

MACULA

REMOTE FOLLOW SPOT SYSTEM

SPEC SHEET



Martin Macula is a remote follow spot system, used to make standard moving lights follow performers and/or objects on stage. It redefines precision follow spot operation and eliminates rigging limitations, operator fatigue, and safety issues traditionally associated with conventional systems. Engineered for absolute smoothness, pinpoint accuracy, and superior ergonomics, it represents a fundamental shift in how moving lights are transformed into high-performance tracking instruments for performers and objects on stage.

From a single base station, Martin Macula can control multiple moving lights with uncompromised responsiveness. The base station delivers a real-time operational perspective that places the operator virtually at the fixture, providing a visual reference "as if positioned next to the moving light itself". Configuration and setup are deliberately streamlined, allowing efficient operation with minimal training while maintaining professional-grade performance standards. Movement control can be dynamically assigned, with operation handled by a standard lighting console during selected segments of the show and seamlessly transferred to the Macula base station for others.

Additional parameters such as Dimming, Colors, and Frost can also be managed by the Macula base station when required. Presets and Fixture Banks can be created to modify system behavior dynamically

throughout the show, delivering a high level of customizability. A single Macula base station is capable of controlling one or multiple moving lights, enabling a performer to be tracked simultaneously by one or several fixtures with consistent accuracy.

Macula works extremely well with the Martin MAC Ultra Performance, MAC Viper XIP and MAC Encore Two fixtures, which have been optimized for smooth and responsive movement. But, Macula is fully brand-agnostic, allowing any suitable moving head fixture to be used as a follow spot and fitted with a camera. Network infrastructure is intentionally simplified, with camera feeds and control data running over a single network and no dedicated video cabling required between fixtures and the base station.

The system also supports PosiStageNet output, allowing XYZ position data for performers or objects to be shared with third-party applications, opening integration opportunities for advanced tracking and automation workflows.

Martin Macula delivers unprecedented control directly at the operator's fingertips, significantly improving health, safety, and operational consistency. It unlocks new operational and creative possibilities for rental companies, lighting technicians, and lighting designers.

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FEATURE HIGHLIGHTS

HIGH RESOLUTION FLUID HEAD ENCODER

Offering extremely smooth movement control with precision and user comfort.

TOP-NOTCH ERGONOMICS

The large touchscreen with intuitive user-interface, and handle-bars with the essential controls at your fingertips improve operator ergonomics.

ONE OR MANY FIXTURES

A single base station can control a single fixture with camera, or toggle between multiple fixtures with camera or make fixtures without camera follow along.

FLEXIBLE MERGING

Fixtures can be fully controlled by the base station or have some parameters handed over to the console. Changeable on a cue-by-cue basis, to support the most advanced shows.

EASY INFRASTRUCTURE

No video cables to pull, all camera feeds run over the network. No dedicated cables to run between base station and fixture(s), it's all merged in a single network infrastructure.

BRAND AGNOSTIC

Any fixture from any brand can be used as a follow-spot and fitted with a camera. Any fixture from any brand can be controlled to follow along without camera.

FEATURES

- High Resolution Fluid Head Encoder
- Ergonomic Handles with controls at your fingertips
- Large Touch Screen with an intuitive user interface
- One Base Station can control one or multiple moving lights at once
- Customizable Merging of controls from base station and controls from lighting console
- Can be used with or without a lighting console in the system
- PosiStageNet Output (send XYZ position of performers/objects to third-party applications for advanced workflows)
- Easy network infrastructure
- Brand-Agnostic—any brand moving head fixture can be controlled, any moving head fixture can be fitted with a camera, any moving head without camera can follow along
- Simple network cabling between camera on moving head fixture and base station



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ORDERING INFORMATION

Macula System in Flightcase:.....P/N MAR-90770000 Macula Camera Kit:.....P/N MAR-90770003

INCLUDED ITEMS

Macula System in Flightcase

- Macula Control Unit and Encoder Head
- Adjustable Tripod
- 15.6" Touch Screen
- Pole for Touch Screen placement
- Control Unit to Touch Screen loom (HDMI + 12Vdc + USB)
- Left motorized handlebar
- Right motorized handlebar
- Control Unit to Left motorized handlebar cable
- Control Unit to Right motorized handlebar cable
- EU-type IEC C13 power cable with Schuko connector
- US-type IEC C13 power cable
- UK-type IEC C13 power cable
- Flightcase
- Multi-Language Safety and Installation Manual

Macula Camera Kit

- NDI Camera (Everet EVZ220)
- Camera attachment screw
- 3/16" Allen key
- PoE Injector for Camera with IEC C6 input
- EU-type IEC C5 power cable with Schuko connector
- US-type IEC C5 power cable
- UK-type IEC C5 power cable
- Multi-Language Safety and Installation Manual

MAC Ultra Performance Camera Mount Kit

- Camera Mount Ring for MAC Ultra Performance
- Snoot upgrade for MAC Ultra Performance (incl. front-accessory screws)
- Camera safety screws
- Short network cable between camera & robust etherCON socket
- Safety Cable
- Multi-Language Safety and Installation Manual

MAC Viper XIP / MAC Encore Two Camera Mount Kit

- Camera Mount Ring for MAC Viper XIP / MAC Encore Two
- Camera safety screws
- Short network cable between camera & robust etherCON socket
- Safety cable
- Multi-Language Safety and Installation Manual

ACCESSORIES

TRANSPORT AND STORAGE

- Flightcase for Macula SystemP/N MAR-91515071



CAMERA MOUNT KITS

- MAC Ultra Performance Camera Mount Kit...P/N MAR-90770001
- MAC Viper XIP / MAC Encore Two Camera Mount Kit P/N MAR-90770002



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TECHNICAL SPECIFICATIONS

CONTROL / USER INTERFACE

Pan / Tilt Encoder.....	Fluid Head Encoder with adjustable drag
Left Handle.....	Motorized Fader, Action Button & Z-Roller
Right Handle.....	Motorized Fader, Action Button, 15 LCD Shortcut Buttons & Z-Roller
Monitor.....	15.6" Touch Screen

CAMERA VIDEO INPUT

Standard.....	NDI HX2
Resolution.....	Supporting all standard resolutions up to 1920x1080 (Full HD)
Framerate.....	Supporting frame rates up to 60fps

COMPATIBLE CAMERAS

Everet EVZ220
Everet EVZ230
Aida HD-NDI-X20
BirdDog PF120

POSITION PROCESSING

Method.....	Real-world XYZ position tracking
Multi-Fixture Support.....	Yes, one base station can control multiple fixtures

FIXTURE CONTROLS

Base station can control parameters of fixtures autonomously, or merge with controls from lighting console.

Controllable Parameters.....	Pan, Tilt, Dimmer, Color, CTO, Frost, Zoom, Iris & Focus
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PRESETS

User-definable presets containing any combination of parameters for easy recall of looks and/or positions.

Presets can be assigned to LCD shortcut buttons on the right handle.

BANKS

User-definable banks containing a fixture or combination of fixtures to be controlled.

Easy recall of different fixtures or fixture combinations for dynamic followspot assignment.

Different banks can have a different Leader fixture (fixture with camera), enabling dynamic camera switching.

DMX CONTROLS

Recall presets via DMX

Recall banks via DMX

SYSTEM OUTPUT

Autonomous output of full fixture controls via Art-Net or sACN.

Merged output with controls from lighting console via Art-Net or sACN.

PosiStageNet output towards 3rd party control systems.

Art-Net INPUT & OUTPUT

Up to 4 universes of Art-Net Input & Output

sACN INPUT & OUTPUT

Up to 32 universes of sACN Input & Output

CONSTRUCTION

Housing Material.....	Steel and aluminum
Color.....	Black
Protection Rating.....	IP 20

INSTALLATION

Mounting.....	Free-standing using supplied adjustable tripod or attachment to surface or truss using third-party accessories
Location.....	Indoor or outdoor protected from elements

CONNECTIONS

Macula Base Station

Power input.....	IEC C14 socket
DC Power through (towards monitor)....	Neutrik 4-pin locking XLR
User interface monitor.....	Neutrik HDMI
USB Touchscreen Out.....	Neutrik USB
Peripherals and USB memory devices ..	Neutrik USB
Left Handle Interface.....	Custom 8-pin connector
Right Handle Interface.....	Custom 8-pin connector
NDI Video Network (Camera and PSN) ..	1x etherCON socket (100/1000Mbit)
EtherDMX Network (Art-Net, sACN and PSN).....	1x etherCON socket (100/1000Mbit)
Macula Camera (mounted in camera mount kit)	
NDI Video Out and PoE In.....	1x etherCON socket (100/1000Mbit)

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TECHNICAL SPECIFICATIONS

ELECTRICAL

AC Power 100-240 V AC nominal, 50/60 Hz
Power Supply Unit.....Auto-ranging electronic switch mode
Typical half-cycle RMS inrush current
at 230 V, 50 Hz 15 A
Typical earth-leakage current.....0.05 mA
Power Factor 0.25 @ 100 V / 120 V / 208 V / 230 V / 240 V
Max current draw 0.7 A @ 100 V / 120 V / 208 V / 230 V / 240 V
Typical current draw 0.7 A @ 100 V / 120 V / 208 V / 230 V / 240 V*
Power Consumption
Maximum 30 W
Typical.....30 W*

**Measurements made at nominal voltage. Allow for a deviation of +/- 10%.*

Typical: machine running at full capacity.

THERMAL

Cooling Convection
Max. ambient temperature (Ta max.) ... 40° C (104° F)
Min. ambient temperature (Ta min.) 5° C (41° F)
Typical heat dissipation
(calculated +/- 10%) 102 BTU/hr.

ENVIRONMENTAL

RoHS..... Compliant
REACH..... Compliant
WEEE..... Compliant
Proposition 65 Compliant

APPROVALS

EU safety EN 662368-1
EU EMC..... EN 55032, EN 55035, EN 61000-3-2,
EN 61000-3-3
US safety UL 62368-1
Canadian safety CSA C22.2 No. 62368-1
Australia/NZ..... RCM
United Kingdom..... UKCA
India..... BIS Pending
Korea KS C



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DIMENSIONS

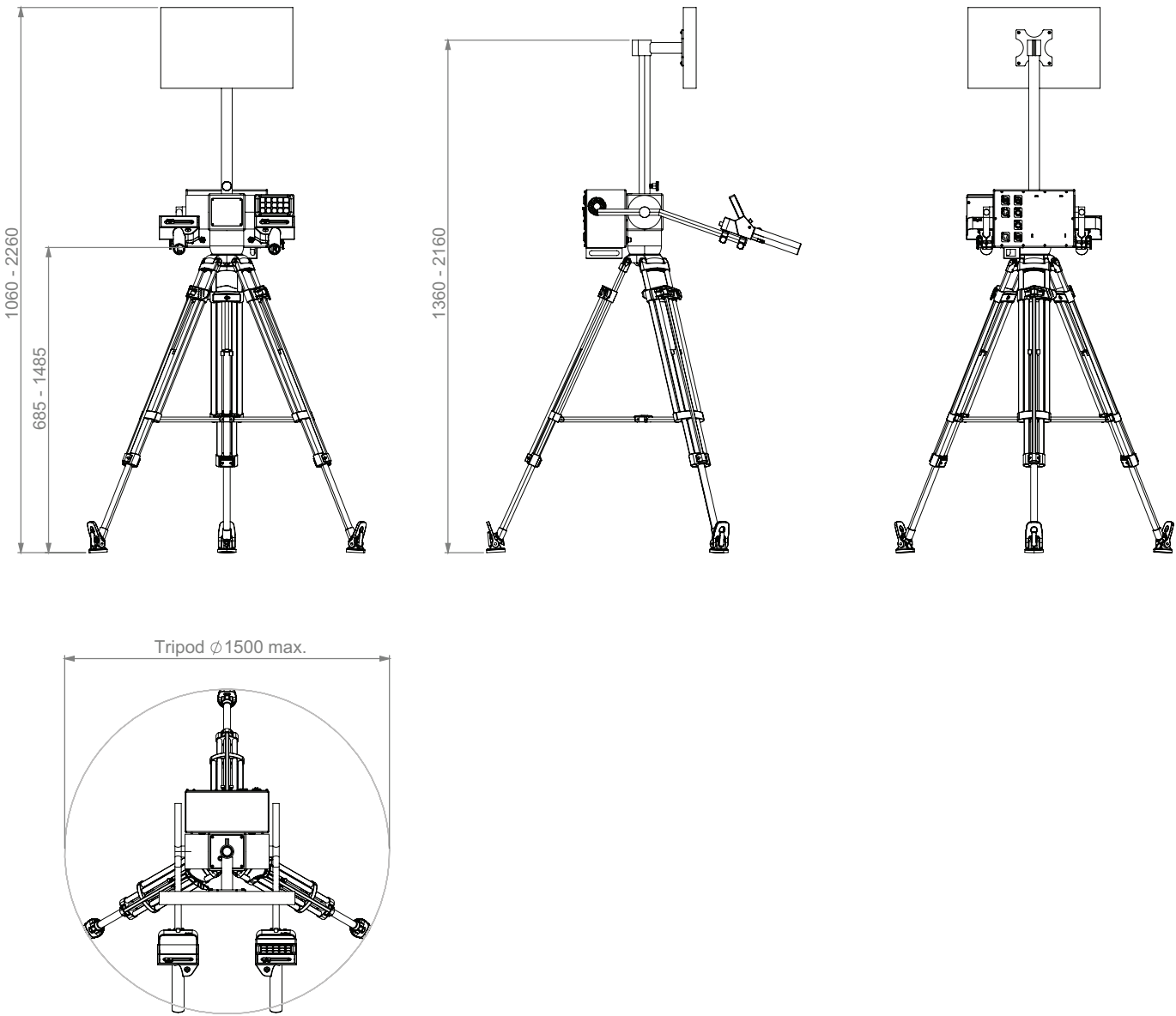
PHYSICAL

Macula Base Station

Width Max. 1500 mm (59.1 in.)
Depth Max. 1500 mm (59.1 in.)
Height Max. 2260 mm (89.0 in.)
Weight 20.1 kg (44.3 lbs.)

Macula Camera

Width 70 mm (2.8 in.)
Depth 70 mm (2.8 in.)
Height 116 mm (4.6 in.)
Weight 0.6 kg (1.3 lbs.)



All dimensions are in mm