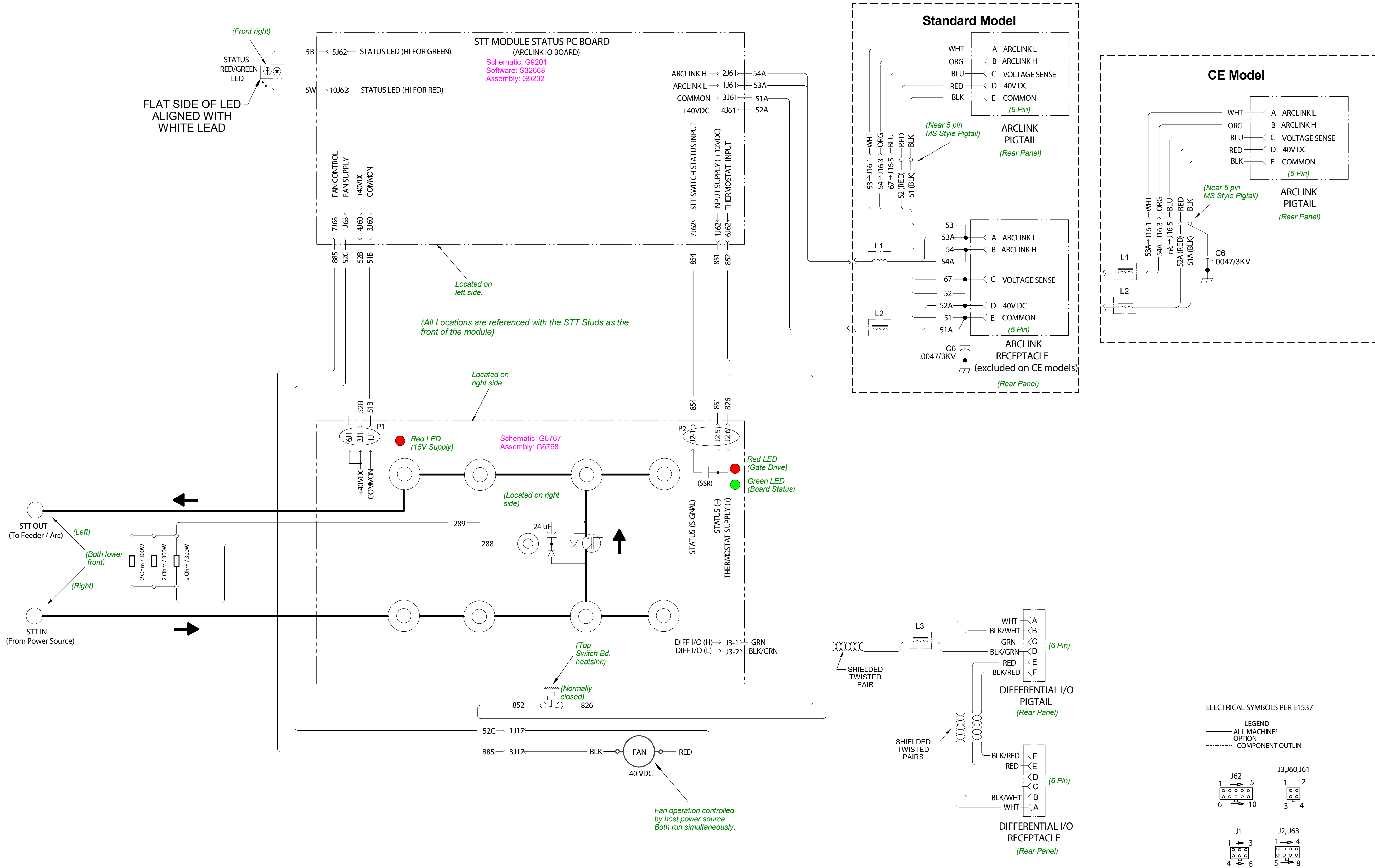
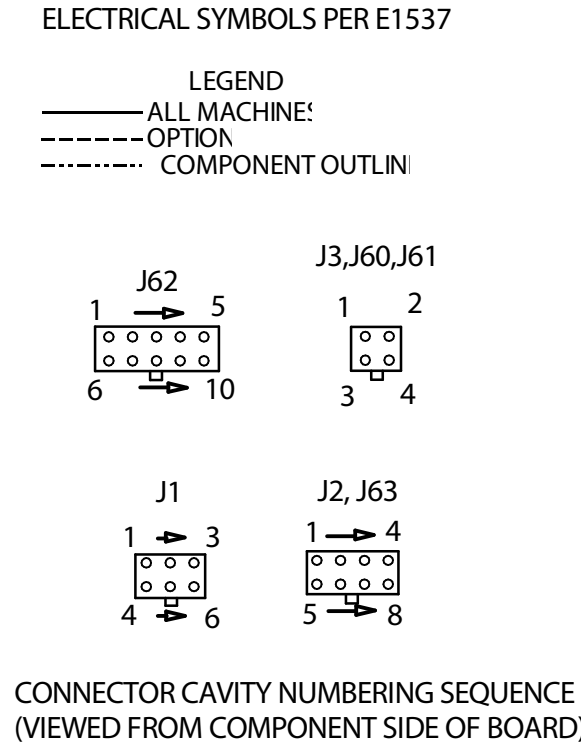


STT MODULE MACHINE SCHEMATIC G6862-1

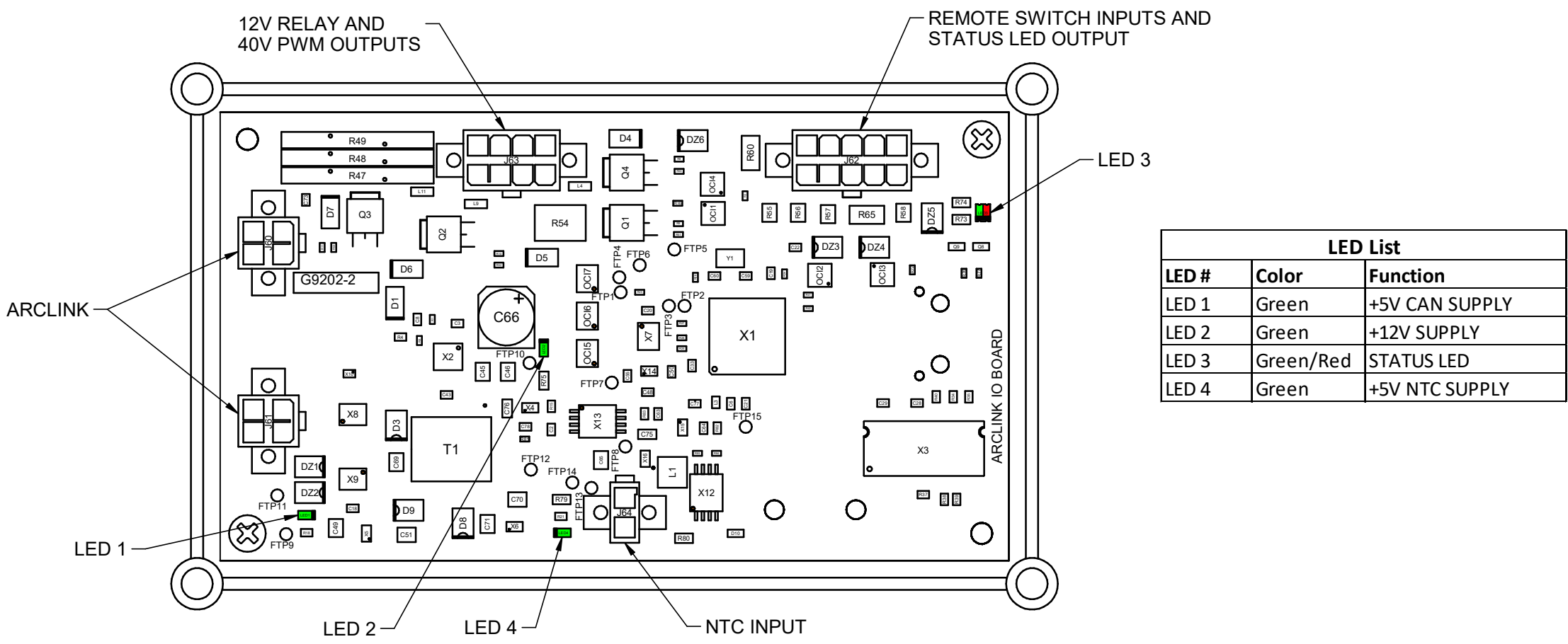


Schematic numbers and Part numbers are given for reference only.

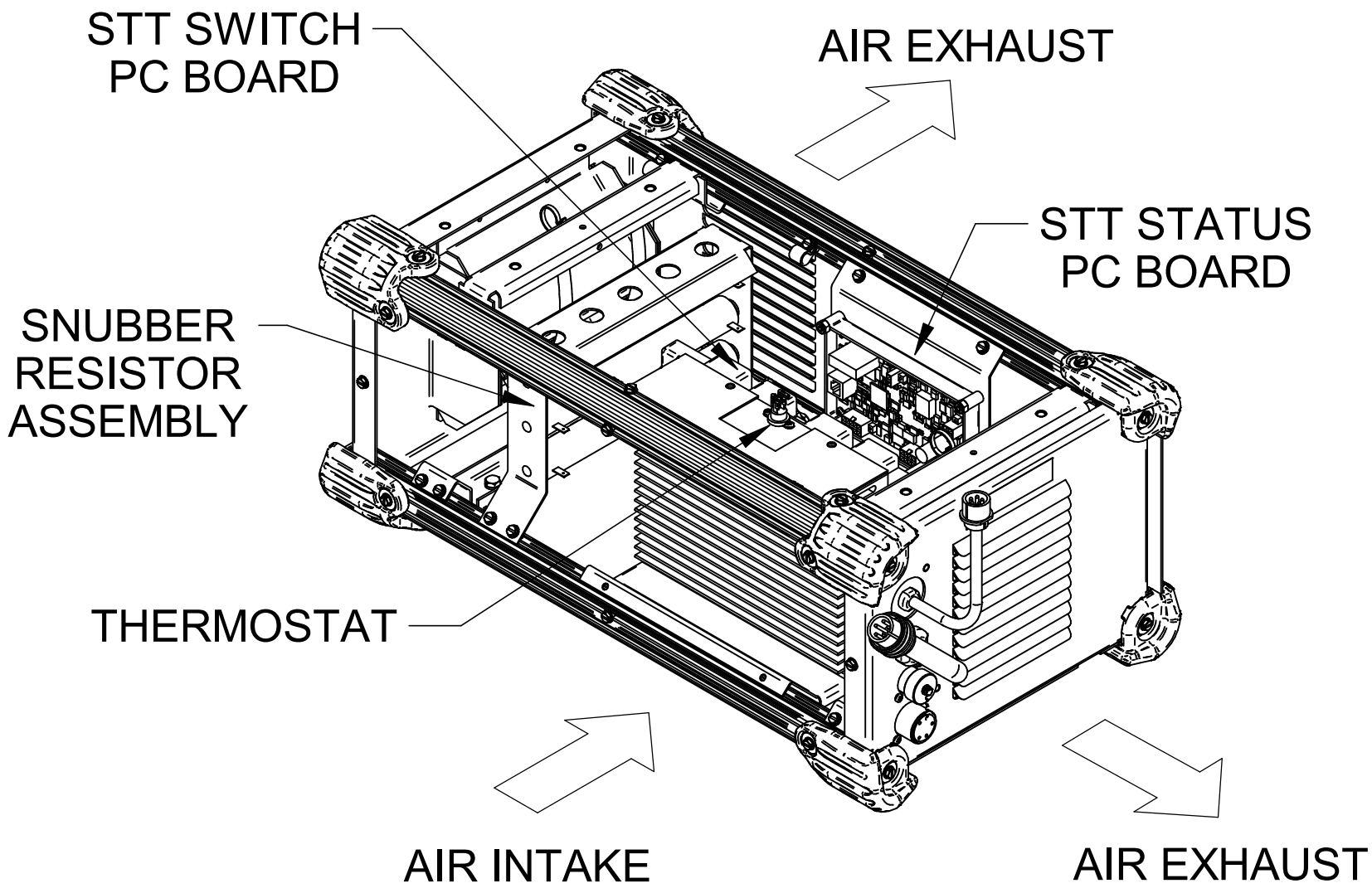


NOTES:
N.A. PC BOARD COMPONENTS SHOWN FOR REFERENCE ONLY. ALL COMPONENTS ARE NOT SHOWN.

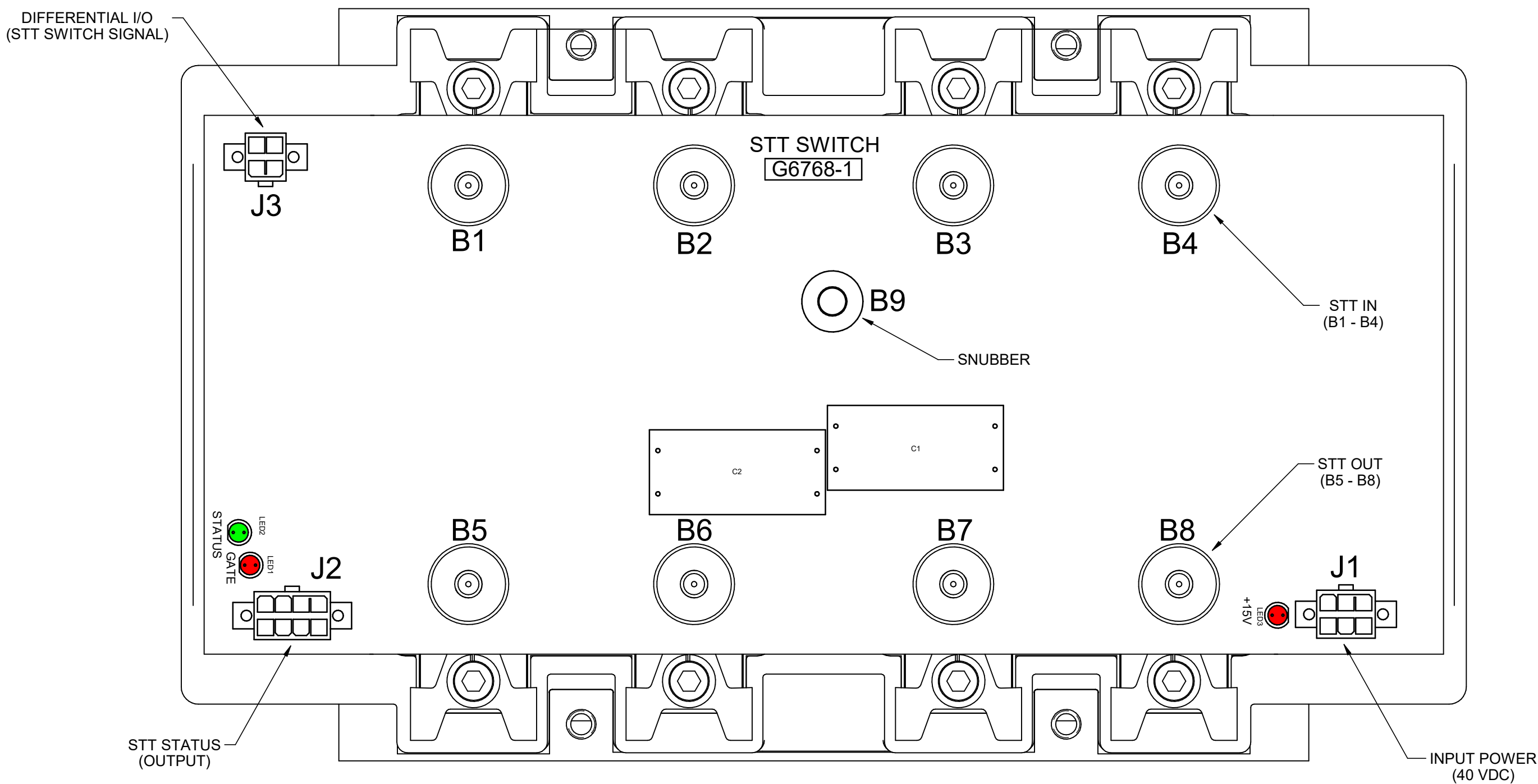
STT MODULE STATUS PC BOARD



COMPONENT LOCATION DETAIL



STT SWITCH PC BOARD



Troubleshooting the Power Wave STT Module

Using the External Status LED

LIGHT CONDITION	MEANING
Steady Green	System OK. Power source is operational, and is communicating normally with all healthy peripheral equipment connected to its Arclink network.
Blinking Green	Occurs during power up or a system reset, and indicates the power source is mapping (identifying) each component in the system. Normal 1-30 seconds after power is turned on, or if the system configuration is changing operation.
Fast Blinking Green	Under normal conditions indicates Auto-mapping is in progress. Also used by the diagnostic utility (included in Weld Manager Utilities) available at www.powerwavesoftware.com to identify the selected machine when connecting specific IP address.
Alternating Green and Red	Non-recoverable system fault. If the Status light is flashing any combination of red and green, errors are present. Read the error code(s) before the machine is turned off. Error Code interpretation through the Status light is detailed in the Service Manual . Individual code digits are flashed in red with a pause between digits. If more than one code is present, the codes will be separated by a light. Only active error conditions will be accessible through the Status Light. Error codes can also be retrieved with the diagnostic utility (included in Weld Manager Utilities) available at www.powerwavesoftware.com . This is the preferred method, since it can access historical information contained in the log. To clear the active error(s), turn power source off and back on to reset.
Steady Red	Not applicable (check polarity of LED).
Blinking Red	Not applicable (check polarity of LED).

Error codes for the Power Wave STT Module

STT Module	
Error Code #	Indication
36 Thermal error	Indicates over temperature. Usually accompanied by a flashing external LED on the host power source. Check fan operation. Be sure process does not exceed duty cycle limit of the machine.
39 Misc. hardware fault	Unknown glitch has occurred on the fault interrupt. Sometimes caused by intermittent connections in the thermostat circuit. Error reported by the STT Switch PC Board.
99 STT Status error	Generally caused by misconnection of welding leads (reverse polarity). May also be caused by loss of input voltage or blown fuses. Observe diagnostic LED's on the STT Switch PC Board to determine the cause. A complete list of error codes is available in the Power Wave Manager Utility (available at www.powerwavesoftware.com)
Other	Error codes that contain three or four digits are classified as fatal errors. These codes generally indicate internal errors on the Power Source Control Board. If cycling the input power on the machine does not clear the error, contact the Service Department.

On Board LED's for the STT Switch PC Board

STT Switch PC Board					Indication
MACHINE OUTPUT	LED1 (GATE)	LED2 (STATUS)	LED3 (+15V)		
ON/OFF	ON	ON	ON		Normal Condition – STT Switch is ON
ON	OFF	ON	ON		Normal Condition – STT Switch has been commanded OFF Note: During normal STT operation the OFF status LED may only be detectable as a slight dimming.
ON	OFF	OFF	ON		Status Failure (only when triggered). Should be accompanied by Error 99 on the external STT Module Status LED. Most likely caused by weld cable misconnection (reverse polarity).
ON/OFF	OFF	OFF	ON/OFF		Status Failure (constantly). Should be accompanied by Error 99 on the external STT Module Status LED. Most likely caused by the on board power supply under-voltage lockout. Verify input voltage to the STT Switch board.