For many years now there has been a universal demand for a genuine lightweight portable TV production camera and most manufacturers have attempted, as yet unsuccessfully, to meet this demand. But now EMI announce the arrival of what most broadcasters have wanted, a genuine lightweight portable TV production camera of true broadcast quality, for use in studio or location work.

With a headweight of 8 lbs the EMI 2008 can be handled with ease but it will produce pictures comparable with its much heavier studio counterparts.

The EMI 2008 system consists of a camera head, lens and view-finder, an electronics unit and remote control facilities. This enables the camera to be operated in a number of configurations for differing applications.

The camera can be operated as a totally self-contained unit either by carrying the electronics unit as a back pack or trolley mounting the electronics together with the VTR and battery pack. Alternatively the electronics can be rack mounted and the camera head operated up to 400 feet distant, to provide exceptionally flexible coverage of outside events or location shooting.

In essence the EMI 2008 opens the way for an entirely new philosophy in TV production and particularly outside broadcast work. It is no longer necessary to utilise the services only available from a full facilities outside broadcast vehicle but merely sufficient to take the complete 2008 package mounted in a light vehicle and edit at post production stage. This results in a more economic use of existing facilities.
The EMI 2008 system

Camera Head
The shower-proof camera head weighs only 8 lbs excluding the lens and viewfinder and its ergonomic design not only makes it pleasing to look at but enables it to be easily handled by operators. The head can be operated up to 400 feet away from the electronics unit, interconnection being by lightweight flexible camera cable.

The head utilises 3” Saticon or lead oxide tubes pick-up together with a one piece sealed prism optical assembly. When fully equipped with lens and viewfinder the total unit weight is under 17 lbs and the weight distribution is such that the camera head can be operated for long periods without fatigue. The 3” viewfinder which can be used in the direct or ocular mode provides the cameraman with optimum pictures so that the creative programme contribution can be maximised. The lens utilised can be selected from a wide range of options and can be either servo or manually operated. The EMI

2008 head includes the following features:
- Lightweight
- Rugged
- Weatherproof
- 3” Saticon or lead oxide tubes
- Up to 400 feet separation between head and electronics
- One piece sealed prism optical assembly
- Four position filter wheel with filters
- Bias light with shading correction
- High action low noise pre-amplifiers together with many other features.

Electronics Unit
The system electronics are contained within a compact unit which measures only 13” x 17” x 5” and weighs only 22 lbs. The unit may be trolley, back pack or rack mounted and whichever configuration is selected one of the major advantages is the ability to operate the camera head up to 400 feet from the unit with only a lightweight camera cable interconnecting the two units.
EMI 2008 is particularly suited to
1 Portable field production work
   associated with a mobile
   production centre for live/
   recorded programme inserts.
2 As an extremely portable
   addition to the complement of
   standard studio production
   cameras, allowing the director
   to achieve shots that would be
   impossible using less mobile
   equipment.
3 As a one, or two-man portable
   unit to give rapid access to news
   feature without any compromise
   in picture quality.
4 As a vehicle, or off-road trolley
   equipped with VTR or
   microwave link to give access to
   difficult shots at sporting events
   such as race meetings or golf
   tournaments.

Data Summary
Systems
625 line 50 field
525 line 60 field

Pick-Up Tubes
Three 3/rd inch Saticon or Lead
Oxide

Power Input
90 volts to 250 volts, 48 Hz to
62 Hz
or
12 volts d.c.

Power Consumption
100 watts maximum

Channel Inputs
One External Viewfinder

Channel Outputs
Two fully encoded composite
outputs for programme signal
purposes
One each of RGB
One monitor feed
One o/p Syncs } from option
One o/p SYC } board.

System Synchronising
External black burst signal
or
Internal crystal reference

Sensitivity
With incident illumination at
3200°K of 80 foot candles and 60%
reflectance, lens aperture f/1.7,
then the signal to noise ratio in the
encoded luminance channel at 50%
peak white without aperture
correction is 50 dB over a
bandwidth of 5 MHz.

Amplitude/Frequency Response
Essentially flat to 4.5 MHz and
3 dB down at 6 MHz.

Resolution, using Saticons
Depth of modulation at 4.5 MHz,
100% at the centre of the picture
with aperture correction.

Geometry
No point of the picture is more
than ±1% away from its true
position, excluding distortion
produced by the lens.

Registration
Within a circle of diameter 0.8 of
picture height 0.1%.
Within a circle equal to picture
width 0.2%.
Outside this circle 0.3%.

Gamma, Switched
1. Linear
2. 0.45
3. Variable

Operating Environment
Temperature range -15°C to +45°C.
Relative humidity up to 90%.
Altitude up to 10000 feet.

Viewfinder
A three inch diagonal viewfinder is
fitted and this may be viewed
directly or fitted with an ocular
optics adaptor. At a highlight
brightness of 50 foot lamberts the
resolution is 400 lines.