



**INSTRUCTION MANUAL**

**SilverBack-III Family**

**MultiDyne SilverBack-III Family of HD/4K-Compatible  
Camera-Mounted Transceivers**

**MultiDyne**  
*Harnessing The Power of Light*

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## **MultiDyne SilverBack-III Family of HD/4K-Compatible Camera-Mounted Transceivers**

The MultiDyne® SilverBack-III family of camera-mounted fiber-optic transceivers are used to “systemize” HD, 2K and 4K Quad-Link 3G camcorders offers versatility and the ability to configure a camera system to specific applications. The camera is connected to the SilverBack III Camera Side (TX) with a series of short patch cables—depending upon the MultiDyne model purchased—while the SilverBack III TX is connected to the system’s base station (RX) with a single fiber-optic cable, which can be located near the camera or miles away.

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

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### **THE SILVERBACK-III FAMILY INCLUDES:**

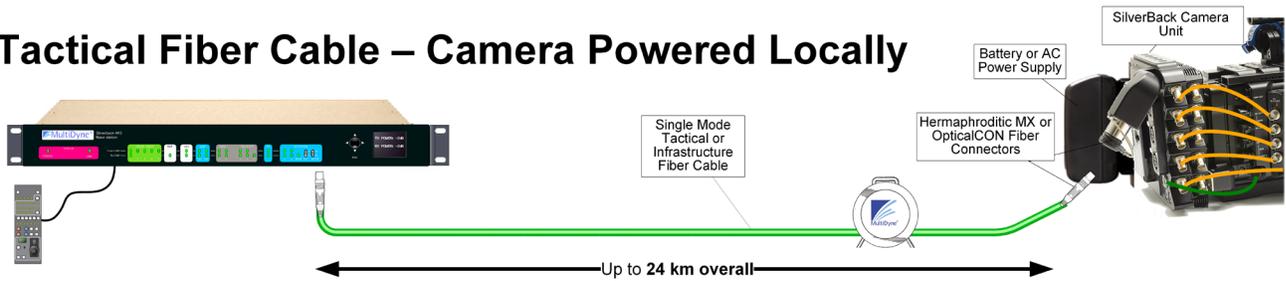
The SilverBack-III 4K5; the SilverBack-III SD1, the SilverBack-III ENG-2 and the SilverBack-III 4K6. All are easy to set up and free from distance limitations inherent with typical SMPTE video cable.

Housed in a rugged, lightweight enclosure, each SilverBack-III camera-mounted transceiver model and corresponding 1RU base station enclosure comes with a full seven-year warranty and provides a full-bandwidth fiber-optic link between any quad-link or dual-link camera and the truck, control room, or "video village" position, enabling users to incorporate existing cameras (HD or 4K) into a major multi-camera project or allowing a director and DP on set to have full connectivity to and from the camera positions.

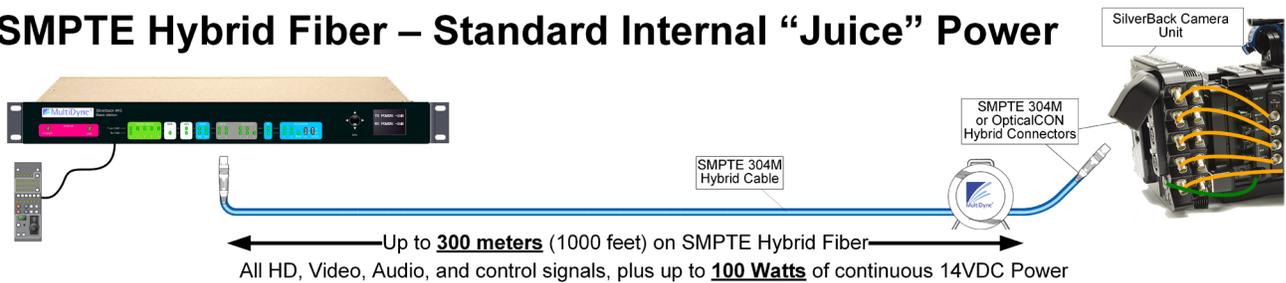
**SYSTEM CONFIGURATIONS:**

The SilverBack-III Family of transceivers can operate on lightweight Tactical fiber cable, or with SMPTE hybrid fiber cable, to deliver all signals and the power to run available cameras and accessories. It can be configured in a variety of ways to complete the job at hand. System examples “B” and “C” below include OpticalCon connectors from Neutrik.

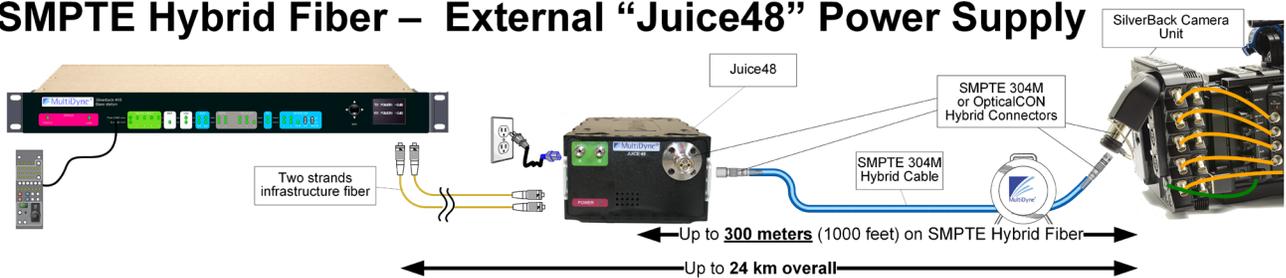
**A. Tactical Fiber Cable – Camera Powered Locally**



**B. SMPTE Hybrid Fiber – Standard Internal “Juice” Power**



**C. SMPTE Hybrid Fiber – External “Juice48” Power Supply**



## **SYSTEM FEATURES:**

### **SilverBack-III 4K5:**

The SilverBack 4K5 is designed for high-end multi-camera live sports and digital cinematography applications and offers access to intercom and tally signals as well as other features at the camera, as well as the ability to use the same camera for a variety of different projects. The unit is tightly integrated into the back (or side) of a camera while be as unobtrusive as possible.

- The SilverBack 4K5 provides power and five 3 Gb/s HD/SDI signal paths between the camera to the Base Station (required for multi-camera 4K/UHD TV productions) onto a single tactical or SMPTE hybrid fiber cable.
- The ergonomics of the SilverBack 4K5 Camera Unit, among the most compact of its kind, mounts elegantly to any Dual and Quad Link 3G HD-SDI 4K camera avoiding challenges angles or sharp corners.
- A 10/100/ GigE path, genlock, intercom and audio paths are also provided. To monitor operation, the SilverBack 4K5's display uses high-intensity blue LEDs that are easy for the operator to see, but not intrusive.

### **SilverBack-III 4K6:**

The SilverBack-III 4K6 is designed for high quality HD, 2K and 4K projects that require six independent 3 Gbps signals traveling from the camera (or multiple cameras) to the base station. It supports all of the same signals as the SilverBack-III 4K5, except instead of providing five Send SDI paths and one Return SDI video path, there are six SDI video Send paths and no Return in the 4K6 system.

### **SilverBack-III SD1:**

The SilverBack-III SD1 transceiver is designed for high-quality 2K and HD shoots and offers many of the same features as the 4K5; except it offers only one HD-SDI path, in both directions. There is no 4K capability in this unit.

### **SilverBack-III ENG-2:**

The SilverBack-III ENG-2 SD1 transceiver is designed for run-and-gun newsgathering applications, and offers less features than the previous two models. There's no 4K capability; no Genlock/Sync between the camera and base station; no analog audio return path, no time code, no return Tally/GPI, and no Intercom connections.

## MULTIDYNE SILVERBACK-III FAMILY

		Camera	Base	SB3-4K6	SB3-4K5	SB3-SD1	SB3-ENG2
HD/SDI				6	5	1	1
Return HD/SDI					1	1	1
Composite Video				1	1	1	1
Return Composite Video				1	1	1	1
Genlock/Sync				1	1	1	1
Analog Audio (Mic/Line)	1			1	1	1	1
	2			1	1	1	1
48V Phantom power	Yes or No			Y	Y	Y	Y
Analog Audio Return "D" = "Dry" line level audio "W" = Wet IFB	1			D	D	D	
	2			D	D	D	
	3			(D)	(D)	(D)	
	4			(D)	(D)	(D)	
	Program			1	1	1	1
Intercom	1			1	1	1	
	2			1	1	1	
	Lev Conts: Buttons or Pots*			B	B	B	B
Control (RS232/422/485)	1			1	1	1	1
	2			1	1	1	1
Time Code				1	1	1	
				1	1	1	
Tally				1	1	1	1
	Return			1	1	1	
	Tally/GPI			1	1	1	
GPI	1			1	1	1	
	2			1	1	1	
Ethernet (Gig or 10/100)				G	G	G	G

\* Intercom Buttons will be upgradable to Pots in the future

### **SilverBack-III Camera-Mounted TX Unit:**

The SilverBack-III family's Camera side unit, also known as a "TX unit", connects to a camera's back battery plate (or it can be located separately, if required) and all the signals from the camera are fed into this unit via a SMPTE hybrid cable (which includes power) and communicates to a connector on the base station. This signal transport is bi-directional, coming from the camera to the base station and vice versa.

Once mounted on the camera (via an Anton Bauer or "V"-mount battery bracket) the SilverBack unit can have include an additional battery mounted on the outside of the Camera I/O unit for extra protection against power failure or for working where readily available AC power is not present.



### **Digital & Analog Video I/O:**

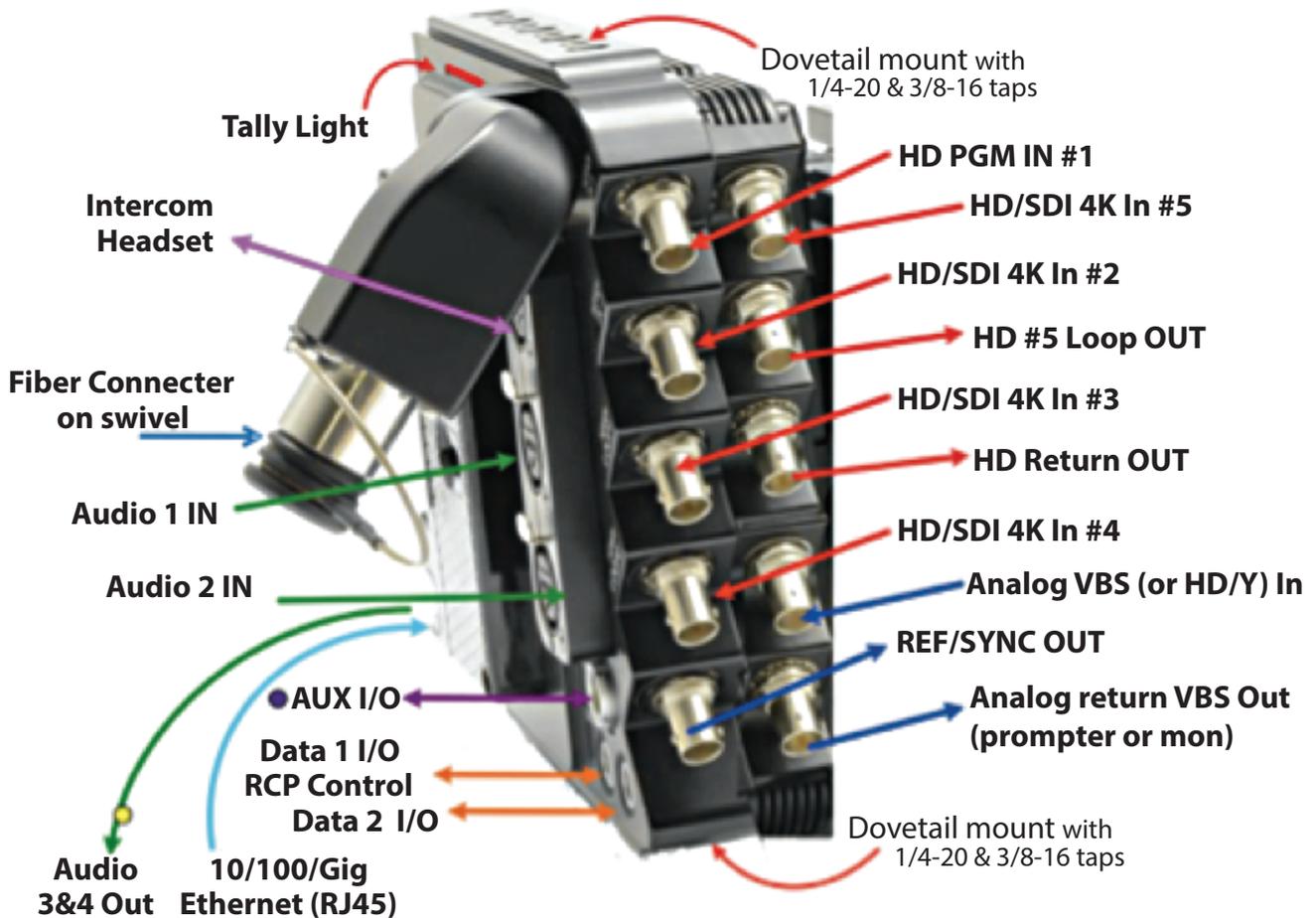
The TX control panel's simple interface lets the camera operator easily monitor system link and signal status via a backlit blue-LED display. Soft-touch buttons permit easy adjustment of audio and intercom levels.

The TX side of the I/O unit includes 10 standard full-size BNCs that allow connection from the camera's four 4K Quad-Link outputs, an additional HD/SDI path from the camera (for menus), VBS input and output, as well as return HD/SDI (3G) and genlock/sync.

On the right side (looking from the back of the camera) of the SilverBack-III 4K5 transceiver unit is four 3Gbps HD-SDI signals, labeled as "Channel 1, 2, 3 and 4" and "Ref/Sync Out." This Ref/Sync Output connector receives the signals from the base station to help synchronize multiple cameras in a multi-camera shoot in the studio.. If the unit is not a 4K5 model, it will include only one or two HD-SDI connectors and "Loop Out" connector.

To the right of the four 3GBps HD-SDI connectors is a second row of connectors that include: (from top) a fifth HD-SDI path “SDI In 5” from the camera to the base station to accommodate TelePrompTers, viewfinders, camera menus, a down-converted reference signal, and other video monitoring or playback applications on set or in the field); a second “HD 5 Loop Out” connector (providing a signal copy of an corresponding input signal, typically an input connector next to it. This is typically used to daisy chain this signal in multiple devices for recording or visualization); a “HD Return Out,” for signals coming back from the base station, often used

for signals coming back from the studio; then there’s “Analog VSB IN”, an analog composite video connection for color video blanking and sync and is compatible with the NTSC and PAL standards. This is used to pass any composite video or reference signal. This connector is also used to carry the “Y” (or HDTV monochrome) component of a YPbPr component video signal to the base station from the camera in order to support black and white viewfinders and monitors; and “Analog Return VBS Out”, which sends analog signals from the base station to the camera. It can also be used as a confidence monitor for signals coming from an analog camera head.

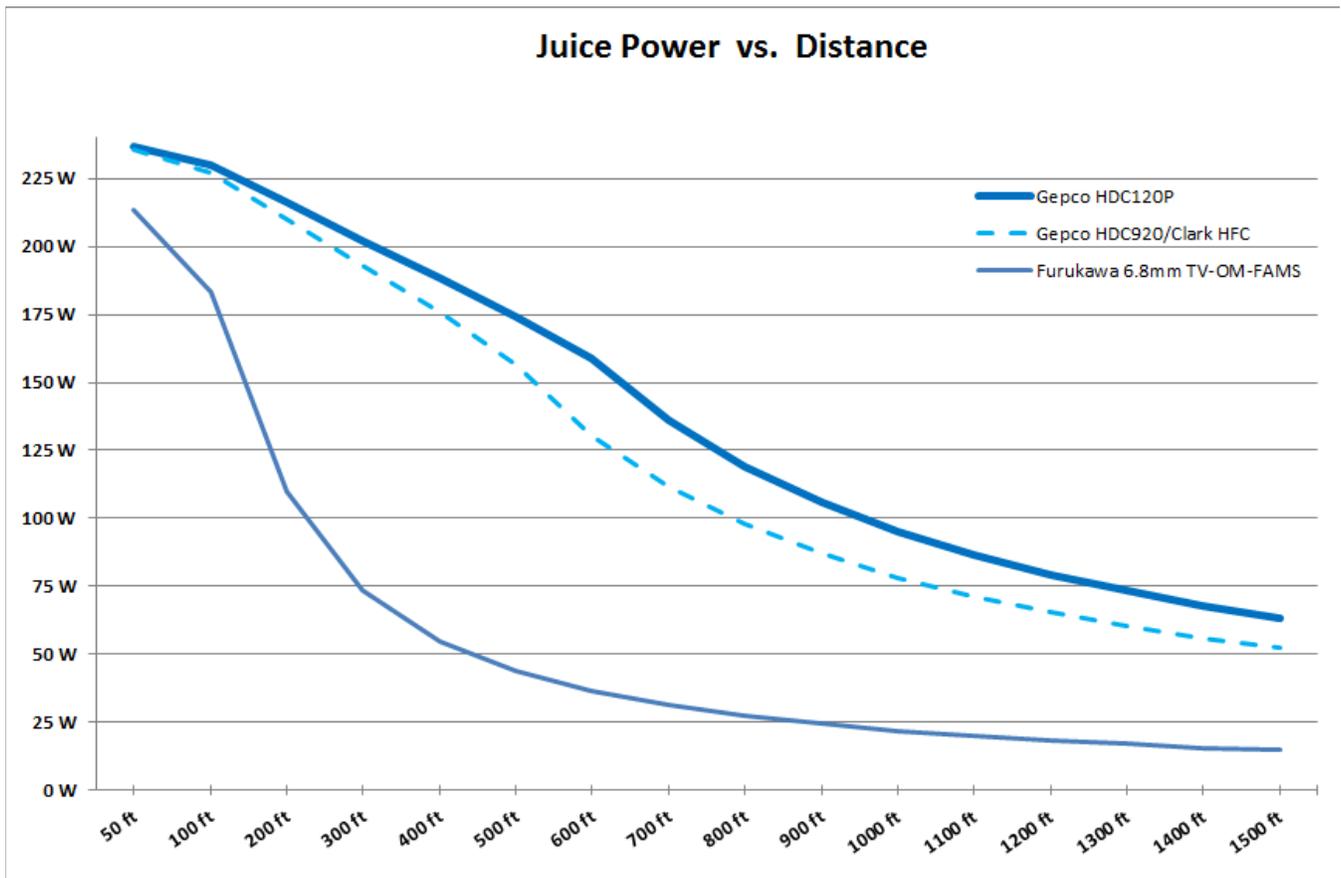


**Swivel Connector:**

Moving to the rear of the SilverBack-III unit (see call-out diagram), there is a swivel connector that connects the unit to the base station using a single SMPTE Hybrid Fiber cable. This swivel can be ordered with a SMPTE, opticalCON (Neutrik) fiber-optic or an SD connector, depending upon the application.

**JUICE (Power) Option:**

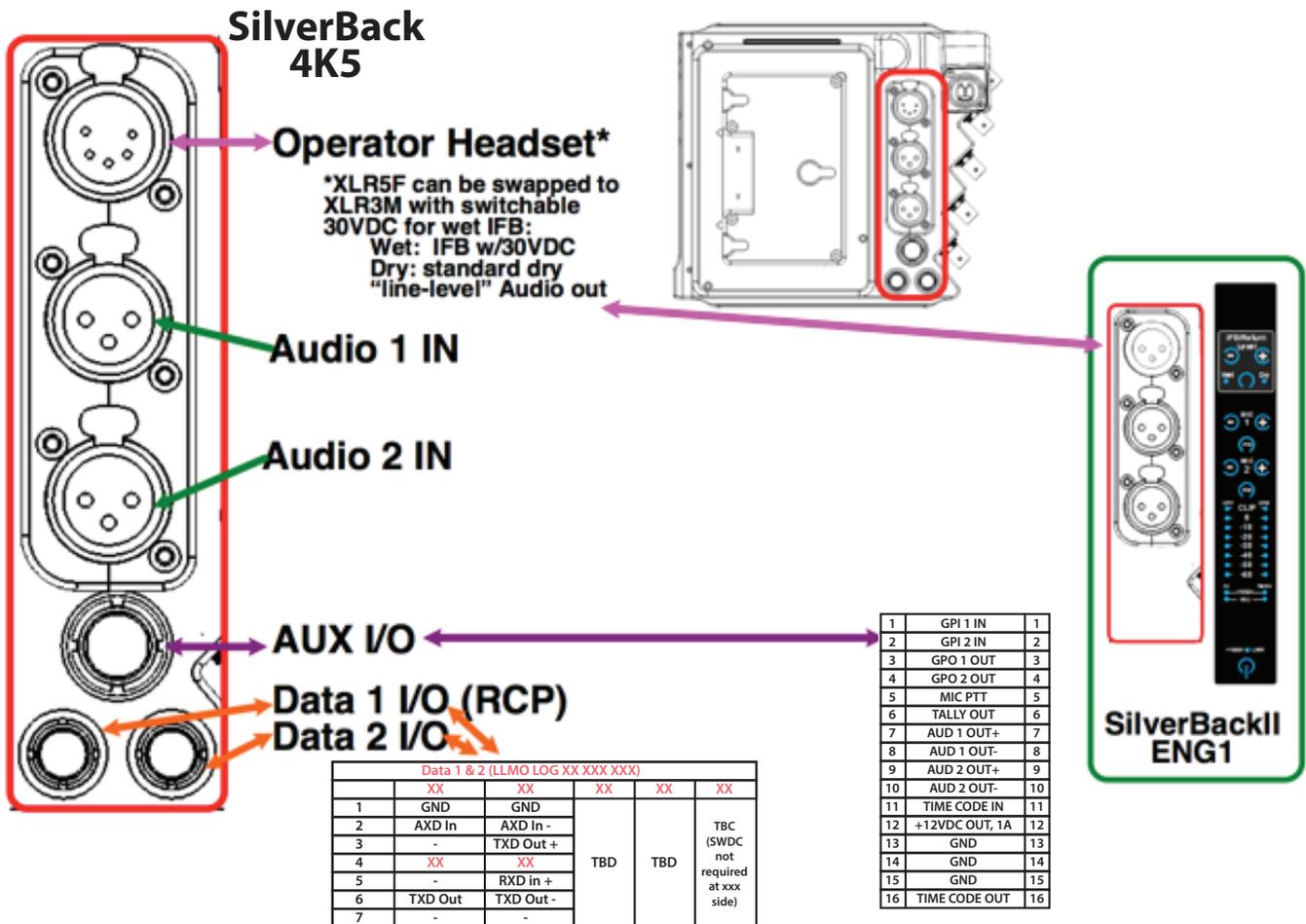
For those that need power to and from the camera, a SMPTE Hybrid or opticalCon connector is recommended. When ordering, this also known as the “MultiDyne JUICE” option.



**Intercom Headset Features:**

Next to this is the “Headset” analog audio/XLR connector panel, including two channels of audio “Audio1 IN” and “Audio2 IN.”

The Headset connector is a five-pin version, used for connecting any type of Intercom headset with two earpieces and a microphone. The two Audio IN (three-pin) connectors are used for the microphone or line level from camera. This helps create an analog stereo mix inside the headset.



The system’s Base Station unit supports both 2-wire and four-wire Intercom systems. For specific configuration diagrams, see page 17.

### **(Optional) “Dove Tail” Box For Extra Audio Channels:**

The MultiDyne Dove Tail is an option for the SilverBack-III camera transceiver that increases the number of audio channels available to the user from two to four. It mounts to the top or bottom of the I/O unit and plugs into the “AUX” port on the I/O unit. The base station includes internal features to monitor the extra audio channels, once mounted and set up correctly.

Special 5-pin XLR cables connect additional audio gear. Either analog or digital (AES) audio can be used. The new audio channels can also be adjusted and monitored by the SilverBack base station. This Dove Tail box allows the use of AES digital audio channels as well.



### **Auxiliary and Data Connections:**

The next connector is labeled “Aux” and is used for serial GPI and Tally light control (which is visible on the top of the back of the unit), time code, and other capabilities.

Then there are two seven-pin connectors for data transfer (RS-232, RS-422, RS-485, and TTL standards) to and from the camera. They are used to control the camera from a remotely located camera control unit (CCU) situated near a SilverBack-III base station. These controls extend to camera focus, IRIS adjustment and painting.

**Control Panel: LED Intercom and Fiber Signal Status Metering**

Looking at the left side of the SilverBack-III TX unit (from the back of the camera), is a fully featured control panel, lit up with blue and red LED lights (depending upon signal status). At the very bottom, left side, is two connectors, an Ethernet (“ENET”) RJ45 connector (linked to a LAN port) that enables control of an Ethernet-enabled camera.

A second 10-pin port “Audio Aux,” is used for additional audio channels and to connect a MultiDyne “Dovetail” audio box that can be attached to the top or bottom of the SilverBack-II I/O unit and provides additional analog audio channels (often used for party-line Intercom systems).



### **LED Control Panel: Intercom Listening**

The LED control panel is also used to control Intercom bi- and single-direction signals being shared among a crew. At the top left, there is a two-channel Intercom toggle control switch ("CH1", "CH2" and "Off").

In the latest generation of SilverBack units, both earpieces of a head set are mixed together. One channel is the program audio and the other is the mix of the two. Users can control the level of audio channels 1 and 2 as well as the combined channels mix ("PGM") with the POTS produced on the control panel at the top center of the panel.

Below this are two meters showing status of VBS ("IN" and "RET") and Power ("HV" and "14V"). When these lights are green, the status is good.



### **Control Panel: Intercom Talking**

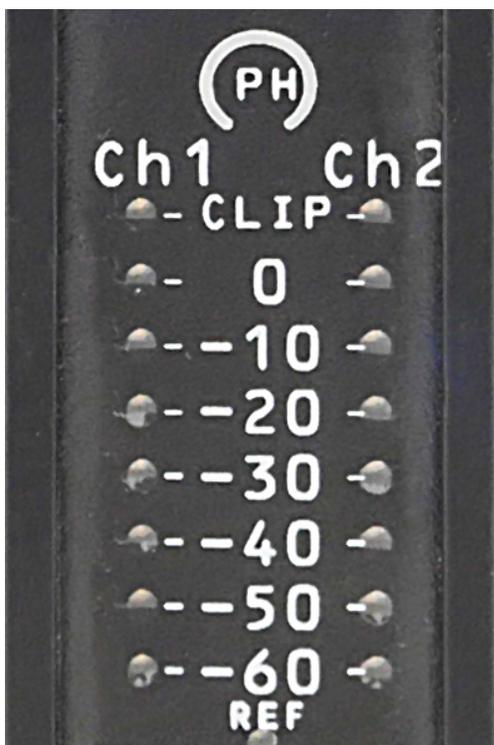
Moving to the right and down below the Intercom listening control panel, there is two switches used for talking, using the Intercom headset microphone. These switches enable a user to talk locally ("LOC") or remotely to the entire party line ("REM"). Once activated, the user can then adjust the level of audio on each of two (or four) channels. One click of the "PH" button selects "Mic channel 1." Two clicks de-selects that channel. The same goes for Mic channel 2. The line levels are adjusted with the "+" and "-" buttons. Both channels can be activated simultaneously if required.

The unit remembers its last setting and, when turned on, defaults to that setting. If the user does not make a pre-selection, the unit will not provide any signal until one channel is selected.



### Control Panel: Gain Meter:

Next we come to the Gain meter, which can be set to different levels, depending upon the user preference. When all of the “Clip” meters are off, that means the line level is at 0 dB.



Each click of the “PH” button, starting at “0”, or line level, increases the microphone gain level 10. This can be adjusted from 0 to -10, with the maximum gain at -10 dB, simply by clicking through the various levels. The mic levels experience clipping at about -22 dB.

To the left of the control panel, on the bottom, two small XLR3-F connectors allow for mic/line level inputs, with a 5-pin XLR for intercom headset and a 3.5mm headset jack also available for Program/IFB to the operator or Talent.

On the same panel, below the Gain level is the VU meter (“REF”), with two data channel “Data 1” and “Data 2”). These lights, when lit up in **green**, indicates that there is reference and control data signals coming from the base station.

### Tally Lights:

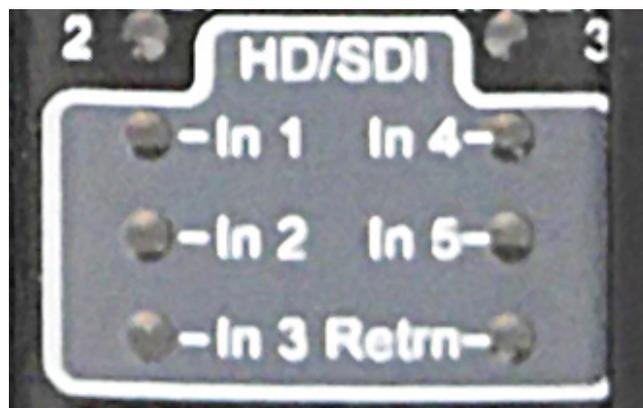
Under this is a “Tally” light and two Tally channels (“Tally 1”, “Tally 2”, and “Tally 3”), which light up **red** when a Tally signal is present. A red Tally light is also visible on the back of the SilverBack I/O camera unit.



The Tally light can also be activated by the unit’s Auxiliary Output connection. The unit is equipped with three tally lights so that it can display GPI information in different colors for different members of the crew or talent, when required. These lights light up red green and yellow.

### HD-SDI Signal Metering:

Moving down the control panel we come to the “HD/SDI” section, including five HD-SDI “In” signal status lights and one “Retrn” light.



The “Retrn” signal light is monitoring the one coming from the base station back to the camera.

**Fiber Link Light:**

Finally, we have the “Fiber Link” light, which clearly indicates when a strong fiber-optic communications link has been established and maintained between the camera and base station.



Below that is the power button for the entire camera I/O (TX) unit. This light should be lit at all times when the unit is in use. Push this button once to power on the unit. Hold the button for two or three seconds to power off (this is a security feature). MultiDyne offers a special version of the SilverBack Camera I/O unit that is always powered on.

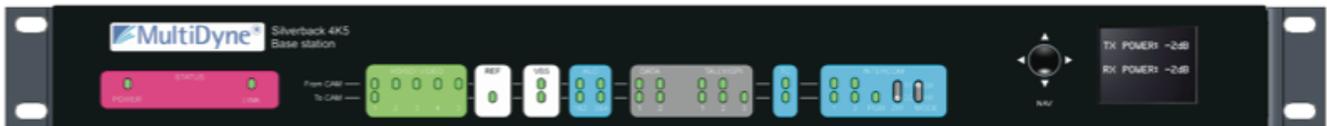
**Heat Reduction:**

The SilverBack-III I/O unit also includes an internal fan in the rear to keep heat within the unit to a minimum. This highly automatic fan can be set to run continuously or to kick in when the unit reaches a certain temperature. For shoots that require low noise, the fan can be shut off for periods at a time during use.

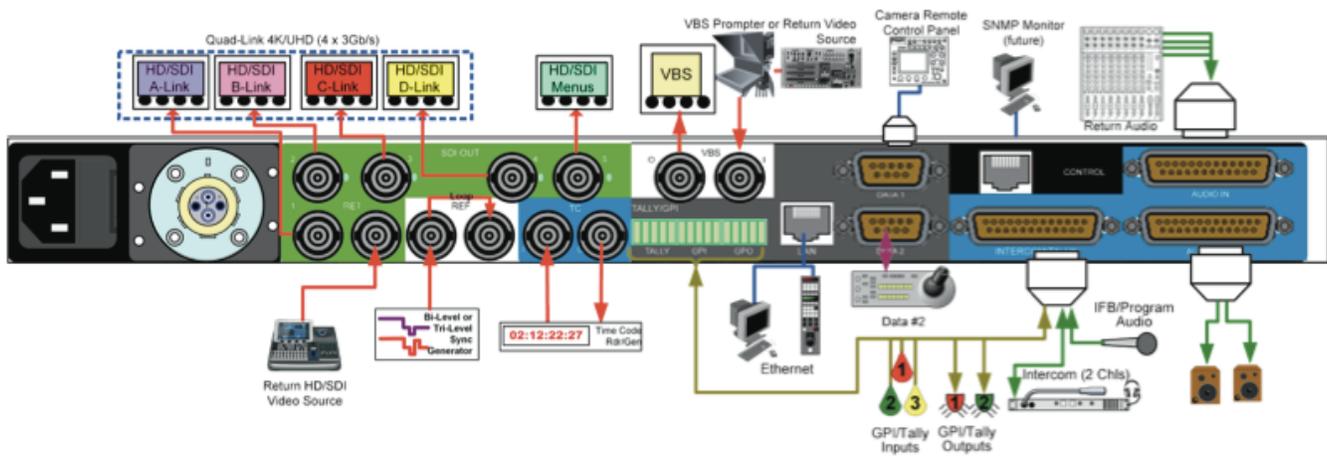
### SilverBack-III (Color-Coded) Base Station:

All of the video signals coming from the camera and its accessories (viewfinder, etc.) are fed to the SilverBack-III system's 1RU base station enclosure via the SMPTE or opticalCON swivel connector, that also supplies power.

The 1RU Base unit is ideal for space-limited production areas. Indicator LEDs and a color LCD control panel provide easy monitoring of the entire system's status.



Rear connectivity makes it easy to integrate into a simple studio or flypack system, or as part of a large-scale system consisting of multiple cameras spread over a wide area.



The front and back panels of the base station are coded with correlating colors for easy set up and troubleshooting. Connectors within a green area on the back, for example, correspond to a green area with LED lights on the front. This way the user always knows what connections they are working with and the status of each. In addition, each BNC connector on the back is equipped with a small LED "tail light" that illuminates when that connector is active (or "hot") and signal is present.

On the back panel (from the left) there is a fiber connector that is paired with the same type of connector (with power or without) ordered and accepts all of the signals from the camera. Next is a power status box (in pink) showing power and Link status.

Moving right, within the green-shaded area, are the connectors for the 3 Gbps (4K) or 1.5 Gbps (HD) paths from the camera. The first four connectors "Out 1, 2, 3 4 and 5" in this diagram are configured

for a MultiDyne 4K5 system. The bottom of this section is for Return signals. The way to monitor signals on the front panel of the base station is to use the two rows of LED lights within the Green shaded area: the top row of four showing signal strength to the camera and the other light below shows paths coming from the camera.

To the right is a white-shaded area, where the VBS analog video signal connectors coming from the camera are located. The "O" is the output from the camera and the "I" is the input signal going to the camera. This is often used for TelePrompTers and Return video. LED indicators lights on the front, within a White shaded box, means there is strong signal activity.

### Reference Signals

Below the green shaded area (on the left, after the HD-SDI ports) is a second white area that houses the "Loop Reference" signal connectors. These are used for Bi-level or Tri-Level sync generation from the camera. The Reference signal connects to the Input port and it goes to the camera. Loop is used for repeating the signal to multiple SilverBack units, to provide reference to all the units in the chain, for example. If this Reference option is not used, MultiDyne recommends that this connector be terminated at the base station. This only applies for analog video. Digital video is fine without termination.

To the right of this white area is a blue-shaded area for time code generator BNC connections from the camera to the base station and vice versa. This connection is used in tandem with the "AUX" port on the camera unit. On the front panel of the base station, a blue area features two rows of LED lights; Green is for strong activity.

### Tally/GPI Information

Below this is a Tally/GPI connector (with the two channels displayed in LED lights in a blue box on the front panel) and to the immediate right is an Ethernet port (for controlling CCU and other products remotely while connecting to a local area network (LAN)). A corresponding gray-shaded box on the front panel shows Ethernet data signal status. This Ethernet signal, at up to 100 Gbps, is available on the camera head through the fiber-optic cable link.

Next we have two data ports (channels), which correspond to the two similar ports on the camera back unit. The gray-shaded box on the front panel displays signal status (on the left) for this feature as well.

Moving right, bottom row, is an Intercom connector ports for "Audio In" and "Audio Out." On the front panel is a VU-type meter to monitor this. When audio comes in as line level at about -5 dB, the indicator lights on the front panel light up green. At about +22 dBu the lights will go red, indicating that the signal is over-modulating.

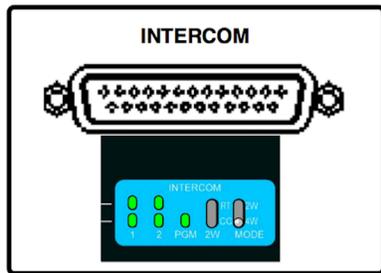
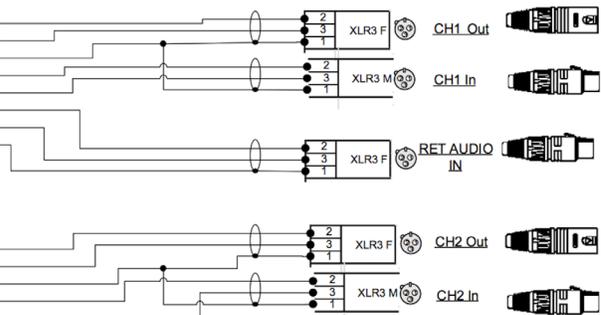
There are also accommodations (Tuscan Pin-out ports) for 2-wire or four-wire Intercom systems. Both analog and digital system can be used with the SilverBack base station. A blue box on the front panel monitors status and indicates what type of Intercom system the user is working with.

Finally, the front panel on the far right includes a LED readout display that shows the average laser power coming from the camera I/O unit (TX, transmitter power) and Base station (RX, receiver power). Normal levels for transmission should be about 0 to -5 dBm and for reception from about -3 to -20 dBm. At less than -20 dBm errors begin to become noticeable.

# Base Station

## Intercom DB25 4-Wire MODE

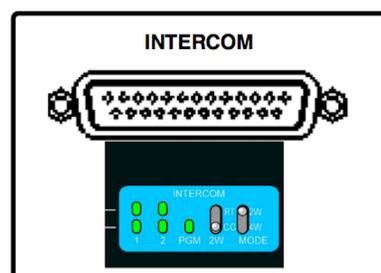
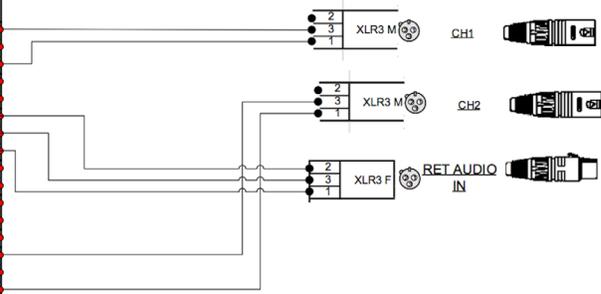
No.	Four Wire	Specifications	Two-Wire (RTS/Clear-Com)	Parallel to	No.
1	COMM1 (R) (X) OUT	COMM CH1 RECEIVE 0 dBu BALANCED	Channel 1 Audio	N/A	1
2	COMM1 (R) (Y) OUT				2
3	COMM1 (G)				3
4	COMM1 (T) (X) IN	COMM CH1 TALK 0 dBu BALANCED	GND		4
5	COMM1 (T) (Y) IN				5
6	PGM1 (X) IN	-20 dBu/0 dBu	PGM1 (X) IN	DB25 Audio In	18
7	PGM1 (Y) IN		PGM1 (Y) IN		6
8	PGM1 (G) IN		PGM1 (G) IN		7
9	GND	GND for AUX	Future		9
10	AUX3				10
11	R TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	R TALLY (X) IN	Racon "Tally"	2
12	R TALLY (Y) IN		R TALLY (Y) IN	1	
13	GND	CHASSIS GND			13
14	COMM2 (R) (X) OUT	COMM CH2 RECEIVE 0 dBu BALANCED	Channel 2 Audio	N/A	14
15	COMM2 (R) (Y) OUT				15
16	COMM2 (G)				16
17	COMM2 (T) (X) IN	COMM CH2 TALK 0 dBu BALANCED	GND		17
18	COMM2 (T) (Y) IN				18
19	PGM2 (X) IN	-20 dBu/0 dBu	Future		19
20	PGM2 (Y) IN				20
21	PGM2 (G) IN				21
22	AUX4				22
23	AUX5				23
24	G TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	G TALLY (X) IN	Racon "GPT"	2
25	G TALLY (Y) IN		G TALLY (Y) IN	1	



# Base Station

## Intercom DB25 2 Wire: CLEAR-COM MODE

No.	Four Wire	Specifications	Two-Wire (RTS/Clear-Com)	Parallel to	No.
1	COMM1 (R) (X) OUT	COMM CH1 RECEIVE 0 dBu BALANCED	Channel 1 Audio	N/A	1
2	COMM1 (R) (Y) OUT				2
3	COMM1 (G)				3
4	COMM1 (T) (X) IN	COMM CH1 TALK 0 dBu BALANCED	GND		4
5	COMM1 (T) (Y) IN				5
6	PGM1 (X) IN	-20 dBu/0 dBu	PGM1 (X) IN	DB25 Audio In	18
7	PGM1 (Y) IN		PGM1 (Y) IN		6
8	PGM1 (G) IN		PGM1 (G) IN		7
9	GND	GND for AUX	Future		9
10	AUX3				10
11	R TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	R TALLY (X) IN	Racon "Tally"	2
12	R TALLY (Y) IN		R TALLY (Y) IN	1	
13	GND	CHASSIS GND			13
14	COMM2 (R) (X) OUT	COMM CH2 RECEIVE 0 dBu BALANCED	Channel 2 Audio	N/A	14
15	COMM2 (R) (Y) OUT				15
16	COMM2 (G)				16
17	COMM2 (T) (X) IN	COMM CH2 TALK 0 dBu BALANCED	GND		17
18	COMM2 (T) (Y) IN				18
19	PGM2 (X) IN	-20 dBu/0 dBu	Future		19
20	PGM2 (Y) IN				20
21	PGM2 (G) IN				21
22	AUX4				22
23	AUX5				23
24	G TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	G TALLY (X) IN	Racon "GPT"	2
25	G TALLY (Y) IN		G TALLY (Y) IN	1	

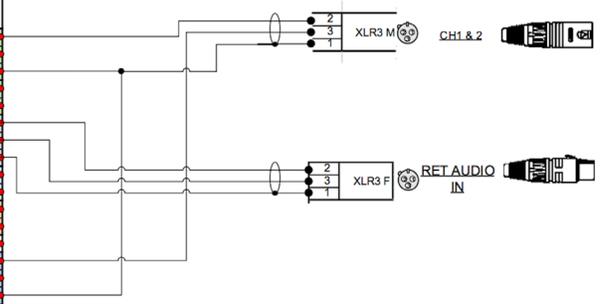


Intercom or Audio System	Nominal Impedance (Ohms)	Nominal Level (dBu)	Level Range (dBu)
Telephone	600 to 900	-15	-40 to 0
Old Clear-Com	200, 10k	-30	-45 to -15
New Clear-Com	200, 10k	-14	-14 to +5
Audiocom	300, 10k	0	-8 to +1
RTS⇒TW	200, 10k	-10	-10 to -1
Recording Studio	600, 10k	4	-6 to +24

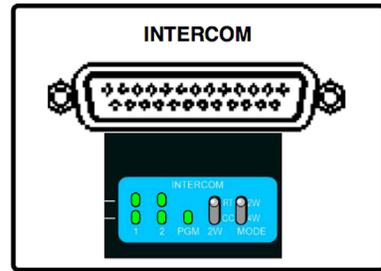
# Base Station

## Intercom DB25 2-Wire: RTS MODE

No.	Four Wire	Specifications	Two-Wire (RTS/Clear-Com)	Parallel to	No.
1	COMM1 (R) (X) OUT	COMM CH1 RECEIVE 0 dBu BALANCED	Channel 1 Audio	N/A	1
2	COMM1 (R) (Y) OUT				2
3	COMM1 (G)				3
4	COMM1 (T) (X) IN	COMM CH1 TALK 0 dBu BALANCED	DB25 Audio In		6
5	COMM1 (T) (Y) IN				7
6	PGM1 (X) IN			18	
7	PGM1 (Y) IN	_20 dBu/0 dBu	PGM1 (X) N PGM1 (Y) N PGM1 (G) N	6	
8	PGM1 (G) IN			7	
9	GND			19	
10	AUX3	GND for AUX	Future		9
11	R TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	R TALLY (X) N	Racon	2
12	R TALLY (Y) IN		R TALLY (Y) N	"Tally"	1
13	GND	CHASSIS GND			13
14	COMM2 (R) (X) OUT	COMM CH2 RECEIVE 0 dBu BALANCED	Channel 2 Audio	N/A	14
15	COMM2 (R) (Y) OUT				15
16	COMM2 (G)				16
17	COMM2 (T) (X) IN	COMM CH2 TALK 0 dBu BALANCED	DB25 Audio In		17
18	COMM2 (T) (Y) IN				18
19	PGM2 (X) IN			19	
20	PGM2 (Y) IN	_20 dBu/0 dBu	PGM2 (X) N PGM2 (Y) N PGM2 (G) N		20
21	PGM2 (G) IN				21
22	AUX4			Future	
23	AUX5				23
24	G TALLY (X) IN	ON : 24 Vdc, TTL (H), SHORT OFF : 0 Vdc, TTL (L), OPEN	G TALLY (X) N	Racon	2
25	G TALLY (Y) IN		G TALLY (Y) N	"GPT"	1

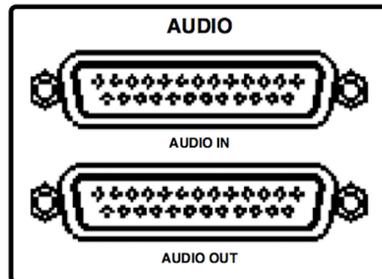
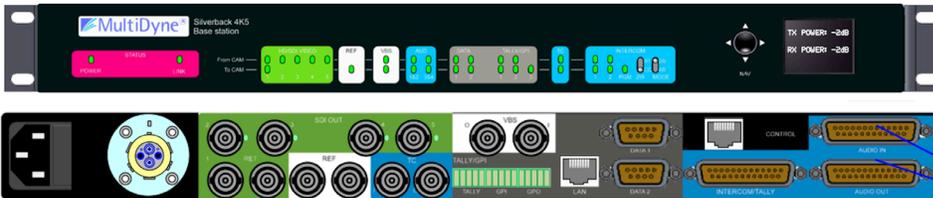


Intercom or Audio System	Nominal Impedance (Ohms)	Nominal Level (dBu)	Level Range (dBu)
Telephone	600 to 900	-15	-40 to 0
Old Clear-Com	200, 10k	-30	-45 to -15
New Clear-Com	200, 10k	-14	-14 to +5
Audiocom	300, 10k	0	-8 to +1
RTS <sup>SM</sup> TW	200, 10k	-10	-10 to -1
Recording Studio	600, 10k	4	-6 to +24



# Base Station

## Audio DB25 Connectors



Pin #	Tascam Standard			SilverBack 4K5	
	AES	Analog	Desc	INPUT	OUTPUT
25			GND		
12	1/2 IN	1	(-) Cold	ANA1	ANA1
24			(+) Hot		
11			GND		
23	3/4 In	2	(-) Cold	ANA2	ANA2
10			(+) Hot		
22			GND		
9	5/6 In	3	(-) Cold	ANA3	ANA3
21			(+) Hot		
8			GND		
20	7/8 In	4	(-) Cold	ANA4	ANA4
7			(+) Hot		
19			GND		
6	1/2 Out	5	(-) Cold	PROG	Not Used
18			(+) Hot		
5			GND		
17	3/4 Out	6	(-) Cold	Not Used	Not Used
4			(+) Hot		
16			GND		
3	5/6 Out	7	(-) Cold	AES1	AES1
15			(+) Hot		
2			GND		
14	7/8 Out	8	(-) Cold	AES2	AES2
1			(+) Hot		

