

DAT210 Board LED Indicators, Programming and Troubleshooting



The DAT210 board on all Plasma Block® products contains 10 LED's which are used to indicate status during normal operation, board programming and troubleshooting of the unit.

Documentation – DAT210 Board LED Light Patterns

Normal Running LED Light Pattern		Page 3
Performing Calibration Mode		Page 3
Performing Start Button Sweep		Page 4
Programming a Power Set Point		Page 5
Troubleshooting – High Power Warning		Page 6
Troubleshooting – Low Power Warning		Page 6
Troubleshooting – Power Limit Warning		Page 7
Troubleshooting – Load Fault		Page 7
Troubleshooting – Soft Charge Relay Fai	lure	Page 7

The DAT210 board's 10 LED's are shown below in various patterns with related status/description information.

	FAULTED	NORMAL RUNNING LED LIGHT PATTERN.
	IGBT FLT	
	HS TEMP	Under service and distance the LED light notices will any on an element have
	HOT LOAD	Under normal running conditions, the LED light pattern win appear as shown here.
	LOAD FLT	The INV ON and +5VOLTS will be solid ; the LOCKED will be flickering.
	HTCH PWR	
	TOW DWD	
	LOCKED	
	LOCKED	
S	INV ON	
	+5 VOLTS	
	FAULTED	PERFORMING CALIBRATION MODE – STEP 1
	IGBT FLT	
	HS TEMP	Press the START button and hold briefly until these LED's show, then release.
	HOT LOAD	
	LOAD FLT	Note Unit must be in Somi Auto mode (15 removed)
B	HIGH PWR	Note – Unit must be in Semi-Auto mode (JS removed).
B	LOW PWR	Note – Holding any longer will snow a different pattern of LEDs.
B	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	DEDEODMING CALIDDATION MODE STED 2
	TODE ET	FERFORMING CALIBRATION MODE – STEF 2
	IGBI FLI	
	HS TEMP	HS Temp LED will flicker, showing that the board is in Calibration Mode.
	HOT LOAD	
	LOAD FLT	
	HIGH PWR	
	LOW PWR	
	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PERFORMING CALIBRATION MODE – STEP 3
	IGBT FLT	
	HS TEMP	
	HOT LOAD	This light pattern indicates 11 is set higher than 2% of the original set point. Adjust the 11
	TOAD ETT	voltage pot to a value within the 2% range where the HIGH PWR led turns off. Proceed to
	LOAD FLI	the final step below.
	HIGH PWR	
	TOM DMK	
B	LOCKED	
S	INV ON	
IS	+5 VOLTS	UK
	FAULTED	PERFORMING CALIBRATION MODE – STEP 3A
	IGBT FLT	
F	HS TEMP	This light nattern indicates T1 is set lower than 2% of the original set noint. Adjust the T1
	HOT LOAD	waltage parter in indicates 1.1 is 20% round where the 1 OW DWD led turns off Decased to the
	LOAD FLT	voltage por to a value within the 2 % range where the LOW F WK led turns off. Froceed to the
	HIGH PWR	nnai step below.
S	LOW PWR	
R	LOCKED	
S	TNV ON	
		DEDEODMING CALIDDATION MODE STEP 4
	FAULIED	PERFORMING CALIBRATION MODE – STEP 4
	IGDI FLI	
	HS TEMP	FINAL STEP. Press the start button and hold it briefly until the LED's light up, release the
	HOT LOAD	start button to exit calibration mode. The unit has now been adjusted to the original
	LOAD FLT	factory set values.
B	HIGH PWR	
B	LOW PWR	
B	LOCKED	
S	INV ON	
S	+5 VOLTS	

The DAT210 board's 10 LED's are shown below in	various patterns	with related	status/description
information.			

	FAULTED	PERFORMING START BUTTON SWEEP – STEP 1
	IGBT FLT	
	HS TEMP	Under normal running conditions, the LED light nattern will appear as shown here
	HOT LOAD	The INV ON and SVOI TS will be cold throughout this process; the LOCKED will be
	LOAD FLT	The INV ON and +5 VOL15 will be sold in oughout this process, the LOCKED will be
	HIGH PWR	inckering.
	LOW PWR	
F	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PERFORMING START BUTTON SWEEP - STEP 2
	IGBT FLT	
	HS TEMP	Holding the START button down until the LOCKED LOW PWR and HIGH PWR blink
	HOT LOAD	invaling the DTAKT button down until the DOCKED, DOW_T WK, and HIGH_T WK blink
	LOAD FLT	sinutaneousiy.
В	HIGH PWR	
B	LOW PWR	
В	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PERFORMING START BUTTON SWEEP – STEP 3
	IGBT FLT	
	HS TEMP	After a second or two the LOAD FLT and HOT LOAD will blink simultaneously, along with
B	HOT LOAD	the blinking LEDs in the previous step. When this occurs, release the START button.
B	LOAD FLT	the binning 2225 m the provide step, when this security refuse the STATE buttom
B	HIGH PWR	
B	LOW PWR	
B	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PERFORMING START BUTTON SWEEP – STEP 4
	IGBT FLT	
	HS TEMP	Upon release the LOCKED LED will blink rapidly. This indicates the frequency is
	HOT LOAD	sweeping up and down to find optimum value. The LOCKED LED will blink then flicker as
	LOAD FLT	normal after a few seconds completing the process. Verify the power or amperage draw
	HIGH PWR	values are within accentable range for the model being used.
	LOW PWR	and of the main acceptable range for the model being used
B	LOCKED	
S	INV ON	
S	+5 VOLTS	

	FAULTED	PROGRAMMING A POWER SET POINT – STEP 1
	IGBT FLT	
	HS TEMP	NOTE – the unit must be in semi-auto mode (J5 removed) to program the power setpoint.
	HOT LOAD	
	LOAD FLT	When T1 has been turned to the desired set point press and hold the OP OK button until this
B	HIGH PWR	nattern shows then release.
B	LOW PWR	Provide and the second s
S	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PROGRAMMING A POWER SET POINT – STEP 2
	IGBT FLT	
	HS TEMP	Upon release, the HIGH PWR and LOW PWR LED's will blink alternately. The unit may
	HOT LOAD	be in a tolerance set point of $\pm -40\%$, $\pm -20\%$ or $\pm -10\%$. Pressing the OP OK button
	LOAD FLT	will evel/repeat thru these three choices with a varying LED blink time $(10\%$ fast 20%
B	HIGH PWR	madium $A0\%$ slow). To avit this mode or select a tolerance move to STEP 3
B	LOW PWR	incurani, 4070 slow). To exit this mode of select a corefance, move to STEP 5.
	LOCKED	
	INV ON	
	+5 VOLTS	
	FAULTED	PROGRAMMING A POWER SET POINT – STEP 3
	IGBT FLT	
S	HS TEMP	Once desired tolerance band has been selected press and hold OP OK longer than in the first
S	HOT LOAD	sten to attain this LED light nattern and then release.
S	LOAD FLT	beep to utual the 222 agree pattern and then received
S	HIGH PWR	
S	LOW PWR	
S	LOCKED	
S	INV ON	
S	+5 VOLTS	
	FAULTED	PROGRAMMING A POWER SET POINT – STEP 4
S	IGBT FLT	
S	HS TEMP	If successful, this pattern of LED's will display. The INV ON will blink once followed by a
S	HOT LOAD	blink of the LOW PWR LED. This pattern is a response to let the user know that the
S	LOAD FLT	programming of the nower setupint has been successful
S	HIGH PWR	programming or the power scipolit has been succession.
B	LOW PWR	
S	LOCKED	
B	INV ON	
S	+5 VOLTS	

The DAT210 board's 10 LED's are shown below in various patterns with related status/description information.

TROUBLESHOOTING DAT210 PROBLEMS

FAULTED	HIGH POWER WARNING – PATTERN 1		
IGBT FL			
HS TEMP	LEDs indicate the unit's nower is higher than		
HOT LOAD	the televenee level of the programmed newer		
LOAD FT	the tolerance level of the programmed power		
	point.		
LOW PWR			
F LOCKED			
S INV ON			
S +5 VOLTS			
	HICH DOWED WADNING DATTEDN 2	Step 1	Does unit show a hard fault? (PATTERN 3)
TODE TO	HIGH FOWER WARNING – PATTERN 2		Yes – Go to Step 2
IGBT FL.			No – Go to Step 3.
HS TEMP	After a period of 5 – 10 seconds this pattern		
HOT LOAD	will display indicating a warning that the unit	G4 0	T
LOAD FL	will hard fault and shut itself off.	Step 2	Turn unit on.
S HIGH PW	win hur a futile tild shar fisch off		
LOW PWR		Step 3	Turn T1 pot counterclockwise.
LOCKED		-	-
S INV ON		Stop 4	Did HICH PWR I FD turn off ?
S +5 VOLTS		Step 4	New Ne forther set or see led
		_	Yes – No further action needed
S FAULTED	HIGH POWER WARNING – PATTERN 3		No – Repeat Step 3 and 4.
IGBT FL			
HS TEMP	Hard fault indicator of T1 being set higher		
HOT LOAI	then its programmed set point for tee long of o		
LOAD FL	than its programmed set point for too long of a		
	period of time. The unit has now shut itself off		
	to prevent possibility of damage.		
LOW PWR			
LOCKED			
INV ON			
S +5 VOLTS			
B. 4111			
FAULTED	LOW POWER WARNING – PATTERN I		
IGBT FL	LOW POWER WARNING - PATTERN I		
IGBT FL	LOW POWER WARNING - PATTERN 1 LEDs indicate the unit's power is lower than		
IGBT FL'	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power		
HOLTED	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the		
HIGH PW	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that		
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR B LOW PWR	LOW POWER WARNING – PATTERN T LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the store here do not resolve		
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI B LOW PWR F LOCKED	LOW POWER WARNING – PATTERN I LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve		
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR B LOW PWR F LOCKED S INV ON	LOW POWER WARNING – PATTERN I LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem.		
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR B LOW PWR F LOCKED S INV ON S +5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem.		
FAOLTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR LOCKED S INV ON S +5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem.	-	
FAOLTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWR LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2	Step 1	Does unit show a hard fault? (PATTERN 3)
FAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWR B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL'	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2	Step 1	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PM B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern	Step 1	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit	Step 1	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB LOW FWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL'	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off	Step 1	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' LOAD FL' LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB S LOW FWR	LOW POWER WARNING - PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING - PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on.
FAULTED IGBT FL' HS TEMP HOT LOAH LOAD FL' HIGH PWR LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAH LOAD FL' HIGH PWR S LOW PWR	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2 Step 3	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI S LOW PWR NO W P	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2 Step 3	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI S LOW PWR LOCKED S INV ON N +5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ?
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB LOW PWR FLOCKED SINV ON S+5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB SLOW PWR LOCKED SINV ON S+5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off.	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ?
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB S LOW PWR LOCKED S INV ON S +5 VOLTS FAULTED	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR F LOCKED S INV ON FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' IGBT FL'	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR F LOCKED S INV ON FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' LOAD FL' S LOW PWR LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HIGH PWI S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HS TEMP	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' LOAD FL' LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HS TEMP HOT LOAI	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAOLTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH FWI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HIGH PWI S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL'	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWN FLOCKED SINV ON FAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWN SLOW PWR LOCKED SINV ON S+5 VOLTS FAULTED IGBT FL' HIGH FWN HOT LOAN LOAD FL' HS TEMP	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWN FLOCKED SINV ON FAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HIGH PWN SLOW PWR LOCKED SINV ON S+5 VOLTS FAULTED IGBT FL' HIGH PWN SLOW PWR LOCKED SINV ON S+5 VOLTS SFAULTED IGBT FL' HIGH PWN SLOW PWR LOCKED SINV ON S+5 VOLTS SFAULTED IGBT FL' HS TEMP HOT LOAN LOAD FL' HS TEMP HOT LOAN LOAD FL' HIGH PWN SLOW PWR	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HIGH PWB S LOW PWR LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HIGH PWB NON S +5 VOLTS S FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HIGH PWB LOCKED	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR F LOCKED S INV ON FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR S LOW PWR LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR LOCKED INV ON S +5 VOLTS S FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PWR LOCKED INV ON	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAOLTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PMI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH PMI S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HIGH PMI S LOW PWR LOCKED S FAULTED IGBT FL' HS TEMP HOT LOAI IGBT FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HIGH PMI B LOW PWR LOCKED INV ON S +5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3 LOW POWER WARNING – PATTERN 3	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.
FAOLTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HIGH FWI B LOW PWR F LOCKED S INV ON S +5 VOLTS FAULTED IGBT FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HIGH FWI S LOW PWR LOCKED S INV ON S +5 VOLTS S FAULTED IGBT FL' HIGH FWI LOCKED HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HS TEMP HOT LOAI LOAD FL' HIGH PWI LOCKED INV ON S +5 VOLTS	LOW POWER WARNING – PATTERN 1 LEDs indicate the unit's power is lower than the tolerance level of the programmed power point. Also, it may indicate issues in the system outside the block. Investigate that possibility if the steps here do not resolve the problem. LOW POWER WARNING – PATTERN 2 After a period of 5 – 10 seconds this pattern will display indicating a warning that the unit will hard fault and shut itself off. LOW POWER WARNING – PATTERN 3 Low power hard fault indicates that T1 has not been adjusted in time and the unit has shut itself off.	Step 1 Step 2 Step 3 Step 4	Does unit show a hard fault? (PATTERN 3) Yes – Go to Step 2. No – Go to Step 3. Turn unit on. Turn T1 pot clockwise. Did LOW PWR LED light turn off ? Yes – No further action needed. No – Repeat steps 3 and 4.

I GBT FLT HS TEMP HS_TEMP and HOT_LOAD lights will flicker rapidly in an alternating pattern. Power level is reaching or at a dangerous point; unit will not increase wattage past this limit. DAT210 Step 1 Turn T1 pot counterclockwise until LED pattern ceases. S HIGH PWR LOCKED Step 1 Turn T1 pot counterclockwise until LED pattern ceases. S HIGH PWR LOCKED Will shut itself off after approximately 20 seconds. Step 1 Turn T1 pot counterclockwise until LED pattern. Ceases. S HIGH PWR LOAD FAULT - PATTERN 1 Step 1 Does unit display a hard fault? PATTERN 3 PAULTED LOAD FAULT - PATTERN 2 Step 1 Does unit display a hard fault? PATTERN 3 MIGH PWR HIGH PWR display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 MIGH PWR HIGH PWR display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 MIGH PWR LOAD FAULT - PATTERN 2 After 10 - 15 seconds board will display pattern 3 shown below. Step 3 Replace the transformer. MIGH PWR pattern 3 shown below. Step 4 Turn unit on. Does the light pattern remain ? MIGH PWR Hard fault indicated by this LED pattern. The full PWR Step 5 Using original transformer, swap		FAULTED	POWER LIMIT WARNING.		
IB STEAP HOT LOAD HS_TEMP and HOT_LOAD lights will flicker apidly in an alternating pattern. Power level is reaching or at a dangerous point; unit will not increase wattage past this limit. DAT210 will shut tisteff off after approximately 20 seconds. Step 1 Turn T1 pot counterclockwise until LED pattern ceases. ILOW PRR ILCORED STRV ON HOT LOAD FOR TEAP HOT LOAD DOB FLT HIGH PRR ILCORED INV ON Seconds. LOAD FAULT - PATTERN 1 Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 2. No - Go to step 3. ILCORE FLT HIGH PRR ILCORED INV ON Seconds. LOAD FAULT - PATTERN 1 Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 3. ILCORE FLT HIGH PRR HOT LOAD ILCORE FLT HIGH PRR HOT		IGBT FLT			
IF OT LOAD rapidly in an alternating pattern. Power level is reaching or at a dangerous point; unit will not increase wattage past this limit. DAT210 pattern ceases. ILOW PYR LOCKED Step 2 Continue decreasing T1 until HIGH PWR ILOW PYR LOAD FAULT - PATTERN 1 Step 2 Continue decreasing T1 until HIGH PWR IB TEVD ON Step 1 Does unit display a hard fault? PATTERN 3 IB TEVD ON Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 = 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 LOAD FLT Pattern 2 shown below. Step 3 Replace the transformer with a known Functioning transformer. B TEVD B TO LOAD FAULTED LOAD FAULT - PATTERN 2 Step 4 Turn unit on. IGBT FLT After 10 = 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. I LOAD FUT After 10 = 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. I LOAD FUT After 10 = 15 seconds board will display pattern 3 shown below. Step 5 Using original transformer, swap the cell. I LOAD FUT After 10 = 15 seconds board will display pattern 3 shown below. Step 5 Using original transformer, swap the cell.	F	HS TEMP	HS_TEMP and HOT_LOAD lights will flicker	Sten 1	Turn T1 not counterclockwise until LED
LOAD FLT Frank in a match ming parter in structure is reaching or at a dangerous point; unit will not increase wattage past this limit. DAT210 Frank is reaching or at a dangerous point; unit will not increase wattage past this limit. DAT210 FL COCEPS Excords. Step 2 Continue decreasing T1 until HIGH PWR LOW PR Will shut liself off after approximately 20 Step 2 Continue decreasing T1 until HIGH PWR LOW PR Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5: 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 LOW PR FAULTED LOAD FAULT - PATTERN 2 No - Go to step 3. Step 2 Check for proper connection of transformer To PCB and Plasma Block cell. MC LOAD FLT Mer 10 - 15 seconds board will display pattern 3 shown below. Step 3 Replace the transformer with a known Functioning transformer. MF FAULTED LOAD FAULT - PATTERN 3 Turn unit on. Does the light pattern remain ? LOW PR LOW PR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. M FAULTED LOAD FAULT - PATTERN 3 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) M FAULTED LOAD FAULT - PATTERN 3 Step 5 Using original	F	HOT LOAD	ranidly in an alternating nattern Power level	Step 1	nattarn caasas
Structung of a tanget of part in the part in thepart in the part in the part in the part in the		LOAD FLT	is reaching or at a dangerous point: unit will		pattern ceases.
LOW PWR Ind increase waitage past ins infinit DA1210 Step 2 Continue decreasing 11 unit firGH PWR LOW PWR will shut itself off after approximately 20 Step 2 Continue decreasing 11 unit firGH PWR No Doad PTLT Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 - 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 2. No - Go to step 3. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 3. LOW PWR Isplay pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 3. FAULTED LOAD FAULT - PATTERN 2 Step 1 Cost of transformer To FCB and Plasma Block cell. No - Stop 2 Check for proper connection of transformer To FCB and Plasma Block cell. No - Stop 3 Replace the transformer with a known Functioning transformer. No - Stop 4 Turn unit on. Does the light pattern remain ? I COM PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. Step 5 Using original transformer as gone bad. Step 5 Using original transformer, swap the cell. DAD FUT Hard fault indicated by	S	HIGH PWR	is reaching of at a dangerous point, diff will	S4	Continue de sus sins T1 antil IIICH DWD
In COCKED Will shull tisen of after approximately 20 IF INV ON seconds. IF STEMP DADD FAULT - PATTERN 1 IGBT FIT Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 – 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 ILOAD FIT HIGH PWR LOAD FAULT - PATTERN 2 No – Go to step 3. Step 1 Does unit display a hard fault? PATTERN 3 ILOW PWR ILOAD FAULT - PATTERN 2 Step 1 Replace the transformer in PCB and Plasma Block cell. Step 2 Check for proper connection of transformer To PCB and Plasma Block cell. ILOW PWR ILOAD FAULT - PATTERN 2 Step 3 Replace the transformer with a known Functioning transformer. ILOW PWR ILOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ILOW PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ILOW PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ILOW PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ILOW PWR LOAD FAULT - PATTERN 3 Step 6 Turu unit on. ILOW PWR<		LOW PWR	not increase wattage past this limit. DA1210	Step 2	LED (
Strav on seconds. seconds. FAULTED FAULTED FAULTED FUNCTION BCOLDS LOAD FAULT - PATTERN 1 IGBT FLT HB T2MP DOD LOAD LOAD FAULT Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 - 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 2. No - Go to step 3. ILCOKED STRV ON FAULTED LOCKED LOAD FAULT - PATTERN 2 TAGET FLT HS TEW HOT LOAD FAULTED LOAD FAULT - PATTERN 3 hown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 3. MOT LOAD FAULTED HCGE FWR LOAD FAULT - PATTERN 2 After 10 - 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad. ME LOAD FLT HGT FWR LOAD FLT HGT FWR LOAD FLT HGT FWR LOAD FUT HGT FWR LOAD FUT HGT FWR LOAD FUT HGT FWR LOAD FUT HGT FWR LOAD FUT HGT FWR LOAD FUT HGGT FTT HS TEMP HOT LOAD INV ON S +5 VOLTS LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. Step 5 Using original transformer, swap the cell. Step 5 Using original transformer, swap the cell. ME LOAD FUT HIGH FWR LOAP FUT	F	LOCKED	will shut itself off after approximately 20		LED turns off.
Image: Step 1 Does unit display a hard fault? PATTERN 1 Indext problem with Plasma Block cell or the transformer. After 5 – 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Indext DAD FIT Hight PWR LOAD FAULT - PATTERN 1 Step 1 Does unit display a hard fault? PATTERN 3 Indext DAD FIT Hight PWR After 10 - 15 seconds board will display pattern 2 shown below. Step 2 Check for proper connection of transformer To PCB and Plasma Block cell. Indext PWR LOAD FAULT - PATTERN 2 Step 3 Replace the transformer with a known Functioning transformer. Indext PWR After 10 - 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. Indext PWR LOAD FAULT - PATTERN 2 Step 4 Step 1 Check for proper connection of transformer. Indext PWR LOAD FAULT - PATTERN 2 Step 4 Step 5 Step 5 Step 4 Step 5 No - Transformer. Step 5 No - Transformer has gone bad. Indext PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. Step 5 Using original transformer, swap the cell. Indext PWR LOAD FAULT - PATTERN 3 Step 6 Turn unit on. Does the light pattern rema	S	INV ON	seconds.		
FAULTED LOAD FAULT - PATTERN 1 IGBT FIT Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 - 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - G to to step 2. No - Go to step 3. No - Go to step 3. Step 1 Does unit display a hard fault? PATTERN 3 Yes - G to to step 3. LOKEND LOCKED LOAD FAULT - PATTERN 2 Step 1 Does unit display a hard fault? PATTERN 3 Yes - G to to step 3. PAULTED LOCKED LOAD FAULT - PATTERN 2 Step 1 Does the ight pattern and fourth of the transformer. H STEMP Hard fault indicated by this LED pattern. The mit has shut itself off to prevent damage to the cell, transformer, or PCB . Step 5 Using original transformer, swap the cell. LOW FWR LOW FWR SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft stat" manual on PTI's website. IGM FIT High Failure. Step 1 Check proper connections by referring to "Single phase soft stat" manual on PTI's website.	S	+5 VOLTS			
TGBT FIT HS TEMP HOT LOADPattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 – 10 seconds board will display pattern 2 shown below.Step 1Does unit display a hard fault? PATTERN 3 Yes – Go to step 2. No – Go to step 3.LOW FWR FLOCKEDLOAD FIT HIGH FWR HIGH FWRLOAD FAULT - PATTERN 2 After 10 – 15 seconds board will display pattern 3 shown below.Step 1Does unit display a hard fault? PATTERN 3 Yes – Go to step 2. No – Go to step 3.FAULTED HIGH FWR HIGH FWR LOCKEDLOAD FAULT - PATTERN 2 After 10 – 15 seconds board will display pattern 3 shown below.Step 3Replace the transformer with a known Functioning transformer.Step 4 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes – Turn unit oft. Procent display the shull be for to prevent damage to the cell, transformer, or PCB .IGBT FIT HIGH FWR LOCKEDLOAD FAULT - PATTERN 3ME TADAD FIT HIGH FWRLOAD FAULT - PATTERN 3FROULTED LOAD FIT HIGH FWRLOAD FAULT - PATTERN 3ME TADAD FIT HIGH FWRSOFT CHARGE RELAY FAILURE. TAV ONTGBT FIT HIGH FWR HIGH FWRSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.ME TADAD FIT HIGH FWR HIGH FWR HIGH FWRSOFT CHARGE RELAY FAILURE. TAV ONME TADAD FIT HIGH FWR HIGH FWR HIGH FWR HIGH FWRSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.ME TADAD FIT HIGH FWR HIGH FWR HIGH FWR HIGH FWR HIGH FWR HIGH FWR HIGH FWR HIGH FWR HIGH FWR 		FAULTED	LOAD FAULT - PATTERN 1		
BS TEMP FOR LOAD LOAD FLT LOAD FLT LOAD FLT HIGH PWR Pattern is caused by the DAT210 detecting a problem with Plasma Block cell or the transformer. After 5 - 10 seconds board will display pattern 2 shown below. Step 1 Does unit display a hard fault? PATTERN 3 Yes - Go to step 2. No - Go to step 3. LOK PWR LOCKED No - Go to step 3. Step 2 Check for proper connection of transformer To PCB and Plasma Block cell. FAULTED LOK PWR LOAD FAULT - PATTERN 2 Step 3 Replace the transformer. Step 4 IGBT FLT HIGH PWR After 10 - 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) LOW PWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. IGBT FLT HIGH PWR LOCKED LOAD FLT LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. IGBT FLT HIGH PWR LOCKED LOAD FLT LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. IGBT FLT HIGH PWR LOCKED LOAD FLT SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTT's website. FAULTED IGBT FLT HIGH PWR HIGH PWR HI		IGBT FLT			
NOT LOAD FUNDERproblem with Plasma Block cell or the transformer. After 5 - 10 seconds board will display pattern 2 shown below.OF Yes - Go to step 2. No - Go to step 3.LOW FWR LOOKEDLOAD FAULT - PATTERN 2 IGRT FLT HS TEMP HOT LOADLOAD FAULT - PATTERN 2 After 10 - 15 seconds board will display pattern 3 shown below.Step 3FAULTED LOAD FAULT D LOAD FAULT - PATTERN 2 IGRT FLT HS TEMP HOT LOADAfter 10 - 15 seconds board will display pattern 3 shown below.Step 3LOAD FAULTED LOAD FAULT - PATTERN 3 LOKEDLOAD FAULT - PATTERN 3 HIGH PWRStep 4Turu nuit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turu nuit off. Proceed to Step 5. No - Transformer, as and the cell.FAULTED HOT LOAD LOAD FLT HIGH PWRLOAD FAULT - PATTERN 3 Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 5W FAULTED LOCKED HIGH PWRSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.No - Step 1 LOCKED INV ON W + 5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.No - Step 2 Remove AC from relay.Step 3Remove wires from DAT210 (on 12 terminals 3 & 5).No + 5 VOLTSStep 4 A pply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay. </th <th></th> <th>HS TEMP</th> <th>Pattern is caused by the DAT210 detecting a</th> <th>Step 1</th> <th>Does unit display a hard fault? PATTERN 3</th>		HS TEMP	Pattern is caused by the DAT210 detecting a	Step 1	Does unit display a hard fault? PATTERN 3
LOAD FLT proster for an frame After 5 - 10 seconds board will display pattern 2 shown below. No - Go to step 3. LOK FWR LOCKED Step 2 Check for proper connection of transformer To PCB and Plasma Block cell. FAULTED LOAD FAULT - PATTERN 2 Step 3 Replace the transformer. HS TEMP Hort 10 - 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. DOAD FLT HIGH FWR LOAD FAULT - PATTERN 2 Step 4 Turn unit on. HIGH FWR LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ME LOCKED LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ME FAULTED LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ME FAULTED LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ME FAULTED LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. ME FAULTED LOAD FAULT - PATTERN 3 Step 6 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component. Step 1		HOT LOAD	nrohlem with Plasma Block cell or the	Step 1	Ves - Co to sten ?
HTGR FWR LOW FWR LOW FWR LOCKEDHandler: Anter 5 = for seconds board will display pattern 2 shown below.No = Go to step 5.INV ON S + 5 VOLTSLOAD FAULT - PATTERN 2 After 10 - 15 seconds board will display pattern 3 shown below.Step 2Check for proper connection of transformer To PCB and Plasma Block cell.INV ON BOT LOAD FLT HIGR FWR LOCKEDLOAD FAULT - PATTERN 2 After 10 - 15 seconds board will display pattern 3 shown below.Step 3Replace the transformer with a known Functioning transformer.ICON FUT HIGR FWR LOCKEDLOAD FLT HIGR FWR LOAD FLT HIGR FWRLOAD FAULT - PATTERN 3 LOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IF FAULTED HOT LOAD LOAD FLT HIGR FWR LOCKEDLOAD FAULT - PATTERN 3 Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 5Using original transformer, swap the cell.IF FAULTED HIGR FWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.IF FAULTED HIGR FWR LOCKED HOT LOADSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.IF OCKED HOT NO NStep 3Remove wires from DAT210 (on 12 terminals 3 & 5).Step 4IF OCKED HOT NO NStep 4Apply SVDC to those removed wires and listen for an immedia	B	LOAD FLT	transformer After 5 10 seconds heard will		No. Co to stop 2.
LOW PWR LOCKEDDisplay pattern 2 shown below.Step 2Check for proper connection of transformer To PCB and Plasma Block cell.FAULTED INV ONLOAD FAULT - PATTERN 2Step 3Replace the transformer with a known Functioning transformer.FAULTED INV ONAfter 10 - 15 seconds board will display pattern 3 shown below.Step 4Turn unit on. Does the light pattern remain ? (ANY OF THE THREE)LOAD FLT HIGE FWR LOCKEDLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.TGBT FLT H BS TEMP HOT LOAD INV ONLOAD FAULT - PATTERN 3Step 6Turn unit on. Does the light pattern remain ? (ANY OF THE THREE)FAULTED LOAD FLT HIGE FWR LOCKEDLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.FAULTED HIGE FWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.FAULTED HIGE FWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.FAULTED HIGE FWR LOCKEDSOFT CHARGE RELAY FAILURE.Step 3Remove wires from DAT210 (on 12 terminals 3 & 5).FAULTED HIGE FWR LOCKEDStep 4Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HIGH PWR	dianlaw nottern 2 shown helew		10 - 60 to step 5.
Invorting LOAD FAULT - PATTERN 2 FAULTED LOAD FAULT - PATTERN 2 Instruction Step 2 Check for proper connection of transformer Tork on Step 2 Check for proper connection of transformer Tork on Step 3 Replace the transformer with a known Functioning transformer. HS TEMP After 10 - 15 seconds board will display pattern 3 shown below. Lood FLT HIGH PWR LOAD FAULT - PATTERN 3 Step 4 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad. Step 5 USING original transformer, swap the cell. IGBT FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB . LOW FWR SOFT CHARGE RELAY FAILURE. IGBT FLT His pattern of lights indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. ILOAD FLT His pattern of lights indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website.		LOW PWR	display pattern 2 shown below.	G4	
INV ON IOPCB and Plasma Block cell. INV ON IOPCB and Plasma Block cell. IGBT FLT ICAD FAULT - PATTERN 2 IGBT FLT After 10 – 15 seconds board will display pattern 3 shown below. ICAD FLT After 10 – 15 seconds board will display pattern 3 shown below. ICAD FLT FRUITED ICAD FLT After 10 – 15 seconds board will display pattern 3 shown below. ICAD FLT FRUITED ICAD FLT ICAD FLT HIGH FWR LOAD FAULT - PATTERN 3 ICBT FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB . ICAD FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB . ICAD FLT Hard fault indicated by this LED pattern. The unit bas shut itself off to prevent damage to the cell, transformer, or PCB . ICAD FLT Hard fault indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. ICAD FLT High FWR ICAD FLT High FWR INV ON Step 2 Remove wires from DAT210 (on 12 terminals 3 & 5). INV ON Step 3	F	LOCKED		Step 2	Check for proper connection of transformer
Step 4 Step 3 Replace the transformer with a known Functioning transformer. HS TEBT FIT HS Functioning transformer. HS TEMP After 10 - 15 seconds board will display pattern 3 shown below. Step 3 Replace the transformer with a known Functioning transformer. LOAD FLT HIGH FWR After 10 - 15 seconds board will display pattern 3 shown below. Step 4 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit on. Transformer has gone bad. LOCKED LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. TIBT FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB. Step 5 Using original transformer, swap the cell. LOW FWR LOCKED Throw on the cell, transformer, or PCB. Step 6 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component. DOCKED TNV ON Step 7 Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. TLOAD FLT His pattern of lights indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. LOAD FLT	S	INV ON			To PCB and Plasma Block cell.
FAULTED IGBT FIT HGH PWR LOAD FAULT - PATTERN 2Step 3Replace the transformer with a known Functioning transformer.IGBT FIT HIGH PWR LOW PWR LOW PWRAfter 10 - 15 seconds board will display pattern 3 shown below.Step 3Replace the transformer.ILOAD FIT HIGH PWR LOW PWR LOW PWR LOAD FIT HIGH PWR LOAD FITAfter 10 - 15 seconds board will display pattern 3 shown below.Step 4Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.INV ON HOT LOAD HOT LOAD FIT HIGH PWR LOCKEDLOAD FAULT - PATTERN 3 Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 5Using original transformer, swap the cell.IGBT FIT HIGH PWR LOCKEDHard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 6Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component.FAULTED LOCKEDSOFT CHARGE RELAY FAILURE.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IDAD FIT HIGH PWR LOCKEDThis pattern of lights indicates a soft charge relay failure.Step 2Remove AC from relay.LOW FWR LOCKED HOT LOADLOW FWR HOT NONStep 3Remove wires from DAT210 (on 12 terminals 3 & 5).Step 4Apply SVDC to those removed wires and listen for an immediate click soun	S	+5 VOLTS			
IGBT FIT HS TEMP HOT LOAD HOT LOAD HOT LOAD HGH PWRAfter 10 - 15 seconds board will display pattern 3 shown below.Step 4Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.Image: Dock Display HOT LOAD FUT HS TEMP HGH PWRLOAD FAULT - PATTERN 3 Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 5Using original transformer, swap the cell.Step 5Using original transformer, swap the cell.Step 5Using original transformer, swap the cell.Image: Dock Display HGH PWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.Image: Dock Display HGH PWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.Image: Dock Display LOCKED HOT LOADSoft CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTT's website.Image: Dock Display HGH PWR LOCKEDStep 2Remove wires from DAT210 (on 12 terminals 3 & 5).Image: Dock Display HGH PWR LOCKEDStep 4Apply SVDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		FAULTED	LOAD FAULT - PATTERN 2	Step 3	Replace the transformer with a known
HS TEMP HOT LOADAfter 10 - 15 seconds board will display pattern 3 shown below.Step 4Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.ILOAD FUT HIGH FWRLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IGBT FLT HOT LOADLOAD FAULT - PATTERN 3Step 6Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PUR has malfunctioned, contact PTI. No - There is a problem with the cell block or other component.IGBT FLT HOT LOADSOFT CHARGE RELAY FAILURE.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IGBT FLT HIGH PWR LOCKEDSOFT CHARGE RELAY FAILURE.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IGBT FLT HIGH PWR LOOKEDSOFT CHARGE RELAY FAILURE.Step 2Remove wires from DAT210 (on 12 terminals 3 & 5).IDAD FFT HIGH PWR LOCKEDINV ONStep 3Remove wires from DAT210 (on 12 terminals 3 & 5).		IGBT FLT			Functioning transformer.
HOT LOAD IDAD FLT HIGH PWRpattern 3 shown below.Step 4Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.IDAD FLT HS TEMP HOT LOADLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IDAD FLT HIGH PWR LOW PWRLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IDAD FLT HIGH PWR LOW PWRLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IDAD FLT HIGH PWR LOW PWRHard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB .Step 5Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component.INV ON S +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IDAD FLT HIGH PWR LOCKED INV ON S +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IDAD FLT HIGH PWR LOCKED INV ON S +5 VOLTSStep 3Remove wires from DAT210 (on 12 terminals 3 & 5).S +5 VOLTSStep 4Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HS TEMP	After 10 – 15 seconds board will display		
 LOAD FLT HIGH PWR LOCKED LOAD FAULT - PATTERN 3 FAULTED LOCKED TNV ON FAULTED LOAD FLT HS TEMP HOT LOAD Mard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB. Step 5 Using original transformer, swap the cell. Step 6 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Step 6 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component. SOFT CHARGE RELAY FAILURE. TAULTED HOT LOAD FLT HIGH PWR HOT LOAD FLT HIGH PWR SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTT's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply SVDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay. 		HOT LOAD	pattern 3 shown below.	Step 4	Turn unit on.
HIGH PWR LOW PWR BHIGH PWR LOCKED(ANY OF THE THREE) Yes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.INV ON S +5 VOLTSLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.IGBT FLT HS TEMP HOT LOAD FLT HIGH PWR LOCKEDLOAD FAULT - PATTERN 3Step 5Using original transformer, swap the cell.Step 5Using original transformer, swap the cell.Step 6Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component.INV ON S +5 VOLTSSOFT CHARGE RELAY FAILURE.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IOAD FLT HIGH PWR BThis pattern of lights indicates a soft charge relay failure.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.BLOW PWR LOCKED INV ON S +5 VOLTSStep 3Remove AC from relay.BLOW PWR LOCKEDStep 4Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	B	LOAD FLT	T.		Does the light pattern remain ?
LOW PWR LOCKED INV ONYes - Turn unit off. Proceed to Step 5. No - Transformer has gone bad.Step 5 VOLTSLOAD FAULT - PATTERN 3IGBT FLT HOT LOAD LOAD FLT HIGH PWR LOCKEDLOAD FAULT - PATTERN 7B FAULTED INV ONLOAD FAULT - PATTERN 7B FAULTED INV ONLOAD FAULT - PATTERN 7B FAULTED INV ONLOAD FLT HIGH PWR LOCKEDB FAULTED IGBT FLT HIGH PWR LOAD FLT HIGH PWR LOCKEDSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S FAULTED INV ON B +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S FAULTED INV ON B +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S FAULTED INV ON B +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S FAULTED INV ON B +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S FAULTED INV ON B +5 VOLTSSOFT CHARGE RELAY FAILURE. This pattern of lights indicates a soft charge relay failure.S Faulter B LOW PWR LOCKED INV ON B +5 VOLTSStep 1C Check proper connections by referring relay failure.S Faulter B LOW PWR LOCKED INV ON B +5 VOLTSStep 3S Faulter B LOW PWR LOCKED INV ON B +5 VOLTSS Faulter B LOW PWR LOCKED INV ON B +5 VOLTSStep 4Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, b		HIGH PWR			(ANY OF THE THREE)
B LOCKED N0 - Transformer has gone bad. INV ON Step 5 Using original transformer, swap the cell. STEMP LOAD FAULT - PATTERN 3 Step 5 Using original transformer, swap the cell. IGBT FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB. Step 6 Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component. IOW PWR LOCKED SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. IOAD FLT HIGH PWR Step 2 Remove AC from relay. B LOW PWR Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LOW PWR			Yes – Turn unit off. Proceed to Step 5.
INV ONS+5 VOLTSSFAULTEDIGBT FLTHS TEMPHOT LOADHIGH PWRLOAD FAULTHIGH PWRLOAD FTTHIGH PWRLOCKEDINV ONSFAULTEDIGBT FLTHIGH PWRLOCKEDINV ONSFAULTEDIGBT FLTHIGH PWRLOCKEDINV ONSFAULTEDIGBT FLTHIGH PWRLOAD FTTHIGH PWRLOCKEDINV ONSFAULTEDIGBT FLTHIGH PWRLOCKEDINV ONSSFOT LOADSFOT LOADSOFT CHARGE RELAY FAILURE.This pattern of lights indicates a soft charge relay failure.CLOX PURLOCKEDINV ONSSHIGH PWRLOCKEDINV ONS+5 VOLTSSHIGH PWRLOCKEDINV ONS+5 VOLTSSHIGH PWRLOCKEDINV ONS+5 VOLTSSHIGH PWRHIGH PWRLOCKEDINV ONS+5 VOLTSSHIGH PWRLOCKEDINV ONS+5 VOLTSS <th>B</th> <th>LOCKED</th> <th></th> <th></th> <th>No – Transformer has gone bad.</th>	B	LOCKED			No – Transformer has gone bad.
S +5 VOLTS FAULTED LOAD FAULT - PATTERN 3 IGBT FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB. LOAD FLT Hard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB. LOW PWR LOCKED LOW PWR SOFT CHARGE RELAY FAILURE. TIS FAULTED SOFT CHARGE RELAY FAILURE. MS TEMP This pattern of lights indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTT's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		INV ON			
 FAULTED IGBT FLT HS TEMP HOT LOAD LOAD FAULT - PATTERN 3 IGBT FLT HS TEMP HOT LOAD LOCKED INV ON S +5 VOLTS IGBT FLT HIGH PWR LOCKED INV ON HIGH PWR HIGH P	S	+5 VOLTS		Step 5	Using original transformer, swap the cell.
IGBT FLT HS TEMP HOT LOADHard fault indicated by this LED pattern. The unit has shut itself off to prevent damage to the cell, transformer, or PCB.Step 6Turn unit on. Does the light pattern remain ? (ANY OF THE THREE) Yes - PCB has malfunctioned, contact PTI. No - There is a problem with the cell block or other component.INV ON S +5 VOLTSSOFT CHARGE RELAY FAILURE.Step 1Check proper connections by referring to "Single phase soft start" manual on PTI's website.IGBT FLT HIGH PWR LOAD FLTSOFT CHARGE RELAY FAILURE.Step 2Remove AC from relay.ILOW PWR LOAD FLT HIGH PWR B LOW PWR LOCKED INV ON S +5 VOLTSStep 3Remove wires from DAT210 (on 12 terminals 3 & 5).S +5 VOLTSStep 4Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	S	FAULTED	LOAD FAULT - PATTERN 3	~~ r -	
 HS TEMP HOT LOAD HOT LOAD HIGH PWR LOAD FIT HIGH PWR LOCKED SOFT CHARGE RELAY FAILURE. SOFT CHARGE RELAY FAILURE. STEMP HOT LOAD INV ON HIGH PWR LOAD FIT HIGH PWR LOCKED SOFT CHARGE RELAY FAILURE. SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay. 		IGBT FLT		Sten 6	Turn unit on
 HOT LOAD LOAD FLT HIGH PWR LOCKED HOT LOAD MOT LOAD LOAD FLT HIGH PWR LOCKED HOT LOAD MOT LOAD LOCKED HOT LOAD LOAD FLT HIGH PWR LOCKED HOT LOAD LOAD FLT HIGH PWR LOCKED HOT LOAD LOAD FLT HIGH PWR LOCKED HOT LOAD LOCKED HOT LOAD LOCKED HOT LOAD S FAULTED HOT LOAD LOCKED LOCKED HOT LOAD S FAULTED HOT LOAD LOCKED LOC		HS TEMP	Hard fault indicated by this LED pattern. The	Step 0	Does the light nattern remain ?
 LOAD FLT HIGH FWR LOW FUT SOFT CHARGE RELAY FAILURE. SOFT CHARGE RELAY FAILURE. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay. 		HOT LOAD	unit has shut itself off to prevent damage to		(ANV OF THE THDEE)
HIGH PWR LOW PWR LOW FWR No - There is a problem with the cell block or other component. INV ON S +5 VOLTS SOFT CHARGE RELAY FAILURE. IGBT FLT This pattern of lights indicates a soft charge relay failure. B LOAD FLT HIGH PWR Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LOAD FLT	the cell, transformer, or PCB .		(ANT OF THE THREE) Vog DCP has malfunctioned contact DTI
LOW PWR INO - There is a problem with the cell block LOCKED INV ON S FAULTED SOFT CHARGE RELAY FAILURE. IGBT FLT This pattern of lights indicates a soft charge relay failure. No - There is a problem with the cell block or other component. IND - There is a problem with the cell block or other component. Soft CHARGE RELAY FAILURE. IGBT FLT HS TEMP HOT LOAD HI LOAD FLT HIGH PWR LOCKED LOCKED INV ON B LOW PWR LOCKED INV ON Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HIGH PWR			1 es – r CD has manunctioneu, contact r 11.
INV ON INV ON INV ON SOFT CHARGE RELAY FAILURE. IGBT FLT SOFT CHARGE RELAY FAILURE. IGBT FLT This pattern of lights indicates a soft charge relay failure. Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LOW PWR			No – There is a problem with the cell block
INV ON SOFT CHARGE RELAY FAILURE. IGBT FLT HS TEMP HS TEMP This pattern of lights indicates a soft charge IB LOAD FLT HIGH PWR B LOW PWR Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LUCKED			or other component.
Soft CHARGE RELAY FAILURE. Soft CHARGE RELAY FAILURE. IGBT FLT HS TEMP HS TEMP This pattern of lights indicates a soft charge IB LOAD FLT HIGH PWR B LOW PWR Step 2 Remove AC from relay. INV ON Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	S				
SOFT CHARGE RELAY FAILURE. SOFT CHARGE RELAY FAILURE. IGBT FLT HS TEMP HS TEMP This pattern of lights indicates a soft charge relay failure. B LOAD FLT HIGH PWR B LOW PWR LOCKED INV ON Step 1 Check proper connections by referring to "Single phase soft start" manual on PTI's website. Step 2 Remove AC from relay. Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		12 40112		<i>a</i> .	
IGBT FLT HS TEMP HS TEMP This pattern of lights indicates a soft charge relay failure. LOAD FLT HIGH PWR B LOW PWR LOCKED LOCKED INV ON S +5 VOLTS Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	S	FAULTED	SOFT CHARGE RELAY FAILURE.	Step 1	Check proper connections by referring
HS TEMP This pattern of lights indicates a soft charge on PTI's website. HOT LOAD relay failure. Step 2 Remove AC from relay. B LOW FWR LOCKED INV ON Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). S +5 VOLTS Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		IGBT FLT			to "Single phase soft start" manual
HOT LOAD relay failure. B LOAD FLT HIGH PWR D LOCKED INV ON S +5 VOLTS Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HS TEMP	This pattern of lights indicates a soft charge		on PTI's website.
Image: LOAD FLT HIGH PWR HIGH PWR Step 2 Remove AC from relay. B LOW PWR LOCKED INV ON Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HOT LOAD	relay failure.		
HIGH PWR B LOW PWR LOCKED INV ON Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LOAD FLT		Step 2	Remove AC from relay.
B LOW PWR LOCKED INV ON S +5 VOLTS Step 3 Remove wires from DAT210 (on 12 terminals 3 & 5). Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		HIGH PWR		-	-
INV ON (on 12 terminals 3 & 5). S +5 VOLTS Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	B	TOM DAK		Step 3	Remove wires from DAT210
Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.		LOCKED			(on 12 terminals 3 & 5).
Step 4 Apply 5VDC to those removed wires and listen for an immediate click sound. If no CLICK, bad relay.	S	1 NV ON			· /·
and listen for an immediate click sound. If no CLICK, bad relay.		12 40112		Step 4	Apply 5VDC to those removed wires
If no CLICK, bad relay.				·····	and listen for an immediate click sound
					If no CLICK, bad relay
					> > > > > > > > >