Flash Codes and Corrective / Investigative Action (633T45303)					
Flash Code	Description	Action	Handset ID fault number (13.01)	Calibrator reference loc	Correction - If fault does not clear
	Internal Mosfet failure	Disconnect any electrical accessories and retry	25 / 26	-	Controller replacement required, contact Tech Support
	Pin 1 Circuit Fault	Trace current from battery positive to Pin 1	-	-	Replace failed connection, component, or wiring.
0 Flash (Light does not illuminate or light turns on and then back off.)	Contactor Circuit fault	Trace current to solenoid and contact connections	-	-	Replace failed connection, component, or wiring.
1 Flash	Personality out of range	Check personality Checksum	17 / 18	19.15	Controller replacement required, contact Tech Support
2 Flash	Seat Switch Fault	Check Seat switch and Seat switch circuit	7	19.08	Repair or replace failed connection or component
	Accelerator not at rest when direction selected	Ensure Accelerator Pedal returns to 0 (rest) position	8 or 9	19.01 / 19.07	Repair or replace failed connection or component
	Two directions selected	Ensure Direction Key switch is functioning properly	10	19.05 / 19.06	Repair or replace failed connection or component
	Forward or reverse selected at power up	Ensure Direction Key switch is functioning properly	11	19.05 / 19.06	Repair or replace failed connection or component
	Speed Switch out of range	Check speed switch range	11	19.01 / 19.02	Repair or replace failed connection or component
	FS1 not open with pedal up	Ensure Pedal returns to 0 and microswitch is functioning properly	11	19.07	Repair or replace failed connection or component
	Controller pins are cross - shorted	Check wire harness connector pins for good connections	Various	19.01 - 19.09	Repair any faulty connections
3 Flash	Auxiliary wiring short	Disconnect auxiliary electrical components and retry	-	-	Controller replacement required, contact Tech Support
	Armature Short Detected	Clean and Check motor and wiring for faults	23	-	Motor replacement may be required, contact Tech Support
	Internal controller fault	Disconnect auxiliary electrical components and retry	27	-	Controller replacement required, contact Tech Support
4 Flash	Contactor Failed or Stuck	Bench test contactor	19	-	Replace Solenoid, If good - Controller replacement required, contact Tech Support
	Contactor Failed or contactor wiring fault	Bench test contactor and test contactor wiring	20	-	Repair or replace failed connection or component
	Motor open circuit or brushes fault	Clean and Check motor and wiring for faults	22	-	Motor replacement may be required, contact Tech Support
5 Flash	Motor stall detected	Clean and Check motor and wiring for faults - review application	15	-	Motor replacement may be required, contact Tech Support
6 Flash	Input wire disconnected	Check wiring to the speed switch and FS1	4	19.01 / 19.07	Repair or replace failed connection or component
	Speed switch out of adjustment	Check speed switch range	11	19.01 / 19.02	Repair or replace failed connection or component
	Pedal depressed at start up	Ensure Accelerator Pedal returns to 0 (rest) position	8 or 9	19.01 / 19.07	Repair or replace failed connection or component
7 Flash	Battery voltage low fault	Check Static battery voltage and voltage while operating	12 / 13 or 16	15.01	Check to see if voltage drops below 32 volts, charge / replace batteries
	Battery voltage high fault	Check Static battery voltage and voltage while operating	12 / 13 or 16	15.01	Check to see if voltage rises above 63 volts in while operating, see SB - 12-07
	Capacitor voltage is too high	Check Static battery voltage and voltage while operating	14	15.02	Contact tech support with reading from 15.02
8 Flash	Over Temperature cut - out	Review application and allow vehicle to cool	1	18.01	Contact Tech Support
	Current Cut - Back	Review application and allow vehicle to cool	3	18.01	Contact Tech Support
9 Flash	Internal monitor tripped	Disconnect any electrical accessories and retry	2	-	Controller replacement required, contact Tech Support
10 Flash	Contactor Coil Disconnected	Bench test contactor and test contactor wiring	-	-	Contactor or Controller replacement may be required, contact Tech Support
	Value out of range	Check personality Checksum	34	19.15	Controller replacement may be required, contact Tech Support
	Internal controller fault	Disconnect any electrical accessories and retry	34	-	Controller replacement may be required, contact Tech Support
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