink</p>		<p>Fault involved with the Switching Function</p> <ol style="list-style-type: none"> 1) Failure involving the setting of the Switching Function setting switch 2) Failure involving the wiring of the mode selector input 3) Failure involving the circuit of the mode selector input 4) Failure involving the mode selector switching time 	<ol style="list-style-type: none"> 1) Check the setting of the Switching Function setting switch. 2) Check the wiring to M1 and M2. 3) Replace with a new product. 4) Check the signal switching time of the mode selector input (M1, M2).
<p>ERR lights up, all indicators except PWR blink</p>		<p>Supply voltage outside the rated value</p> <ol style="list-style-type: none"> 1) Supply voltage outside the rated value 	<ol style="list-style-type: none"> 1) Check the supply voltage to the Units.

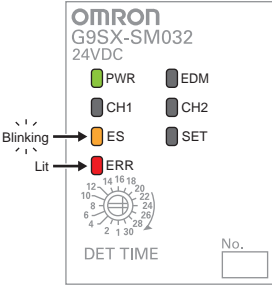
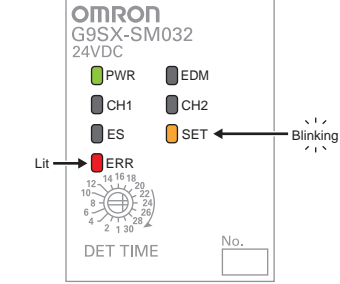
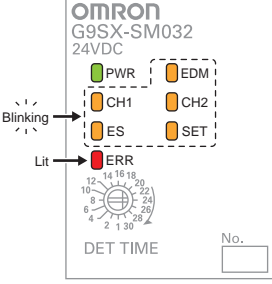
When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

	Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, T1 or T2 blinks</p>	<p>OMRON G9SX-GS226-T15 24VDC</p> <p>OMRON G9SX-GS226-T15 24VDC</p>	<p>Safety input A mismatch</p> <p>The input status between safety input A channel 1 and safety input A channel 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p>	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety input A channels 1 and 2 to the OFF state.</p>
<p>ERR does not light up, T6 or T7 blinks</p>	<p>OMRON G9SX-GS226-T15 24VDC</p> <p>OMRON G9SX-GS226-T15 24VDC</p>	<p>Safety input B mismatch</p> <p>The input status between safety input B channel 1 and safety input B channel 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p>	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety input B channels 1 and 2 to the OFF state.</p>

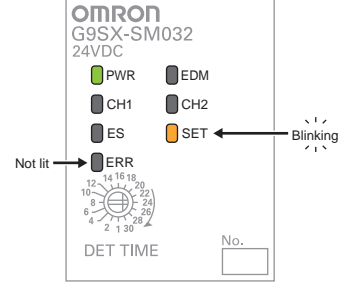
Standstill Monitoring Unit G9SX-SM032-□ Troubleshooting

When the G9SX-SM032-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-SM032-□.

Indicator	Expected causes	Check points and measures to take
<p>ERR blinks</p> 	<p>Fault by electro-magnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electro-magnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around G9SX and its related system. 2) Replace with a new product.
<p>ERR lights up, CH1 blinks</p> 	<p>Faults involved with Standstill detection input 1</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of standstill detection input 1 2) Inverter dynamic brake setting 3) Failure of the circuit of standstill detection input 1 	<ol style="list-style-type: none"> 1) Check the wiring to Z1 and Z2. 2) Set the brake time at less than 30 seconds. 3) Replace with a new product.
<p>ERR lights up, CH2 blinks</p> 	<p>Faults involved with Standstill detection input 2</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of standstill detection input 2 2) Inverter dynamic brake setting 3) Failure of the circuit of standstill detection input 2 	<ol style="list-style-type: none"> 1) Check the wiring to Z3 and Z4. 2) Set the brake time at less than 30 seconds. 3) Replace with a new product.
<p>ERR lights up, CH1 and CH2 simultaneously blink</p> 	<p>Faults involved with Standstill detection input</p> <ol style="list-style-type: none"> 1) Frequency of standstill detection input is out range. 	<ol style="list-style-type: none"> 1) Confirm the operation frequency of the motor is 120 Hz or less.
<p>ERR lights up, EDM blinks</p> 	<p>Faults involved with EDM input</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of EDM input 2) Excessive electro-magnetic disturbance 3) Failure of the circuit of the EDM input 	<ol style="list-style-type: none"> 1) Check the wiring to T31 and T32. 2) Separately wire to T31 and T32 from the power line etc. of the inverter. 3) Replace with a new product.

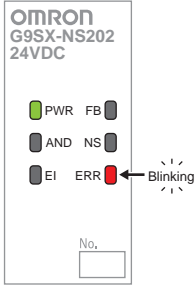
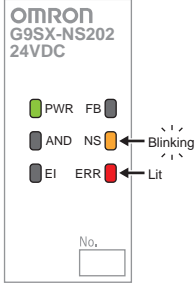
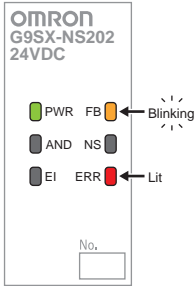
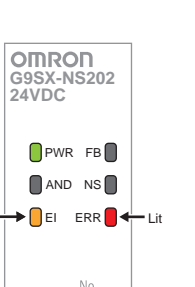
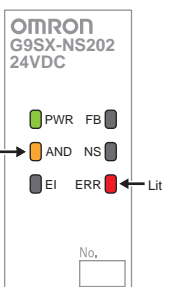
Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, ES blinks</p> 	<p>Faults involved with Safety Standstill detection outputs</p> <ol style="list-style-type: none"> 1) Failure involving the wiring of Safety standstill detection outputs 2) Excessive electro-magnetic disturbance 3) Failure of the circuit of Safety standstill detection outputs 4) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to ES1, ES2 and ES3. 2) Separately wire to ES1, ES2 and ES3 from the power line etc. of the inverter. 3) Replace with a new product. 4) Check the ambient temperature and spacing around G9SX.
<p>ERR lights up, SET blinks</p> 	<p>Faults involved with Operation mode settings</p> <ol style="list-style-type: none"> 1) Incorrect set values of Standstill determining time preset switches. 2) Failure of the circuit of mode settings 	<ol style="list-style-type: none"> 1) Check the set values of the two of Standstill determining time preset switches. 2) Replace with a new product.
<p>ERR lights up, all indicators except PWR blink</p> 	<p>Supply voltage outside the rated value</p> <ol style="list-style-type: none"> 1) Supply voltage outside the rated value 	<ol style="list-style-type: none"> 1) Check the supply voltage to G9SX units.

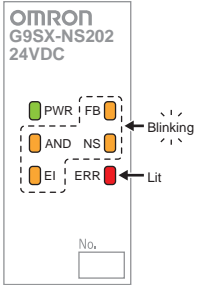
When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, SET blinks</p> 	<p>Tuning Mode operation</p> <p>Operating Mode is in Tuning Mode of User Configuration.</p>	<p>Check if the Operation preset switch and the Mode preset switch on the back side are properly set.</p> <p>In the User Configuration Mode, safety standstill detection outputs will NOT be turned ON.</p>

Non-Contact Door Switch Controller G9SX-NS202-□ Troubleshooting

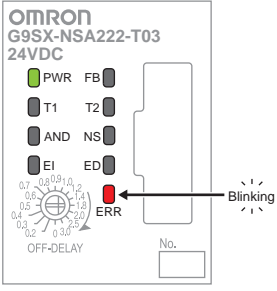
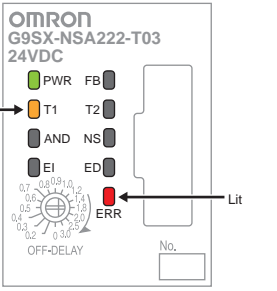
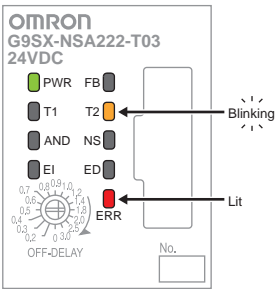
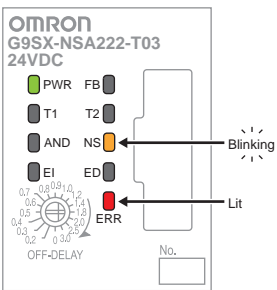
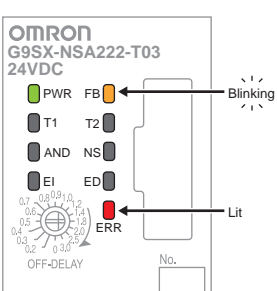
When the G9SX-NS202-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-NS202-□.

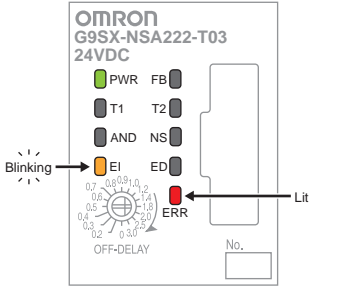
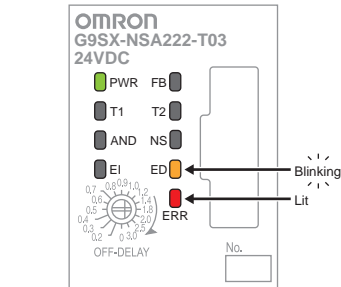
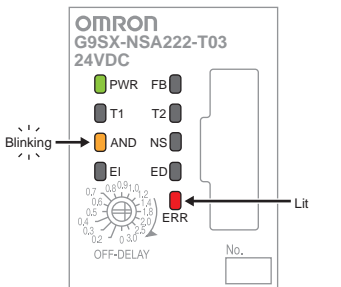
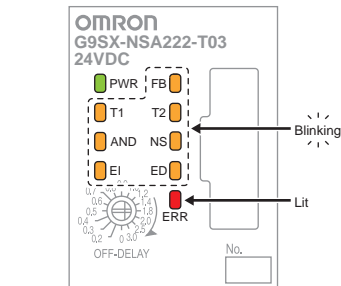
Indicator	Expected causes	Check points and measures to take
<p>ERR blinks</p> 	<p>Fault due to electromagnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electromagnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around the G9SX and the related system. 2) Replace with a new product.
<p>ERR lights up, NS blinks</p> 	<p>Fault involved with Non-contact Door Switch input</p> <ol style="list-style-type: none"> 1) Error in the wiring of Non-contact Door Switch input 2) Error in the wiring of Non-contact Door Switch inputs in series connections 3) Failure of the internal circuits of Non-contact Door Switch inputs 4) Failure of the Non-contact Door Switch 	<ol style="list-style-type: none"> 1) Check the wiring to D1 and D2. 2) Check the wiring to the Non-Contact Door Switch. 3) Replace with a new product. 4) Replace with a new Non-Contact Door Switch.
<p>ERR lights up, FB blinks</p> 	<p>Fault involved with feedback/reset inputs</p> <ol style="list-style-type: none"> 1) Error in the wiring of feedback/reset input. 2) Failure of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> 1) Improper feedback signals from Expansion Unit 2) Abnormal supply voltage to Expansion Unit 3) Failure of the circuit of safety relay contact outputs 	<ol style="list-style-type: none"> 1) Check the wiring to T31, T32 and T33. 2) Replace with a new product. <ol style="list-style-type: none"> 1) Check the connecting cable of Expansion Unit and the connection of the termination socket. 2) Check the supply voltage to Expansion Unit. Note: Make sure that all Expansion Units' PWR indicators are lit. 3) Replace with a new product.
<p>ERR lights up, EI blinks</p> 	<p>Fault involved with instantaneous safety outputs, logical AND connection outputs, or auxiliary monitor output</p> <ol style="list-style-type: none"> 1) Error in the wiring of instantaneous safety outputs 2) Failure of the circuit of instantaneous safety outputs 3) Error in the wiring of the logical AND connection output 4) Failure of the circuit of the logical AND connection output 5) Error in the wiring of the auxiliary monitor output 6) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S14 and S24. 2) Replace with a new product. 3) Check the wiring to L1. 4) Replace with a new product. 5) Check the wiring to X1. 6) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, AND blinks</p> 	<p>Fault involved with logical AND connection input</p> <ol style="list-style-type: none"> 1) Error in the wiring of the logical AND connection input 2) Incorrect setting for the logical AND connection input 3) Failure of the circuit of the logical AND connection input 	<ol style="list-style-type: none"> 1) Check the wiring to T41 and T42. Note: Make sure that the wiring length for the T41, T42 terminal is 100 meters or less. Note: Make sure that the logical AND connection signal is branched for 4 units or fewer. 2) Confirm the set value of the logical AND connection preset switch. 3) Replace with a new product.

Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, all indicators except PWR blink</p>		<p>Supply voltage outside the rated value</p> <p>1) Supply voltage outside the rated value</p>
		<p>1) Check the supply voltage to the Units.</p>

Non-Contact Door Switch Controller G9SX-NSA222-T03-□ Troubleshooting

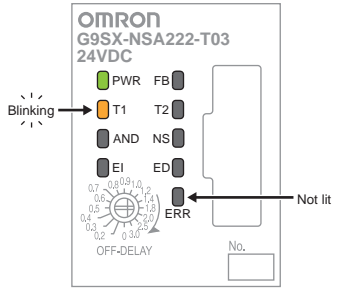
When the G9SX-NSA222-T03-□ detects a fault, the ERR indicator and/or other indicators light up or blink to inform the user about the fault. Check and take necessary measures referring to the following table, and then re-supply power to the G9SX-NSA222-T03-□.

Indicator	Indicator	Expected causes	Check points and measures to take
ERR blinks		<p>Fault due to electromagnetic disturbance or of internal circuits.</p> <ol style="list-style-type: none"> 1) Excessive electromagnetic disturbance 2) Failure of the internal circuit 	<ol style="list-style-type: none"> 1) Check the disturbance level around the G9SX and the related system. 2) Replace with a new product.
ERR lights up, T1 blinks		<p>Fault involved with safety input 1</p> <ol style="list-style-type: none"> 1) Error in the wiring of safety input 1 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input 1 	<ol style="list-style-type: none"> 1) Check the wiring to T11 and T12. 2) Check the wiring to Y1. 3) Replace with a new product.
ERR lights up, T2 blinks		<p>Fault involved with safety input 2</p> <ol style="list-style-type: none"> 1) Error in the wiring of safety input 2 2) Incorrect setting of cross fault detection input 3) Failure of the circuit of safety input 2 	<ol style="list-style-type: none"> 1) Check the wiring to T21 and T22. 2) Check the wiring to Y1. 3) Replace with a new product.
ERR lights up, NS blinks		<p>Fault involved with Non-contact Door Switch input</p> <ol style="list-style-type: none"> 1) Error in the wiring of Non-contact Door Switch input 2) Error in the wiring of Non-contact Door Switch inputs in series connections 3) Failure of the internal circuits of Non-contact Door Switch inputs 4) Failure of the Non-contact Door Switch 	<ol style="list-style-type: none"> 1) Check the wiring to D1 and D2. 2) Check the wiring to the Non-Contact Door Switch. 3) Replace with a new product. 4) Replace with a new Non-Contact Door Switch.
ERR lights up, FB blinks		<p>Fault involved with feedback/reset inputs</p> <ol style="list-style-type: none"> 1) Error in the wiring of feedback/reset input. 2) Failure of the circuit of feedback/reset input <p>Fault in Expansion Unit</p> <ol style="list-style-type: none"> 1) Improper feedback signals from Expansion Unit 2) Abnormal supply voltage to Expansion Unit 3) Failure of the circuit of safety relay contact outputs 	<ol style="list-style-type: none"> 1) Check the wiring to T31, T32 and T33. 2) Replace with a new product. <ol style="list-style-type: none"> 1) Check the connecting cable of Expansion Unit and the connection of the termination socket. 2) Check the supply voltage to Expansion Unit. Note: Make sure that all Expansion Units' PWR indicators are lit. 3) Replace with a new product.

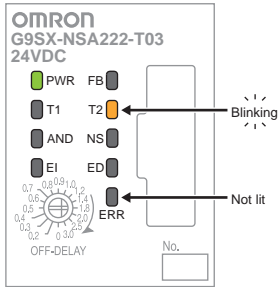
Indicator	Expected causes	Check points and measures to take
<p>ERR lights up, EI blinks</p> 	<p>Fault involved with instantaneous safety outputs, logical AND connection outputs, or auxiliary monitor output</p> <ol style="list-style-type: none"> 1) Error in the wiring of instantaneous safety outputs 2) Failure of the circuit of instantaneous safety outputs 3) Error in the wiring of the logical AND connection output 4) Failure of the circuit of the logical AND connection output 5) Error in the wiring of the auxiliary monitor output 6) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S14 and S24. 2) Replace with a new product. 3) Check the wiring to L1. 4) Replace with a new product. 5) Check the wiring to X1. 6) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, ED blinks</p> 	<p>Fault involved with OFF-delayed safety outputs</p> <ol style="list-style-type: none"> 1) Error in the wiring of OFF-delayed safety relay contact outputs 2) Incorrect set values for OFF-delay time 3) Failure of the circuit of OFF-delayed safety relay contact outputs 4) Impermissible high ambient temperature 	<ol style="list-style-type: none"> 1) Check the wiring to S44 and S54. 2) Check the settings of the OFF-delay time setting switch. 3) Replace with a new product. 4) Check the ambient temperature and spacing around the G9SX.
<p>ERR lights up, AND blinks</p> 	<p>Fault involved with logical AND connection input</p> <ol style="list-style-type: none"> 1) Error in the wiring of the logical AND connection input 2) Incorrect setting for the logical AND connection input 3) Failure of the circuit of the logical AND connection input 	<ol style="list-style-type: none"> 1) Check the wiring to T41 and T42. Note: Make sure that the wiring length for the T41, T42 terminal is 100 meters or less. Note: Make sure that the logical AND connection signal is branched for 4 units or fewer. 2) Confirm the set value of the logical AND connection preset switch. 3) Replace with a new product.
<p>ERR lights up, all indicators except PWR blink</p> 	<p>Supply voltage outside the rated value</p> <ol style="list-style-type: none"> 1) Supply voltage outside the rated value 	<ol style="list-style-type: none"> 1) Check the supply voltage to the Units.

When indicators other than the ERR indicator blink, check and take necessary actions referring to the following table.

Indicator	Expected causes	Check points and measures to take
<p>ERR does not light up, T1 or T2 blinks</p>	<p>Mismatch between input 1 and input 2.</p> <p>The input status between input 1 and input 2 is different, due to contact failure or a short circuit of safety input device(s) or a wiring fault.</p>	<p>Check the wiring from safety input devices to the G9SX. Or check the input sequence of safety input devices. After removing the fault, turn both safety inputs 1 and 2 to the OFF state.</p>



Or



Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

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