Error Diagnosis	Error Trigger Condition	Error Protection	Error Releasing	Error Handling	Error Number
HW Break	Hard ware break	Stop motor driving	Restart the syetem	a. Please turn on and off for a few times b. Please return the controller to service unit	1
Battery Over Current	Battery current over protection setting	Stop motor driving	Restart the syetem and current flow is in normal condition	Please check battery cable and connector to see if there is abnomal and short-circuit condition	2
Phase Over Current	Phase current over protection setting	Stop motor driving	Restart the syetem and current flow is in normal condition	Please check motor cable and connector to see if there is abnormal and short-circuit condition	3
Over Voltage	Battery voltage over protection setting	Stop motor driving	Voltage in normal condition	Please check battery voltage	4
Hall Sensor Error	Motor hall sensor signal error or lost	Stop motor driving	Restart the syetem	a. Please check motor cable and connector to see if connection is fine or short-circuit condition b. Please check hall sensor in the motor	5
Turn Block	Motor blocked	Stop motor driving	Bike speed is Zero and stop pedalling for 2s	a. Please check motor and wheel if it is blocked b. Please check motor cable connection is fine c.Please check torque sensor connection is fine	6
T.S Over Limit	Torque sensor signal over protection setting	Stop motor driving	Restart the syetem	a.Please check torque sensor connection is fine b.Please check torque sensor status	7
T.S Under Limit	Torque sensor signal under protection setting	Stop motor driving	Restart the syetem	a.Please check torque sensor connection is fine b.Please check torque sensor status	8
Throttle Over Limit	Throttle signal over protection setting	Stop motor driving	Restart the syetem	a.Please check throttle connection is fine b.Please check throttle status	9
Throttle Under Limit	Throttle signal under protection setting	Stop motor driving	Restart the syetem	a.Please check throttle connection is fine b.Please check throttle status	10
Mosfet Over Temperature	Controller mosfet temperature over protection setting	stop motor driving	Wait until temperature back to nornal		11
Motor Over Temperature	Motor temperature over protection setting	stop motor driving	Wait until temperature back to nornal	a.Please check motor cable connection is fine b.Please check NTC status	12
Under Voltage	Battery voltage under protection setting	Stop motor driving	wait until voltage back to normal	a. Please recharge the battery b. Please check battery status	13
Regeneration Error	Regeneration does not work		Stop the bike completely and restart the system	Please return to service unit if error continue	14
Turn On While Drive	Turn on system when bike is moving	Stop motor driving	Stop the bike completely and hold up for 2 seconds		15

BMS Time Out	BMS communication lost	None	Read messages from BMS	Please check connection between battery and controller	17
Found BMS Error	Controller detect BMS error	None	No error message from BMS		18
Battery Full	If battery SOC is higher than setting and regeneration is activated	Stop regeneration	Until battery SOC is lower than setting		19
HMI Lost Communicaiton	Communication lost between HMI and Controller	None	HMI get message from Controller	a. Please check connection between HMI and system b. Please check controller status	30
FW Update Error	FW is damaged or lost in the controller	None	Updating FW successfully	a. Please repeat update firmware for a few times b. Please return the controller to service unit	31
BMS Over Discharge Current	Battery current over protection setting from BMS	Stop power supply	Restart the syetem and current flow is in normal condition	Please return to service unit if error continue	B1
BMS Discharge Short Current	Short circuit detection from BMS	Stop power supply	Restart the syetem and current flow is in normal condition	Please return to service unit if error continue or Back to the bike store	B2
BMS Over Voltage	Battery voltage over protection setting from BMS	Stop power supply	Voltage in normal condition	Stop charging if you are doing so and please return to service unit	В3
BMS Under Voltage	Battery voltage under protection setting from BMS	Stop power supply	Voltage in normal condition	Charge your bike with specified charger	B4
BMS Over Charge Current	Charge current over protection setting from BMS	Stop power supply	Voltage in normal condition	Remove the charger and Check if using the proper one	B5
BMS Over Temperature	BMS temperature over protection setting	Stop power supply	Wait until temperature back to nornal		B6
BMS Under Temperature	BMS temperature under protection setting	Stop power supply	Wait until temperature back to nornal		В7