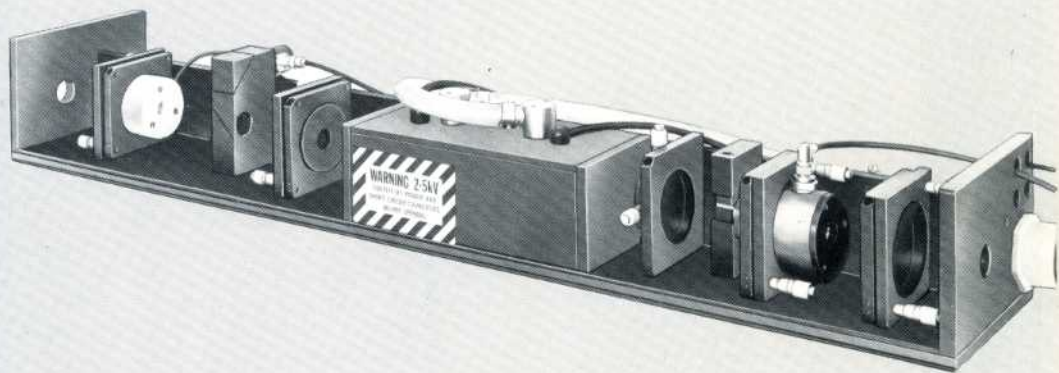


SYSTEM 2000

Modular approach
to solid state lasers



JK LASERS

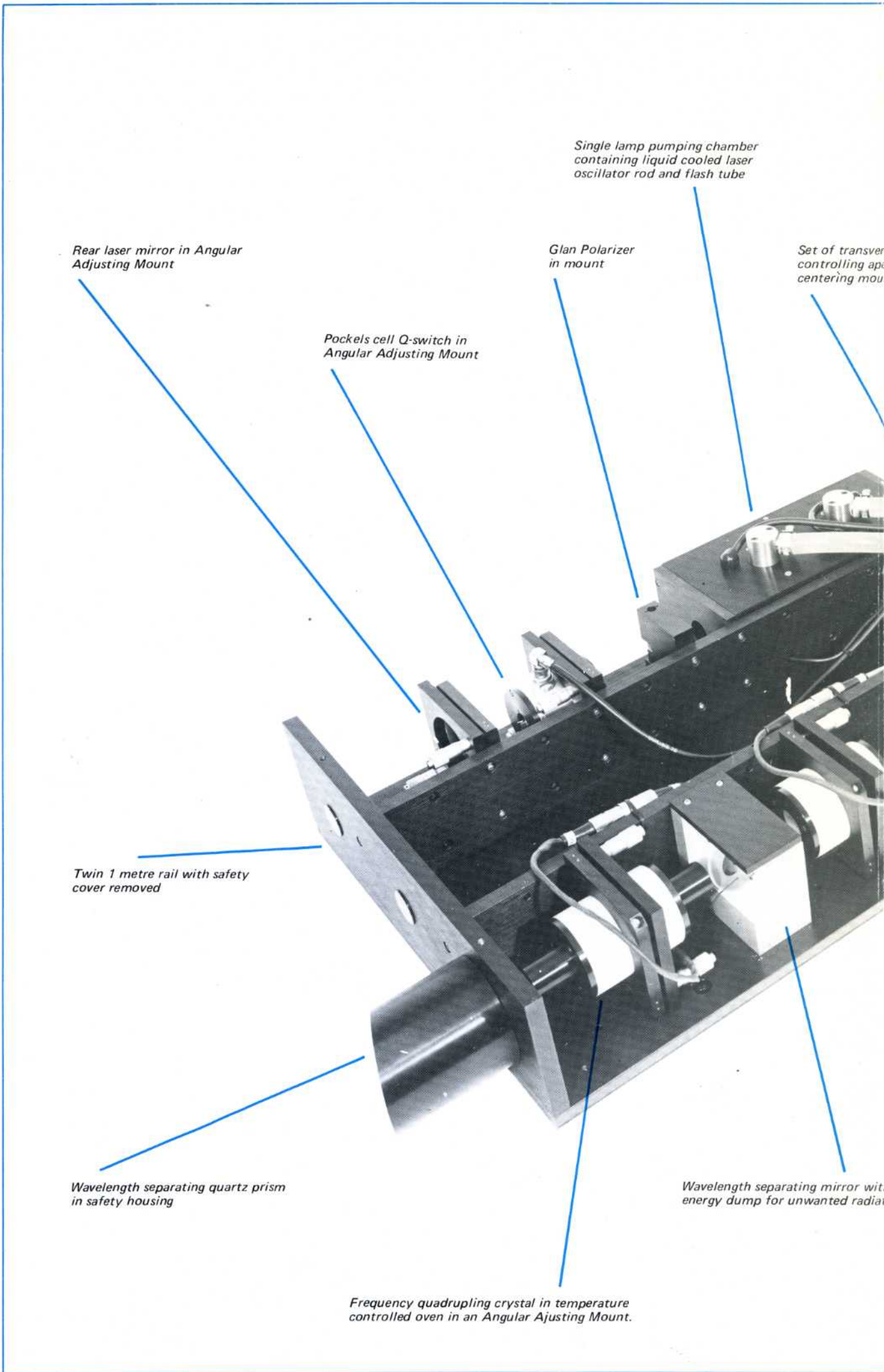
Main power supply control unit for determining laser energy, and pulse rate

Double pulse Pockels cell Q-switch drive unit

Temperature control units to set oven temperatures accurately and repeatably to 0.1° C



Main power supply console, housing charging unit, capacitor discharge bank, and closed circuit liquid cooling system



Single lamp pumping chamber containing liquid cooled laser oscillator rod and flash tube

Rear laser mirror in Angular Adjusting Mount

Glan Polarizer in mount

Set of transverse controlling apertures and centering mounts

Pockels cell Q-switch in Angular Adjusting Mount

Twin 1 metre rail with safety cover removed

Wavelength separating quartz prism in safety housing

Frequency quadrupling crystal in temperature controlled oven in an Angular Adjusting Mount.

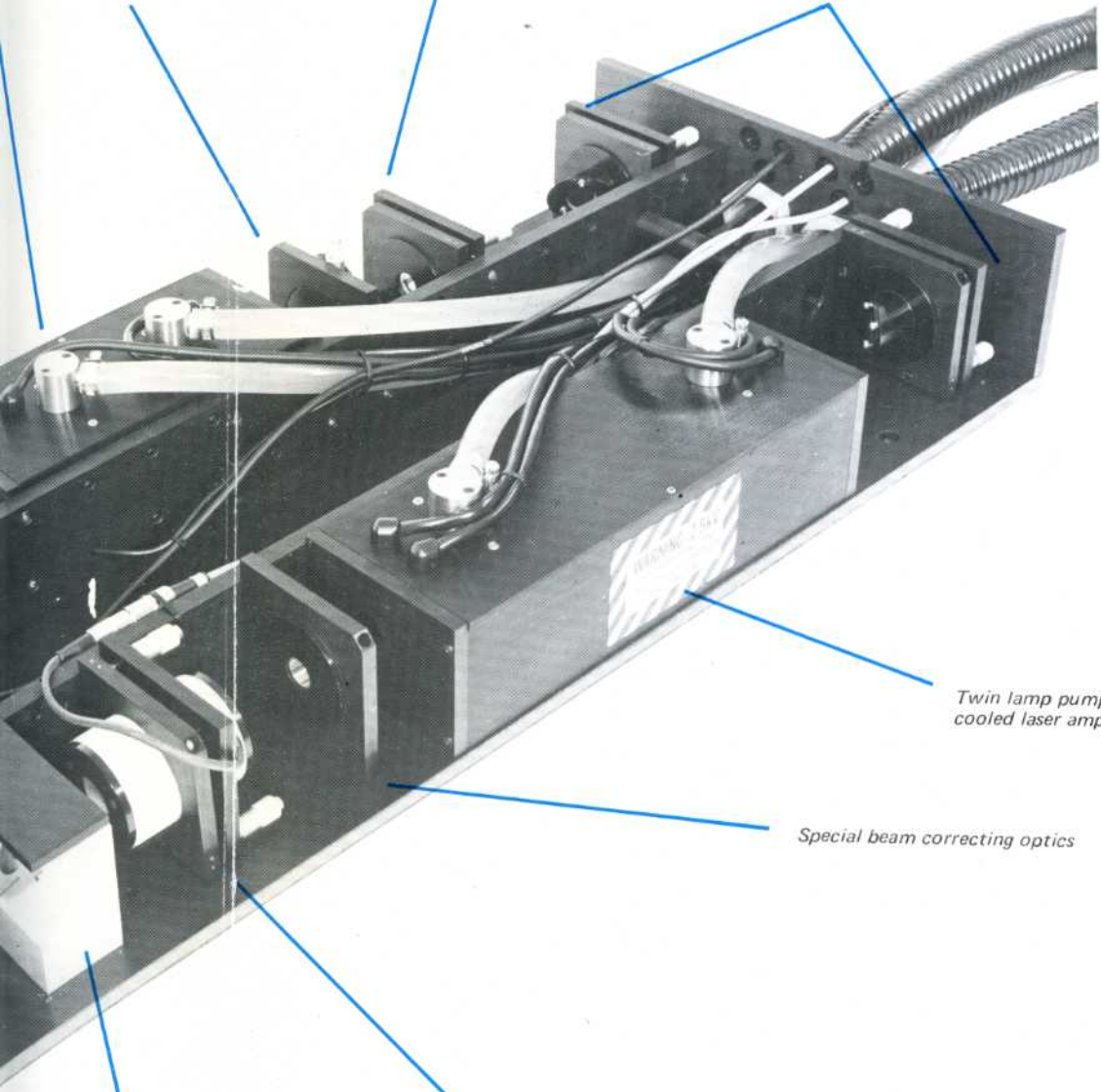
Wavelength separating mirror with energy dump for unwanted radiation

amber
d laser
tube

Output laser mirror in
Angular Adjusting Mount

Set of transverse mode
controlling apertures in
centering mount

Two 90° beam bending mirrors
in Angular Adjusting Mounts for aligning the
oscillator to the Amplifier



Twin lamp pumping chamber containing liquid
cooled laser amplifier rod and flash tube

Special beam correcting optics

Frequency doubling crystal in sealed optical
cell fitted into a temperature controlled oven
in an Angular Adjusting Mount

Length separating mirror with combined safety
dump for unwanted radiation

System 2000

Modular approach to solid state lasers

The laser system with the most options

SYSTEM 2000 was introduced more than five years ago as a new concept in pulsed solid state lasers, by J K Lasers Limited, a company with a new outlook on the laser market. SYSTEM 2000 is now probably the most complete range of solid state laser equipment available, and J K Lasers has become one of the most respected laser companies in Europe.

J K Lasers' specialist team of scientists and engineers who design, sell and supervise the construction of all SYSTEM 2000 laser equipments, and is fully supported by skilled manufacturing staff and a highly competent administration. During 1977 and a new 16,000 sq ft research and development facility will be opened which will help to ensure the continuous development of SYSTEM 2000 to meet ever more demanding applications. In addition a new and enlarged assembly area will allow production to keep pace with the increasing demand for SYSTEM 2000.

The company's philosophy however, remains unchanged. J K Lasers recognises that the pulsed laser market is highly technical, extremely diverse, and as yet of a very limited size. This market challenge has been met by negotiating with customers at the highest possible technical level, so that specifications agreed on are both realistic and well understood by customer and supplier. Completed equipments are fully checked against their specification in the company's laboratories before delivery and installation is generally carried out by a J K Lasers specialist. J K Lasers believes that this continuing technical dialogue between the company and its customers is essential to the fruitful applications of lasers in both science and industry.

From the start SYSTEM 2000 has been designed with the user in mind, and each module has been critically analysed to ensure that it performs the necessary function, is easy to use and is as simple as possible. The range of modules has been continually increased and improved over the years whilst retaining this original design philosophy. By combining the appropriate modules J K Lasers currently produces complete laser

systems to meet the most exacting specifications at the rate of more than one per week. Notable achievements and developments by J K Lasers personnel over the years include:

Double etalon longitudinal mode controlled ruby lasers for large volume contour free holography.

High efficiency pumping chambers, combined with high pulse rate power supplies to yield the highest average power lasers at all wavelengths.

Low divergence, high peak power, ruby lasers for plasma diagnostics.

High efficiency second harmonic generators, yielding complete systems with multi-megawatt output powers in the ultra violet for applications in chemistry.

Enclosed folded optical rail assemblies for producing compact and safe oscillator/amplifier systems.

Industrial lasers for continuous and economic factory operation.

Diffraction coupled resonators for producing low divergence output beams to pump optical parametric oscillators.

Reliable mode locked lasers with repetition rates to 10 Hz.

The illustrations in this leaflet show how J K Lasers builds up a typical system of medium complexity for a scientific application. Another leaflet entitled SYSTEM 2000 - Lasers for Industry - illustrates the SYSTEM 2000 for industrial applications. In addition to complete laser systems, individual components and sub-systems, from the SYSTEM 2000 range may be purchased for use with existing equipments.



General Data (Blue)

SYSTEM 2000 Laser Oscillators
SYSTEM 2000 Laser Amplifiers

Components and Sub-systems (Green)

SYSTEM 2000 Optical Rails
SYSTEM 2000 Pumping Chambers
SYSTEM 2000 Optical Mounts
SYSTEM 2000 Pockels Cells
SYSTEM 2000 Temperature Controlled Ovens
SYSTEM 2000 Power Supplies
SYSTEM 2000 Cooling Units
SYSTEM 2000 Optics
SYSTEM 2000 Focussing and Viewing Optics
SYSTEM 2000 Pulse Chopping Assembly
SYSTEM 2000 Accessories

Industrial Systems and Applications (Brown)

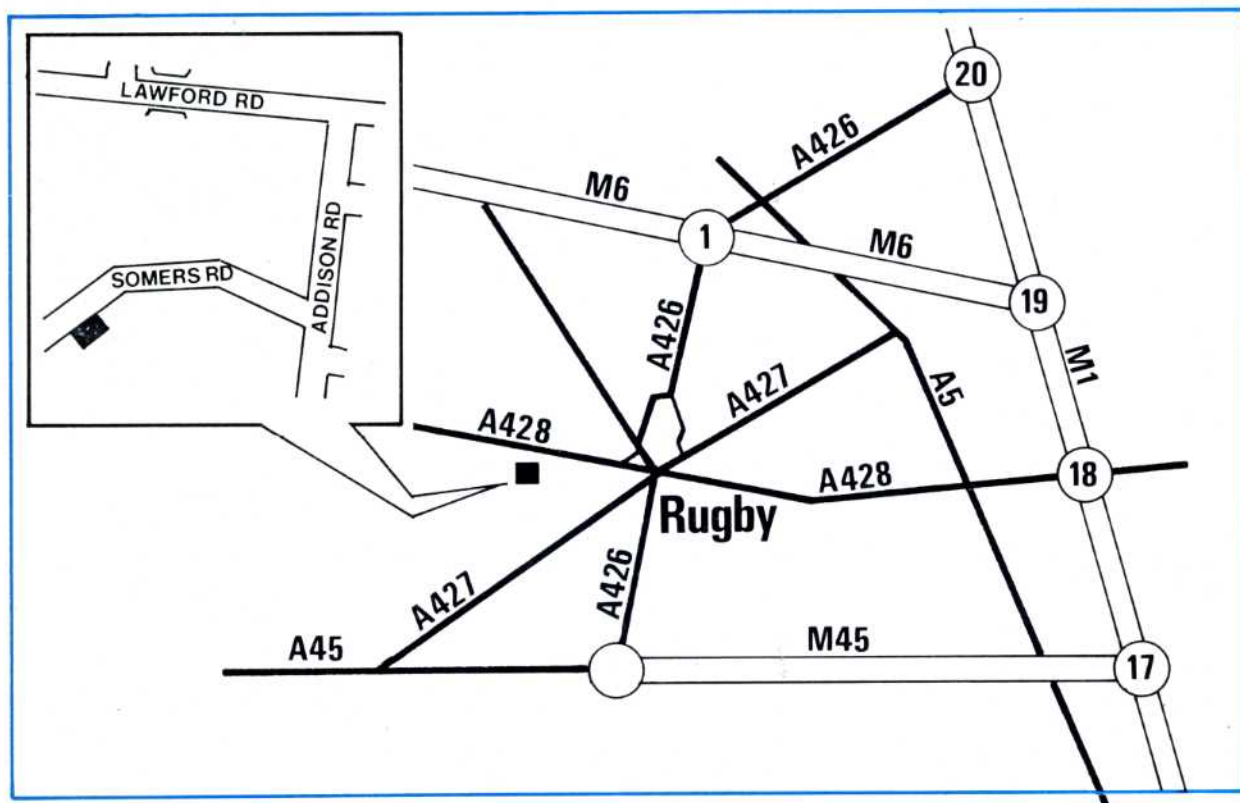
SYSTEM 2000 Lasers for Industry
SYSTEM 2000 Applications in Production

Scientific Systems (Red)

SYSTEM 2000 Lasers for Holography
SYSTEM 2000 Lasers in the Ultra-violet
SYSTEM 2000 Lasers for Plasma Diagnostics

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