

# USER MANUAL

[HYLENSYSTEM.COM](http://HYLENSYSTEM.COM)



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Software version 1.13a

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## FCC, IC, CE Compliance Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

<b><i>Declaration of Conformity</i></b>	
<b>Application of Council Directive: 2004/108/EEC</b>	
<b>Standards To Which Conformity Is Declared:</b>	EN55022 Class A EN55024:1998 EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-6 EN61000-4-8
<b>Manufacturer's Name:</b>	Panavision
<b>Manufacturer's Address:</b>	6219 De Soto Avenue Woodland Hills, CA 91367-2602 (818) 316-1000
<b>Equipment Description:</b>	Hylan System
<b>Equipment Class:</b>	ITE - Class A
<b>Model Numbers:</b>	HSMU/HSC
<i>I the undersigned, hereby declare that the equipment specified above, conforms to the above Directive(s) and Standard(s).</i>	
Place: <u>Woodland Hills, CA</u>	
Signature: <u>[Signature]</u>	
Full Name: <u>KON CHASE</u>	
Position: <u>SVP MANUFACTURING</u>	
Date: <u>June 23, 2006</u>	

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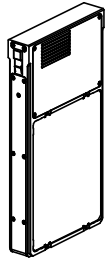
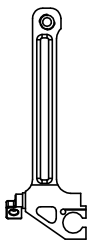
CONFIDENTIAL DOCUMENT  
DO NOT DUPLICATE WITHOUT  
AUTHORIZATION BY PANAVISION  
UNDER PENALTY OF APPLICABLE LAWS

CASE CABLES  
2X 30' CONTROL CABLE (CS-HC30)  
2X 30' BNC CABLE (CBLE-BNC30)  
2X SHORT BNC CABLE (CBLE-BNC03)  
2X 8' POWER CABLE (CBLE-24H/P)  
  
(CS-HC100) 100' CONTROL CABLES AVAILABLE

THIS SHEET TO BE USED AS A REFERENCE ONLY  
SYSTEM CONTENT SHEETS ARE PREPARED AS A GUIDE TO INSURE COMPLETE PACKAGE SHIPMENT.  
ONGOING CHANGES TO THE PACKAGE MAY NOT BE FULLY REFLECTED IN THESE CONTENT SHEETS.

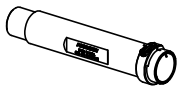
HSHB  
FRONT HANDLE BRACKET

HSGB  
FRONT BRACKET, GENESIS



HSRF  
REGIONAL FOCUS CARTRIDGE

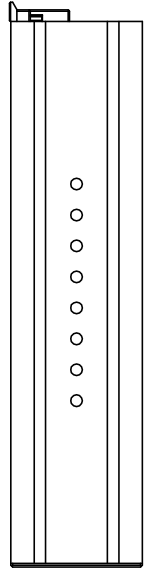
MFFEX  
FOCUS KNOB EXTENSION



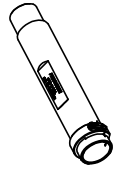
OUABL  
O' CONNER/ARRI LONG BASE  
FOR USE WITH ARRI 435

BOTH

PCOBXL  
EXTRA LONG CAMERA DOVETAIL



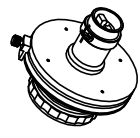
MFFHX  
FOCUS KNOB EXTENSION



MFFGB  
FOLLOW FOCUS GEAR BOX

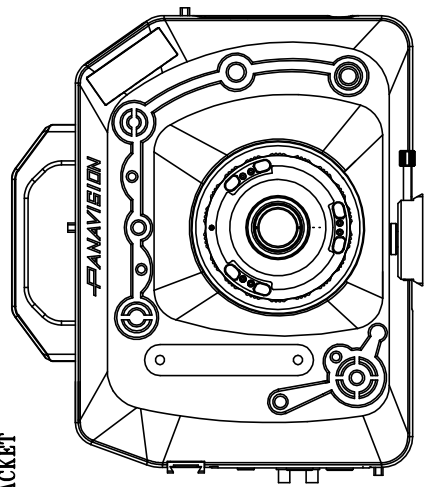


MFFSK  
SINGLE SPEED KNOB

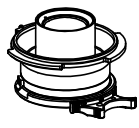


HSMU  
HYLEN MASTER UNIT

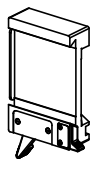
HSRB  
IRIS ROD BRACKET



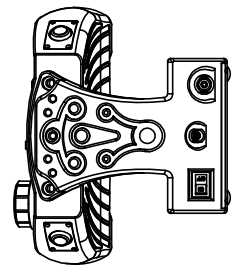
HSR  
HYLEN FRONT RELAY



PAOD  
PAN-ARRI OFFSET DOVETAIL



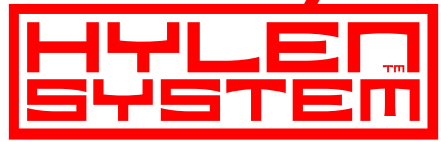
HSC  
HYLEN CONTROLLER



<b>PANAVISION</b> INCORPORATED 9210 RESISTANCE ROAD, SUITE 100, 91307 LOS ANGELES, CALIF. 90034			
TITLE <b>CASE CONTENTS FOR HYLEN SYSTEM</b>			
DR. BY: C.P. FINKLIN	P-10-00	SHEET: 1 OF 1	
ED. BY: SCALE: 1/8"	CHKD. BY:	DWG. NO.:	
SCALE: 1/8" APPRO. BY:			

# Case Contents

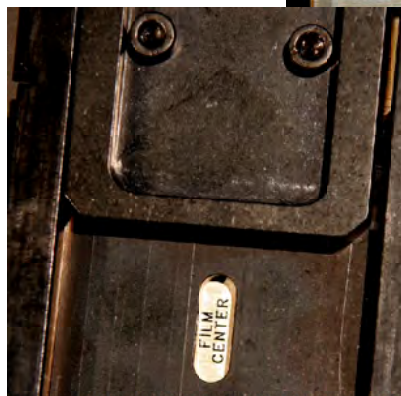
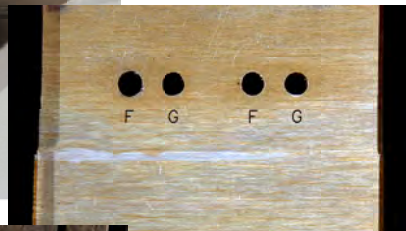
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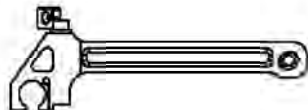
The Diagram to the left shows the standard components and accessories included with the Hylén System™. Additional plug-ins are available [see pg 13]



Use the appropriate screw-holes



**HSGB (192-1187-00-9)**  
**FRONT BRACKET, GENESIS**

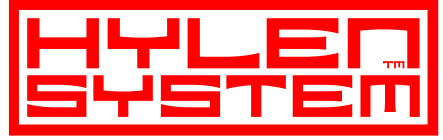


**HSHB (192-1168-00-9)**  
**FRONT HANDLE BRACKET**



# Set Up

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## Mounting & Baseplates

The Hylén System™ sliding dovetail has 2 different centering positions, for film or Genesis

Genesis: attach dovetail base plate in GENESIS position

Panaflex: attach dovetail base plate in FILM position  
use PCOBXL

Arri: attach dovetail base plate in FILM position  
use OUABL and PAOD [Pan-Arri Offset Dovetail]  
use spacer plate in between camera & baseplate [e.g. BP-9]

Use 4mm hex driver to remove & install dovetail baseplate screws.

1. Mount the Hylén System™ Main Unit [HSMU] to the long baseplate [can be mounted from the front on some baseplates.]
2. Mount camera and its baseplate to the long baseplate.
3. If applicable, remove camera irisrod bracket and replace with HSHB [Panaflex] or HSGB [Genesis]. All power ports are replicated on the front of the Hylén System™. These brackets allow use of the "Hollywood Handle."
4. Slide camera & Hylén System™ together and tighten lens lock. Once the Hylén System™/ camera combination is balanced fore & aft on the head, tighten the dovetail locks on both camera and Hylén System™.

Note: The Hylén System™ presents an inverted image to the film or sensor. Therefore the captured image requires inversion in post, via telecine, DI, or optical printer.

Also the camera viewfinder must be inverted. For Panaflex cameras, rotate the pechan prism before mounting the Hylén System™ Main Unit [HSMU]. The pechan prism on Millennium and XL cameras is not manually rotatable, so it is recommended to operate the camera via video assist.

**CAPTURED IMAGE REQUIRES INVERSION**



The Hylén Controller



"Ready" light

On switch

Low battery

Video In

Video Out Clean

Video Out with graphics



Power from battery



Image invert switch

Video & Power Out  
For small monitor on or near controller

Controller connector



System is ready to use.  
Software version displayed.

# Set Up



## Plugging in & Powering up

The Hylén System™ replicates camera front accessories, including a powered irisrod bracket, 2 tape hooks, and a modular follow focus dovetail.

1. Connect controller [HSC] to main unit using 7-pin controller cable [CS-HC30 or CS-HC100]. Turn on controller.
2. Connect 24V battery power to power input port using CBLE-24H/P. Two connectors are provided so that batteries can be changed without interrupting operation.
3. Use main power switch to turn on system. Power LED will light, Ready light will flash when initialization begins, and glow steadily when unit is ready. System startup takes approximately 30 seconds.

On the other side of the unit, the LCD panel will display "Hylén System Initializing" and then "Ready..." along with the software versions. At this point the controller will become active.

4. Connect video tap output to video input on Hylén System™ connection panel. Connect video outputs to monitors. Operator output will provide cursor and numerical information. For example, the cursor shows the shape and location of the clear spot on the RFC plug-in.

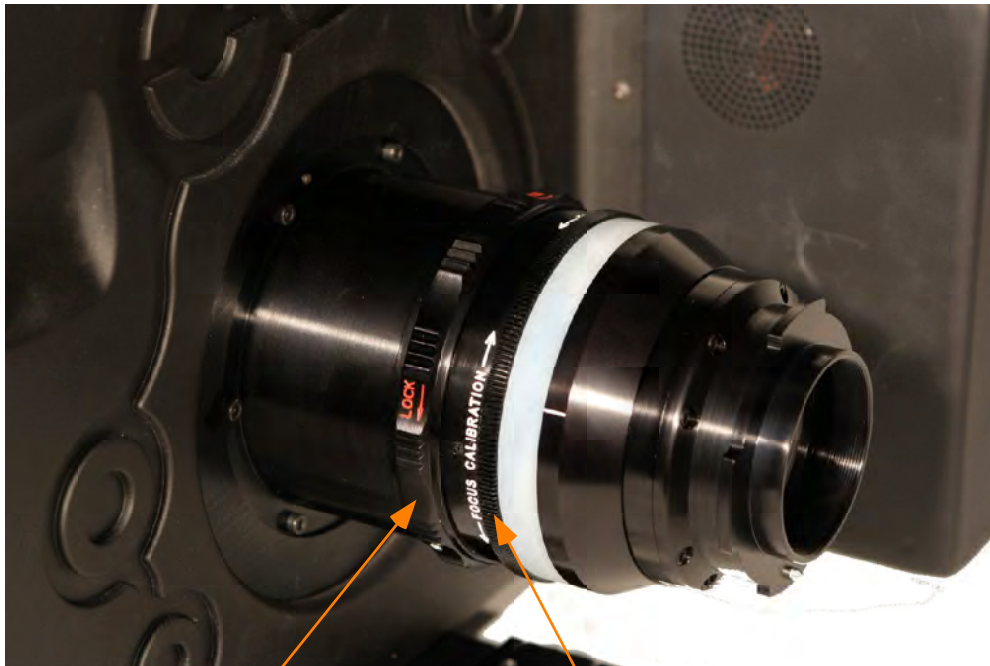
The effect position is also indicated numerically at the bottom of the screen, with X Y Z coordinates.

**NOTE: PAL / NTSC mode:** To change from one format to the other, make sure the controller is connected and the whole system is powered up. Then press and hold the eject button for about 8 seconds, until the mode changes. "PAL mode" or "NTSC mode" will be displayed on the LCD.



Push Eject Button for 8 seconds to change video mode

Axis activation switches illuminate when axis is active



Lock ring

Focus Calibration ring



Axis Calibration knobs on controller  
X - Y - Z - R

# Calibration

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## Focus Calibration

The Hylén System™ defines its own focus plane near the middle of the box, as indicated by the tape hooks on the sides and top of the main unit. The relay lens then re-focuses the image onto the actual imaging plane in the camera. Taking lenses should be taped off from the tape hooks on the Hylén System™, not from the camera. A focus calibration ring is provided to adjust the taking lens focus scale. To calibrate focus:

1. A plug-in cartridge must be in the system, as the glass stack affects the focus point.
2. Move the cartridge to a clear area [i.e. center oval of RFC].
3. Mount a lens and set a target at a measured distance [i.e. 6 ft.]. Set lens to this mark.
4. Unlock the focus calibration ring. Adjust focus calibration ring for sharpest focus. Lock the ring. This position can be marked for future reference.

* Check / adjust focus calibration whenever a new cartridge is inserted *
---------------------------------------------------------------------------

## Axis Calibration

Due to variances in video assist centering from camera to camera, the Hylén controller has its own calibration knobs. Use these to align the on-screen cursor [for plug-ins with a cursor] to the video image of the plug-in [i.e. align the oval cursor to the RFC oval], and to set the zero effect position on the Z axis.

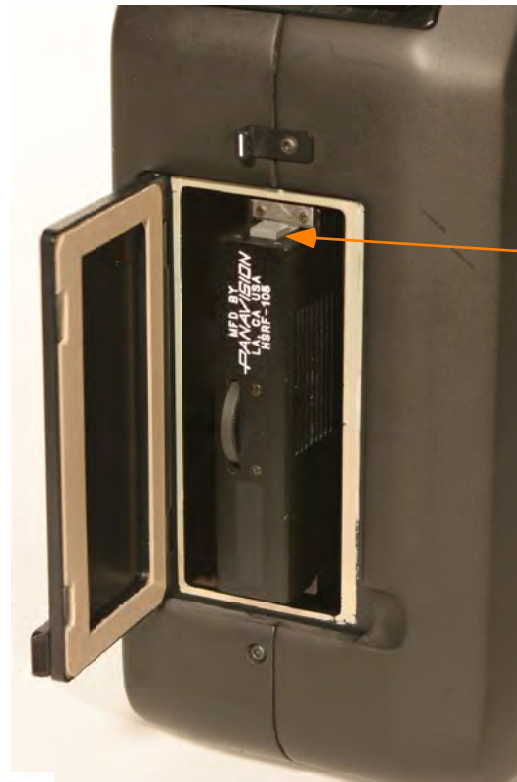
## Lens Compatibility

The Hylén System™ is compatible with all Primo primes 14.5mm and up, and all Primo zooms. For other lenses, please see the list on pages 14 & 15.



Eject Button

Note: All axes must be activated [up & lit] for cartridge to eject.



Push this tab to release cartridge

Cartridge ejects.



Use A & B Buttons to scroll through plug-in choices



The LCD screen shows the names of the plug-ins.  
Push EJECT to load selected plug-in cartridge.

# Plug-ins

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The Hylén System™ is expandable. Various cartridges, or plug-ins, can be inserted to create different effects. Some of the currently available plug-ins are listed below, with more being developed all the time.

## Regional Focus Control [RFC]

The RFC plug-in [product type HSRF] provides a clear center oval, through which the image is sharp, surrounded by a holographic cone pattern which selectively softens the image.

The FX knob controls the strength of the effect, from 0 [clear] to 100 [full effect]

The joystick moves the clear oval around, or out of, the frame. The oval can be manually rotated [motorized rotational control coming soon].

## Rotational Filters

The Rotating Effect Plug-in [HSRC] provides for the use of ND grad or polarizer filter. The filter can be manually rotated [Motorized rotational control coming soon]

By using the FX knob, you can smoothly change from a hard to soft grad. The joystick moves the grad line around, or out of, the frame.

## Mask Mosaic

Various masks mosaics provide cutout effects for the intermediate image plane. Some current choices are: 4 different gunsights, 6 different sized binoculars, or 4 still camera focusing screens. The joystick moves the effects throughout the image frame, and the FX knob moves them through focus.

## Text / Image Overlay

A clear glass rectangle accepts nearly any sort of printed text or artwork, for superimposition on your image. It can be moved around the frame and in and out of focus.

## Changing Plug-ins

Press the eject button and the current plug-in cartridge will open the door.

Push the tab on top of the cartridge to remove it. Press the A or B buttons to choose the desired plug-in on the LCD screen. Insert plug-in until it clicks. For mosaic plug-ins, use the A or B buttons to choose the mosaic position.

Note: Check / adjust focus calibration whenever a new cartridge is inserted
-----------------------------------------------------------------------------

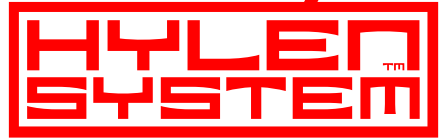
The following lenses are known to fit on the front relay.

SL10 [some]	(U)SZ29
SL14.5	(U)SZ85
SL14.5-CF	(U)SZ100
SL17.5	(U)SZ135
SL17.5-CF	(U)SZ180
SL21	SS20
SL21-CF	SS29
SL27	SS50
SL27-CF	SS75
SL35	SS100
SL35-CF	SS125
SL40	SS150
SL50	SS127
SL75	SS200
SL100	SF6
SL150	SP20
1.4XE	SP20-CF
2XE	SP24-CF
SL24-MS, SL24CF	SP28
SL30-MS, SL30CF	SP28-CF
SL35-M	SP32
SL50-M	SP50
SL65-MS, SL65	SP100
SL85-MS, SL85	SP150
SL100-M	MC60
SL125-MS, SL125	MS90
SM50-MF	SLZ
SM90-MF	SLZ11
SM200-MF	SLZ3
SR24-SF	PMZ
SF45-SF	Z5S
	Z10S/ZC10

TELEPHOTOS

# Lens Compatibility

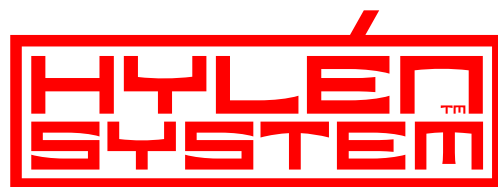
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The following lenses WILL NOT FIT on the front relay.

SL21-M	SPN6
SL27-M	SPN8
SM100-MF	SP8D
(U)SZ14	SP9.8
(U)SZ24	SP15
(U)SZ35	SP16
(U)SZ50	SP24
SS14	SP35
SS17	SP35-CF
SS17-CF	SP40
SS24	SP75
SS28	MS40
SS35	MS100
SS40	LWZ
SS50	LWZ2
SS55	

Note: The Hylen™ System was designed primarily for use with spherical lenses. Panavision recommends testing before using anamorphic lenses, to ensure mechanical and optical compatibility.



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