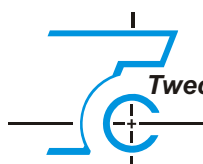# *Jibcom*

"The Necessary Jib Accessory "

Operation Manual

Twecomm Inc.

" Specialty Electronics For Television Production,
Broadcast and Performing Arts Worldwide "

Twecomm.com

Twecomm Inc.
1631 King James Drive,
Pittsburgh, PA 15237-1573

Ph 412-369-8770
Fax 412-663-0049

Jibcom Overview

Jibcom provides a complete solution to communications, tally and and viewfinder switching for a jib mounted camera. The Jibcom system consists of the CH-200 operators control head with swivel/ tilt clamp mount and IF-100 Camera interface module. These modules are connected together via the furnished 40 ft. mini D jib arm cable. Connection to the camera is made with a brand-model specific Jibcom IFC camera interface cable. Camera intercom and program audio signals are converted from low level, un-balanced signals to high level, electronically balanced signals before being applied to the jib arm interconnect cable. Power for Jibcom is derived entirely from the camera with no other power source required. The control head features digital level and pan controls provide mixing of both intercom audio and program audio as desired by the the operator. Red and Green tally LED's are located on the front panel of the control head. An optional Jibcom ET-1 external tally indicator connects to the control head to provide an additional remoted red and green tally indication for the operator. An additional external tally connector on the IF-100 interface can provide tally using an ET-1 tally indicator, when a teleprompter is in placed on the jib that will block the cameras internal tally light.

Jibcom supports all currently available models of Sony, Thompson / GVG, Ikegami, Panasonic and Hitachi High Definition handheld broadcast cameras, operating on either SMPTE fiber optic or Triaxial camera cable. Previous model HD and SD cameras that use similar connectors and are wired the same, allow Jibcom to be compatible with some of these older camera models as well. The available feature set of the Jibcom system varies by the camera brand and model. To enjoy all available features, follow the recommended camera head intercom settings for the specific camera in use with the Jibcom system.

Camera Compatibility

The Jibcom system has been designed to work with a wide range of camera brands and models. Connector types found on the camera body differ between the camera brands and in many cases, even between the same manufacturer's cameras model to model. Every camera brand / model has a specific Jibcom IFC interface cable that provides proper interface to the camera in use. The 5 pin XLR headset connector and its pinout is common across just about every camera brand.The Intercom circuitry within current HD cameras typically have either dip switch settings or menu driven settings that should be correctly configured for proper intercom functionallity. Unless care is taken to correctly configure the intercom channels per the recommended settings, mixed results will be experienced with the intercom channels of the camera as they relate to the Jibcom system. The microphone level output by the Jibcom system is comparable to that of a standard Beyer headset microphone element output level.

Certain camera models / brands do not provide interface facilities for some functions such as external viewfinder switching or green tally indication. Certain models may have only a single intercom channel available for use. These items will be noted within each cameras section later in this manual.

Although connectors may be found to be the same type or style between one camera brand and another, DO NOT attempt to use anything but the correct IFC interface cable for the camera that the Jibcom system will be used with.

IF-100 camera Interface Module

The IF-100 module provides electronic interface to the camera. It converts the low level un-balanced camera intercom and pgm audio signals to a high level electronically balanced format to be passed down the control cable to the control head. If the camera is so equipped, individual channel intercom mic switching logic is provided in addition to the internal mic switching circuitry. The interface provides opto-isolated switching to the cameras external viewfinder switching ports. Tally output ports from the camera are opto-isolated unto the interface.

Power for the IF-100 and CH-200 is derived from the cameras internal 12 volt DC power. Power regulation, conditioning and filtering is accomplished within the interface. Power protection unto the camera is provided via internal, self healing "Poly Fuses" that protect the cameras 12 volt source should a fault develop within the Jibcom system or associated cabling. The green LED on the IF-100 indicates presence of camera power to the Jibcom system. If a teleprompter is mounted on the jib, an ET-1 external tally indicator can connect to the IF-100. This will provide a " front red and green tally for talent when the cameras normal fitted front tally is blocked by the prompter mirror unit.

The IFC model specific interface cable connects to the DB-25 connector on the interface module, secured by the jack screws. The other ends then connect to the various connectors on the camera head as shown. The camera interface module mounts vertically to the side of the jibs' camera mount. Ball type bungee cords are furnished with the IF-100 which is recommend using for easy attachment of the interface module. The Jibcom control cable dresses down the jib arm along with the Triax or SMPTE camera cable allowing enough slack for jib head movement.
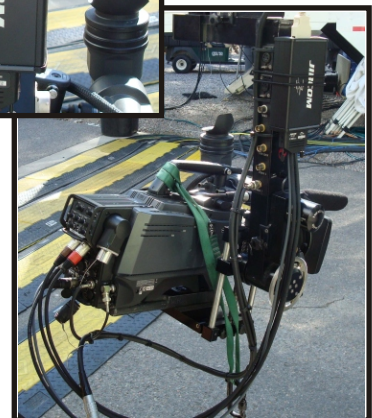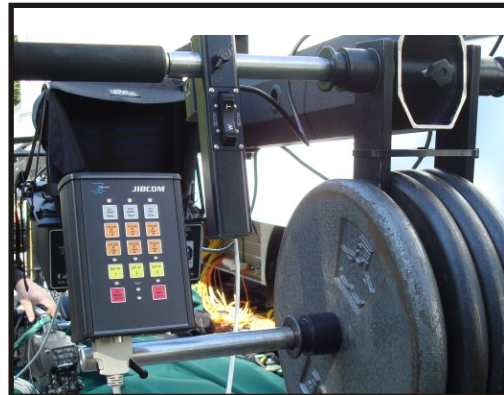
CH-200 Control Head Module

      The CH-200 control head is the user interface to Jibcom. It is furnished with robust adjustable clamp and swivel / tilt mounting that allows the control head to be firmly attached to various points about the operators' position and adjusted as desired. The 5 pin XLR headset connector follows industry standard wiring for a dual muff dynamic headset. If camera generated side tone is not sufifcent, local side tone is internally generated within the Jibcom system and is user adjustable from the front panel control adjacent to the headset connector.

      An internal microprocessor provides "Smart Touch" switching functions for both the microphone on-off control buttons and viewfinder switching buttons. Each button function is momentary or latching depending on how it is pressed. Pressing quickly will latch-unlatch the buttons function. Pressing and holding down will give a momentary function as long as the button is pressed. Digital volume level and panning for each respective audio channel is controlled from the membrane switch panel with push button incremental adjustment. Each of the intercom talk buttons has an LED indicator that is lit red when the mic is "on". Red and Green tally indicators are located between the mic control buttons. Depending on camera brand, switching for up to 3 camera external viewfinder ports with yellow LED active indicators is provided. The viewfinder selection also has "Smart Touch" function as well as an interlock function, so if an external source is selected, selecting another will cancel the previous function.

      Plugging the optional ET-1 external tally indicator into the provided connector will allow the operator to locate remote red and green tally indication on the jib video monitor. No harm will come from disconnecting any component of the Jibcom system while powered is applied.

Optional ET-1 External tally Indicator

Volume & Panning Functions

The Jibcom CH-200 control head has 3 vertical rows of buttons to control intercom and program audio signals. The digital level and pan controls allow the operator to "mix" and "pan" the mono intercom and program audio signals across the listening field, as desired when using a dual muff headset. If a single muff headset will be used, only the level controls should be used and all signals should remain panned center.

The upper light grey "Mode" button selects the function of the two lower orange buttons located just below, to either the volume or pan mode. On power up, the LED indicators above the mode buttons illuminate green, indicating the digital controls are in the *"Volume Mode"*. Pressing the gray "Mode" button will toggle the function of the orange buttons to the *"Pan Mode"* allowing the mono intercom or program audio signal to be panned through center to the left or right ear as desired. When in the pan mode, the LED indicators above the mode buttons will illuminate Red. On power up, volume level will always be at 50 % and the signal of each mono channel will be panned center. Volume and pan are stepped functions with 32 steps of resolution between fully down and fully up, or minimum to maximum volume. Depending on which mode is active, pressing either the up-down / left-right orange buttons intermittently, will incrementally "step" with each button press. If held down, it will automatically start an incremental sequence that will step slowly, ramping up to a faster step speed until the upper or lower limit of the mode is reached. If the mode is selected to "*Pan*", the mode will automatically return to "volume mode" after 20 seconds provided no orange button activity is sensed. Switching between volume and pan will not affect the value setting of the other mode.

Side tone

Side tone is the ability to hear yourself, when your mic is active back through the headset earphones. Most cameras have a menu adjustable amount of side tone that is generated within the camera intercom circuitry. The level is typically adjustable in db steps. Some cameras have a fixed amount of side tone with no user adjustment available. Jibcom local side tone is additive to camera side tone that may already be present. When using the Jibcom unit, If side tone is excessive with the side tone control on the CH-200 turned fully counter clockwise, the camera side tone must be reduced via the camera menu settings to the desired level. Jibcoms' local side tone level is adjustable by the white slotted "Side tone Adj" control located on the CH-200 control head, just to the left of the XLR headset connector. The locally generated side tone signal is switched on and off along with mic on-off switching for the respective intercom channel.

Headset Wiring

The CH-200 control head 5 pin XLR headset jack conforms to the industry standard convention of wiring for a dual muff headset with un-balanced dynamic microphone element. This includes the popular Beyer DT- series of headsets used with RTS-Telex.

Microphone Element, Pin 1 (Mic low or ground) , Pin 2, Mic + (mic. High).
Headphones, Pin 3 (low or common) for both L & R headphone elements,
Pin 4 is Left ear, + (High)
Pin 5 is Right Ear, + (High).

Jib Arm Interconnect cable

The cable that connects between the IF-100 cam interface and the CH-200 control head modules is a special double shielded cable style that is chosen for its ability to remain flexible across a wide range of temperature conditions. It uses 26 pin "Mini D ribbon" or MDR connectors, that positively snap on to the mating module connectors when fully seated. The standard length of the supplied cable with the Jibcom system is 40 ft. Length sufficient length for most jib arm applications. Longer custom length cables can be specially ordered by contacting Twecomm Inc.

Interface Cables

Below is a listing of the available interface cables for use with the Jibcom system for interface to current model HD cameras. It is possible for Jibcom to work with many older model SD cameras of similar brand, provided the connectors style and connector wiring is similar to camera models listed below. Contact Twecomm Inc. for compatibility with older SD camera models.

Sony Cameras:

IFC-1500 Interface Cable
HDC-1000, HDC-1400, HDC-1450, HDC-1500, HDC-1550, HDC-1580 cameras
SD Camera models employing a CA-570 Triax back.
Other model Sony cameras with 2 intercom channels,10 pin TRACKER connector and 6 pin RET CONT connector.

IFC- 900 Interface Cable
HDC-900, HDC 910 , HDC-930 , HDC 950 cameras
Other model Sony cameras with a 20 pin Tracker connector and 6 pin RET CONT connector.

IFC- 300 Interface Cable
HSC-300, HSC-100 Cameras

Thomson / Grass Valley Cameras:
IFC-8000 Interface Cable
LDK-6000, LDK-8000 Cameras

Ikegami cameras
IFC- 79 EC Interface Cable
HDC-79 EC Camera
Other model Ikegami cameras with a 12 pin I/O connector.

Panasonic Camera Models :
IFC- 3500 Interface cable
HDC-3500
Other model Panasonic cameras with a 4 pin DC power connector and 6 pin ret cont connector.

Hitachi camera Models :
IFC-1000 Interface cable
SK-HD1000
Other model Hitachi cameras with a 4 pin AC Out connector 6 pin ret cont connector and 4 pin script connector.

Jib Arm Interconnect cable

IFC Camera Interface cable

Jibcom Use with Sony HDC-1000 thru HDC-1500 Model cameras

 Below is a listing of menu settings arranged by "Page Title" **<** (shown between arrows) **>** "menu item number (#) " and actual "menu item " as well as camera "default" settings" and **recommended settings** for proper use with the Jibcom system. If you do not know how to, or are concerned about making changes in the menu items, please ask for assistance from the video operator or facility technician.

Page Title **< HEADSET>** menu # 10

ITEM	Default	Correct Jibcom Setting
Intercom 1 mic	(carbon)	Dynamic
Level	(-20)	-40 db
Power	(off)	off
Unbal	(off)	on
Intercom 2 mic	(carbon)	Dynamic
Level	(-20)	-40 db
Power	(off)	off
Unbal	(off)	on

Page Title   **<INTERCOM LEVEL>** menu # 11

ITEM	Default	Correct Jibcom Setting
Sidetone, intercom 1	(50)	50
Sidetone, intercom 2	(50)	50

Page Title   **<Receive Sel 1>**   menu # 12

ITEM	Default	Correct Jibcom Setting
Receive sel 1	Separate	Separate
Intercom	Left	Left
Pgm 1	Right	Right
Pgm 2	Right	Right
Tracker	Left	Left

Cont'd

ITEM	Default	Correct Jibcom Setting
Receive sel 2	Separate	Separate
Intercom	Left	Left
Pgm 1	Right	Right
Pgm 2	Right	Right
Tracker	Left	Left

Cont'd

Jibcom Use with Sony HDC-1000 thru HDC-1500 Model cameras Cont'd

Camera RET or Return VF Control settings.

The three yellow Ext VF buttons on the Jibcom control head will activate the external viewfinder switching in the camera head. Above each button is a yellow LED that indicates that that indicates which button is activated.

Note : The BNC connector labeled "Test Out" on the camera head is a multi function port that must be properly configured for viewfinder video output, either SD or HD. If you do not see viewfinder video when you connect to the test out connector, enter the menu item "Test Out", select VF video, select VF video signal type and proper sync signal for external video monitor type being used.

The actual ext VF buttons on the CH-200 control head, control internal microprocessors that provide "Smart Touch" functions to these buttons. Button function is either momentary or latching depending on how it is pressed. Pressing quickly will latch / unlatch the button function. Pressing and holding down will give a momentary function active only as long as the button is pressed. The three EXT VF buttons are interlocked so if any button is latched active, pressing another will cancel the selection of previous selection.

EXT VF-1 button corresponds to the external video source as selected on the "**RET-1 SELECTOR"** on the rear of the camera head. "EXT VF-2" will switch to the source as selected on the **"RET-2 SELECTOR"** . EXT VF-3 selects the video source that is been input to the camera CCU EXT-3 video input.

Jibcom use with Sony HDC-900 model cameras

Unlike later versions of Sony cameras where intercom settings are "soft" menu driven selections, the HDC-900 series cameras have physical miniature switches that must be correctly configured for using the Jibcom System. Below is a listing of recommended switch settings. These switches can be found on the front of the AU-271 board located in the left side of the camera head. It will be necessary to remove the outer cover on the camera head to gain access to the intercom circuit card.

On the HDC 900 series cameras, camera generated side tone is provided by the Mic Monitor function controlled by the lowest switch on the front of the AU-271 card. If the level of camera generated side tone is deemed too low, Jibcom's local side tone can supplement the camera generated side tone. If camera generated side tone is too loud, it can be disabled off by placing the mic monitor switch to the off position leaving side tone to be controlled by the Jibcom side tone control.

Shown are switch options and switch settings *required* for proper operation with the Jibcom system. If you do not know how to or are concerned about making changes to the switch settings, please ask for assistance from the video operator or facility technician.

Switch Selection Choice   Correct Jibcom Setting

Intercom # 1

Carbon or Dynamic   Dynamic
Mic gain   0 + DB   0 db

Intercom # 2

Carbon or Dynamic   Dynamic
Mic gain   0 + DB   0 DB

Mic Monitor   Off

Jibcom Use with Sony HSC-300 HD camera (UC & CE)

The Sony HSC series camera head comes in three different versions, UC (US & Canada) or "CE" (European) or "J" (Japan). Each version has a different intercom panel and different level controls related to intercom functions. On the rear of the camera, the "UC" or "J" version will have a <u>single</u> volume control for intercom. On the "CE" version, there will be <u>three</u> individual volume controls PROD, ENG and TRACKER.

Although two intercom channels are supported between the CCU and camera head on all models, the HSC series has only a single headset connector. If you have a "UC" or "J" version, only a single channel of intercom is available to talk on via the Jibcom system. That channel is pre selected by the PROD / ENG switch on the rear of the "UC" or "J" camera head. In most cases the jib operator is interested in being on the PROD channel. The PROD talk button on the Jibcom, will control the mic on-off to the selected intercom channel. The Eng button on Jibcom will have no function.

Control logic for microphone On-Off switching is within the Jibcom system and this switching logic is passed on to the cameras switching logic through the RET CONT connector. In the "CE" version, both the PRO and ENG intercom channels are available to the operator via the Jibcom system. The PROD and ENG buttons on Jibcom will switch the mic on-off signal to each of the respective intercom channels.

All camera versions have two program audio channels available. Program audio for Jibcom is obtained from the tracker connector. The tracker connector signals are selected by the < *receive sel 2* > menu settings. Signals delivered to the the tracker connector are at a constant level and not affected by any of the camera head volume controls.

Typically, only the PGM 1 channel is used but if is necessary to monitor both PGM 1 and PGM 2 audio signals, both may be menu selected to the RIGHT channel of the tracker connector. The signals will be summed together and Jibcom will control the level of that summed signal. Program level is controlled by the middle column of buttons marked "Program" on the CH-200 control head.

Connect the IFC-300 interface cable as follows:

Plug 5 pin XLR connector into the Intercom connector.
Plug the 10 pin connector into the tracker connector.
Plug the 6 pin connector into the RET CONT connector.

Camera head, rear switches and volume control settings
(UC & J Versions)

Level Rear / Mic On   Set to OFF
Intercom Select   Set to PROD
Intercom Volume   Set to 10 O'Clock
Program 1 Volume   Set to full CCW (fully down)
Program 2 Volume   Set to full CCW (fully down)

Sony HSC-Cont'd

Jibcom Use with Sony HSC-300 HD camera (UC & CE)   Cont'd

(CE Version)

Mic Line	Set to OFF
Rear Front	Set to REAR
ENG Volume	Set to 10 O'Clock
PROD Volume	Set to 10 O Clock
Tracker Volume	Set to full CCW (fully down)
Pgm-1 Volume	Set to full CCW (fully down)
Pgm-2 Volume	Set to full CCW (fully down)

Menu Items :   **NOTE : Menu settings related to intercom functions must be correctly configured for use with Jibcom.**

Menu 11 < Headset >

Item	Setting
Intercom Mic:	Dynamic
Level	-40
Power	OFF
Un-bal	ON

Menu 12 < Intercom Level>

Item	Setting
Sidetone	40

Menu 13 < Rec 1 Sel >

Item	Setting
Receive Select	Separate
Intercom (UC Model Only)	Left
Eng (CE Model Only)	Right
Prod (CE Model Only)	Left
Pgm 1	Right
Pgm 2	Right
Tracker	Right

 Menu 14 < Rec 2 Sel >

Item	Setting
Receive Select	Separate
Intercom (UC Model Only)	Left
Talk (CE Model Only)	Left
Eng (CE Model Only)	Left
Prod (CE Model Only)	Left
Pgm-1	Right
Pgm-2	Right

Jibcom Use with Thomson / Grass Valley LDK Series Cameras

     The Thomson-Grass Valley LDK series cameras do not support all available features on the Jibcom system. Although two channels of intercom are supported from CCU to camera head, only a single channel of intercom is available on a headset connection on the camera adaptor, and only one channel at a time is available to talk on. Only RED tally is externally available. No remote external viewfinder control switching is available on this series of cameras.

     The single headset connector on the cameras rear panel has a mic on, or "talk" switch that allows the headset mic to talk on the Eng channel, which can be maintained always on in the up position, the center position is off or talk to Prod, with momentary function in the down position, with a built in spring return to off position. Since it is most likely for the operator to need to use the cameras "Prod" channel for the operator's communication, it is necessary to mechanically maintain the talk selector switch into the down or "Prod" position by means of the MST-1 mic switch retainer. This mechanical retainer is furnished with each IFC-8000 Thomson camera interface cable to hold the spring return talk switch in the down "Prod talk" position. The MST-1 is attached as shown (see below photo) using the captive thumbscrew into the threaded hole on the top of the camera, just above the intercom volume controls. The vertical tab on the MST-1 has 2 steps to accommodate the slight mechanical differences in various models of the LDK series camera adaptor backs. With the camera intercom mic switch forced on to "Prod" position, microphone on-off switching is accomplished within the Jibcom system. When using with the Thomson GV cameras, only the Prod and Pgm volume and pan controls on the CH-200 control head are used. If the need to listen to the Eng channel is desired, the ENG intercom audio signal can be "mixed" or combined with the program audio signal. In this case, the relational level of the eng intercom signal is controlled ONLY using the ENG level control at the rear of the camera head.

Connections of Thomson/ GVG interface cable to Thomson /GVG camera:

5 pin XLR to Intercom headset
4 Pin plug to "Power Out " connector.

Once connections are established:

Prod Vol Ctl Switch	Select to "Rear"
Prod Vol	Aprox 6 O'clock (pointing straight down)
Pgm Vol	Aprox 6 O'clock (pointing straight down)
Eng Vol	Full CCW (off), <u>or</u> optionally mixed in with pgm audio signal if desired.

**MST-1 Switch Retainer
Installed on LDK back adaptor**

Jibcom Use with Thomson / Grass Valley LDK Series Cameras Cont'd

The LDK series cameras have menu driven settings for intercom related items. It is important to assure that the camera intercom channels are configured correctly within the camera head software menus. Typically only a minor menu change to the current configuration settings may be required as most default settings will be correct.

To enter the camera head menu selections on the Thomson-Grass Valley cameras, locate the silver "select" button on the front of the camera body. Press this button to enter the menu selection mode. Menu items will be displayed in the camera viewfinder. Scroll through menu selections with the thumbwheel until you land on the "Install" menu section. Press the select button to enter the "install" menu. The list of menu items will be available. Set the menu items as indicated for "Correct Jibcom Settings". When a choice of settings is available on a given line, incrementing the wheel will step through the available options. The menu select mode will automatically time out after a short time of no activity and disappear from the viewfinder screen.

Step-1 > "INSTALL MENU" selection

Step-2 > "INTERCOM "   selection

Menu Item	Default Values	Correct Jibcom Setting
Sidetone	10-50 %	20 %
Cam. Mic.	Switch	Switch
Cam. Mic gain	40 DB	40 DB
Cam. Mic Power	OFF	OFF
Cam. Production	Both	Left
Cam. Engineering	Both	Right (optional eng mix w / Pgm)
Cam. Program	Both	Right
Cam Track	Off	Off
Cam Track Level	50	50
Track Mic To	CH-1	N.A.
Track Mic gain	40	N.A.
Track Mic Power	Off	N.A.
Track Source	Side	N.A.

Jibcom Use with Panasonic HD Cameras

Panasonic HD cameras support of all the features available on the Jibcom system. To take advantage of Jibcom intercom related features, it is important to assure that the camera intercom channels are configured correctly using the camera head software menus, and correctly setting the rear camera switches and level controls. Typically, only a minor menu change to the current configuration settings may be required.

Below is a listing of the menu "page titles" and menu item number and list of **the correct settings** for best results with the Jibcom system. If you do not know how to, or are concerned about making changes in the menu items, please ask for assistance from the video operator or facility technician.

Connection of IFC-3500 interface cable to Panasonic cameras:
The Brown XLR connects to "Intercom-1 ", the Red XLR connects to "Intercom-2"
The 4 pin plug connects to either the "Tally Out" or "DC Out" connector. The connector name depends varies by camera model.
The 6 pin plug connects to the "RET CONT" connector.

Camera head, rear switches and volume control settings
Set level control for intercom channel 1 to 10:00 O'Clock
Set level control for intercom channel 1, Pgm 1 or Pgm 2, to 10:00 O'Clock.
Set CH-1 "TALK" switch to OFF
Set level control for intercom channel 2 to 10:00 O'Clock
Set level control for intercom channel 2, Pgm1 or Pgm 2, to 10:00 O' Clock.
Set CH-1 "TALK" switch to OFF
Set CH-2 "TALK" switch to OFF

Menu Settings

Menu Item (INCOM set 1)   Required menu settings
INC1 Mic Type	DYN	
INC1 Mic gain	0 db	
INC1 Mic Pwr	Off	
INC1 Sidetone	Off or ON	(If OFF, Jibcom Local Sidetone can be used)
INC1 PGM Mix	Off	
INC1 Eng/Prod	Prod	
INC1 to CCU	On	

Menu Item (INCOM set 2)   Required menu settings
INC1 Mic Type	DYN	
INC1 Mic gain	0 db	
INC1 Mic Pwr	Off	
INC1 Sidetone	Off or ON	(If OFF, Jibcom Local Sidetone can be used)
INC1 PGM Mix	Off	
INC1 Eng/Prod	Eng	
CRANE Mic Gain	N.A.	
CRANE Sidetone	N.A.	
CRANE Eng / Prod	N.A.	
CRANE to CCU	N.A.	

Menu Item (Setting 2)
EXT RET 1	Select A or B
EXT RET 2	Select A or B
EXT RET 3	Select A or B

Jibcom Use with Hitachi HD camera

Hitachi HD cameras support of all the features available on the Jibcom system with the exception of Ext VF # 3. It is important to assure that the camera intercom channels are set correctly via the camera rear switches and level controls. Below is a listing of the required settings. The Hitachi camera does not have any intercom related menu settings.

Connections of IFC-1000 interface cable to Hitachi SK-HD 1000 camera

The Brown XLR connects to "Intercom-1 ", The Red XLR connects to "Intercom-2"
The 4 pin plug connects to the connector marked "Script"
The 6 pin plug connects to the "Ret Cont" connector.

Camera head, rear switches and volume control settings

Set level control for intercom channel 1 to 10:00 O'clock.
Set level control for intercom channel 1, Pgm 1 or Pgm 2, to 10:00 O'clock.
Set CH-1 "LEVEL" , mic switch to OFF
Set CH-1 PD-ENG switch to PD

Set level control for intercom channel 2 to 10:00 O'clock
Set level control for intercom channel 2, Pgm1 or Pgm 2, to 10:00 O' Clock.
Set CH-2 "LEVEL" , mic switch to OFF
Set CH-2 PD-ENG switch to ENG

Pre select the sources for the RET-1 and RET-2 ext viewfinder functions.

Note: Jibcom Ext VF-3 will have no function.

Jibcom Warranty Statment

Twecomm Inc. warrants its products to be free from defects in materials and workmanship for a period of 90 days following the date of shipment to the original purchaser. This warranty does not cover products that have been damaged by accident, disaster, abuse, neglect, misuse, improper handling, or incorrect installation. Furthermore, it does not cover products that have been altered, modified or repaired by anyone other than Twecomm Inc. This warranty does not cover products that may be damaged while in shipment to or from Twecomm Inc.
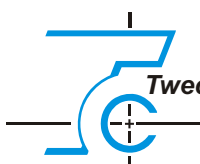
The warranty is in lieu of any other warranty, whether expressed or implied, or statutory; including but not limited to any warranty of merchantability, fitness or any particular use or purpose, or any warranty otherwise arising out of any proposal, specification, or sample. Twecomm Inc. neither assumes nor authorizes any person or organization to assume for it any other liability. All implied warranties including any warranty of merchantability and fitness for a particular purpose are hereby disclaimed. User is responsible to determine suitability of product for intended use. No liability whatsoever is assumed for consequential damages resulting from the use or failure of any Twecomm manufactured equipment. No liability whatsoever is assumed for consequential damages resulting to any equipment that a Twecomm manufactured product may be connected to or used in conjunction with.

Twecomm Inc. sole and exclusive liability will be, at it's option, to repair or replace, any such product which fails during the applicable warranty period provided that :

A   Buyer promptly notifies Twecomm Inc. that such product is defective and furnishes an explanation of the deficiency.

B   Such product is returned to Twecomm Inc. with shipping pre paid at buyer's risk.

C   Twecomm Inc. is satisfied that claimed deficiencies exist and was not caused by accident, misuse, neglect, alteration, modification, attempted repair or improper installation.

If product is indeed found defective, transportation charges for the return   of product to buyer within the continental United States will be paid by   Twecomm Inc. For all other locations outside the continental United States, the warranty excludes all costs of shipping, customs clearance, and any other related charges. Twecomm Inc. will have a reasonable time   to make repairs, or replace the defective product.

E Mail :   support@twecomm.com

Twecomm Inc.

" Specialty Electronics For Television Production, Broadcast and Performing Arts Worldwide "

Twecomm.com

Twecomm Inc.
1631 King James Drive,
Pittsburgh, PA 15237-1573
_Ph 412-369-8770_
Fax 412-663-0049