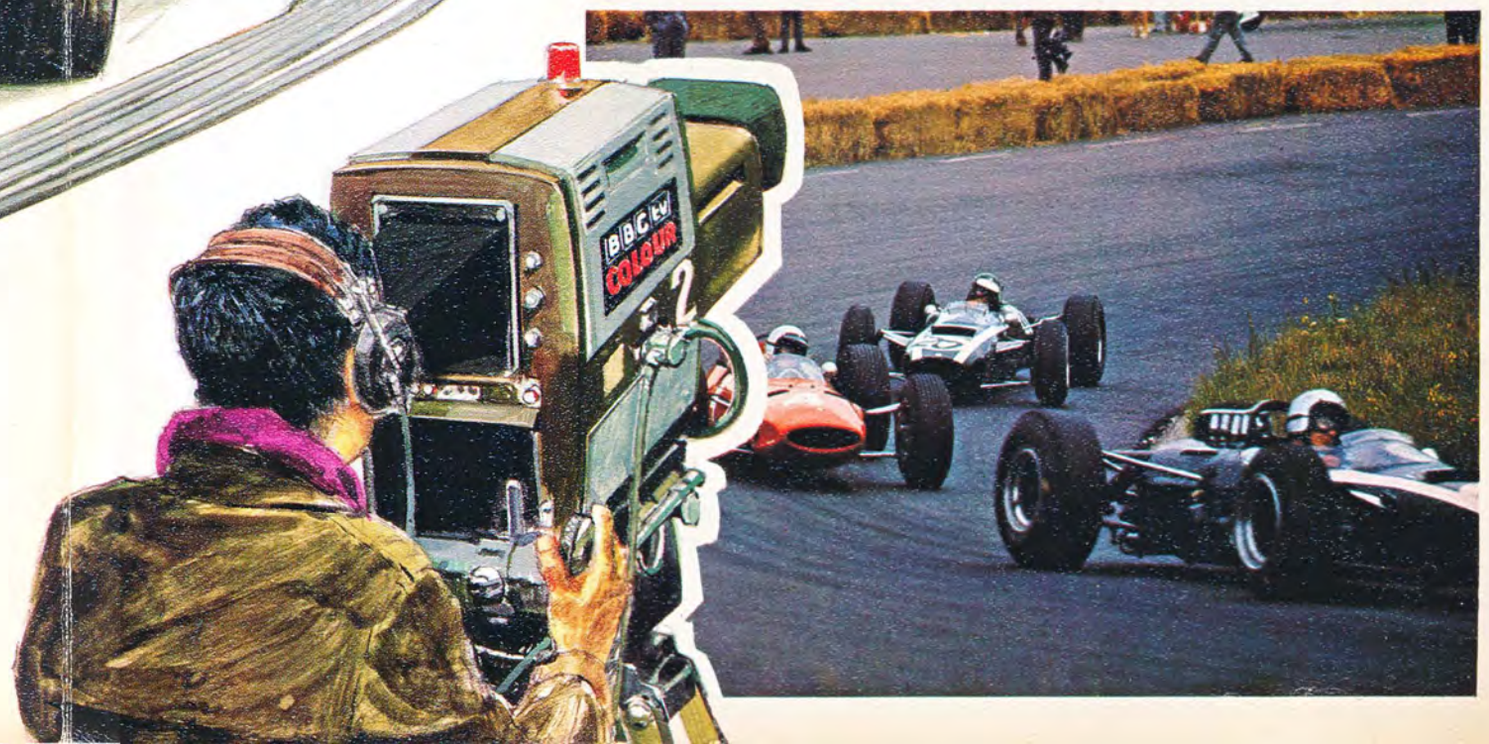
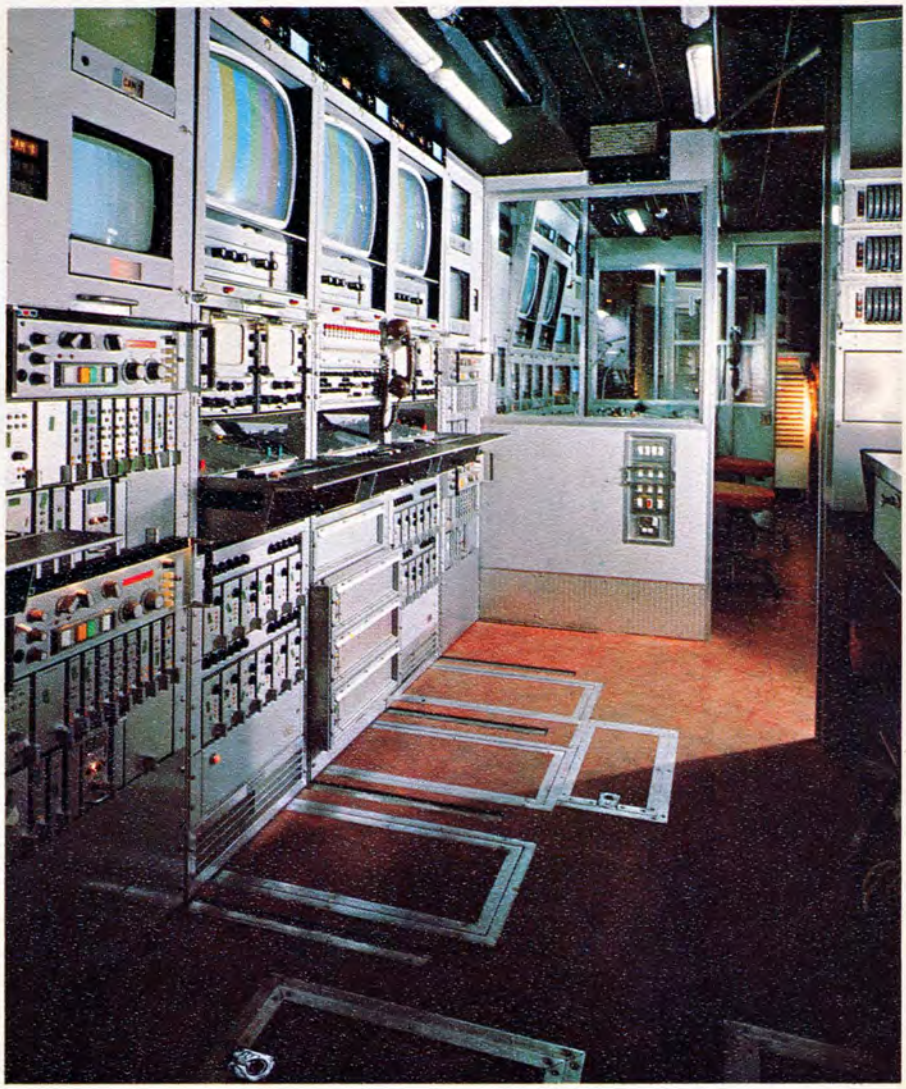
PYE TVT LIMITED

Colour Outside Broadcasting Vehicle


BBC TV
COLOUR
2

World Leaders in Outside Broadcast Vehicles

As long ago as 1928 Pye were experimenting with the Baird television system—eight years before the B.B.C. made the first historic broadcasts of high definition television from London's Alexandra Palace.
It was no surprise, therefore, when Pye were asked in 1948 to manufacture some of the very first outside broadcast vehicles. Since that date, we have supplied more than two hundred outside broadcast vehicles—to countries where television requirements are as varied as those of Russia and The Lebanon, Korea and Brazil.
The Philips Plumbicon† Colour Camera is at present fitted as standard in our outside broadcast vehicles : more than 800 of these camera chains have already been sold, representing a high percentage of the world's requirements to date.
During the last ten years we have supplied the majority of the B.B.C's colour and monochrome outside broadcast vehicles. Continued orders from the B.B.C. are ample evidence of our ability to meet the high standards of engineering they naturally insist upon.
The vehicle illustrated in this brochure is a typical example of an advanced six camera mobile colour control room. There are no hard and fast rules as to how any particular vehicle should be equipped since different broadcasting companies have different requirements. Our vehicles can be custom-built to suit any requirements right down to mounting the unit on any specified chassis. General Motors and Daimler Benz are just two examples of units previously supplied.
In the past, Pye monochrome outside broadcast vehicles have been used as the basis for initiating new television services. By the same token, the present range of vehicles could easily become the means of pioneering colour television broadcasting in many new areas.
Our engineers are always available to travel to any part of the world for surveys, system planning, and servicing requirements. We take as much pride in our after-sales service as we do in exporting our broadcasting equipment to nearly every major country in the world that has television.
Future developments include units equipped for the additional use of our recently developed lightweight hand-held colour camera. The Pye TVT policy has always been one of continuous improvement and research. You will see it reflected in our new range of colour outside broadcast vehicles, described in this brochure.



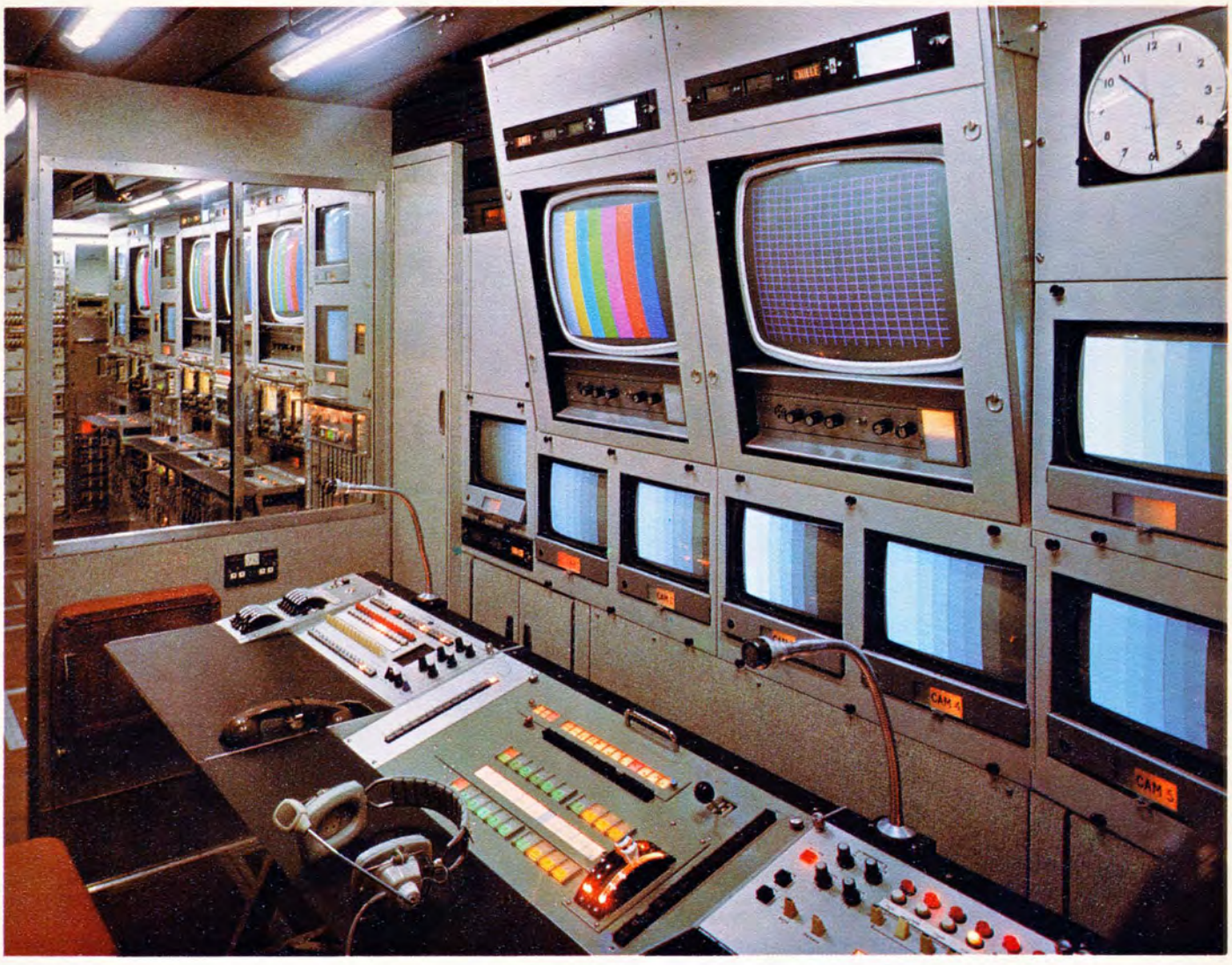
Within the context of this brochure it is impossible to provide more than a brief synopsis of such a complex subject. If you would like further technical information, we shall be pleased to provide it on request.

The features that make a complete operational unit

* The unit takes 4, 5 or 6 colour camera channels.
* It has three separate rooms for Vision Control, Production and Sound. Two doors from outside lead to the Vision Control Room, the second door also gives separate access by means of an interior curtain door to Production and Sound.
* Two cameras with operators and a commentator with his monitor and communication equipment can be carried on the specially reinforced roof.
* The vehicle body, coachbuilt to the highest standards, has modern styling inside and out, with double skinned construction for maximum sound-proofing and thermal insulation.
* Comprehensive air conditioning, heating and cooling is built in.
* Exposure, black level and colour rendering can be accurately balanced on all channels.
* The vision mixing unit is of the AB-CD and cut type, with 32 wipe special effects generator. Up to 6 cameras, caption and 4 remote inputs can be accommodated.
* There is a 23-channel audio mixing system with equalisation on all channels, arranged in groups of 10, 5, and 5, plus 3 independent channels.
* Comprehensive talkback, intercom, telephone and radio communication systems can be fitted.

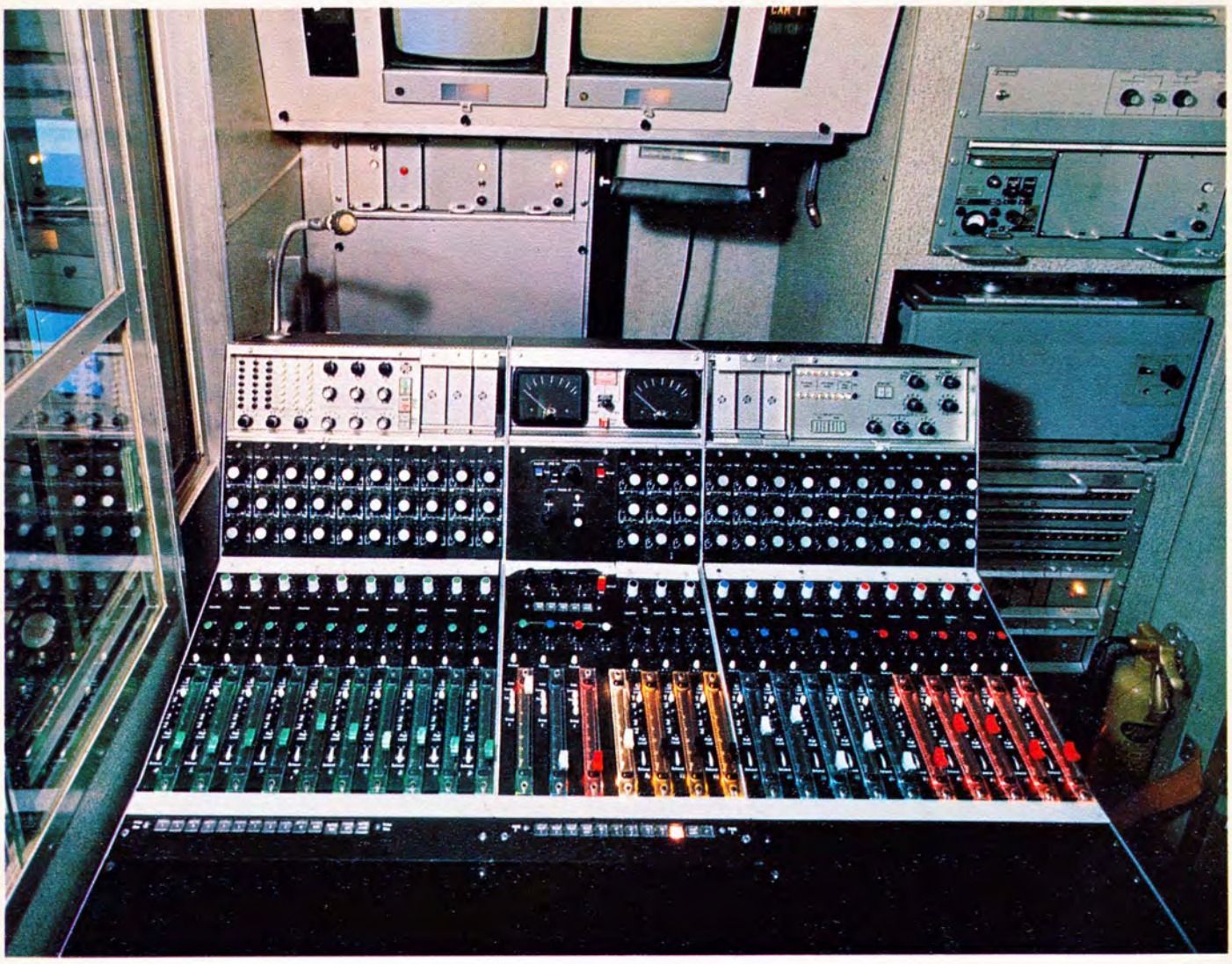
A large order supplied to Korea included the provision of an independent power supply. Shown here is the generator van, supplied by Pye TVT for this purpose.

Engineered for Production



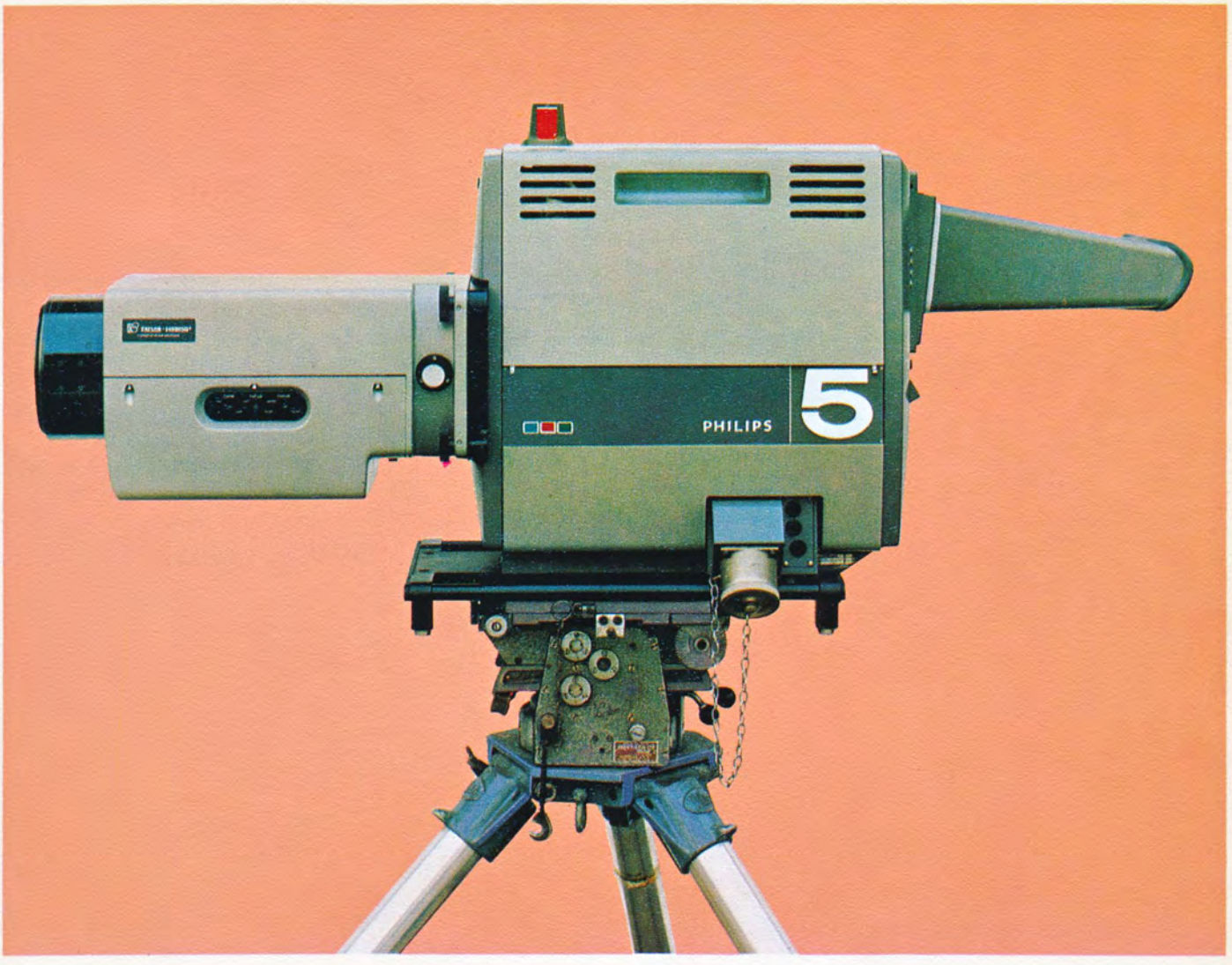
As well as maintenance and operational convenience, the comfort of both programme producer and operators has been given detailed consideration in the colour outside broadcast vehicle.
All the equipment and monitors for a 6-camera unit have been ergonomically designed and arranged in line along the length of the vehicle. This gives the producer and operators greater freedom of movement, greater fields of vision and safer working conditions.
Vision Control, situated nearest the driving cab, occupies the largest compartment. Production is in the centre and Sound Control at the rear.
Vision control has easy access from the Production and Sound Control compartments. This enables either group of persons unimpeded access at all times and prevents unnecessary disturbances. An emergency door is also provided at the rear of the Sound Control area.
All control desks are mounted on slides and easily moved to the operating positions. The production desk has a hinged flap for increasing the surface area when required.
The driving cab has excellent all-round vision and is equipped with efficient heating and ventilation systems.
As well as the driver's seat there is a bench seat for two passengers or riggers.

Engineered for Sound



All too often the requirements of the sound engineers have taken second place in television installations. We at Pye TVT, with long experience of sound broadcasting, have carefully considered the sound engineer's requirements.
In the Colour Outside Broadcast Unit the Sound Control compartment houses the 23-channel sound mixing desk, the associated audio patching facilities, plus all the necessary programme sound and communication equipment rack mounted in a cubicle. Two 11 inch (27 cm) monochrome picture monitors are provided for use by the sound engineer. One displays the outgoing transmission picture while the other is a roving preview selected by push buttons on the sound desk. Each monitor has an appropriate source indicator. A high quality monitoring loudspeaker and a large clock with a sweep second hand are suspended from the roof near the monitors. Space has been allotted for the accommodation of a professional audio tape recorder or a transcription turntable unit. These units can be remotely controlled from the mixer.

Philips Plumbicon † Colour Camera Type LDK 3



This third generation Plumbicon † colour camera for use in studio and outside broadcast applications represents a major advance in overall camera design. The latest colour television techniques and modular system layout have been employed to ensure high stability, reliability and flexibility in operation.

✳ Three-tube camera using the "contours out of green" principle.

✳ XQ 1020 separate mesh Plumbicon † tubes for better overall resolution and excellent highlight handling.

✳ Efficient prismatic colour splitter and linear matrixing for optimum colour response.

✳ Can be supplied for use with a variety of lens systems.

✳ Dynamic focusing for improved corner resolution.

✳ Built-in test signal for camera line up.

✳ Single camera cable of up to 3,000 feet (1,000 metres) length.

✳ Modular Camera Control Unit may be split into three separate sub-assemblies for portable use.

✳ Integral contour extractor, linear matrix, coder adjustment without the use of vectorscope.

✳ Solid-state circuitry using silicon transistors.

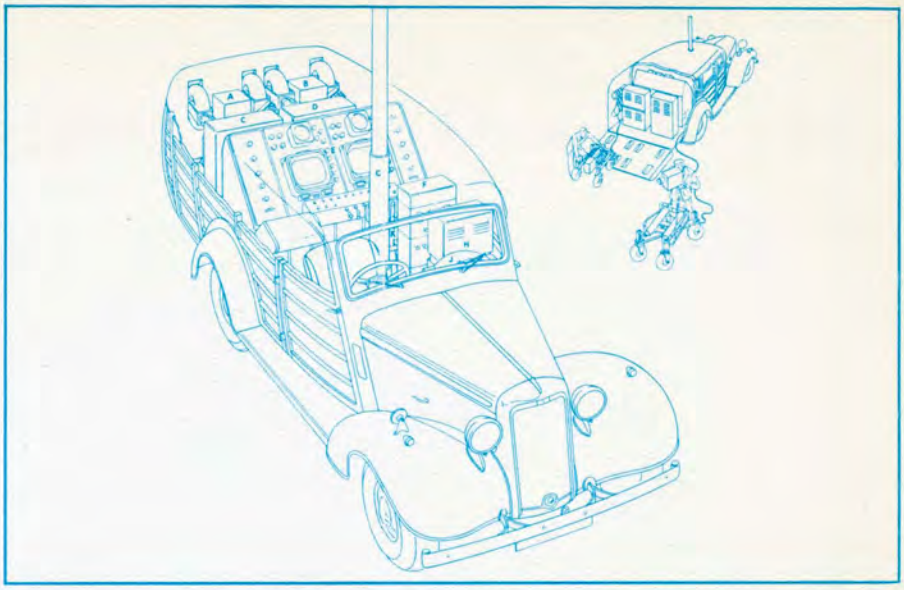
† Registered Trade Mark for Television Camera Tubes.

Events, sports, shows, indoors—outdoors. The Pye Outside Broadcast Vehicle covers them all

All over the world many kinds of activities and historic occasions have been covered by an outside broadcast vehicle. Because of their adaptability, outside broadcast vehicles have often been used to institute television services. In fact many people owe their first look at television to one of these vehicles. On July 1st, 1969, 3 Pye Colour Outside Broadcast vehicles and 22 cameras were used to cover the investiture of H.R.H. Prince Charles at Caernarvon Castle. This was the largest colour outside broadcast from Europe to date. Hundreds of millions of people in nearly every country of the world watched this historic spectacle as it was transmitted live, via satellite, from Pye TVT Colour Outside Broadcast Vehicles in Caernarvon.

The Pye O.B. Story

This page is a brief reminder of the wide experience of Pye with outside broadcast vehicles.
1947 It began in 1947 with the equipment built into a Humber shooting brake. To quote from a description of the time : "Everything required for the production and transmission of a complete television broadcast is contained in this mobile unit, built into a medium-sized vehicle". Each piece of equipment, with the exception of the vehicle chassis, was designed and constructed by Pye.



1.

1948 A landmark in our long association with the B.B.C. was in 1948 with the equipping of the Scammel articulating chassis known as the MCR 3. This contained a complete programme unit.

2.

3.

1955 Pye were concerned with British commercial television from its inception. Vehicles were equipped for Associated Television and Associated Rediffusion in 1955. In 1956 the "Travelling Eye" was produced for Granada, the first unit to take a fourth camera. Sixteen separate microphones gave thorough sound coverage of events such as symphony concerts.

1955 The largest outside broadcast vehicle to date, 30 feet long, was provided on a Mercedes-Benz Chassis to Bayerische Rundfunk in Munich 1955. This, like previous vehicles, had air conditioning fitted.

1956 In 1956 the first vehicle was supplied to the Australian Broadcasting Commission. Next year vehicles were supplied to Russia and Spain.

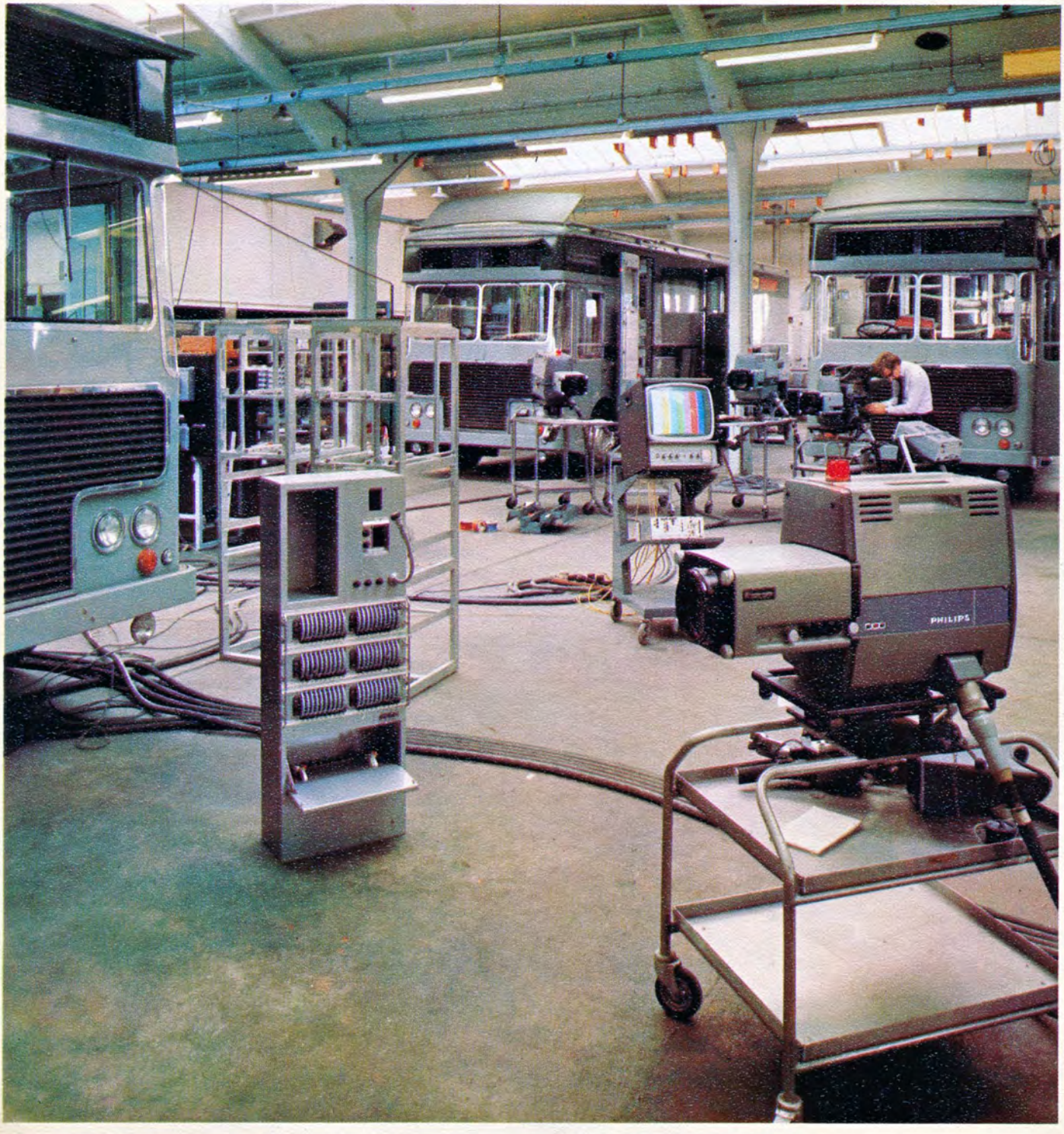
Since 1957 over 200 vehicles have been equipped for many countries throughout the world.

1. 1947 O.B. van on Humber Chassis.
2. 1948 MCR 3 articulated vehicle for B.B.C.
3. 1956 4-camera Travelling Eye for Granada Television.
4. 1968 Korean Outside Broadcast Vehicle.

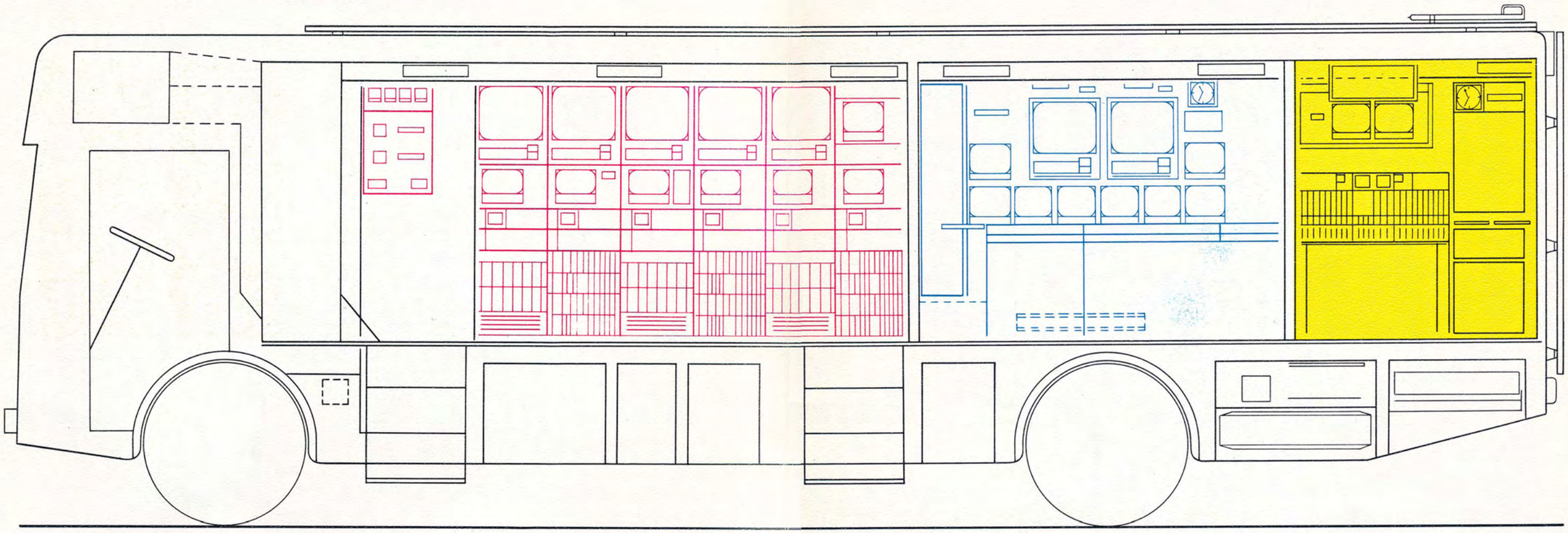
4.

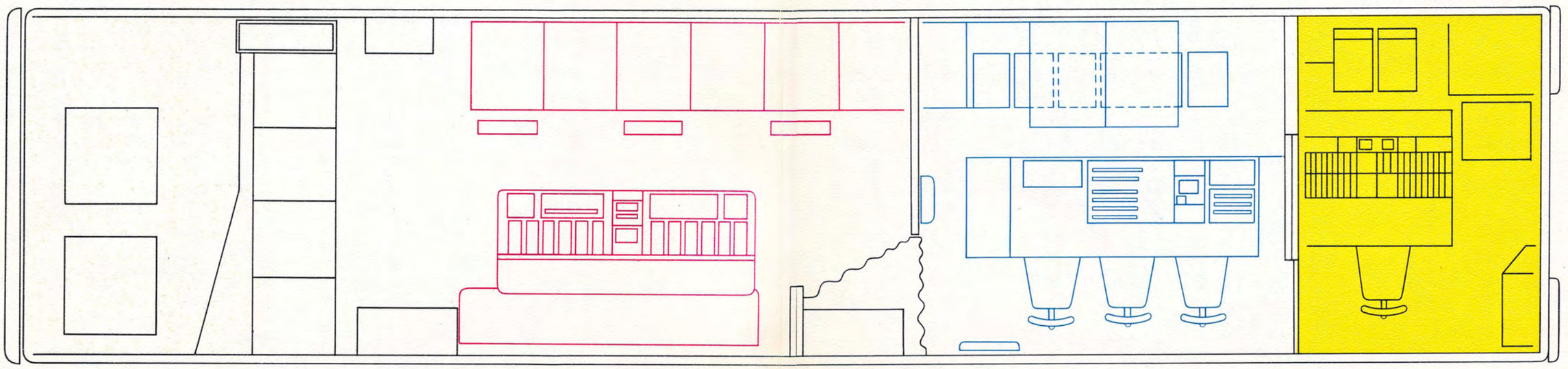
The Production of Colour Mobiles

Pye TVT factory, near Cambridge. This factory is used for Outside Broadcast Vehicle production.



The Plan for typical mobile Colour





ENGINEERING

PRODUCTION

AUDIO

Pye TVT at your service

* Studio Equipment—Sound and Vision.
* Transmitters—VHF and UHF.
* Outside Broadcast Vehicles—Sound and Vision.
* Customers System Planning.
* Installation and Commissioning.
* Complete Project Engineering.
* Programme and Management Services.

Masters of colour

PYE TVT LIMITED

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PYE TVT LIMITED COLOUR OUTSIDE BROADCASTING VEHICLE