



Colchester Royal Grammar School

CRGS

TECHNICAL CREW

MOVING HEAD PROPOSAL

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Summary

This proposal outlines the plan to replace four outdated iMix250SW moving head lights currently in use with two Stairville BSW-350 LED hybrid fixtures. These new fixtures will significantly enhance the school's production capabilities while staying within a realistic and well-considered budget. With an increasing demand for professional-level stage lighting in our school productions - especially with *Les Misérables* coming up this year - this upgrade is both timely and necessary. Furthermore, as the CRGS Technical Crew supports more school events and functions, having easily moveable lights that can project natural colour tones is vital to keeping our rig as flexible, cost effective, and sustainable in the long-term.

Current Technical Situation

Our current moving heads, the iMix250SWs, are no longer fit for purpose as our main set of intelligent fixtures. These units suffer from inconsistent colour rendering, limited beam shaping, and unreliable intensity performance. As discharge-lamp-based lights, they require a warm-up period, and their brightness continues to diminish with use. Critically, they lack the flexibility to function effectively as wash, spot, or beam fixtures - limiting the design choices available in our productions and reducing the number of events we can fully support without significant workarounds. As a result, we are often forced to rely more heavily on our generic fixture-based rig, which not only consumes more power but also produces significantly more heat - reducing efficiency and increasing strain on our infrastructure.

CRGS Fixture Inventory

While the school already operates a fairly substantial inventory of general-purpose lighting fixtures - including Fresnels, profiles, LED washes, and various battens - this rig remains largely static throughout the academic year. Adjusting or moving fixtures requires significant coordination between hall availability, site team support, and the technical crew itself. As such, the current infrastructure provides reliable base coverage for general events but lacks true versatility for unexpected changes or larger productions and events.

The current static rig also leaves certain stage areas - particularly the front corners and edges less consistently covered as many of the fixtures are setup to provide a basic stage wash, especially for larger scale performances where full stage utilisation is required. Due to the physical positioning of fixed fixtures, rebalancing coverage often requires significant physical repositioning between events which is both impractical and difficult.

Our existing intelligent fixture stock is extremely limited, and the iMix250SWs - which this proposal targets - are the only fully moving fixtures in permanent service. However, they are no longer fit for purpose due to age, output degradation, and technical limitations.

The addition of modern hybrid LED moving heads would expand the creative and technical capabilities of the venue while simultaneously improving stage coverage. Unlike static fixtures, moving heads can be repositioned, colour-corrected, and zoomed in and out instantly via console programming from the Balcony, offering a far more adaptable solution without the need for constant rig adjustment.

Proposed Upgrade

This proposal recommends the purchase of two Stairville BSW-350 LED hybrid moving head fixtures from Thomann. These units combine beam, spot, and wash (BSW) functions into a single fixture, providing a wide range of use within a compact form factor.

Some of the key features include:

- 350W white LED source (brighter than anything else in our rig)
- CMY colour mixing
- Dual gobo wheels
- Motorised zoom, focus, prisms, and frost
- Full DMX control over both 5-pin and 3-pin to provide flexibility
- PowerCON compatible

The units would be permanently rigged in the main school hall and will be used for productions, assemblies, concerts, and other events.

Integration with Existing Infrastructure

The proposed fixtures would integrate into the current technical infrastructure without issue:

- **Power:** Fully compatible with existing distribution network, requiring only 16A -> 13A adaptors which we already own.
- **Control:** Fully DMX compatible - supported by Vari-Lite FLX and LF96 consoles.
- **Rigging:** Supplied with Omega brackets and the clamps and safety bonds are included in this proposal.
- **Positioning:** Permanently rigged to minimise site team workload and maximise usage.

No electrical, structural, or facilities modifications are required.

Justification and benefits

Technical Benefits:

- Instant warm-up, full output from power-on
- Smooth colour fades via CMY mixing
- Sharper gobos and improved aerial effects
- Hybrid functionality: wash, spot, beam in one unit

Operational Benefits:

- Significantly reduces manual rig changes
- Full remote repositioning via console
- Solves current stage edge coverage gaps
- Removes reliance on borrowed fixtures

Sustainability Benefits:

- Lower heat output
- Energy-efficient LED source
- No lamp replacement cycles
- Reduced cooling demand for long events

Fixture Evaluation and Comparison

During preparation, multiple alternatives were reviewed across a full price and capability spectrum:

- Entry-level models such as the BeamZ MHL1915 or Equinox Fusion 200 Spot offer basic LED wash or spot functions, but lack hybrid capabilities, beam shaping, zoom, and advanced colour control - significantly limiting their suitability for school events and functions. Additionally, they lack the true output capabilities which would be required to illuminate the stage from our main rig.
- Professional-level hybrid fixtures such as the Chauvet Rogue RH1 Hybrid, ADJ Focus Hybrid, and other brands such as ROBE and Clay-Paky offer excellent feature sets but at significantly higher prices. However, these exceed both our technical requirements and price range, so they were discounted.
- The Stairville BSW-350 LED provides a strong balance of professional hybrid features at an appropriate price point for educational and school performance use, offering full beam, spot, and wash functionality alongside CMY colour mixing, gobo wheels, and

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motorised focus - at under £900 per unit. For the price point, the features and warranty included are rare.

Cost breakdown

The supplier (Thomann) was contacted directly for pricing, and through negotiation, we were able to secure a **discounted educational pricing on the Stairville fixtures**. The pricing listed below reflects this offer.

A full supplier quotation and product references are provided in **Appendix A – Reference Links**.

Item	Qty	Unit Price (ex. VAT)	Total (ex. VAT)
Stairville BSW-350 LED	2	£845.47	£1,690.94
Global Truss 50mm Half Coupler	4	£5	£20
Accu-Cable SC6B Safety Cable (70kg)	2	£8.30	£16.60
Total (ex VAT):			£1,727.54

VAT @ 20%: £345.51

Total Cost (inc. VAT): £2,073.05

Supplier: Thomann. VAT reclaimable. Free shipping and 3-year warranty.

Implementation plan

Task	Timeline
SLT approval secured	
Order placement	Immediately after approval
Delivery and inspection	~7 days from order
Fixture patching	Immediate upon arrival
Fixture installation	Post-testing and patching
Fixture deployment for <i>Les Misérables</i>	Autumn 2025

Risks and mitigations

Risk	Mitigation
Delivery delays	Early ordering buffer
Fixture fan noise	Fixtures will be mounted above audience sightline and tested prior to installation.
Rigging safety of 25kg fixtures	Use certified suppliers and safety bonds to conform with safety regulations. Ensure they are installed correctly.

Conclusion

This proposal delivers a useful, multi-purpose and sustainable upgrade to the CRGS Technical rig. The new hybrid fixtures address both existing gaps in stage coverage and future flexibility, ensuring the CRGS Technical Crew can continue to support growing school productions and support school events more consistently with modern, higher quality equipment while keeping long-term costs contained.

Supporting supplier links and pricing confirmations are provided in **Appendix A** and **Appendix B**.

Appendix A: Reference links

Recommended to view via QR code found on final page, or at mhproposal.crgs.tech

- Stairville BSW-350 LED (Thomann):
https://www.thomann.co.uk/stairville_bsw_350_led.htm
- Global Truss 50mm Half Coupler (Thomann):
https://www.thomann.co.uk/global_truss_halfcoupler_4851mm_100_kg_b.htm?__cTr=74a78d27-38fa-4afe-896e-0c290fd882b8
- Accu-Cable SC6B 70kg Safety (Thomann):
https://www.thomann.co.uk/accu_cable_safety_sc6b_6mm_70kg.htm
- Stairville BSW-350 LED – Demo Video:
<https://www.youtube.com/watch?t=349&v=4ob2YOzahpE&feature=youtu.be>

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Appendix B: Supplier Quote

thomann


Dear customer,

Thank you very much for your interest in our products and services.

With reference to your inquiry we would like to make you the following nonbinding offer.


Your requested products

Thank you for your inquiry about lights equipment. As stated below you will find my open offer with VAT:

 **2x Stairville B 8W-360 LED**
Item no. 548467 - Price per unit GBP 1,014.56 **GBP 2,029.12**

These offer prices are for the total purchase of the entire quantity of the above products. The validity of this offer is limited to two weeks from the date of creation. Please note that the products in this offer are not reserved for you, and that availability may change between the date of the offer and the date of order placement. Unless otherwise agreed, our GTC apply in the currently valid version. Further information can also be found on our website, www.thomann.de.

For further questions concerning this offer, please contact your Thomann representative listed above.

 **Shipping costs** **GBP 0.00**

Merchandise value	GBP 2,029.12
Net amount	GBP 1,690.93
20% VAT	GBP 338.19
Total amount	GBP 2,029.12


Billing address
Charles Newman
Applegate, Heath Road
GB Manningtree CO11 2UZ

Delivery address
Charles Newman
Applegate, Heath Road
GB Manningtree CO11 2UZ

Further information

Customer number 21855225
Order type Offer
Order number 202521.624053
Order date 22.05.2025
Shipping method UK Mail
Shipping date ASAP

Your contact person

 **Luis Bohmdeuer**
licht@thomann.de

Phone +49 9546 9223-45
Fax +49 9546 9223-443

Best regards
Your Thomann Team



Thomann

to me ▾

Hi Charlie,

This offer is currently valid for two weeks, but the current internal calculation seems like this price can be assured even longer.

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Digital Version

To view a digital version, either scan the QR code below or visit <https://mhproposal.crgs.tech>

