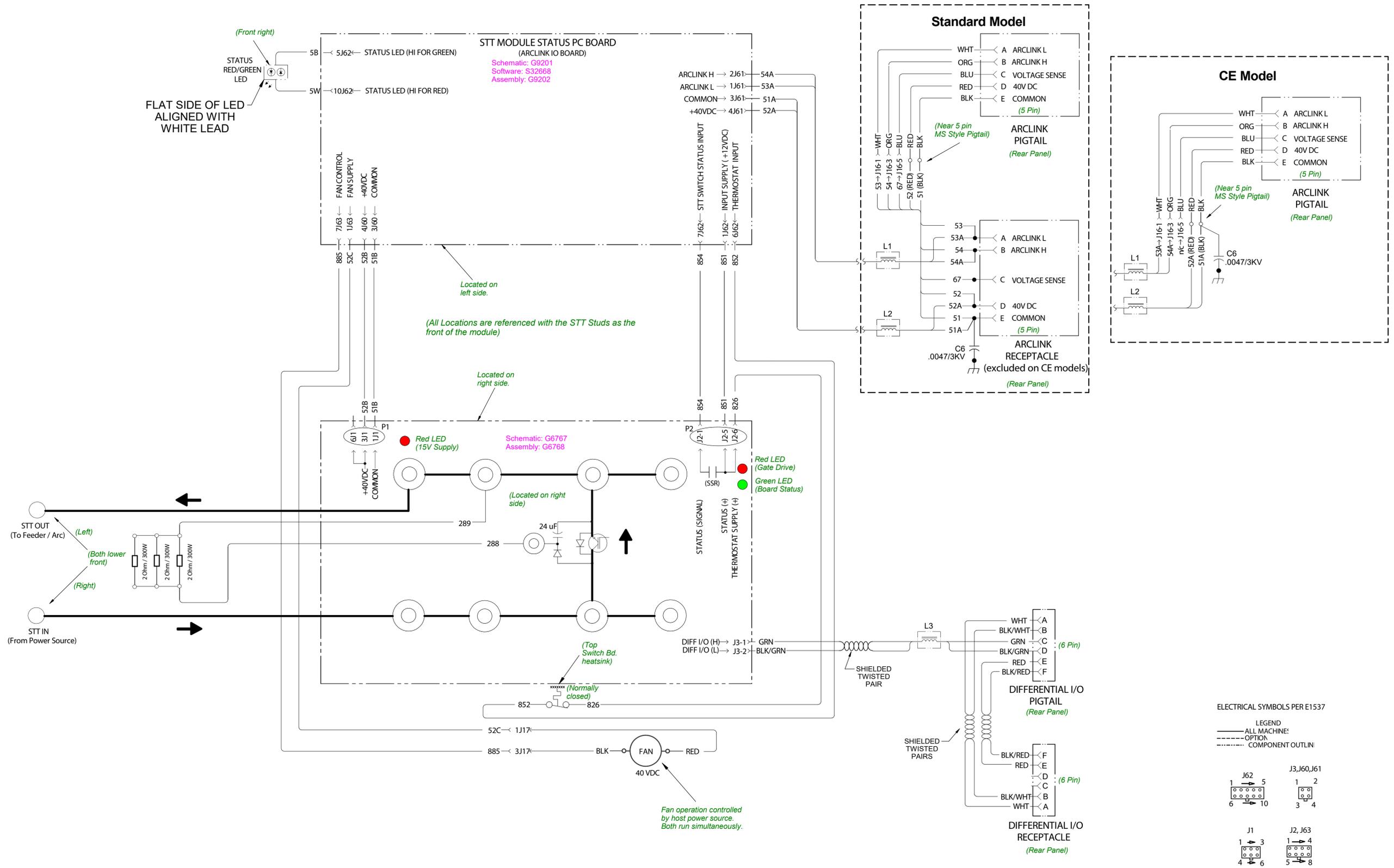
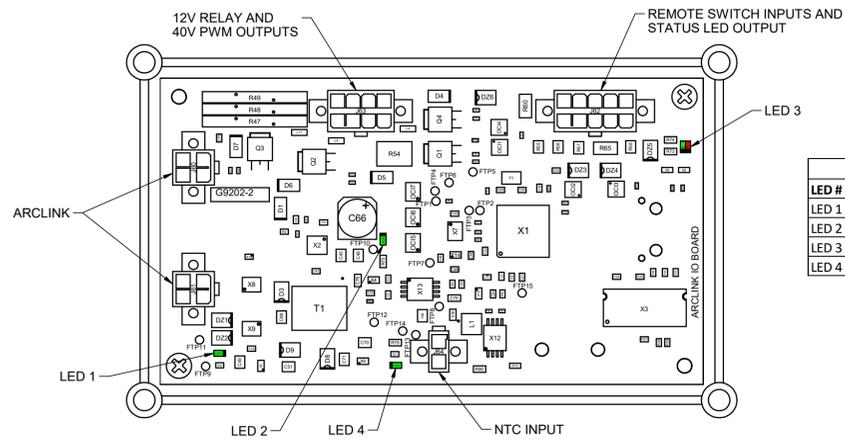


STT MODULE MACHINE SCHEMATIC G6862-1



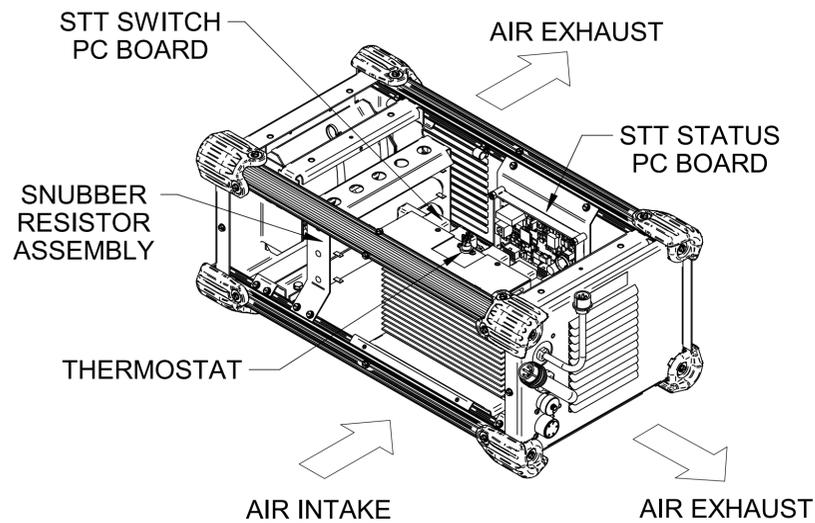
Schematic numbers and Part numbers are given for reference only.

STT MODULE STATUS PC BOARD

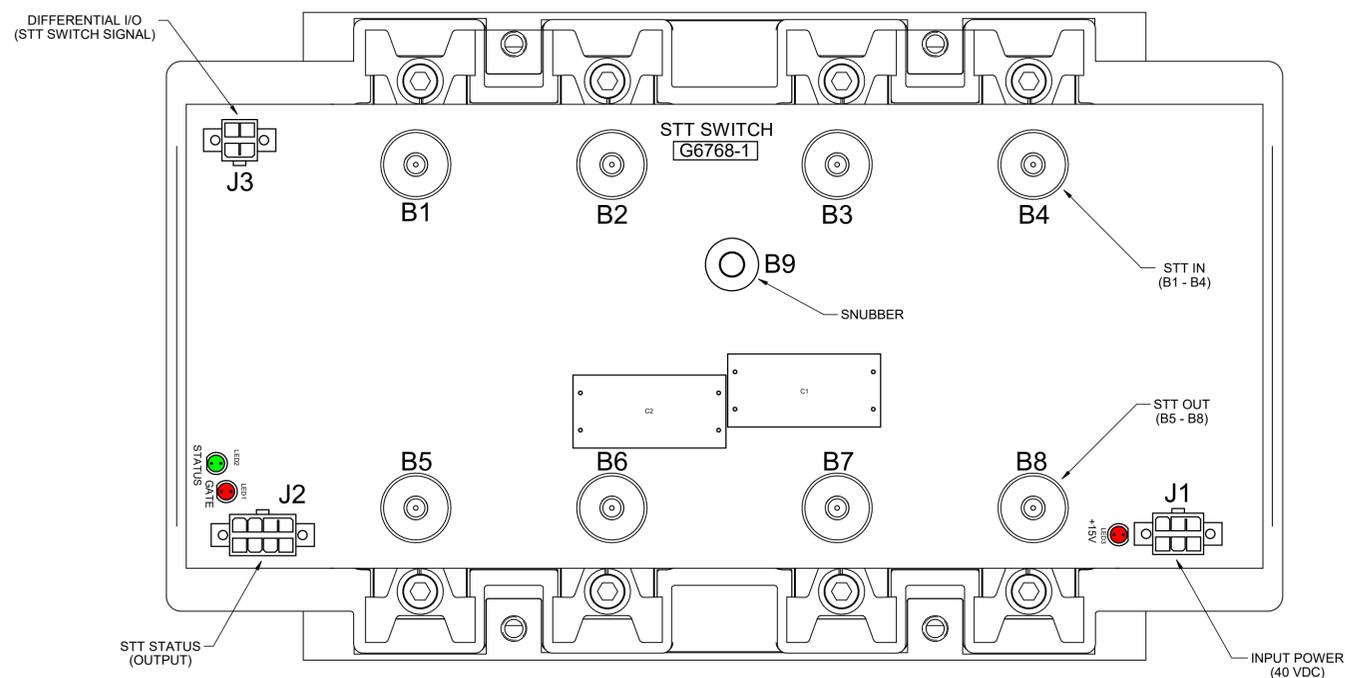


LED List		
LED #	Color	Function
LED 1	Green	+5V CAN SUPPLY
LED 2	Green	+12V SUPPLY
LED 3	Green/Red	STATUS LED
LED 4	Green	+5V NTC SUPPLY

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 ArLink network.
Blinking Green	Occurs during power up or a system reset, and while 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 flashes 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 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 thermal LED on the host power source. Check fan operation. Be sure protection does not exceed duty cycle limit of the machine.
39 Misc. hardware fault	Unknown glitch has occurred on the fault interruptuity. 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 lead cable polarity). May also be caused by loss of input voltage or blocked cables. 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				
MACHINE OUTPUT	LED1 (GATE)	LED2 (STATUS)	LED3 (+15V)	Indication
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 to the STT Switch board.