LASER

Field Service Bulletin

FSB #:	000017297
Version:	1
Published:	4/29/2020
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Affected Model Categories

3340

Vi30 Beam Source to Replace V30 Beam Source

New Synrad Vi30 Laser Tubes (10.6um, 10.2um and 9.3um) will replace the current V30 laser tubes in newly manufactured 3340 lasers. Affected models include VJ3340, VJ3340 Pharma Line, as well as the LINX CSL30.

Beam Source Cut In, Serial Numbers

- Both the part number and serial numbers differ for the laser tubes assembled in US and China.
- Note the following prefixes in the serial numbers:
  - US - prefix: **I0**
  - China - prefix: **SI**

Table 1: Beam Source Cut In

Final Assembly	Source SN	PN
Mukilteo (US)	I030264191979	FSVI30SAD-9.3
Suzhou (CN)	SI30264191979	FSVI30SAD-S9.3*

*Note that the China laser tube part number contains an **S**

Replacements and Spares

- The V30 laser tube will remain active as a spare part for field replacements of laser tubes on lasers already using V30 tubes.
- No upgrade kit will be made available for V30 to Vi30!
- The new Synrad Vi30 laser tubes (10.6 um, 10.2 um, 9.3 um) are not compatible with the V30 models due to different power supply (supply voltage), laser tube mounting, fan, and internal marking head harness.

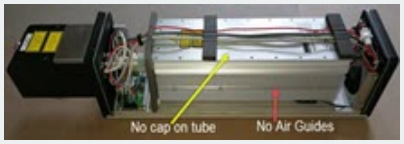
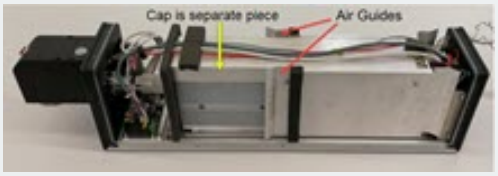
Warranty

The estimated life expectancy of both the V30 and Vi30 is 45,000 hours (ambient conditions and duty cycle dependent). The warranty for both the V30 and Vi30 laser tubes is the standard Videojet warranty.

Comparison and Points of Difference

Be advised of the differences in both the tubes and related components as described in **Table 2**.

Table 2: Beam Source and Related Item Comparison

	V30 laser tube	Vi30 laser tube
		
Power Supply	AL-75990 36V PSU (600W) adjusted to 31 - 32 V based on umbilical length (30 V at tube), the connector for tube power and fan connector X200: pins 1 and 3.	AL-SP80581 48V (600W) adjusted to 48.5 - 49.1 volts based on umbilical length (48 V at tube, see **Table 4** for umbilical voltage), the connector for tube power and fan connector X200: pins 1 and 3.
Fan	AL-SP76070 - 120 x 120 mm fan, 24 V fan for cooling laser tube (IP 54 only).	New fan AL-SP80577 is implemented, all connectors remain the same as before.

	V30 laser tube	Vi30 laser tube
Harness	AL-76115: Harness, Laser Head, Internal, 30 W, CO2 Laser G3. X107: Laser signal and X110: power signal (2 pole).	New harness AL-80826 is implemented to safe guard connecting to Vi30 beam source. • AL-80826 Description: Harness, Laser Head, 30 W, Internal, CO2 Laser Vi-Version • Connector X107: Laser signal and X110 • Power (3 pole connectors for tube power and fan connector pins moved to pins 1 and 3).
Air Baffle	Existing air baffle.	The air baffle has a different design. Note: the air guides of the IP 54 compared to the IP 65 are different.
Insulation Foil	Insulation foil for laser source 30 W, required.	The Vi30 applies an insulation foil, similar to the adjustment plate.
Adjustment Plate	Existing Adjustment plate.	There is a design change in the plate. As before, there is **no field adjustment** performed on this plate.

Table 3: Vi30 and Related Part Numbers

AL-SP80794	Tube, Laser, Aligned, 30w, 10.6um
AL-SP80795	Tube, Laser, Aligned, 30w, 10.2um
AL-SP80243	Tube, Laser, Aligned, 30w, 9.3um
AL-SP80581	Power Supply, 600w/48v
AL-SP80577	Fan, 120mm, ready to mount, 48v
AL-80826	Harness Laser Head 30w internal, CO2 Laser Vi-Version
AL-SP80581	Power Supply, 600w/48v

Table 4: Vi30 Umbilical Voltages

Length	Voltage
3 m	48.5 volts +/- 0.03 volts
5 m	48.7 volts +/- 0.03 volts
10 m	49.1 volts +/- 0.03 volts

Software Requirements and Features

- CMark v4.7.5 is the minimum required version for use with the Vi30 laser tube.
- The laser tube is identified in the Web Interface page, TCS Plus software, and the VRS dashboard. Note: the laser type is manually entered during manufacturing.

Protection against incorrect laser tube

- After the key switch is closed, the system compares laser tube information against the code written to the CP-Light board.
- The system will not send power to the laser tube when the compared information differs.
- Errors generated when the Beam Source Type and code on the CP-Light board are not matched include:
  - E19512: Wrong System Config
  - E00107: Wrong Configuration
  - E00212 Wrong LIC Detected (possibly)
- This level of protection protects customers with multiple laser units, who may swap supply units and marking heads.

Support and Field Service Actions

- When ordering replacement parts, be sure to order the same type already in use.
- Use the Laser Web Interface page, TCS Plus software, or the VRS dashboard to determine the type of beam source installed in the 3340 before ordering.
- Be aware of the types of errors generated when the Beam Source Type and code on the CP-Light are not matched.
  - E19512: Wrong System Config
  - E00107: Wrong Configuration
  - E00212 Wrong LIC Detected (possibly)