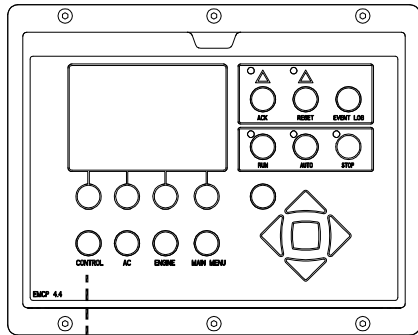


1

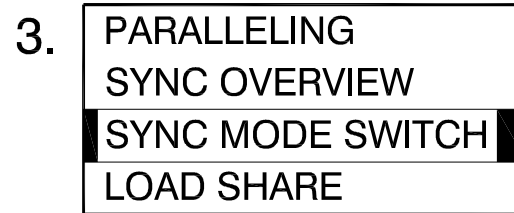
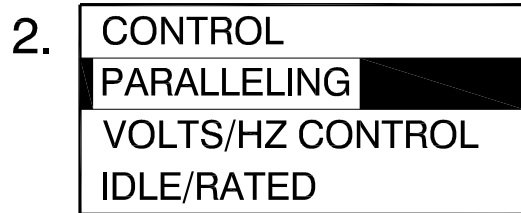
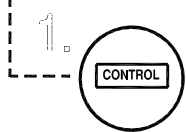
# OPERATION - ENGINE START - SELECT SYNC MODE

SYNC MODE SWITCH (SMS) DETERMINES GENERATOR BREAKER CONTROL (MANUAL OR AUTOMATIC CLOSE) AND GENERATOR-TO-BUS SYNCHRONIZATION CONTROL



**IMPORTANT:** ALWAYS VERIFY SYNC MODE BEFORE STARTUP. TO DO THIS

1. PRESS "CONTROL" BUTTON
2. SELECT "PARALLELING"
3. SELECT "SYNC MODE SWITCH"



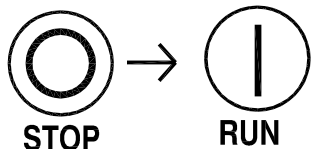
STOP

THE SYNC MODE SWITCH IS AUTOMATICALLY PLACED IN THE "CHECK" POSITION UPON BOOT UP OF THE EMCP CONTROL OR WHENEVER THE "STOP" BUTTON IS PRESSED ON THE EMCP.

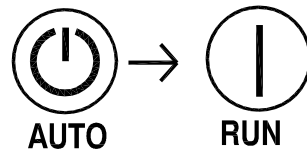


AUTO

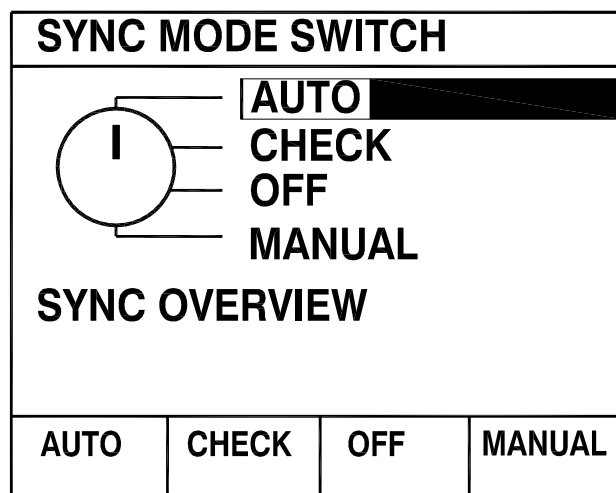
THE SYNC MODE SWITCH IS AUTOMATICALLY PLACED IN THE "AUTO" POSITION WHENEVER THE "AUTO" BUTTON IS PRESSED ON THE EMCP.



ENGINE STARTS WITH SMS IN "CHECK"



ENGINE STARTS WITH SMS IN "AUTO"



**SYNC MODE SWITCH (SMS)**

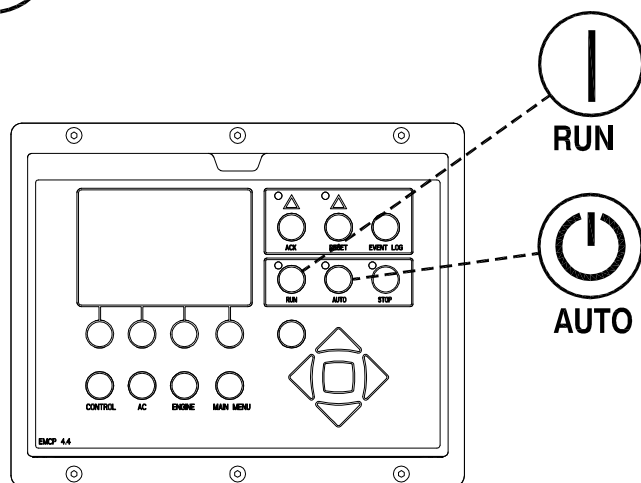
**AUTO** - CAUSES AUTOMATIC GENERATOR-TO-BUS SYNCHRONIZATION AND AUTOMATIC CLOSING OF THE GENERATOR BREAKER UPON STARTUP (EITHER LOCAL OR REMOTELY STARTED).

**CHECK** - OPERATE SAME AS "AUTO" EXCEPT IT REQUIRES OPERATOR TO MANUALLY CLOSE THE GENERATOR BREAKER USING THE CIRCUIT BREAKER SWITCH.

**OFF** - DOES NOT ALLOW FOR GENERATOR-TO-BUS SYNCHRONIZATION AND DOES NOT ALLOW BREAKER TO CLOSE.

**MANUAL** - REQUIRES OPERATOR TO MAKE NECESSARY VOLTAGE OR FREQUENCY ADJUSTMENTS TO BRING GENERATOR IN-SYNC WITH THE BUS AND TO MANUALLY CLOSE THE GENERATOR BREAKER USING THE CIRCUIT BREAKER SWITCH ONCE GENERATOR IS SYNCHRONIZED TO THE BUS.

## 2 OPERATION - ENGINE START - INITIATE START

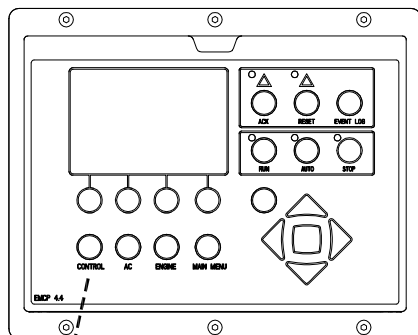


**"RUN"** IMMEDIATELY STARTS ENGINE.  
- BREAKER RESPONSE DEPENDS ON SYNC MODE SWITCH SETTING.

**"AUTO"** ENABLES "INDIVIDUAL REMOTE START" OR "GROUP REMOTE START" SIGNAL TO UNIT AND PUTS SYNC MODE INTO "AUTO".  
- BREAKER WILL AUTOMATICALLY CLOSE AFTER START.

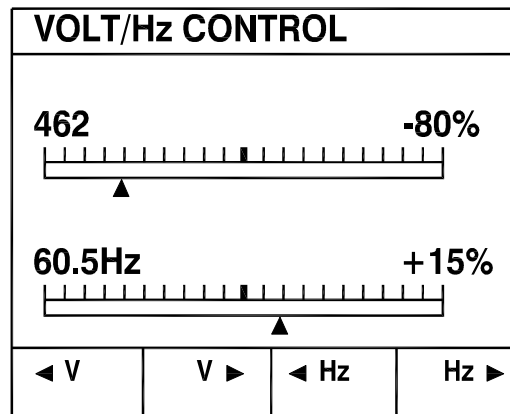
### 3 OPERATION - ADJUSTMENTS (PRIOR TO BREAKER CLOSE)

NOTE: NEEDED ONLY FOR "MANUAL" SYNC MODE



2.

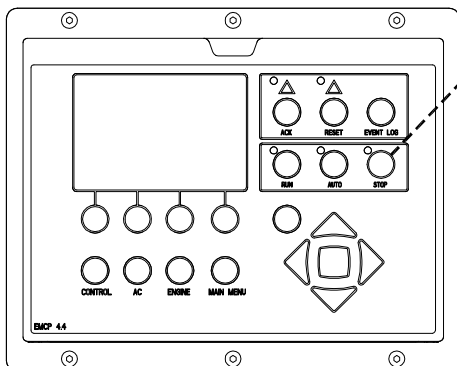
CONTROL  
PARALLELING  
VOLTS/HZ CONTROL  
IDLE/RATED



FREQUENCY ADJUST KEYS

FREQUENCY ADJUST KEYS

### 4 OPERATION - ENGINE STOP



STOP

#### STOP

#### SINGLE UNIT (NON-PARALLELING) APPLICATIONS

PRESSING "STOP" IMMEDIATELY TRIPS BREAKER OPEN AND PUTS ENGINE INTO COOLDOWN

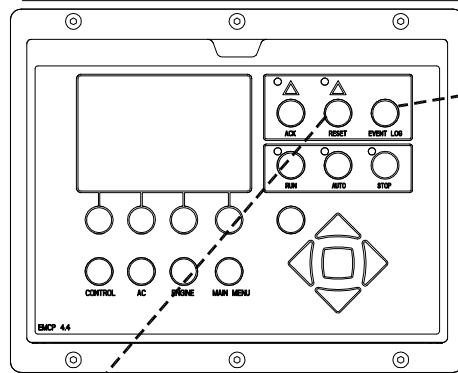
#### PARALLELING APPLICATIONS

PRESSING "STOP" BEGINS RAMPING DOWN GENERATOR OUTPUT. AT THE PROGRAMMED kW TRIP LEVEL, THE BREAKER WILL AUTOMATICALLY TRIP OPEN AND ENGINE WILL GO INTO COOLDOWN

## COOLDOWN BYPASS

TO SKIP THE NORMAL 5 MIN. COOLDOWN ENGINE RUN CYCLE, WHILE IN COOLDOWN MODE, PRESS AND HOLD THE "**STOP**" KEY FOR 5 SEC. THEN PRESS THE "**OK**" KEY TO ACKNOWLEDGE.

### EVENTS AND ALARMS



### VIEW EVENTS AND ALARMS

| EVENT LOG             |          |
|-----------------------|----------|
| <b>STATUS EVENTS</b>  | <b>5</b> |
| <b>GENSET CONTROL</b> | <b>0</b> |
| <b>ENGINE CONTROL</b> | <b>3</b> |
| <b>CDVR MODULE</b>    | <b>0</b> |
|                       |          |
|                       |          |

### RESET SHUTDOWN ALARMS

-  PRESS "STOP" KEY  
STOP
-  PRESS "RESET" KEY  
RESET
-  PRESS "OK" KEY  
OK

#### EVENT LOGS

#### RESET ALL EVENTS?

-  **RESET ALL EVENTS**
-  **CANCEL**

**STATUS EVENTS** - RECENT ACTIONS (NOT ALARMS)

**GENSET CONTROL** - EVENTS FOR THE EMCP 4 GSC

**ENGINE CONTROL** - EVENTS FOR THE ENGINE ECM

**CDVR MODULE** - EVENTS FOR THE VOLTAGE REGULATOR

**SCR MODULE** - EVENTS FOR ENGINE AFTERTREATMENT

THE NUMBERS REPRESENT HOW MANY ACTIVE EVENTS THERE ARE IN EACH LOG. A LOG WITH (0) EVENTS WILL CONTAIN ONLY EVENT HISTORY.