

MCR21 Engineering News March 2022



Dear Supporter

It's amazing how the time just slips by.... It's March tomorrow and just 4 months till MCR21 goes out to the Amberley Museum for two weekend in mid July. It is also the end of our Heritage Lottery funding so we have to crack on and get things done!!.

I have used this newsletter to offer projects that could be undertaken as homework or done here.

Foot for Pye Mk6 CCU

- Our camera, fresh from the National Media Museum, has suffered some damage during it's life. The CCU & PSU each have four special aluminium feet, so designed for fixing down or stacking.

Several are broken and need to be remanufactured. They are "L" shaped and need to be milled and shaped from an aluminium blank.

If you can take this on a good foot is available to copy. Perhaps 6 are needed.



Engine work

- Some work is needed to improve the engine & transmission. At it's last trip out we thought the prop shaft needed re-balancing, investigation required.
- Fuel system: the original fuel pump needs re-connecting and the temporary electric one removing.
- Fuel Gauge: needs to made to work.
- Carburettor: The engine may be running rich and the carb could go off for refurbishment?
- Cooling system: There is a small crack in the engine block which we will have to live with in the short term. But the water circulation needs checking and at the rear of the engine there is a drain tap and some blockage to fix.



Three quarter view of engine front

Roof Decking

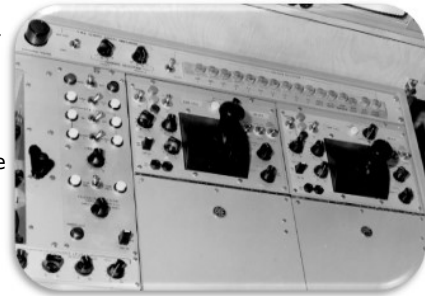
- This picture shows the roof decking before the restoration starts.
- The original Teak planks are well scuffed and need considerable work to make them presentable. Teak replacements would be very expensive and there is the preservation aspect to consider as well.
- When the weather is better perhaps we will have a decking day with teams sanding, filling & painting..
- The Originals were painted in Green body colour.



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Preview selection Buttons

- Two sets of these buttons and switches on the engineers desks have to be made and a third set is fitted in the Preview selector box.
- They will use the "TMC" latching illuminated buttons with a release bar.
- I have yet to draw the metalwork and find all the parts. But the wiring is straight forward.
- The picture shows the button panel at the top.
- **Help needed with the wiring**



Preview selector matrix unit.

- This will have to be made from scratch. From the photograph the box is the same size and style as the camera CCU. Current plan is to make it from "Imlok" framing which will look OK. The fine detail is yet to be drawn:-
- Set of 16 buttons on the front & 5 BBC DAs as the output amplifiers.
- The back panel is busy with 32 SO239 connectors and 20 ways from the switches
- Inside are some 50 odd relays and quite a lot of wire.
- A door will have to be formed in the side so that relays can be changed without removing the whole unit.
- **Help needed with the wiring** [We would like to have this unit working](#)

Items yet to be found

There is a long list of these here:- [Master Wants List](#)



A Vent-Axia military roof fan and domestic controller yet to be found.



Cannon "EA" connector

Three of these are needed, they are similar to the common EP type but with a screw locking ring. The inserts can be changed as they are the same as the common EP series. Hard to find!!



Pulse and Bar generator by Gresham Lyons

Dual standard 405-625 line valve Pulse & Bar Generator. These were commercially available and used by the GPO amongst others.



BBC Musa Jackfield

A BBC re-cessed 15 way jackfield Type BBC JF3/502 or 504

It is thought that this is the first use of musa jackfields in a BBC OB Van



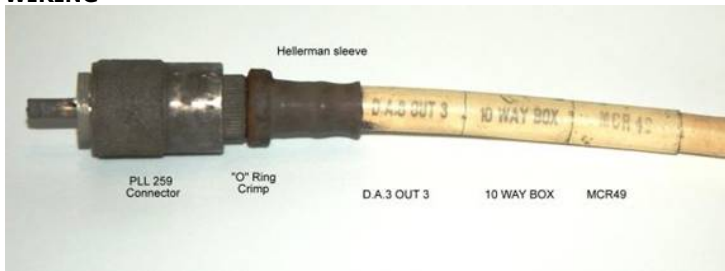
Perspex expert help required

A small area of detail is the repair-reworking of a number of Perspex panels and indicators. This is one of the designation strips on the sound mixer. It is chipped and the end is missing. The engraving is traditional. The underside is milled out with slots to fix it to the mixer desk.

Can you help or "know" someone who can!!
Several items need attention



WIRING



This is something we have been looking forward to, currently doing the mains cables, then moving on to Video & sound.

Many EP4s, PL259s, and multiways to solder up.

Picture shows an original PL259 (F&E) on BBC PSF1/2 co-ax.

There are lots of these.

The original cable numbering was done with plastic sleeves with the printing directly on them as in the picture. The current favourite for cable numbering is to use Dymo black on clear tape and cover with clear heatshrink. I did look at printable heatshrink labels, but they are hideously expensive about a £1 per inch!!

Fundraising

As ever there is a need to raise funds! As many will know we are currently supported by a Heritage Lottery Fund Grant. This provides for 90% of the restoration, training workshops and educational work.

This leaves 10% to find, we are well on the way for this, but there is the future to consider.

The ongoing costs (storage, further restoration, transport, insurance etc.) still have to be met every year, so we would welcome donations to help this ongoing work.

Once the main Heritage Funded project is complete, and the project grant is used up we will be on our own.

We are pleased to receive donations both as cash or equipment to sell for funds.

If you would like to support us, an ideal way is to set up a modest standing order direct into our bank account, please contact our [treasurer for bank details](#).

Or you can use our [PayPal donate button](#)

Thank you for your support



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