

**JVC**<sup>®</sup>  
**PROFESSIONAL**

3-CCD COLOR VIDEO  
CAMCORDER

# GY-X2BU

Full-size S-VHS Professional Camcorder with Three High-resolution CCDs 1.5 lux Shooting Capability



Shown with an optional lens

# GY-X2BU

3-CCD S-VHS CAMCORDER

## *The Ultimate Full-Size S-VHS Camcorder for Professionals*

The dashing GY-X2BU sets new standards for camcorder design. It comes packed with a wide array of advanced functions, yet it features an exceptionally economical and user-friendly design concept. Three 1/2" CCDs, supported by JVC's MICRO-LENS technology, produce sharp resolution and high sensitivity. And, in the LOLUX mode, you can capture great pictures even with illumination as low as 1.5 lux. At the recording side, the full-size drum S-VHS VTR with its two Flying Erase Heads and rotary FM hi-fi audio heads provides uncompromising sound and picture quality. As you'd expect from JVC, the GY-X2BU is an exercise in ergonomic excellence. Perfectly balanced with intelligently arranged controls and a generously padded shoulder rest, it is easy to operate, even in the toughest conditions. The GY-X2BU — you don't deserve less.



- 750 lines of horizontal resolution with S/W of 57 mm
- Shoot at 1.5 lux in LOLUX mode.
- Point and shoot Quick Recording Mode with ALC and ELL
- Redesigned shoulder pad with enhanced comfort and stability.
- Full-sized professional VTR head drum for reliable, high quality image reproduction.



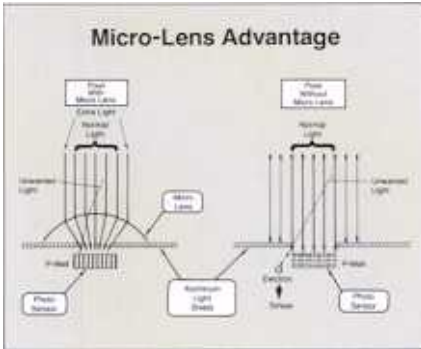
# Wide Array of Innovative Features

## ■ Three High-Density 1/2" CCDs

The GY-X2BU camcorder features three advanced 1/2" CCDs, which apply cutting-edge technologies to deliver an outstanding resolution of 750 horizontal lines. Innovative MICRO-LENSES, along with a larger light shield to reduce reflections and light leakages, achieve highly efficient light conversion for a sensitivity of F8.0, 2000 lux.

This comes with virtually no smearing and an impressive S/N ratio of 62 dB. But there's more. In the LOLUX mode operators can tap performance that reproduces top-quality pictures at a minimum illumination of just 1.5 lux at F1.4.

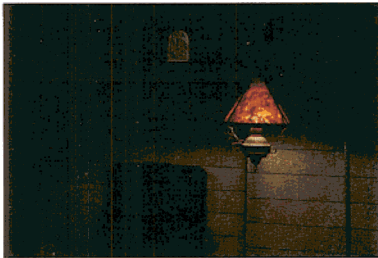




■ **LOLUX 1.5 lux**

LOLUX is a remarkable innovation that lets you shoot with almost no light. Now, you can capture superb pictures with excellent color balance at a mere 1.5 lux illumination. A push of a button activates the LOLUX mode, which increases sensitivity with almost no increase in noise. Exceptionally high sensitivity of 1.5 lux results from combining electronic gain boost and unique dual pixel readout technology.

**NORMAL**



LOLUX

■ **Quick Recording Mode**

Sometimes losing a few seconds can mean losing a shot. That's why JVC developed the Quick Record Mode. When turned on, the camera is set to the auto iris mode, even if the lens is set to manual. Also activated is Automatic Level Control (ALC) with Extended Electronic Iris (EEI) which provides both

variable gain and variable shutter. Now you can shoot continuously from a dark hallway to the bright outdoors without the need to change gain, iris or ND filter. There is also a Full Time Auto White (FAW) circuit, which tracks color temperature automatically, so an operator can follow a subject moving from incandescent to fluorescent to outdoor light without adjusting white balance or changing the filter wheel. Just point and shoot.



■ **Multi-Zone Iris Weighting**

The Multi-Zone Iris Weighting system features a new detection method that gives preference to objects at the central and lower portions of the picture. This provides highly accurate auto iris exposures under the full gamut of shooting conditions, even if a bright subject moves into the picture.



■ **Variable Scan View**

The Variable Scan View function allows flicker-free shooting of a CRT, even when the vertical scan rate is different from the camera's. Electronic shutter increments can be set over 305 steps from 1/60.1 sec. to 1/2084.6 sec.

■ **External Microphone**

Two external microphones can be easily connected to the GY-X2U via the two XLR connectors or one stereo microphone can be mounted via a 6-pin connector.



■ **Electronic Shutter**

The GY-X2BU offers a wide range of shutter settings covering all conceivable shooting conditions. Press the shutter speed button and the electronic shutter lets you select speeds from 1/100 to 1/2000 sec. Simply touch the NORMAL button to return to the standard speed of 1/60 sec.

■ **Continuous Auto Black**

A new CAB (Continuous Auto Black) circuit that allows continuous correction of black balance by sampling CCD's optical black has been introduced. This assures perfect black balance under changing environments without the need to interrupt the shooting to perform black balance.

■ **Viewfinder Status Overlay**

The handy Viewfinder Status Overlay displays key information directly to the operator through the viewfinder, including audio levels, accumulated or remaining recording time, VTR operation, as well as battery voltage and camera setup parameters.

**Display Mode-2**

WHITE BAL	AUTO1
FILTER	5.6K + ND
SHUTTER	NORMAL
GAIN	0 dB
IRIS LEVEL	NORMAL

■ **Tripod Base**

The handy tripod base of the GY-X2BU provides quick, secure attachment with a positive automatic locking mechanism. No separate locking lever is needed and release requires just a flip of a simple lever at the side.

■ **New Shoulder Pad**

A newly designed, 1/2" sculpted shoulder pad ensures comfort and stability when shooting.

### ■ **Ergonomic Design**

Excellent ergonomics was a key consideration in the GY-X2BU design. The camera head is designed to be both lightweight and durable. The body itself is smoothly molded for improved "feel" so that the camcorder becomes a natural extension of the operator's body. Weight is also perfectly balanced. Naturally, all switches and controls are optimally located for easy finger-tip operation.

### ■ **Hi-Fi Stereo Sound**

With its rotary FM hi-fi audio heads, the GY-X2BU delivers superb quality sound recording. There is greater dynamic range, enhanced frequency response, and improved wow and flutter. It also includes two linear audio channels with Dolby® noise reduction.

\*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

### ■ **Full-Sized Drum with Two Rotary Erase Heads and Advanced Editing Function (AEF)**

Flying Erase Heads plus Advanced Editing Function (AEF) guarantee professional quality in-camera edits. Two Flying Erase Heads also allow insert edit capability for clean in and out edit points. The Advanced Edit Function synchronizes the tape to the incoming video during a 1.5 second preroll. This guarantees field accurate editing eliminating the possibility of whip edits. For faster shooting, 0.5 second preroll is available. The full-sized drum allows for smooth, stress free tape path, minimizing jitter and eliminating any possible tape damage.



### ■ **Easy-to-read Backlit LCD Panel**

Key information is displayed on an LCD display including lap time/tape counter, remaining tape time, audio levels, battery life, hour meter and other

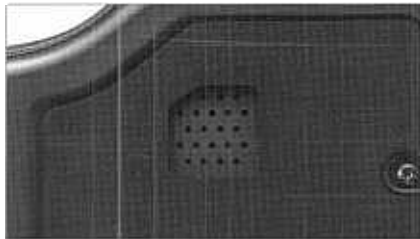
warning indications. The LCD is backlit for quick easy reading under all lighting conditions.

### ■ **Auto Review Function**

With the Auto Review function you can quickly review the last two seconds of footage shot. Once the footage is played, the GY-X2BU then re-enters the Record-Pause mode. There is also a handy safety feature. To protect the tape and video heads, the tape is unloaded and the unit enters the Stop mode if the Insert-Pause mode remains active for more than 10 minutes.

### ■ **Built-in Speaker**

The GY-X2BU features an integrated speaker to monitor audio and warning signal during recording and review the sound-track.



### ■ **Insert Edit Function**

The GY-X2BU's easy-to-use insert-recording capability allows previously recorded video and Hi-Fi audio signals to be accurately replaced with new material.

### ■ **Retake Function by Edit Search**

The Retake Function allows you to check the recorded picture without leaving the Record-Pause mode. Simply decide the point where you want to start the next take, while checking the search picture at normal speed in either direction.

### ■ **Power Supply**

For maximum versatility, the GY-X2BU can be powered from either its internal battery pack or an AC supply via the optional AA-P250U AC Power Adapter. NB-G1U battery packs can be installed in seconds and give approximately 40 minutes continuous operating time. In addition, flat type batteries can be used.

### ■ **Auto EQ Function**

The Auto EQ Function records high and low frequency reference signals to

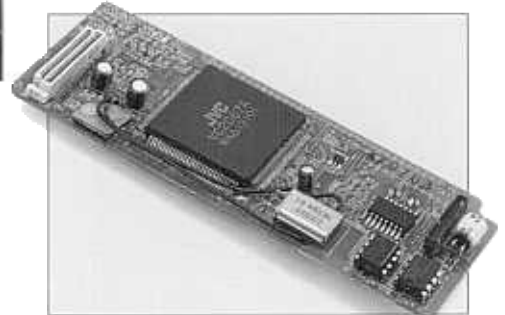
assure optimum video resolution when played back on JVC professional VTRs.

### ■ **ALU**

Automatic Level Up improves multi-generation chroma signal to noise ratio. This circuit, found only on JVC professional VCR's, records low level chroma signals at higher than normal level. During playback, the ACC circuit compresses the chroma back to its normal level. Tape noise is also compressed by the same amount, thus producing far less chroma noise.

### ■ **Optional Internal Plug-in SA-R200U Time Code Generator**

To boost post-production efficiency and permit program-logging, we offer a plug-in Time Code Generator board (SA-R200U) as an option. Using it you can record SMPTE-standard, LTC or VITC time code. The board is internally mounted to save space and minimize weight. The sophisticated design means you can record additional data in user bits with an internal real-time clock.



### ■ **Built-in Genlock Circuit**

The GY-X2BU accepts composite video signals or black burst via the camera's GENLOCK INPUT. Genlocking then synchronizes multiple camera signals processed through an SEG for fades, mixes, wipes and other effects.

### ■ **Other Features**

- Rugged die-cast body
- Y/C output connector
- Earphone jack
- Retake function with edit searching
- Dual output system allows camera output to be connected directly to an external recorder
- Safety zone indication available for the 16:9 screen format, in addition to the center mark on/off capability

# ***S-VHS Editing on Your Desk with Space to Spare***

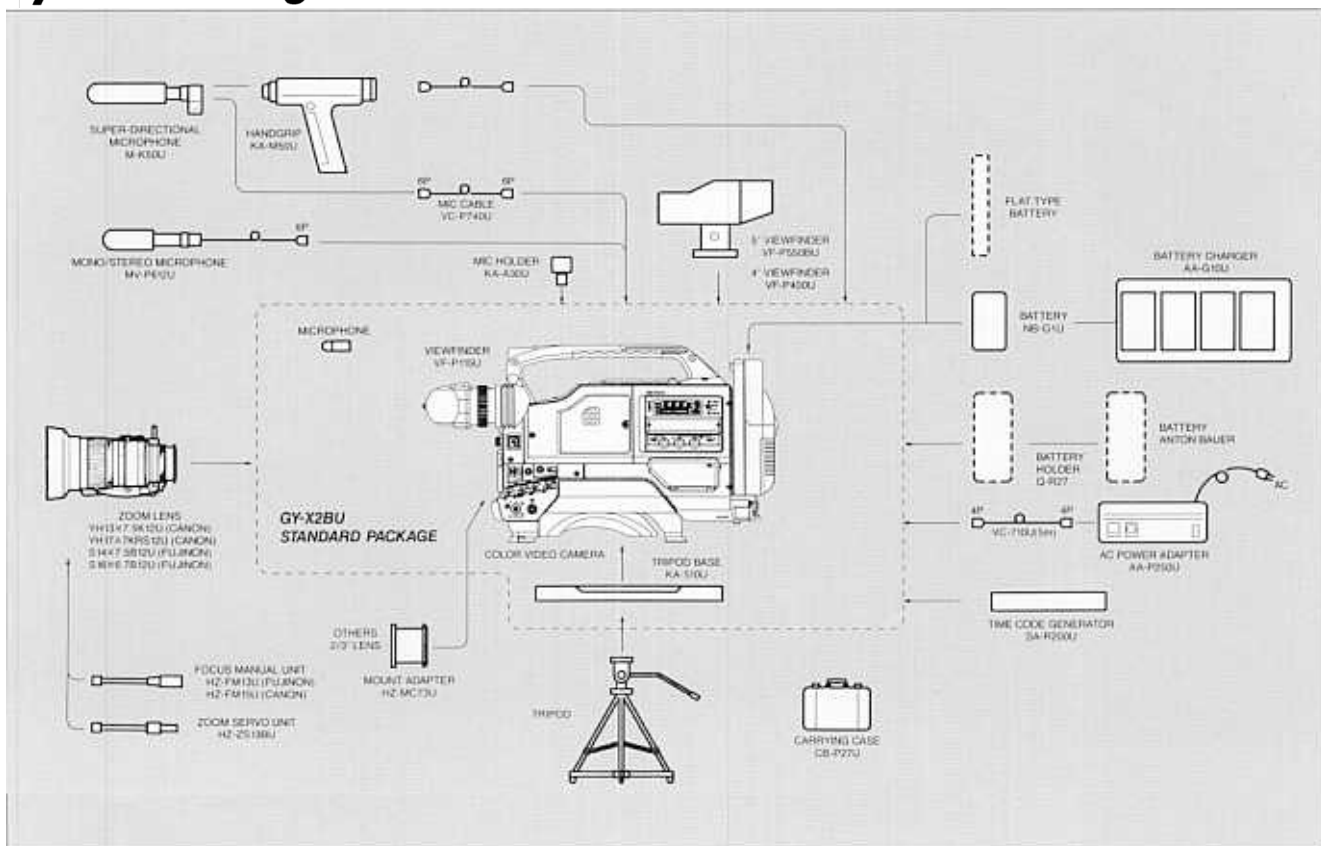
JVC offers a high quality editing system that is compact and easy to operate. Yet professionals will find all the functions they need for editing, along with the top-quality pictures only JVC S-VHS can deliver. And, for all of its sophistication, the system provides exceptional cost performance too. So if you want to put the power of an advanced editing suite on your desk top, look no further than JVC. Because we deliver more.



(Simulated TV pictures)

- ① Power switch and Power indicator
  - ② [QUICK REC] Quick-recording start/stop trigger
  - ③ [VTR] Recording start/stop trigger
  - ④ [EDIT SEARCH] Edit search retake buttons
  - ⑤ Monitor speaker
  - ⑥ Battery holder
  - ⑦ Battery holder unlock button
  - ⑧ [LENS] 12-pin lens connector
  - ⑨ Cable clamp
  - ⑩ Viewfinder base and slide retaining ring
  - ⑪ [VF] Viewfinder connector (6-pin)
  - ⑫ [FILTER] Filter turret
  - ⑬ Lens mount ring
  - ⑭ [ZEBRA] Video level indicator on/off switch
  - ⑮ [AUTO] Auto setup/Auto white switch
  - ⑯ [GAIN] Sensitivity select switch
  - ⑰ [DISP. SELECT] [ZONE] Status display select switch/Safety zone select switch
  - ⑱ [IRIS] IRIS OVER/NORMAL/UNDER switch
  - ⑲ [LOLUX] LOLUX gain button
  - ⑳ [SPEED - (V. SCAN) - SHUTTER]
  - ㉑ [W. BAL] White balance memory select switch
  - ㉒ [MODE] Camera/Color bars select switch
  - ㉓ VTR control cover/unlock lever
  - ㉔ LED indicators
  - ㉕ [EJECT] Eject button
  - ㉖ [STOP] Stop button
  - ㉗ [REW] Rewind/Search button
  - ㉘ [PLAY] Play button
  - ㉙ [REC-INSERT] Record/Insert button
  - ㉚ [REC TALLY] Tally lamp
  - ㉛ [TALLY ON/OFF] Tally lamp on/off switch
  - ㉜ [PAUSE] Pause button
  - ㉝ [FF] Fast-Forward/Search button
  - ㉞ [BREAKER] Power breaker release button
  - ㉟ Function box cover/unlock lever
  - ㊱ [AUDIO OUT] Audio output select switch
  - ㊲ [MONITOR OUT] Audio monitor select switch
  - ㊳ [TRACKING] Tracking control
  - ㊴ [AEF] AEF select switch
  - ㊵ [AUTO REVIEW] Auto Review on/off switch
  - ㊶ [S-VHS] S-VHS recording select switch
  - ㊷ [AUDIO INPUT SELECT 1/L CAM/LINE] Audio channel-1 (L) input select switch
  - ㊸ [AUDIO INPUT SELECT 1/L +4/-60] Audio channel-1 (L) input level select switch
  - ㊹ [AUDIO INPUT SELECT 2/R CAM/LINE] Audio channel-2 (R) input select switch
  - ㊺ [AUDIO INPUT SELECT 2/R +4/-60] Audio channel-2 (R) input level select switch
  - ㊻ [DOLBY NR ON/OFF] Dolby NR on/off switch
  - ㊼ [Hi-Fi REC] Hi-Fi recording on/off switch
  - ㊽ [REC LEVEL] Recording level select switch
  - ㊾ [VIDEO OUT] Video output select switch
  - ㊿ [OPERATE] Operation lamp
  - ① [LIGHT] Backlight on/off switch
  - ② Time code generator control panel
- Operation switches inside the cover are effective only when the optional SA-R200U is installed.
- ③ [RESET] Reset button
  - ④ [UB/TC/COUNTER] User bit/Time code/Counter select switch
  - ⑤ [SELECT] Counter select button
  - ⑥ [MONITOR LEVEL] Monitor level control
  - ⑦ [AUDIO REC LEVEL 1/L, 2/R] Recording level controls
  - ⑧ [COUNTER] Counter indicator
  - ⑨ [LAP TIME] Lap time indicator
  - ⑩ [T. REMAIN] Remaining tape time indicator
  - ⑪ Timer counter and counter mode indicator
  - ⑫ [AUTO OFF] Auto off indicator
  - ⑬ [SERVO LOCK] Servo lock indicator
  - ⑭ [DEW] Condensation indicator
  - ⑮ [HOLD] Hold indicator
  - ⑯ Audio level meter
  - ⑰ [BATT] Battery capacity indicator
  - ⑱ [S-VHS] S-VHS indicator
  - ⑲ [VITC] VITC indicator
  - ⑳ [LTC] LTC indicator
  - ㉑ [DC INPUT] DC input terminal (4-pin)
  - ㉒ [EARPHONE] Earphone jack (mono)
  - ㉓ [AUDIO INPUT 1/L, 2/R] Audio input connectors
  - ㉔ [AUDIO OUT 1/L, 2/R] Audio output connectors (RCA)
  - ㉕ [Y/C OUT] Y/C358 video output connector (7-pin)
  - ㉖ [VIDEO OUT] Video output connector (BNC)
  - ㉗ [SELECT] Video output select switch
  - ㉘ Cassette holder
  - ㉙ [MIC] Microphone connector (6-pin)
  - ㉚ [SC 0° 120° 240°] SC phase switch
  - ㉛ [SC FINE] SC phase control
  - ㉜ [H PHASE] H. phase control
  - ㉝ [GENLOCK INPUT] External reference signal input connector (BNC)

## System Configuration





# Nomenclature and Functions of Major Parts



# Specifications

## ■ CAMERA SECTION

Image pickup device: 1/3" IT CCD x3  
 Color separation system: F1.4, 3-color separation prism  
 Number of effective pixels: 510(H) x 492(V) pixels  
 Color system: NTSC (R-Y, B-Y encoder)  
 Optical filter: 3200K, 3200K+6.3% ND  
 Horizontal resolution: 550 TV lines  
 Sensitivity: F8, 2000 lux  
 Minimum illumination: 4 lux with F1.4 max. gain  
 S/N ratio: 60 dB (luminance signal)  
 Gain: 0 dB, 6 dB, ALC, 24 dB (MAX. GAIN)  
 Variable scan: 1/60 to 1/2000 sec.  
 Detail correction: Horizontal dual-edged, Vertical dual-edged  
 Microphone: Superdirectional electret condenser microphone  
 Viewfinder: 1.5" B&W viewfinder

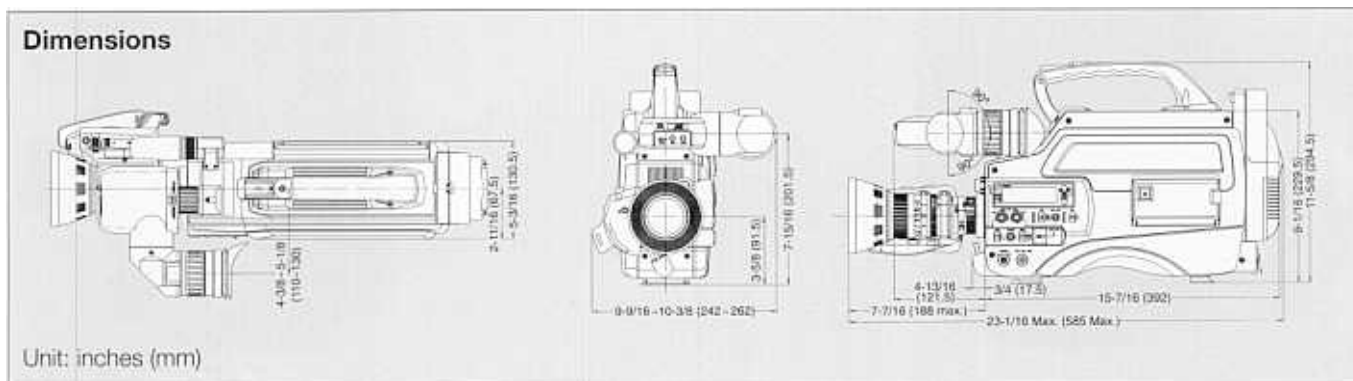
## ■ VTR SECTION

Format: S-VHS standard  
 Tape speed: 33.35 mm/sec.  
 Record/playback time: 120 min. (with ST-120 cassette)  
 Horizontal resolution: 400 lines or more (S-VHS mode)  
 Video S/N ratio (color): 45 dB (playback VHS/S-VHS)  
 Audio S/N ratio: 44 dB  
**■ ZOOM LENS**  
 Focal length: 5.5 to 77 mm (zoom ratio 14:1)  
 Max. aperture ratio: F/1.4  
 Focus range: 1.0 mm to ∞  
 Front thread diameter: 62 mm, P=0.75 mm  
 Iris range: F/1.4 to 16, close  
**■ INPUT/OUTPUT SIGNALS**  
 Video signal output: VBS 1 V(p-p)/75 ohms (BNC)

Audio output (ø3.5 mini-jack): Ch1 (L): -10 dBs  
 : Ch2 (R): -10 dBs  
 Camera microphone input: -70 dBs (with the built-in microphone), 4.7k ohms unbalanced  
 Audio input: +4 dBs/10k ohms or -60 dBs/3k ohms (selectable) equivalent to XLR-3-32, balanced

## ■ GENERAL

Power requirement: 12V DC  
 (10.5V to 18V permissible battery range)  
 Power consumption: 19.4W under REC/PAUSE mode conditions  
 Weight: 12.8 lbs (5.8 kg)  
 Operating temperature range: +32°F to 104°F (0°C to 40°C)  
 Storage temperature range: -4°F to +140°F (-20°C to +60°C)  
**■ PROVIDED ACCESSORY**  
 Quick-release tripod adapter plate



# Options & Accessories

## AA-P250U

AC Power Adapter/Charger



## AA-G10U

Battery Charger/AC Power Adapter



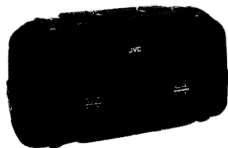
## NB-G1U

Ni-Cd Battery (2.2 Ah)



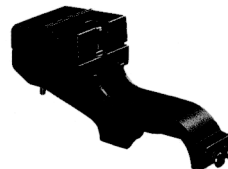
## CB-P27U Carrying Case

CB-27 Shipping Case (for U.S.A.)



## KA-A3U

Mic Holder



Design and specifications subject to change without notice.

# JVC®

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Printed in Japan  
 KCN-1707