

8-2. Troubleshooting (High Wall Type)

8-2-1. Outline of judgment

The primary judgment to check whether a trouble occurred in the indoor unit or outdoor unit is carried out with the following method.




























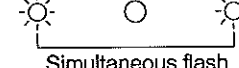



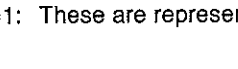
Method to judge the erroneous position by flashing indication on the display part of the indoor unit

The indoor unit monitors the operating status of the air conditioner, and the blocked contents of self-diagnosis are displayed restricted to the following cases if a protective circuit works.

● : Go off, ○ : Go on, ☼ : Flash (0.5 sec.)







Lamp indication	Check code	Cause of trouble occurrence
Ready ☼ ● No indication at all	—	Power supply OFF or miswiring between receiving unit and indoor unit
Ready ☼ ● Timer ☼ ● Operation ☼ Flash	E01	Receiving error } Receiving unit } Sending error } Communication stop }
	E02	
	E03	
	E08	Duplicated indoor unit No. } Duplicated master units of remote controller } Setup error
	E09	
	E10	
	E18	Wire connection error between indoor units, Indoor power OFF (Communication stop between indoor master and follower or between main and sub indoor twin)
Ready ☼ Flash	E04	Miswiring between indoor unit and outdoor unit or connection error (Communication stop between indoor and outdoor units)
Ready ☼ Flash Timer ☼ Flash Operation ☼ ● Alternate flash	P01	Indoor AC fan error } Overflow was detected. } Protective device of indoor unit worked. Indoor DC fan error }
	P10	
	P12	
Ready ☼ Flash Timer ☼ ● Operation ☼ Flash Alternate flash	P03	Outdoor unit discharge temp. error } Outdoor high pressure system error } Protective device of } Case thermostat worked } outdoor unit worked. } *1 Power supply error }
	P04	
	P05	
	P07	Heat sink overheat error } Gas leak detection error } Outdoor unit error
	P15	
	P19	4-way valve system error (Indoor or outdoor unit judged.)
	P20	Outdoor unit high pressure protection
	P22	Outdoor unit: Outdoor unit error } Outdoor unit: Inverter Idc operation } Protective device of } Outdoor unit: Position detection error } outdoor unit worked. } *1
	P26	
	P29	
P31	Stopped because of error of other indoor unit in a group (Check codes of E03/L03/L07/L08)	

*1: These are representative examples and the check code differs according to the outdoor unit to be combined.

Lamp indication	Check code	Cause of trouble occurrence
Ready:  Timer:  Operation:  Alternate flash: 	F01	Heat exchanger sensor (TCJ) error
	F02	Heat exchanger sensor (TC) error
	F10	Heat exchanger sensor (TA) error
Ready:  Timer:  Operation:  Alternate flash: 	F04	Discharge temp. sensor (TD) error
	F06	Temp. sensor (TL, TS, TE) error
	F07	Temp. sensor (TD) error
	F08	Temp. sensor (TO) error
	F12	Temp. sensor (TS) error
	F13	Heat sink sensor (TH) error
	F15	Temp. sensor miswiring (TE, TS)
Ready:  Timer:  Operation:  Simultaneous flash: 	F29	Indoor EEPROM error
Ready:  Timer:  Operation:  Simultaneous flash: 	F31	Outdoor EEPROM error
Ready:  Timer:  Operation:  Flash: 	H01	Compressor break down
	H02	Compressor lock
	H03	Current detection circuit error
	H04	Case thermostat worked.
Ready:  Timer:  Operation:  Simultaneous flash: 	L03	Duplicated master indoor units
	L07	There is indoor unit of group connection in individual indoor unit.
	L08	Unsetting of group address
	L09	Missed setting (Unset indoor capacity)
Ready:  Timer:  Operation:  Simultaneous flash: 	L10	Unset model type (Service board)
	L20	Duplicated indoor central addresses
	L29	Temp. sensor (TH) error EEPROM error Communication between outdoor MCU Heat sink overheat error Gas leak detection error 4-way valve error
Ready:  Timer:  Operation:  Simultaneous flash: 	L30	Outside interlock error

*1: These are representative examples and the check code differs according to the outdoor unit to be combined.

8-2-2. Others (Other than Check Code)

Lamp Indication	Check code	Cause of trouble occurrence
<p>Ready Timer Operation</p>    <p>Simultaneous flash</p>	<p>—</p>	<p>During test run</p>
<p>Ready Timer Operation</p>    <p>Alternate flash</p>	<p>—</p>	<p>Disagreement of cool/heat (Automatic cool/heat setting to automatic cool/heat prohibited model, or setting of heating to cooling-only model)</p>

8-2-3. Check Code List (Indoor)

○ : Go on, ◎ : Flash, ● : Go off ALT (Alternate); Alternate flashing when there are two flashing LED SIM (Simultaneous); Simultaneous flashing when there are two flashing LED

(Indoor unit detected)

Check code indication	Sensor lamp indication		Representative defective position	Explanation of error contents	Air conditioner operation	
	Block indication	Flash			Automatic reset	Operation continuation
Wired remote controller	Ready	Timer	Regular communication error between indoor and remote controller.	No communication from remote controller and network adapter (Also no communication from central control system)	○	X
	Operation	Flash				
E03	●	◎	Indoor/Outdoor serial error	There is error on serial communication between indoor and outdoor units	○	X
E04	◎	●	Duplicated indoor addresses	Same address as yours was detected.	○	X
E08	●	◎	Regular communication error between indoor master and follower units	Regular communication between indoor master and follower units is impossible. Communication between twin master (main) and follower (sub) units is impossible.	○	X
E18	●	◎	Indoor unit, Heat exchanger (TCJ) error	Open/short was detected on heat exchanger (TCJ).	○	X
F01	●	◎	Indoor unit, Heat exchanger (TC) error	Open/short was detected on heat exchanger (TC).	○	X
F02	●	◎	Indoor unit, Room temp. sensor (TA) error	Open/short was detected on room temp. sensor (TA).	○	X
F10	●	◎	Indoor unit, other indoor PC board error	EEPROM error (Other error may be detected. If no error, automatic address is repeated).	X	X
F29	◎	●	Duplicated setting of indoor group master unit	There are multiple master units in a group.	X	X
L03	◎	●	There is group cable in individual indoor unit.	When even one group connection indoor unit exists in individual indoor unit.	X	X
L07	◎	●	Unset indoor group address	Indoor group address is unset.	X	X
L08	◎	●	Unset indoor capacity	Capacity of indoor unit is unset.	X	X
L09	◎	●	Duplicated central control system address	Duplicated setting of central control system address	○	X
L20	◎	○	Outside error input to indoor unit (Interlock)	Abnormal stop by outside error (CN80) input	X	X
L30	◎	◎	Indoor unit, DC fan error	Indoor DC fan error (Over-current/Lock, etc.) was detected.	X	X
P12	◎	◎	4-way valve system error	In heating operation, an error was detected by temp. down of indoor heat exchanger sensor.	○	X
P19	◎	◎	Other indoor unit error	Follower unit in group cannot operate by warning from [E03/L03/L07/L08] of master unit.	○	X
P31	◎	◎			○	X

◇ When this warning was detected before group construction/address check finish at power supply was turned on, the mode shifts automatically to AUTO address setup mode.

(Remote controller detected)

Check code indication	Sensor lamp indication		Representative defective position	Explanation of error contents	Air conditioner operation	
	Block indication	Flash			Automatic reset	Operation continuation
Wired remote controller	Ready	Timer	No master remote controller; Remote controller communication (Receive) error	Signal cannot be received from Indoor unit. Master remote controller was not set. (including 2 remote controllers)	—	—
	Operation	Flash				
E01	●	◎	Remote controller communication (Send) error	Signal cannot be sent to indoor unit.	—	—
E02	●	◎	Duplicated master remote controller	In 2-remote controller control, both were set as master. (Indoor master unit stops warning and follower unit continues operation.)	—	—
E09	●	◎			X	△

(Central control devices detected)

Check code indication	Sensor lamp indication		Representative defective position	Explanation of error contents	Air conditioner operation	
	Block indication	Flash			Automatic reset	Operation continuation
TCC-LINK central	Ready	Timer	Central control system communication (send) error	Signal sending operation of central control system is impossible. There are multiple same central devices. (AI-NET)	—	—
	Operation	Flash				
C05	—	—	Central control system communication (receive) error	Signal receiving operation of central control system is impossible.	—	—
C06	—	—	General-purpose device control interface batched warning	An error on device connected to General-purpose device control interface of exclusive to TCC-LINK/AI-NET	—	—
C12	—	—	Group follower unit is defective.	Group follower unit is defective.	—	—
P30	—	—	Group remote controller, above-mentioned [***] details are displayed with unit No.	Group remote controller, above-mentioned [***] details are displayed with unit No.	—	—

NOTE: Even for the same contents of error such as communication error, the display of check code may differ according to detection device. When remote controller or central controller detects an error, it is not necessarily related to operation of the air conditioner. In this list, the check codes that outdoor unit detects are not described.

Error mode detected by indoor unit

Operation of diagnostic function				Judgment and measures
Check code	Cause of operation	Status of air conditioner	Condition	
E03	No communication from remote controller (including wireless) and communication adapter	Stop (Automatic reset)	Displayed when error is detected	1. Check cables of remote controller and communication adapters. • Remote controller LCD display OFF (Disconnection) • Central remote controller [97] check code
E04	The serial signal is not output from outdoor unit to indoor unit. • Miswiring of inter-unit wire • Defective serial sending circuit on outdoor P.C. board • Defective serial receiving circuit on indoor P.C. board	Stop (Automatic reset)	Displayed when error is detected	1. Outdoor unit does not completely operate. • Inter-unit wire check, correction of miswiring • Check outdoor P.C. board. Correct wiring of P.C. board. 2. When outdoor unit normally operates Check P.C. board (Indoor receiving / Outdoor sending).
E08	Duplicated indoor unit address	Stop	Displayed when error is detected	1. Check whether remote controller connection (Group/Individual) was changed or not after power supply turned on (Finish of group construction/Address check). * If group construction and address are not normal when the power has been turned on, the mode automatically shifts to address setup mode. (Resetting of address)
E18	Regular communication error between indoor master and follower units and between main and sub units	Stop (Automatic reset)	Displayed when error is detected	1. Check remote controller wiring. 2. Check indoor power supply wiring. 3. Check indoor P.C. board.
F01	Coming-off, disconnection or short of indoor heat exchanger temp. sensor (TCJ)	Stop (Automatic reset)	Displayed when error is detected	1. Check indoor heat exchanger temp. sensor (TCJ). 2. Check indoor P.C. board.
F02	Coming-off, disconnection or short of indoor heat exchanger temp. sensor (TC)	Stop (Automatic reset)	Displayed when error is detected	1. Check indoor heat exchanger temp. sensor (TC). 2. Check indoor P.C. board.
F10	Coming-off, disconnection or short of indoor heat exchanger temp. sensor (TA)	Stop (Automatic reset)	Displayed when error is detected	1. Check indoor heat exchanger temp. sensor (TA). 2. Check indoor P.C. board.
F29	Indoor EEPROM error • EEPROM access error	Stop (Automatic reset)	Displayed when error is detected	1. Check indoor EEPROM. (including socket insertion) 2. Check indoor P.C. board.
L03	Duplicated indoor master unit	Stop	Displayed when error is detected	1. Check whether remote controller connection (Group/Individual) was changed or not after power supply turned on (Finish of group construction/Address check). * If group construction and address are not normal when the power has been turned on, the mode automatically shifts to address setup mode. (Resetting of address)
L07	There is group wire in Individual indoor unit.			
L08	Unset indoor group address			
L09	Unset indoor capacity	Stop	Displayed when error is detected	1. Set indoor capacity (DN=11)
L30	Abnormal input of outside Interlock	Stop	Displayed when error is detected	1. Check outside devices. 2. Check indoor P.C. board.
P12	Indoor DC fan error	Stop	Displayed when error is detected	1. Position detection error 2. Over-current protective circuit of indoor fan driving unit operated. 3. Indoor fan locked. 4. Check indoor P.C. board.
P19	4-way valve system error • After heating operation has started, indoor heat exchangers temp. is down.	Stop (Automatic reset)	Displayed when error is detected	1. Check 4-way valve. 2. Check 2-way valve and check valve. 3. Check indoor heat exchanger (TC/TCJ). 4. Check indoor P.C. board.
P31	Own unit stops while warning is output to other indoor units.	Stop (Follower unit) (Automatic reset)	Displayed when error is detected	1. Judge follower unit while master unit is [E03], [L03], [L07] or [L08]. 2. Check indoor P.C. board.

Error mode detected by remote controller or central controller (TCC-LINK)

Operation of diagnostic function				Judgment and measures
Check code	Cause of operation	Status of air conditioner	Condition	
Not displayed at all (Operation on remote controller is impossible.)	No communication with master indoor unit <ul style="list-style-type: none"> Remote controller wiring is not correct. Power of indoor unit is not turned on. Automatic address cannot be completed. 	Stop	—	Power supply error of remote controller, Indoor EEPROM error <ol style="list-style-type: none"> 1. Check remote controller inter-unit wiring. 2. Check remote controller. 3. Check indoor power wiring. 4. Check indoor P.C. board. 5. Check indoor EEPROM. (including socket insertion) → Automatic address repeating phenomenon generates.
E01 *2	No communication with master indoor unit <ul style="list-style-type: none"> Disconnection of inter-unit wire between remote controller and master indoor unit (Detected by remote controller side) 	Stop (Automatic reset) * If center exists, operation continues.	Displayed when error is detected	Receiving error from remote controller <ol style="list-style-type: none"> 1. Check remote controller inter-unit wiring. 2. Check remote controller. 3. Check indoor power wiring. 4. Check indoor P.C. board.
E02	Signal send error to indoor unit (Detected by remote controller side)	Stop (Automatic reset) * If center exists, operation continues.	Displayed when error is detected	Sending error of remote controller <ol style="list-style-type: none"> 1. Check sending circuit inside of remote controller. → Replace remote controller.
E09	There are multiple main remote controllers. (Detected by remote controller side)	Stop (Sub unit continues operation.)	Displayed when error is detected	1. In 2-remote controllers (including wireless), there are multiple main units. Check that there are 1 main remote controller and other sub remote controllers.
L20 Central controller L20	Duplicated indoor central addresses on communication of central control system (Detected by indoor/central controller side)	Stop (Automatic reset)	Displayed when error is detected	1. Check setting of central control system network address. (Network adapter SW01) 2. Check network adapter P.C. board.
— *3 Central controller (Send) C05 (Receive) C06	Communication circuit error of central control system (Detected by central controller side)	Continues (By remote controller)	Displayed when error is detected	1. Check communication wire / miswiring 2. Check communication (U3, U4 terminals) 3. Check network adapter P.C. board. 4. Check central controller (such as central control remote controller, etc.) 5. Check terminal resistance. (TCC-LINK)
— Central controller P30	Indoor Gr sub unit error (Detected by central controller side)	Continuation/Stop (According to each case)	Displayed when error is detected	Check the check code of the corresponding unit from remote controller.

*2 The check code cannot be displayed by the wired remote controller.
(Usual operation of air conditioner becomes unavailable.)

For the wireless models, an error is notified with indication lamp.

*3 This trouble is related to communication of remote controller (A, B), central system (TCC-LINK U3, U4), and [E01], [E02], [E03], [E09] or [E18] is displayed or no check display on the remote controller according to the contents.

Error mode detected by outdoor unit

Operation of diagnostic function				Judgment and measures
Check code	Cause of operation	Status of air conditioner	Condition	
Indoor unit High Wall				
F04	Disconnection, short of discharge temp. sensor (TD)	Stop	Displayed when error is detected	1. Check discharge temp. sensor (TD). 2. Check outdoor P.C. board.
F06	Disconnection, short of outdoor temp. sensor (TE)	Stop	Displayed when error is detected	1. Check temp. sensor (TE). 2. Check outdoor P.C. board.
F07	Disconnection, short of outdoor temp. sensor (TL)	Stop	Displayed when error is detected	1. Check temp. sensor (TL). 2. Check outdoor P.C. board.
F08	Disconnection, short of outside temp. sensor (TO)	Continue	Displayed when error is detected	1. Check outside temp. sensor (TO). 2. Check outdoor P.C. board.
F12	Disconnection, short of suction temp. sensor (TS)	Stop	Displayed when error is detected	1. Check suction temp. sensor (TS). 2. Check outdoor P.C. board.
F13	Disconnection, short of heat sink temp. sensor (TH)	Stop	Displayed when error is detected	1. Check outdoor P.C. board.
F15	Miss-mounting of outdoor temp. sensor (TE, TS)	Stop	Displayed when error is detected	1. Check temp. sensor (TE, TS). 2. Check outdoor P.C. board.
F31	Outdoor P.C. EEPROM error	Stop	Displayed when error is detected	1. Check outdoor P.C. board.
H01	Compressor break down * Although operation has started, operation frequency decreases and operation stops.	Stop	Displayed when error is detected	1. Check power supply voltage. (AC208V/230V ±10V) 2. Overload operation of refrigerating cycle
H02	Compressor lock * Over-current detection after compressor start-up	Stop	Displayed when error is detected	1. Trouble of compressor (Lock, etc.); Replace compressor. 2. Wiring error of compressor (Open phase)
H03	Current detection circuit error	Stop	Displayed when error is detected	1. Check outdoor P.C. board. (AC current detection circuit)
H04	Case thermostat operation * Abnormal overheat of compressor	Stop	Displayed when error is detected	1. Check case thermostat and connector. 2. Check gas leak, recharge 3. Check full open of service valve. 4. Check PMV (Pulse Motor Valve). 5. Check broken pipe.
L10	Unset jumper of service P.C. board	Stop	Displayed when error is detected	1. Outdoor service P.C. board Check model type setting jumper wire.
L29	Communication error between outdoor P.C. board MCU	Stop	Displayed when error is detected	1. Check outdoor P.C. board.

Operation of diagnostic function				Judgment and measures
Check code	Cause of operation	Status of air conditioner	Condition	
Indoor unit				
High Wall				
P03	Discharge temp. error * Discharge temp. (TD) over specified value was detected.	Stop	Displayed when error is detected	1. Check refrigerating cycle (Gas leak). 2. Trouble of electronic expansion valve. 3. Check discharge temp. sensor (TD).
P04	High pressure system error	Stop	Displayed when error is detected	1. Freezing cycle overload operation. 2. Check outdoor heat exchange sensor (TE). 3. Check outdoor P.C. board. 4. Check high-pressure switch and circuit.
P05	Power supply voltage error	Stop	Displayed when error is detected	1. Check power supply voltage. (AC208V/230V ±10V)
P07	Heat sink overheat error * Heat sink temp. sensor detected over specified temperature.	Stop	Displayed when error is detected	1. Check screw tightening between PC. Board and heat sink and check radiator grease. 2. Check heat sink blast path.
P15	Detection of gas leak * Discharge temp. sensor (TD), Suction temp. sensor (TS) detected temperature over specified temp.	Stop	Displayed when error is detected	1. Check gas leak, recharge. 2. Check full open of service valve. 3. Check PMV (Pulse Motor Valve). 4. Check broken pipe. 5. Check discharge temp. sensor (TD), suction temp. sensor (TS).
P19	4-way valve inverse error * After heating operation has started, indoor heat exchanger temp. lowers under the specified temp. * After heating operation has started, outdoor heat exchanger / suction temp. rises over the specified temp.	Stop	Displayed when error is detected	1. Check operation of 4-way valve. 2. Check outdoor heat exchanger (TE), suction temp. sensor (TS). 3. Check indoor heat exchanger sensor (FC). 4. Check 4-way valve coil. 5. Check PMV (Pulse Motor Valve).
P20	High pressure protective operation • During cooling operation, outdoor temp. sensor (TL) detected temperature over specified temp. • During heating operation, indoor temp. sensor (TC, TCJ) detected temperature over specified temp.	Stop	Displayed when error is detected	1. Check outdoor heat exchanger sensor (TL). 2. Check indoor heat exchanger sensor (TC, TCJ). 3. Check full open of service valve. 4. Check indoor/outdoor fan. 5. Check PMV (Pulse Motor Valve). 6. Check clogging and short circuit of indoor/outdoor heat exchanger. 7. Overcharge of refrigerant. Recharge
P22	Outdoor fan system error	Stop	Displayed when error is detected	1. Check lock of fan motor. 2. Check power supply voltage. (AC208V/230V ±10V) 3. Check outdoor P.C. board.
P26	Short-circuit error of compressor driving element	Stop	Displayed when error is detected	1. When performing operation while taking-off compressor wire, P26 error occurs. Check control P.C. board. 2. When performing operation while taking-off compressor wire, an error does not occur. (Compressor rare short)
P29	Position detection circuit error	Stop	Displayed when error is detected	1. Check control P.C. board.