MultiDyne®

Video & Fiber Optic Systems

JVC USER MANUAL

FS-900 Triple Studio Camera Interface System

MultiDyne

Harnessing The Power of Light

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This product was designed and manufactured in the
UNITED STATES of AMERICA

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Important Safety Information

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purposes of the grounding-type plug. A ground type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit in to your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinching particularly at plugs, convenience receptacles, and point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Throughout this manual, a number of warning and caution notes may be presented to alert the user to important safety or operating information. Please read and comply with any and all warning and caution notes in this manual.
- Always adhere to local building, safety and fire prevention codes during the installation and operation of this product.
- Use only power cords specified for this product and certified for the country of use.
- Connect the unit only to a power source with the specified voltage rating.
- Use only fuses of the type and rating specified.
- In case of an emergency ensure that power is disconnected.

	**Warning** –indicate danger that requires proper procedures or practices to prevent injury or death to personnel.
	**Cautions** indicate proper procedures or practices to prevent damage to equipment or property.
	**Warning** –The safe operation of this product requires that a protective earth connection be provided. A grounding conductor in the equipment's mains supply cord provides this protective earth. To reduce the risk of electrical shock to the operator and service personnel, this ground conductor must be connected to an earthed ground. The mains plug shall remain readily operable.
	**Warning** –The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
	**Warning** - This symbol on the equipment indicates for use at altitudes not exceeding 2000 m.
	**Warning - Waste Electrical and Electronic Equipment Directive (WEEE Directive) -** Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

Laser Safety Information

This unit is classified as a **CLASS 1 LASER PRODUCT** according to EN60825-1 (EU) and FDA 21CFR 1040.10 (USA). Class 1 laser products are considered safe and do not result in biological hazard if used according to these instructions.

	**Warning** – Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
	**Warning** – Never look directly into the end of the optical fiber while either end of the system is operating.
	**Warning** – Never clean an optical fiber connector on equipment or cable that is carrying light.
	**Warning** – Always use dust caps on fiber optic connectors when cables are not connected. This will protect the connector from damage and accidental exposure of a human eye to an operating laser.

UNPACKING - FS-900 Triple Studio Camera Interface System

The following items listed are for a standard 3 Camera Head system. Quantities may differ dependent on amount of Camera Heads ordered:

SMPTE Option:

Qty	Description
1	FS-900BS1S Base Station (25 Pin Audio Connector included, 2 included)
3	FS-900CAM1S Camera Head
3	Return video cable 10" (MDCAB01142) *
9	Hirose Power cable (MDCAB01175) *
2	Line cord
3	Mounting Hardware Kit *

**Quantities included for standard 3 Camera Head system.*

Neutrik Option:

Qty	Description
1	FS-900BS1N Base Station (25 Pin Audio Connector included, 2 included)
3	FS-900CAM1N Camera Head
3	Return video cable 10" (MDCAB01142) *
9	Hirose Power cable (MDCAB01175) *
2	Line cord
3	Mounting Hardware Kit *

** Quantities included for standard 3 Camera Head system.*

INSTALLATION INSTRUCTIONS

Base Station Unit:

When mounting the Base Station into a rack allow at least 1 RU of open space above and below it for proper cooling to occur.

Rack Mount Installation Safety Notes:

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

C) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

E) Reliable Earthing - Reliable earthing of rack-mounted equipment

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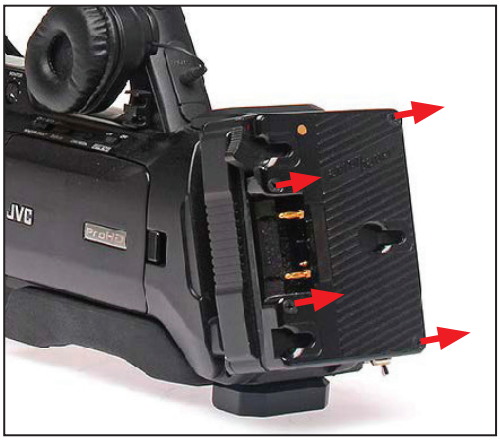
Camera Head Unit :
JVC Camera Silverback attachment procedure instructions in the next 6 steps on the following page.

Step 1: Remove the existing battery plate

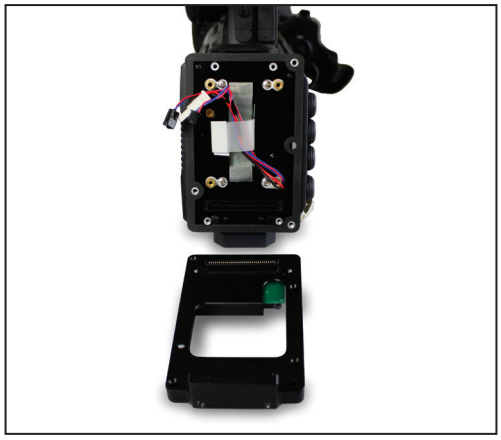
Unscrew all 4 screws holding the battery plate onto camera. Place Battery Plate and screws to the side for use later in Step 6.
(for more information visit JVC website: http://pro.jvc.com/splash.jsp)



JVC Pro HD camera back

Step 2: Attach camera mount plate

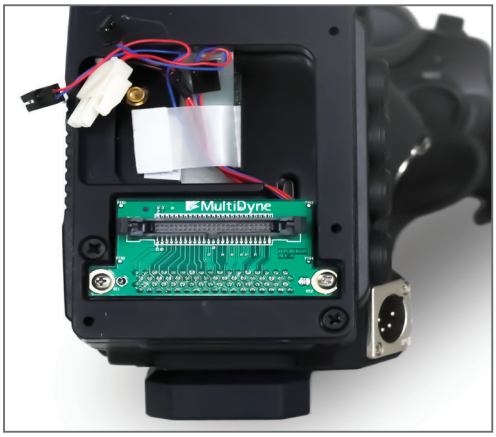
Position the camera mount plate on the back of the camera and fasten using the #6-32 screws that are provided in the Hardware Mounting Kit



Attaching camera mount plate

Step 3: Attach PCB connector

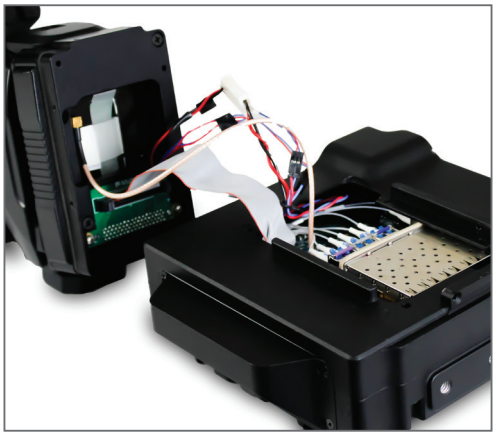
Shown below with camera back mounting attached.



Attaching PCB connector

Step 4: Camera and Silverback connection

Connect the MCX connector, the power connector, the battery data connectors and the camera interface connector as shown.



Camera and Silverback connections

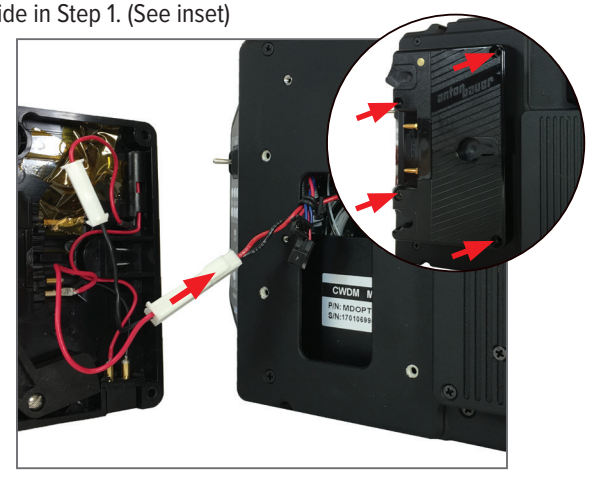
Step 5: Mount the Camera Back

Install the camera back on the mounting plate and fasten using the 4 #4/40 pan head screws & 2 #4/40 flathead screws that are provided in the Hardware Mounting Kit.

Final mount - Top View (main), Side view (inset)

Step 6: Connect Battery Plate to Silverback

Connect the Battery Plate. Inter-connect wires. The connectors are keyed. Then re-attach the Battery Plate using the 4 screws that were set aside in Step 1. (See inset)



Re-attach Battery Plate

SYSTEM DESCRIPTION

The FS-900 Triple Studio Camera Interface System is a camera video, audio, ethernet and data multiplexing system that installs between three separate JVC ProHD GY-HM890U video cameras and their power sources. In addition, each camera connects via a single fiber optic cable to a common Base Station in a truck, studio control room, or other video production facility. All of the video, audio and data is sent bidirectionally between the Base Station and each camera over three separate single fiber cables, one between each camera and the common Base Station.

The Camera Head Unit is attached directly to the camera. The Camera Head unit is designed to allow the majority of the signals that connect between the Camera and itself to flow thru a 68 pin connector internal to the Camera and the Camera Head unit.

The FS-900 Triple Studio Camera Interface System consists of the two main components:
1. The FS-900 Base Station
2. The FS-900 Camera Head

Model numbers of available options:
FS-900BS1S - Base Station with SMPTE connectors
FS-900BS1N- Base Station with Neutrik connectors
FS-900CAM1S- Camera Head with SMPTE connectors
FS-900CAM1N- Camera Head with Neutrik connectors

FS-900 TRIPLE STUDIO CAMERA INTERFACE SYSTEM

MultiDyne FS-900 Triple Studio Camera Interface System for JVC's GY-HM890 ProHD camcorder

The MultiDyne® Pro HD camera-mounted fiber-optic transceivers are used to "systemize" HD, 2K and 4K Quad-Link 3G camcorders. It offers versatility and the ability to configure a camera system to specific applications. The camera is connected with a series of short patch cables and then connected to the system's base station (RX) with a single fiber-optic cable, which can be located near the camera or miles away.

The FS-900BS1N (Neutrik Opticalcon) and FS-900BS1S (SMPTE)

Supports 3G-SDI 1080p/60 camera feeds and returns. Cost-efficient to support up to three cameras by each base station, and separate power supplies provide up to 150 watts for each camera, as well as prompters and talent monitors.

Key Features
- Supports 1080 50/60p 3G-SDI camera feed and returns.
- HDMI / SDI feeds for high-quality HD teleprompters.
- Gigabit Ethernet for Video-over-IP and web-based RCU.
- Dual redundant power supplies for base station

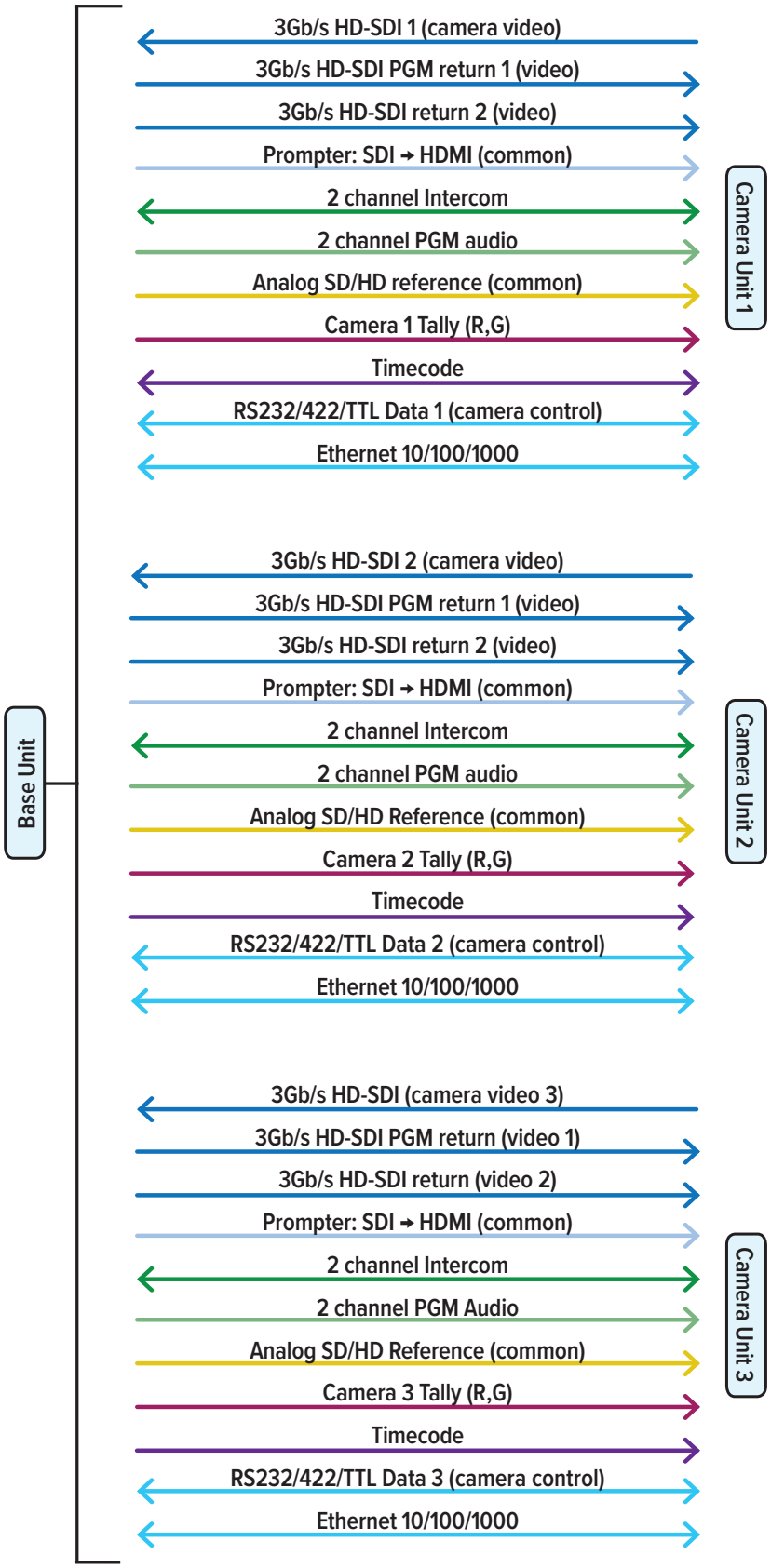
Front

Back

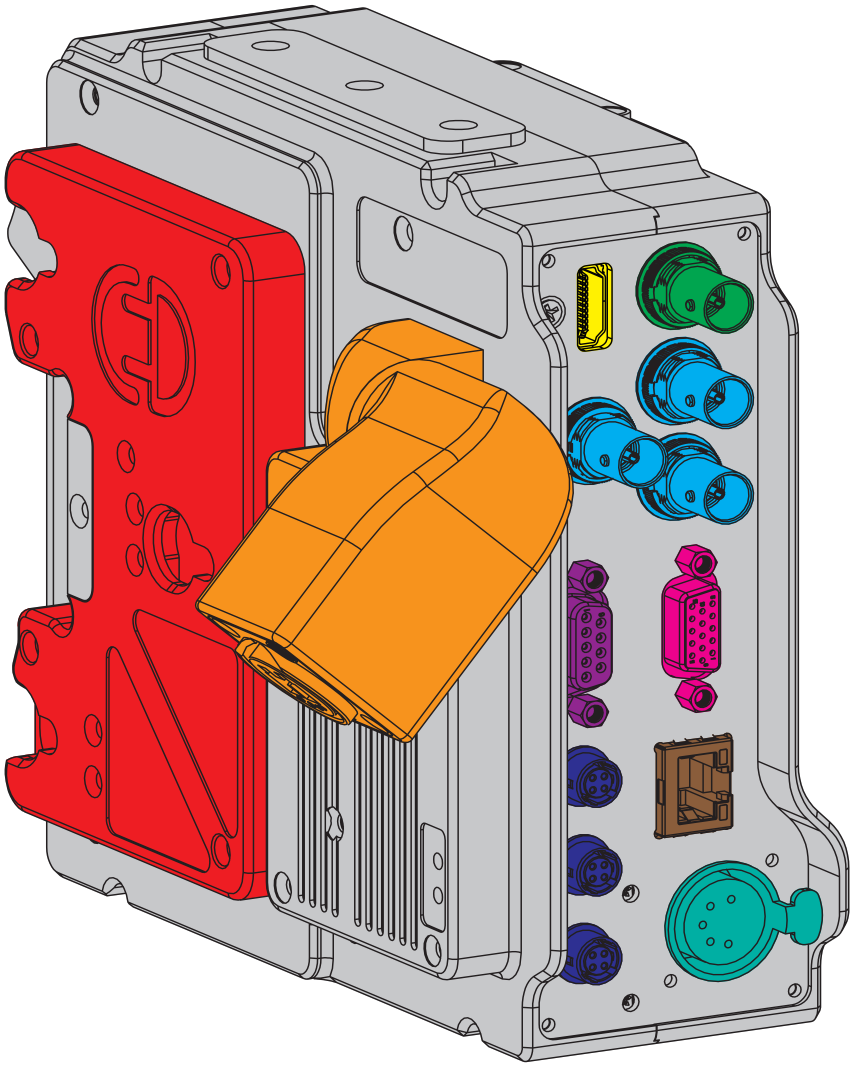
Hybrid fiber cable for Neutrik and SMPTE

Hybrid fiber cable assemblies are compatible for easy mating to industry standard broadcast camera systems. The rigorous qualification and intermateability testing program guarantees consistent and reliable results with all compliant systems.

CAMERA INTERFACE SIGNAL PATHS



CAMERA UNIT - CONNECTORS



Battery Connector:
Anton Bauer Gold mount or V mount

Fiber-Optic Connector:
Use either SMPTE or Neutrik cable (depending on option ordered) to connect to Base Unit.

Return 3 Video—HDMI Output Connector:
The Return 3 video channel sent from the Base Unit to the Camera Head that has been converted from SDI to HDMI inside the Camera Head Unit is output on this HDMI connector.

Viewfinder Video—BNC Output Connector:
The video output on this connector is either the SDI video coming in from the Camera or the Return 1 video channel sent from the Base Unit depending on which input is selected via the Viewfinder Input Select Button (see page 7 for location).

Return 1, 2, 3 Video—BNC Output Connector:
The Return video channel input into and sent from the Base Unit to the Camera Head is output on these BNC connector.

Auxiliary Power Output 1 2 & 3 Connectors: In order to use 4A from each connector, all pins must be used.

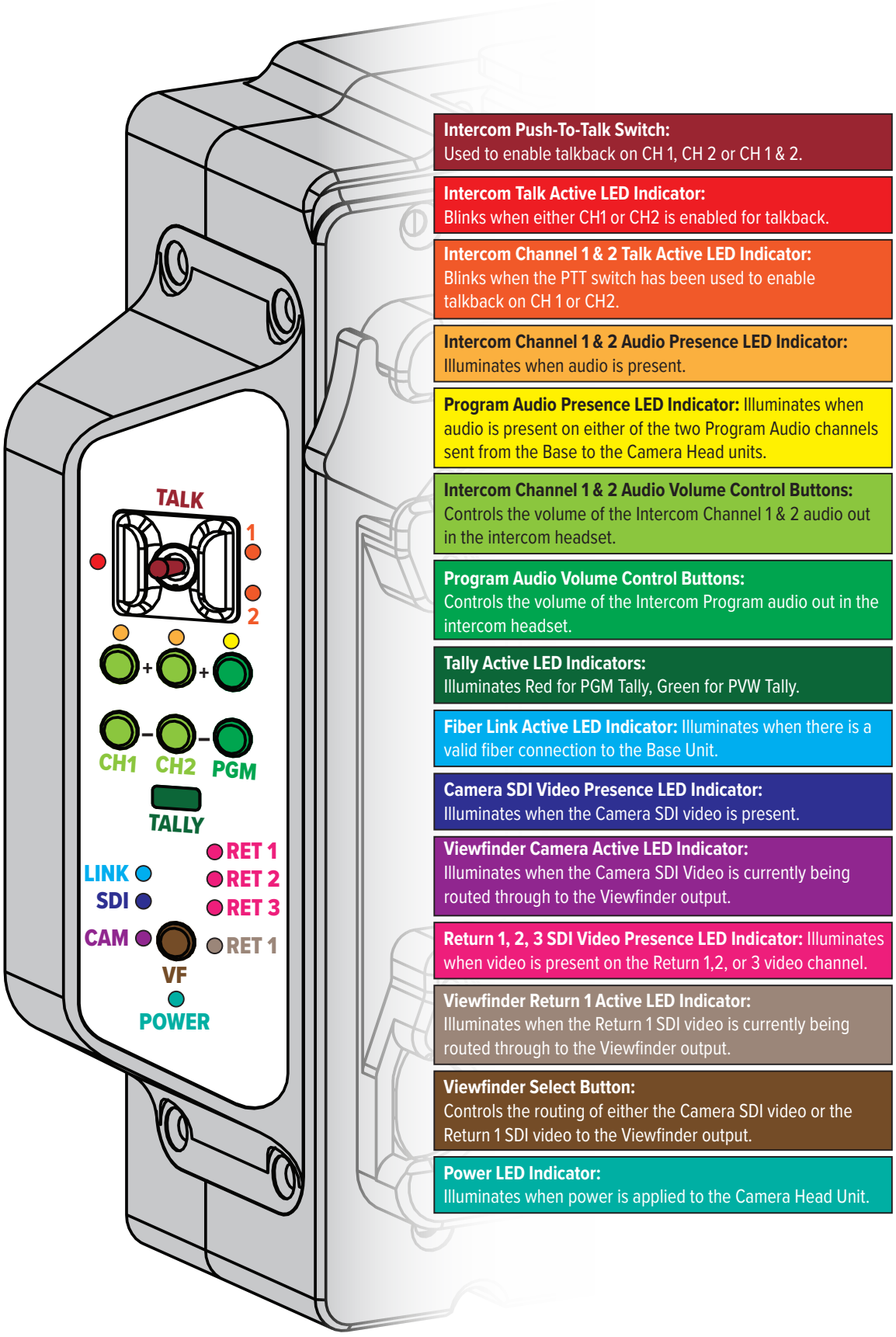
Program Audio Output Connector:
See page 16 for detailed pinout assignments.

External Tally/GPIO Connector:
See page 16 for detailed pinout assignments.

Ethernet Connector:
Use to connect Camera Head Unit to Ethernet.

Intercom Headset Connector:
See page 17 for detailed pinout assignments.

CAMERA UNIT - CONTROLS & INDICATORS



Intercom Push-To-Talk Switch:
Used to enable talkback on CH 1, CH 2 or CH 1 & 2.

Intercom Talk Active LED Indicator:
Blinks when either CH1 or CH2 is enabled for talkback.

Intercom Channel 1 & 2 Talk Active LED Indicator:
Blinks when the PTT switch has been used to enable talkback on CH 1 or CH2.

Intercom Channel 1 & 2 Audio Presence LED Indicator:
Illuminates when audio is present.

Program Audio Presence LED Indicator: Illuminates when audio is present on either of the two Program Audio channels sent from the Base to the Camera Head units.

Intercom Channel 1 & 2 Audio Volume Control Buttons:
Controls the volume of the Intercom Channel 1 & 2 audio out in the intercom headset.

Program Audio Volume Control Buttons:
Controls the volume of the Intercom Program audio out in the intercom headset.

Tally Active LED Indicators:
Illuminates Red for PGM Tally, Green for PVW Tally.

Fiber Link Active LED Indicator: Illuminates when there is a valid fiber connection to the Base Unit.

Camera SDI Video Presence LED Indicator:
Illuminates when the Camera SDI video is present.

Viewfinder Camera Active LED Indicator:
Illuminates when the Camera SDI Video is currently being routed through to the Viewfinder output.

Return 1, 2, 3 SDI Video Presence LED Indicator: Illuminates when video is present on the Return 1,2, or 3 video channel.

Viewfinder Return 1 Active LED Indicator:
Illuminates when the Return 1 SDI video is currently being routed through to the Viewfinder output.

Viewfinder Select Button:
Controls the routing of either the Camera SDI video or the Return 1 SDI video to the Viewfinder output.

Power LED Indicator:
Illuminates when power is applied to the Camera Head Unit.

VIEW FINDER OPERATION

The Viewfinder button on the Camera Unit's control panel is used to select the video source that is output from the Viewfinder BNC Connector. Pressing this button will change between the Camera's video output and the Return 1 video being sent by the base station. LED's on the control panel indicate which source is currently switched to the Viewfinder output.

An external switch connected to the DB-15 GPIO connector on the Camera Unit may also be used to control the Viewfinder output, please refer to the pinout guide for pinout information. The Viewfinder select pin on the GPIO connector is typically used with a momentary type push button switch. When this pin is connected to Ground, the Viewfinder BNC will output Return 1 video. When this pin is left open or unconnected, the Viewfinder BNC will output the Camera's video signal.

The Viewfinder output can also be selected using the RET button on the Lens. Note that this requires GY-HM890U camera firmware V0301-0070, or later, and this option is enabled in the Camera's menu under: *Camera Function;* → *User Switch Set,* → *Return Video* ⮌ *Camera Return*.

INTERCOM OPERATION

The top portion of the Camera Unit's control panel is used to control intercom operation of the camera operator's headset. These controls consist of: a push-to-talk (PTT) switch, volume control buttons, and indicator LEDs. There are additional controls located next to the headset connector for Mic Gain and Sidetone adjustment. Mic Gain and Sidetone level are adjusted using a small screwdriver.

The intercom headset connector can be used with industry standard dual-muff or single-muff headsets. Intercom Belt Packs cannot be plugged into the Camera Unit. When using dual-muff headsets, identical audio will be present in both ears.

The volume controls allow for a mix of both intercom channels and program audio all to be listened to in the headset simultaneously. The LED above each channel's set of volume control buttons will illuminate whenever audio is present on that channel. When adjusting the volume, these LED's will rapidly blink 3 times whenever the min or max volume setting has been reached.

The intercom Talkback switch, or PTT switch, provides Momentary/ Latching operation of the headset microphone to allow the operator to talk on a particular intercom channel, or on both channels simultaneously.

For Momentary Mode, press and hold the PTT switch up or down towards the intercom channel you wish to speak on and then speak into the microphone. The TALK and the selected intercom channel

LED's will blink and the mic will remain open while the PTT switch is held. Release the PTT switch when finished talking. The mic will close and the TALK and channel LED's will turn off.

Latching Mode can be used for longer-term, hands-free operation. To talk on channel 1, quickly toggle the PTT switch upwards towards CH1 and release. The mic will latch open and the TALK and CH1 LED's will blink continuously. When finished talking, quickly toggle the PTT switch upwards again and release. The mic will then close and the TALK and CH1 LED's will turn off.

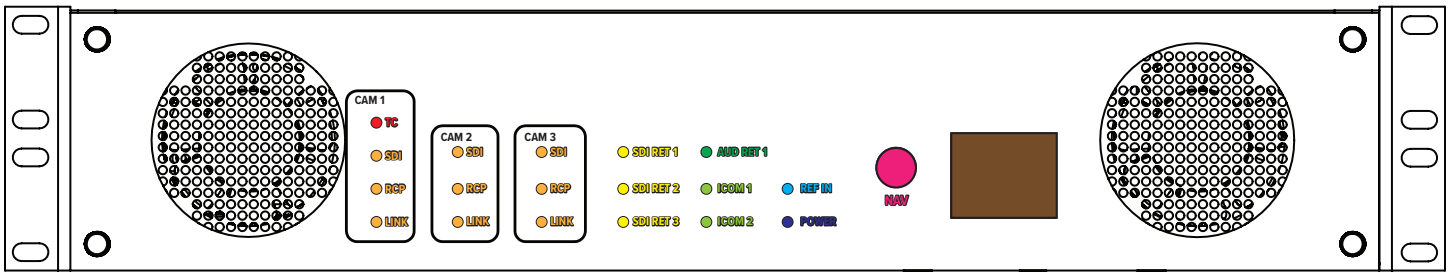
To talk on channel 2, quickly toggle the PTT switch downwards towards CH2 and release. The mic will latch open and the TALK and CH2 LED's will blink continuously. When finished talking, quickly toggle the PTT switch downwards again and release. The mic will close and the TALK and CH2 LED's will turn off.

To talk on both channels 1 and 2 simultaneously, first quickly toggle the PTT switch upwards towards CH1 and release. The mic will latch open and the TALK and CH1 LED's will blink continuously. Next, quickly toggle the PTT switch downwards towards CH2 and release. The mic will stay open and now the TALK, CH1 and CH2 LED's will all blink continuously. When finished talking, quickly toggle the PTT switch upwards and release to disengage CH1 (the CH1 LED will turn off) then quickly toggle the PTT switch downwards and release to disengage CH2 (the CH2 LED will turn off). The mic will close and the TALK, CH1 and CH2 LED's will all turn off.

An external switch connected to the DB-15 GPIO connector on the Camera Unit may also be used to control Intercom Talkback operation, please refer to the pinout guide for pinout information. Two mic trigger GPI pins are provided, one for CH1 and one for CH2. A single SPDT momentary type switch or 2 SPST switches may be used.

Intercom Talkback operation can also be controlled using the REC button on the Camera's Lens. Note that this requires GY-HM890U camera firmware A518-00FB, or later, and this option can be enabled in the Camera's menu under: Camera Function > Lens REC > (ICOM2, ICOM1, REC). Momentary and Latching operation is supported from the REC button only on the intercom channel that is selected in the menu. Both channels cannot be activated simultaneously from the REC button.

BASE UNIT - CONTROLS & INDICATORS (Front)



Camera 1 LTC Presence LED Indicator: Illuminates when a valid timecode signal is being received from Camera 1

Cameras 1, 2, & 3 SDI Video, RCP Data, Fiber Link LED Indicators: Illuminates when the SDI video, RCP data, and Fiber Link from Cameras is present.

SDI Return 1, 2, & 3 Video Presence LED Indicator: Illuminates when the Return video channels input has a valid signal on it.

Intercom Ch1 & Ch2 Audio Presence LED Indicator: Illuminates when the Intercom Ch1 Audio channel has a valid audio signal on it.

Program Audio Presence LED Indicator: Illuminates when the Program Audio channel has a valid audio signal on it.

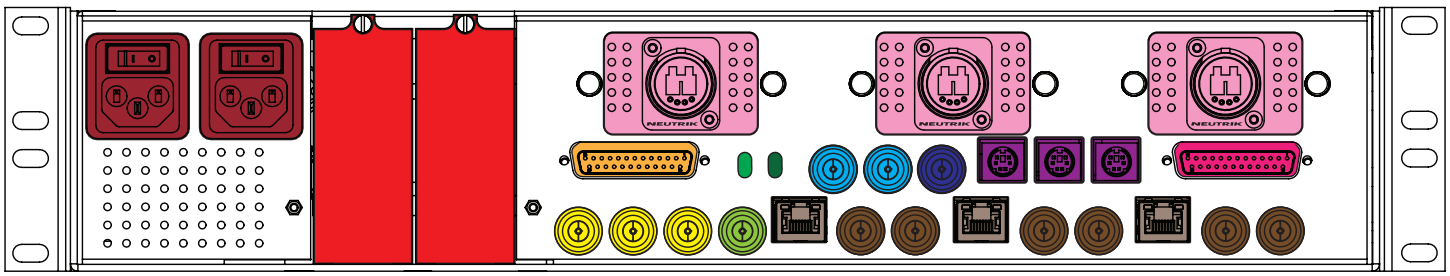
Reference Presence LED Indicator: Illuminates when a valid Reference Signal is connected to the Base.

Power LED Indicator: Illuminates when the Base Unit has AC power applied to it.

Menu Navigation Button: Controls front panel TFT display. See Operations Section for description.

TFT Display: See Operations Section for description.

BASE UNIT - CONNECTORS & CONTROLS (Rear)



AC Mains Input 1 & 2 Connector: Connector 1 provides power to the base unit and power to all the cameras. AC Mains 1 is primary AC power input. AC Mains 2 provides redundant power to ONLY the base station.

OpenGear Option Slot 1 & 2: For future use.

Camera 1, 2, & 3 Hybrid Fiber-Optic Connector: Use either SMPTE or Neutrik cable (depending on option ordered) to connect cameras to base unit. Carries all data between camera head unit and base unit and provides power to camera head as well.

Program Audio & Intercom DB25 Connector: Intercom and PGM Audio signals are connected here. See page 16 for detailed pinout assignments.

Return 1, 2, & 3 SDI Video Input BNC Connector: Return video input channels to the base which are sent to the three camera units.

Timecode Input BNC Connector: Timecode input to Base Unit which is then sent to the three Camera Head Units.

Intercom 2-Wire/4-Wire Selector Switch: Selects between 2-Wire mode or 4-Wire mode

2-Wire Intercom Autonull Switch: Toggling it up performs an automatic nulling function on intercom CH1. Toggling it down performs this function on intercom CH2.

Video Reference Input BNC Connector (looping): Video input reference signal is connected here.

Camera 1 Timecode Output BNC Connector: Timecode signal sent from Camera 1 thru Camera Head 1 Unit.

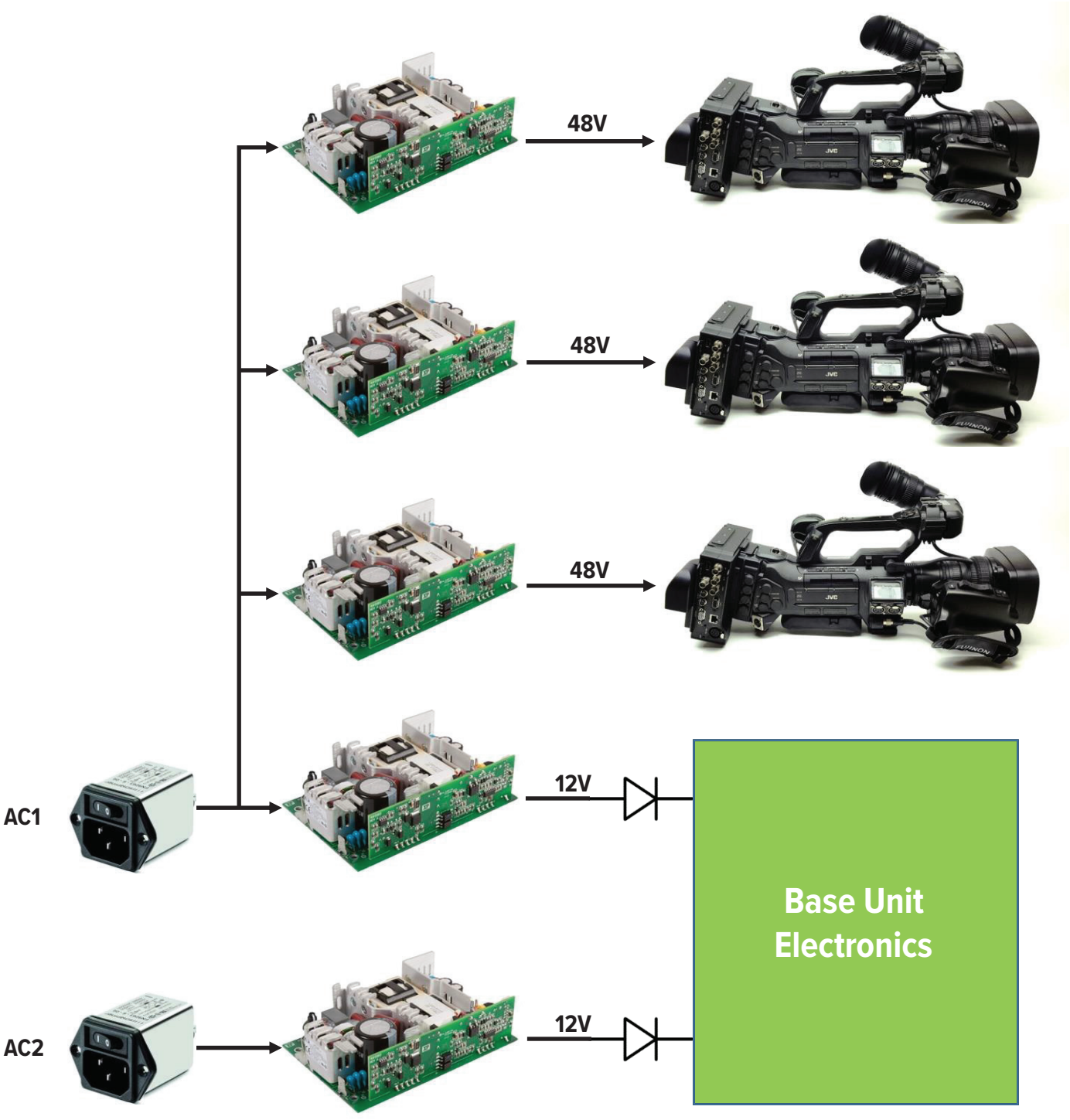
Camera 1, 2, & 3 RCP Connector: Remote control panel inputs.

Tally & GPIO DB25 Connector: Connect Tally and GPIO signals for each camera here. See page 15 for detailed pinout assignments.

Ethernet Connector: Cameras 1, 2, & 3 10/100/1000 mbps Ethernet port connections.

Camera 1, 2, & 3 SDI Video Output A & B BNC Connector: SDI video channel from cameras 1, 2, & 3 available at these connectors. Two copies of each camera's video output are provided on these BNC's.

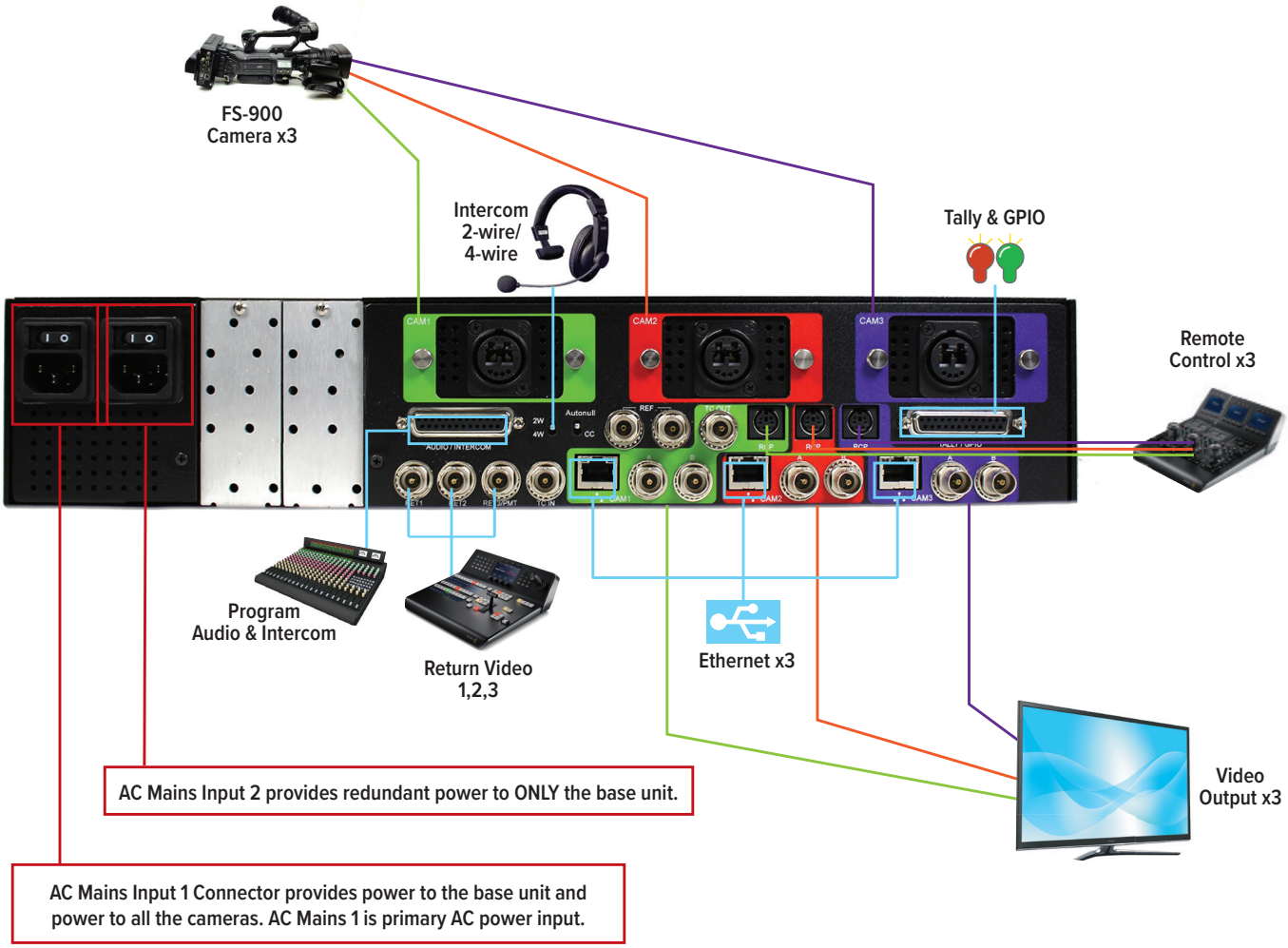
BASE UNIT POWER



APPLICATION & USAGE

ProHD Base Unit

All of the video signals coming from the camera and its accessories (viewfinder, etc.) are fed to the FS-900 Triple Studio Camera Interface system's 1 RU base station enclosure via the SMPTE or opticalCON swivel connector which also supplies power.



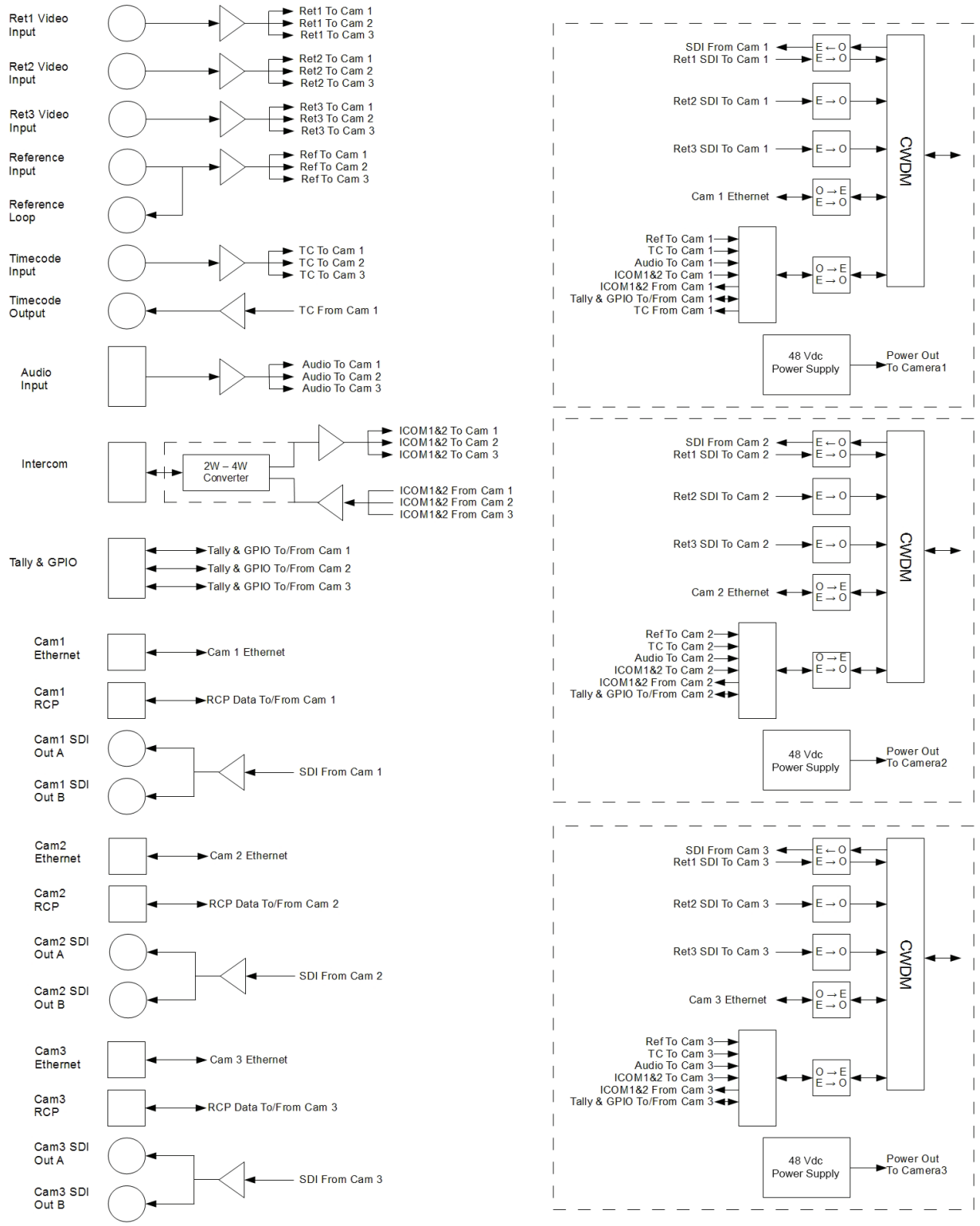
FS-900 Triple Studio Camera Interface connected to ProHD Base Unit

Fiber Installation and Power vs Distance. Up to 300 meters (1000 feet) on SMPTE 304 Hybrid Fiber
All HD, Video, Audio and control signals, plus up to 100 Watts of continuous 14VDC Power

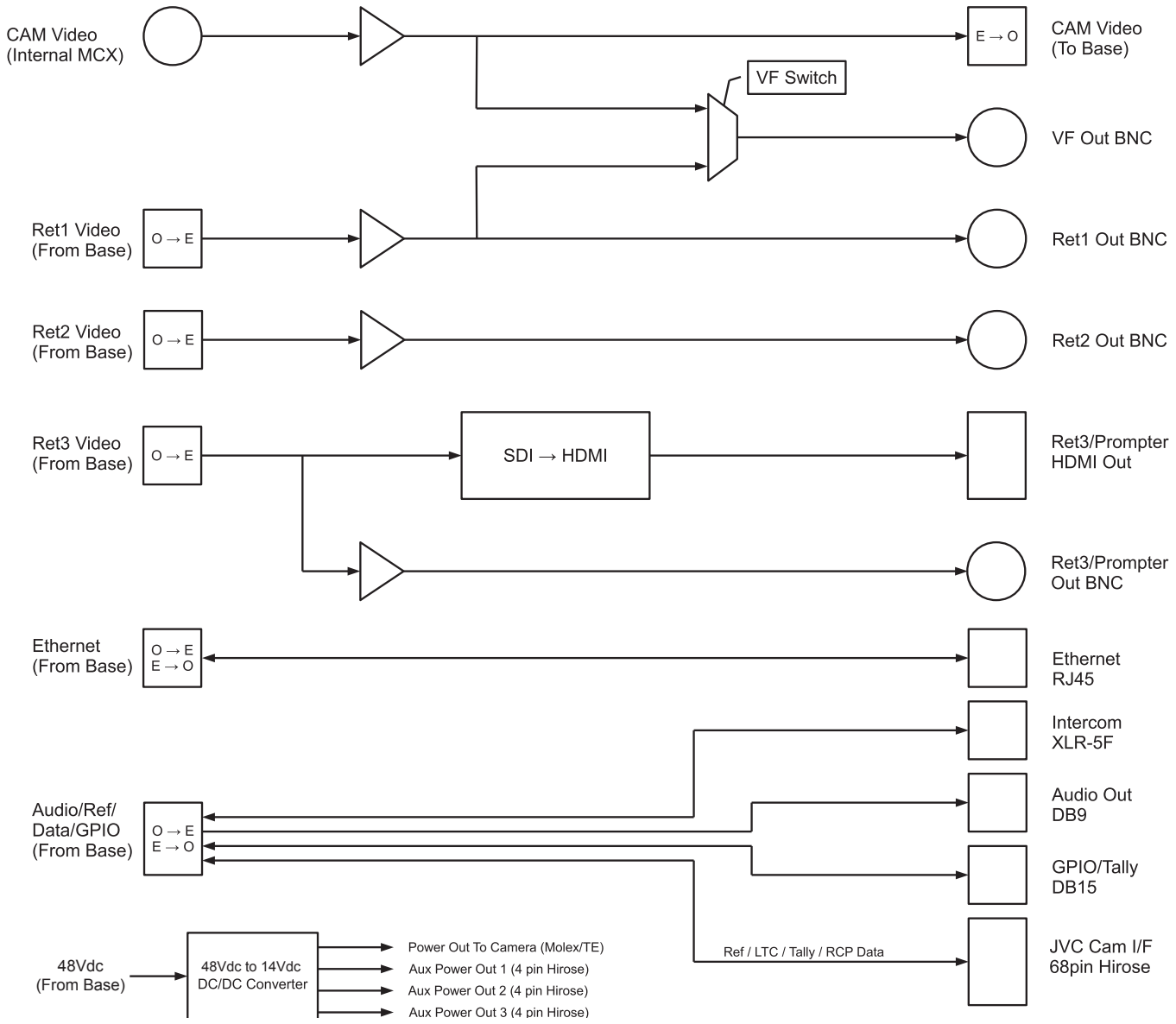
ProHD Base Station

FS-900 Triple
Studio Camera Interface

SIGNAL FLOW - BASE UNIT

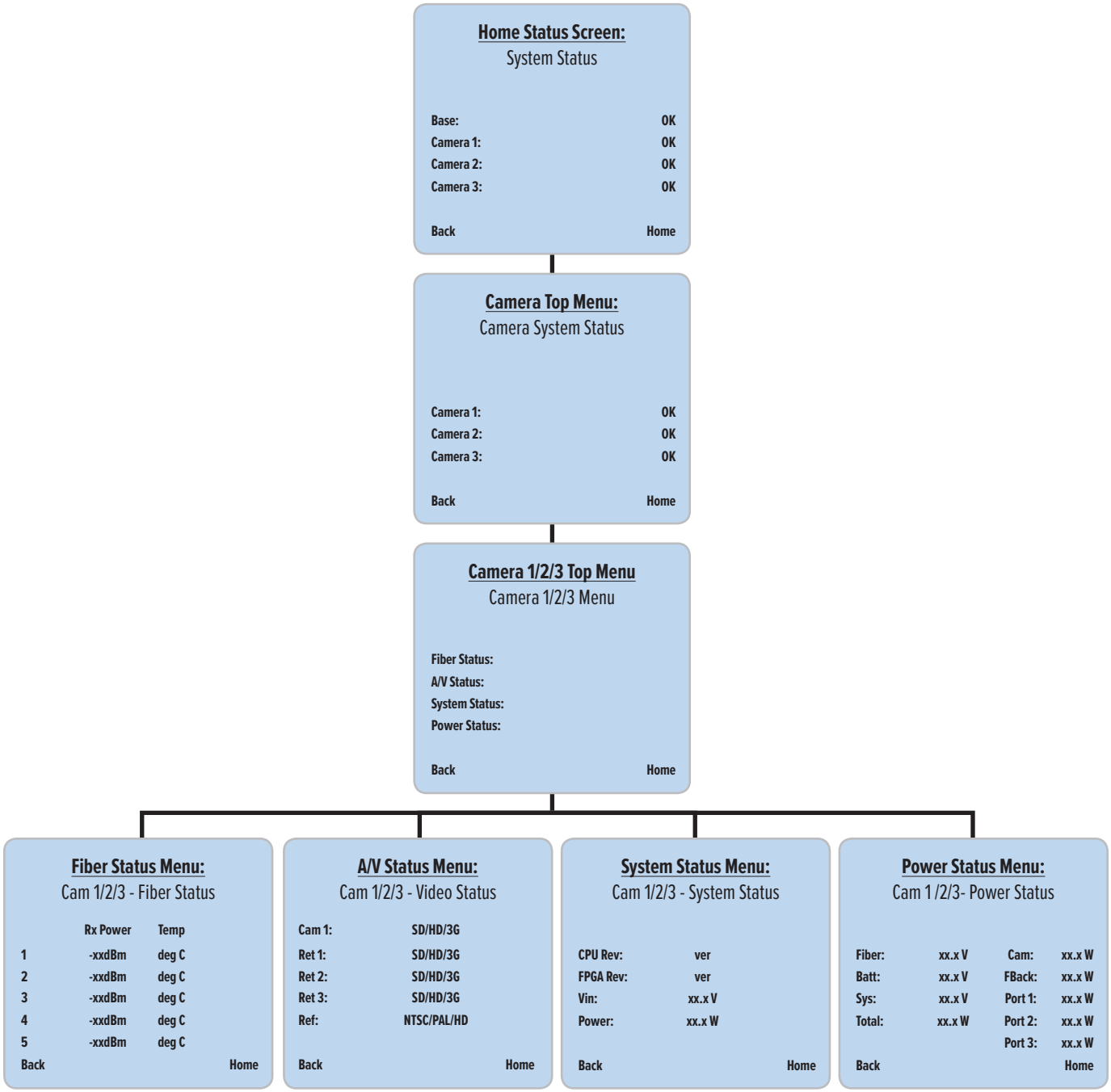


SIGNAL FLOW - CAMERA UNIT



Base Unit - Menu Details

Camera 1, 2 & 3 - Menu Details



Detail Connector Pinouts - Base Unit

Base Unit Intercom/Audio Connector Pin-out

Number	Description	Number	Description
1	2-Wire Intercom Pin2 / 4-Wire Intercom Ch1 Output+	14	2-Wire Intercom Pin3 / 4-Wire Intercom Ch2 Output+
2	4-Wire Intercom Ch1 Output-	15	4-Wire Intercom Ch2 Output-
3	GND	16	GND
4	4-Wire Intercom Ch1 Input+	17	4-Wire Intercom Ch2 Input+
5	4-Wire Intercom Ch1 Input-	18	4-Wire Intercom Ch2 Input-
6	PGM Audio Ch1 Input+	19	PGM Audio Ch2 Input+
7	PGM Audio Ch1 Input-	20	PGM Audio Ch2 Input-
8	GND	21	GND
9	GND	22	N/C
10	Intercom MIC Kill GPI Input	23	N/C
11	N/C	24	N/C
12	GND	25	GND
13	GND		

Base Unit GPIO Connector Pin-out

Number	Description	Number	Description
1	Camera 1 Program (Red) Tally GPI Input	14	GND
2	Camera 1 Preview (Green) Tally GPI Input	15	GND
3	Camera 1 GPI Input	16	GND
4	Camera 1 GPO Output	17	GND
5	Camera 2 Program (Red) Tally GPI Input	18	GND
6	Camera 2 Preview (Green) Tally GPI Input	19	GND
7	Camera 2 GPI Input	20	GND
8	Camera 2 GPO Output	21	GND
9	Camera 3 Program (Red) Tally GPI Input	22	GND
10	Camera 3 Preview (Green) Tally GPI Input	23	GND
11	Camera 3 GPI Input	24	GND
12	Camera 3 GPO Output	25	GND
13	+12VDC Output		

Detail Connector Pinouts - Camera Unit

Camera Unit GPIO Connector Pin-out

Number	Description	Number	Description
1	Program (Red) Tally GPO Output	9	GND
2	Preview (Green) Tally GPO Output	10	GND
3	GPO Output	11	Intercom MIC Ch1 PTT GPI Input
4	GPI Input	12	Intercom MIC Ch2 PTT GPI Input
5	Viewfinder Input Select GPI Input	13	N/C
6	GND	14	N/C
7	GND	15	+12VDC Output
8	GND		

Camera Unit Audio Connector Pin-out

Number	Description	Number	Description
1	GND	6	PGM Audio Ch1 Output+
2	PGM Audio Ch1 Output-	7	GND
3	PGM Audio Ch2 Output+	8	PGM Audio Ch2 Output-
4	GND	9	N/C
5	N/C		

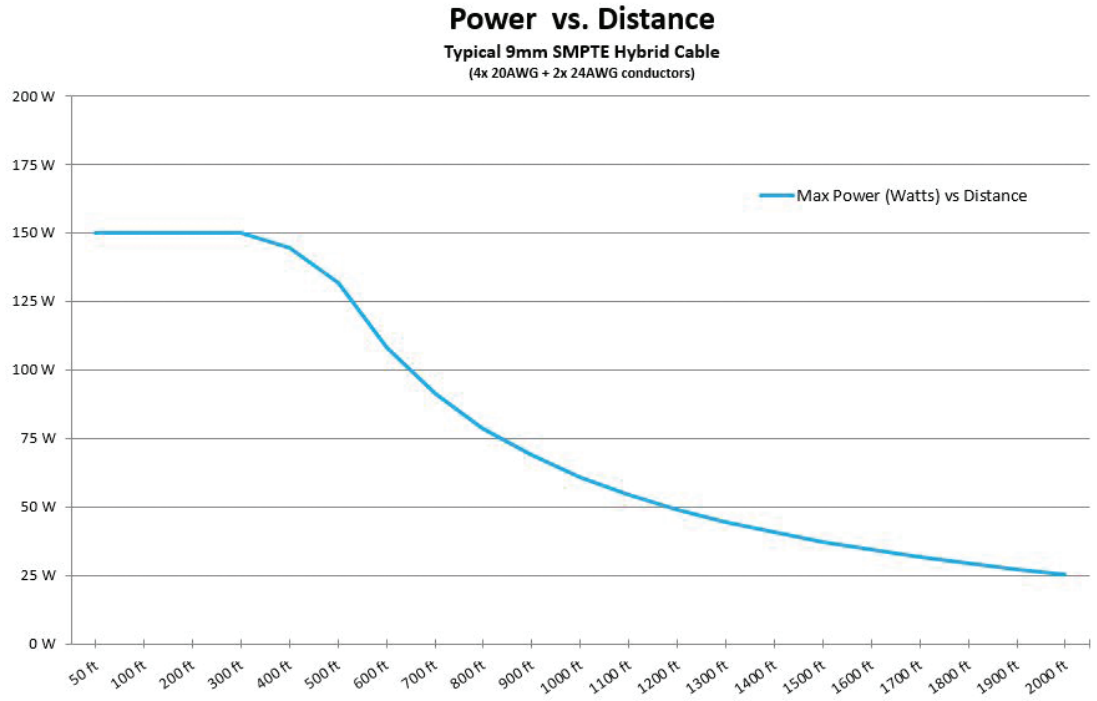
Camera Unit Intercom Headset Audio Connector Pin-out

Number	Description
1	GND
2	MIC Input+
3	GND
4	Audio L Output
5	Audio R Output

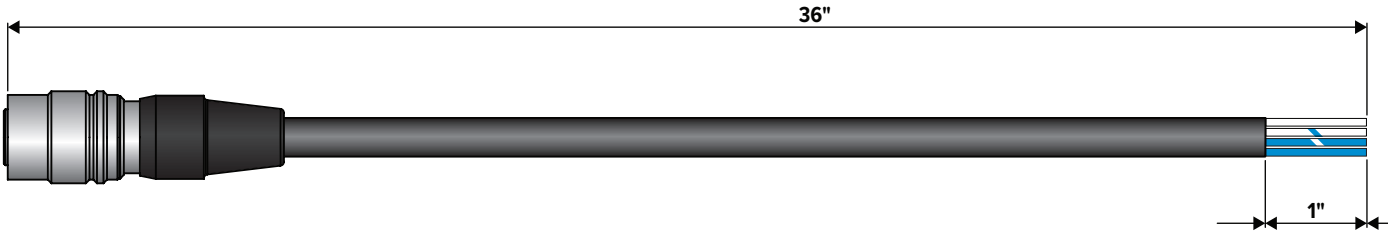
Camera Unit Auxiliary Power Output Connector Pin-out

Number	Description
1	GND
2	GND
3	+12VDC Output
4	+12VDC Output

SMPTE Hybrid Fiber Cable system power limits

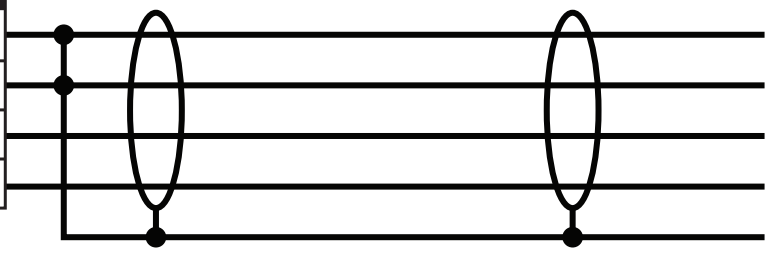


MDCAB01175 - 3' Hirose, 4 AMP accessory power cable wiring diagram



Camera Unit 3' Hirose Power Cable Pinout

Pin #	Function	Notes
J1-1	GND	White
J1-2	GND	White/Blue
J1-3	+14V Out	Blue/White, 2A Max
J1-4	+14V Out	Blue, 2A Max



Technical Specifications

SDI Video

Interface	SMPTE ST259, ST292, ST424
Data Rate	270Mbps, 1.5Gbps, 3Gbps
Input/output Level	800mVp-p
Input/output Impedance	75 Ohms
Connector, Camera Unit	BNC,
Connector, Base Unit	BNC
Embedded Audio Supported	Yes

Video Genlock (Reference)

Type	Analog Black Burst, Tri-Level
Impedance	75 Ohms
Level	1Vp-p
Connector, Camera Unit	Internal 68-pin
Connector, Base Unit	BNC

Analog Audio

Type	Balanced Analog Line-Level
Level	+4dBu nominal, +24dBu max.
Input Impedance	> 10k ohms
Output Impedance	50 ohms
THD+N	Better than 0.1%
Frequency Response	+0.1 dB/-3dB, 20Hz to 20kHz
Connector, Camera Unit	DB9
Connector, Base Unit	DB25

Intercom Audio

Number of Channels	2
Interface	2-Wire or 4-Wire
Compatibility	RTS, Clear-Com
Headset MIC Type	Dynamic
Headset MIC Impedance	200 Ohms nominal
Level, 4-Wire	+4dBu nominal, +24dBu max.
Level, 2-Wire	-10dBu nominal
Connector, Headset	XLR-5
Connector, Base Unit	DB25

Camera Remote Control

RCP Camera Control (Remote)	
Type	JVC RCP (RS232)
Connector, Camera Unit	Internal 68-pin
Connector, Base Unit	6 pin Mini-DIN

Ethernet

Ethernet	
Data Rates	10/100/1000 Base-T
Connector	RJ45 Cat5e

Tally / GPIO

Input type	Short to GND or TTL Low to Activate
Output Type	Relay Contact Closure (30V, 2A max)
Connector, Camera Unit	DB15
Connector, Base Unit	DB25

Timecode

Type	SMPTE/EBU LTC
Inputs	Unbalanced, 15Vp-p max
Outputs	Unbalanced, 3Vp-p max
Connector, Camera Unit	Internal
Connector, Base Unit	BNC

Electro-Optical

Operating Wavelengths	1471-1611nm
TX Laser Output Power	0dBm (Class 1 Laser)
Receiver Sensitivity	-20dBm
Fiber Compatibility	Single-mode
Optical Connector Types	opticalCON DUO, SMPTE 304M

Power Supply

Power Input, Base	IEC320, Universal Input, 90-250VAC, 50-60Hz
Power Input, Camera:	
Remote Power	Hybrid Fiber Connector, 54 VDC
Local Power	Battery Mount (Anton Bauer or V-Mount), 11-17 VDC

Environmental

Operating Temperature	0 to 50°C
Operating Temperature	0 to 95% RH, non-condensing.

Limited Warranty

FS-900 Triple Studio Camera Interface System is manufactured, warranted and supported by MultiDyne Video and Fiber Optic Systems, and distributed in North America by JVCKENWOOD USA Corporation. It has two years warranty for Parts and Labor from date of invoice.

Please review additional warranty terms at www.multidyne.com located in terms of sale. A hard copy will be provided promptly and free of charge upon request.

To obtain service or for further information, please contact:

MultiDyne Electronics Inc.,
10 Newton Place,
Hauppauge, NY 11788

Toll free: 877-685-8439
Tel: 516-671-7278

E-mail: sales@multidyne.com
Website: www.multidyne.com

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CE

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