



Television Network
Commercial Integration
Manual

As of May 15th, 2019

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Introduction

The following is intended as a basic guide for commercial identification, submission, approval, and scheduling procedures.

CBS distributes its programming in the High Definition (HD) video format (1920 pixels per line by 1080 lines, 59.94 fields/sec), via a main East Coast and West Coast Network.

CBS policy generally precludes broadcasting interactive encoding in any commercial or public service announcement. CBS reserves the right to remove such encoding without providing notice.

For additional copies of this manual, please contact Robert Ward at rforward@cbs.com or visit our website at: <https://cbs.box.com/v/Networkdocs>

Commercial Identification

CBS accepts and encourages commercial identification using the Ad-ID System. Contact information for any questions on Ad-ID can be directed to: Ad-ID Customer Service; (704) 501-4410; cs@ad-id.org. Some delivery services interface with Ad – ID enabling the integration of metadata.

Broadcast Materials

For Broadcast Materials Technical Specifications see Appendix A (page 8).

CBS strongly prefers commercials to be delivered as files to the CBS Broadcast Center via one of the approved commercial delivery services listed in Appendix A.

For tape delivery, 2 Digital Beta - SD or 2 HDcam-SR 1920 x 1080 / 59.94 i - HD tapes (with one, and only one, commercial on each tape), should be sent to:

Marcia McPherson-Gunnings
CBS-Loretta Lyons Library
535 West 56th Street
Room 1W1-1B
New York, New York 10019

CBS requires only the HD version of a commercial. An SD version should only be sent if there is no HD version.

CBS does not down convert your commercial for Standard Definition viewing. That process occurs downstream via set top boxes, MSO's, or local stations. The down convert is often via a "center cut" of the commercial. CBS strongly recommends that your HD commercial be 'center safe action.' Appendix H (Page 30) illustrates the downstream appearance of center safe and non-center safe spots when down converted using a center cut.

SAP

You must contact your Sales Coordinator if you want SAP enabled for your commercial. Please see Appendix B (Page 20) for a list of Sales Coordinators.

Commercial Approvals

Materials submitted for initial opinion should be assigned a unique commercial ID. Failure to assign a unique commercial ID can result in errors in scheduling and billing, and prevents accurate records and inventories.

CBS expects all ads submitted for the Television Network to have appropriate rights clearance for all platforms including but not limited to TV, Cable, VOD, Web, Mobile and Connected TV.

Preproduction

A copy of commercial, billboard or lead-ins in story board or script before filming and scheduling should be submitted to:

CBS Program Practices – New York
CBS Television Network
51 West 52nd Street
5th Floor
New York, New York 10019

Final Approval

One copy of the final produced commercial should be submitted to Program Practices 10 working days before Network scheduling for final approval. We accept DVD or digital submissions via MediaVu, accessible FTP sites, or links to downloadable files (YouSendIt, Nice Spots, etc.). HDTV commercials should be down converted to "letterbox" format on the DVD.

All final submissions must be high resolution, have a slate with a unique Commercial ID, and include a cover letter, contact information, scripts, substantiation and other approval materials (where applicable). Please do not send large files in attachments over email.

The website <https://cbs.box.com/v/ProgramPractices> has several useful documents:

- CBS Television Network Advertising Guideline
- Editor Assignments By Category
- This Commercial Integration Manual

Commercial Retention

All commercials are maintained in a computerized inventory using the unique Commercial ID. Commercials that have not aired within 80 days from date of receipt or previous airdate will automatically be removed from inventory. If an advertiser requests that a particular commercial no longer air or be kept on file in the CBS library for a longer period of time, a written request must be sent to:

Marcia McPherson-Gunnings
CBS Loretta Lyons Library
535 West 56th Street
Room 1W1-1B
New York, NY 10019

Traffic Instructions

Traffic instructions should indicate airdate, program name, unit duration, and the Commercial ID. Fonts should be crisp and easy to read.

All commercial scheduling must be submitted in writing to the assigned Sales Coordinator at least 3 working days prior to the first scheduled airdate. Day of air changes must be called into the appropriate Sales Coordinator and must be immediately followed up with revised traffic instructions.

The list of Daypart Contacts for Sales Coordination can be found in Appendix B (Page 20).

A Sample traffic instruction sheet is located in Appendix C (Page 22).

Video on Demand (VOD)

CBS shows are available on VOD to cable subscribers after midnight once the network show has aired. The first 7 days of a VOD airing include the commercials from the linear (off air) broadcast. Different advertisers may buy days 8 through 35.

Clients that participate in CBS VOD must submit traffic by email to Robert Ward at rward@cbs.com and to Christine Campos at christine.campos@cbs.com. Traffic can also be faxed to 212-975-8077 or prime@cbstraffic.com

All advertiser commercials that are scheduled in CBS VOD D8 & DAI programming must go through the same process of approval through our Program Practices department and approved commercials should be sent to our video tape library in New York. Please see page 3 for Approvals and page 2 for Materials.

All traffic, commercial approvals and air tapes must be in house and approved 4 business days prior to the linear airdate. This includes all spots for DAI that will be 'swapped out' throughout the 8 – 35 day window. More information on DAI traffic please refer to Appendix C (Page 22). At this time, we are not allowing Pixel Tagging for our VOD clients.

If you have any further VOD questions or issues, please email Robert Ward or Christine Campos.

Fully Sponsored Specials / Client Furnished

Specific commercial elements, schedules and script requirements may be obtained from the following personnel:

Live, Client Furnished, Fully Sponsored
Entertainment Specials – WC Contact

Roxanne Evans
CBS TV City
7800 Beverly Blvd.
Los Angeles, CA 90036
323-575-2595
roxanne.evans@tvc.cbs.com

Live or Taped Sports Specials

Karyn Karmin
kdkarmin@cbs.com
CBS, Inc.
51 West 52nd Street
New York, NY 10019
212-975-2764

Pre-Screenings

Pre-screenings are scheduled in advance for all prime series, movies and specials. Late Night programming is viewed during program taping. The Late Show tapes from 3:30-6:00pm EST. The Late, Late Show tapes from 5:00 – 6:00pm PST. Please note that The Late Night taping times are subject to change from time to time.

It is imperative to contact the assigned CBS Coordinator immediately after receiving the screening report if special positioning will be required due to program content. All positioning requests are handled on a first-come, first-serve basis.

Changes are cut-off at 7:00pm EST for The Late Show and 10:00pm EST for The Late, Late Show. No changes will be accepted after these cut-off times.

Sectionals, Cut-Ins, Local Co-Op Releases

Requests for all Sectionals, Local cut-ins and Local co-op releases must be made through the Sectional Sales Service Department no later than 7 business days prior to broadcast. All Sectional, West Coast Feed and Cut-in commercials are subject to the same commercial approval deadlines by Program Practices.

A Sectional feed is a copy split for a single advertiser who has purchased a unit on the Network and has decided that one portion of the country should view a different commercial than the rest of the Network. This different commercial may be for the same product or for a completely different product.

A Local cut-in is a request to air a substitute commercial performed by the station in place of the Network fed commercial. Traffic instructions for all local cut-ins should be directed to the local station at which the cut-in is to occur as well as to the Regional/Sectional Sales Service Department.

A Local co-op release is a request to give time back to the station or to black out the advertiser's Network fed commercial in a given market. Once the time is given back to the station it is not recoverable. The commercial length cannot be changed once the time has been released to the station.

Requests for any of the commercial feeds listed above should be directed to:

Darlene Rader, Director

212-975-5081
drader@cbs.com

Ivy French, Manager

212-975-3394
iafrench@cbs.com

Billboard Integration Procedures

CBS Network policy requires that all billboards be broadcast in color, that copy and graphics/images be approved by CBS Program Practices and meet CBS technical requirements for air.

Please note that all announce copy must lead in with 'sponsored by.' **Any announce copy that begins with 'brought to you by' is unacceptable** and will automatically be changed to 'sponsored by' by CBS without notification to the advertiser.

Billboard Identification

All graphics/images and announce copy must be identified with an appropriate Billboard ID code. Any graphics/images and announce copy that is submitted without the required identification will be returned.

Billboard Approval by CBS Program Practices

All materials must be reviewed and approved by CBS Program Practices. Appendix D (Page 24) lists CBS Billboard contact(s) by Daypart. Please forward announce copy and graphics/images to the email address for the appropriate contact. Materials can be submitted on DVD, MPEG or FTP link.

Announce copy may be emailed to the appropriate contact in Appendix D (Page 24). If you have any questions about the process, please contact the Sales Manager listed for the Daypart in Appendix B (Page 20).

Air Materials

Prime

Elements for Billboards must be received at least 2 weeks prior to air. Please note that for these purposes the programs 60 Minutes and 48 Hours requirements are detailed under News.

Static BBDs:

Elements required must be submitted via email in JPEG, TIFF, EPS PNG or TARGA format, along with: 05 or: 10 second announce copy to the following:

Robert Ward
rforward@cbs.com

Joanne Castanza Cady
jccady@cbs.com

Cathy Ramsey
cathy.ramsey@tvc.cbs.com

Animated BBDs:

Elements for animated billboards must be submitted on SR High Definition or Digi-Beta to:

Cathy Ramsey
Program Coordination,
CBS Television City
7800 Beverly Blvd., Room 5, Los Angeles, Ca. 90036
323-575-4614
cathy.ramsey@tvc.cbs.com

We also accept animated billboards as a .mov attachment or a downloadable link sent to rforward@cbs.com

Please refer to Appendix E (Page 25) for complete Prime Billboard Specifications.

News

News Billboard requirements vary by show with different contacts and different deadlines. Please see Appendix F (Page 27) for these specifics.

Late Night

The table below lists the requirements for CBS Late Night Programming.

<u>Show</u>	<u>Requirements</u>	<u>Deadlines</u>	<u>Destination</u>
Late Show	JPEG or FTP link (animated) & :05 second copy	14 days prior to air	Steve Rosso sarosso@cbs.com
Late, Late Show	JPEG file or FTP link (animated) :05 second copy	14 days prior to air	Indira Hemraj indira.hemraj@cbs.com

Daytime

The requirements for the Monday-Friday Daytime dramas are listed in the table below.

<u>Show</u>	<u>Requirements</u>	<u>Deadlines</u>	<u>Destination</u>
Young & Restless Bold & Beautiful	JPEG only :05 second copy	10 days prior to airdate	Mike Kadlec CBS TV City 7800 Beverly Blvd. Los Angeles, CA 90036 323-575-4057 Fax: 323-852-9781 mike.kadlec@cbs.com

Sports

Appendix G (Page 29) contains a sample picture that shows the “look” of CBS Sports billboards. It is not an exact frame, as some design and animation remains to be produced. The pixel dimensions for the window with the sponsors inside are about 1920 width x 1080 height, square pixels.

The billboard sequence will open with an animation of the advertiser’s logo and then resolve to the basic frame shown at the end of this section eps. (CBS, NFL, NCAA etc.) This will all be keyed over a live shot.

The sponsor billboard will be placed inside the metallic window in the center of the screen. The window for the sponsor has a slight dark veil. This will maximize the visibility of the sponsor material.

The nature of the window is designed to make the process relatively simple and friendly. If the billboard is animated, all motion will be seen within the window. If, for example, the animation starts off screen, it will make its first appearance at the edge of the window. It will not come from outside that area. All information and motion will occur within the window. CBS will cut from one sponsor to the next.

You should produce your material to fit in the window.

Graphics that do not meet the delivery requirement will be resized by CBS Sports.

Static Billboards

<u>Requirements</u>	<u>Deadlines</u>	<u>Destination</u>
EPS / AI file &:05 second copy PSD / TIFF PDF	14 days prior	kdkarmin@cbs.com

Email static logos to Karyn Karmin at kdkarmin@cbs.com

Artwork Specs

EPS / AI - RGB color space is preferred and please convert all fonts to outlines.

PSD / TIFF – 1920 x 1080 or higher. Only 16:9 aspect.

PDF – NOT FLATTENED. In RGB format only and 1920 x 1080 or higher

:05 Copy

- Verbage should not exceed 10 words (10 – 12 syllables on average total)
- “Sponsored by” is not counted as part of copy
- Copy that contains numbers must be spelled out
 - o Eg. 2019 “twenty nineteen” (two words) or “two thousand nineteen” (four words).
- “.com” is two words

JPEGS **will not** be accepted.

Animated Billboards

Video should be **High Definition** and delivered on **HD CAM SR** or **HD CAM**.

Digital Delivery is the preferred delivery mode of animated artwork. Animated billboards should be retrievable by server. Standard Apple Animation Codec is accepted with the same specifications listed below.

We only accept digital delivery of animated billboards via these services:

**EXTREME REACH
COMCAST AD DELIVERY
JAVELIN**

The server address is: **CBSSPORTS ANIMATED BILLBOARDS**

Please deliver all animated billboards digitally **two weeks prior** to air date.

Please provide CBS Sports Billboards with its own unique username and password. Billboards **will not** be received via the same server as CBS commercial inventory. We will also accept files sent as a .MOV via an FTP link.

Please note we **will not** accept SD video.

Please assign AD IDs to copy and logos as we cannot schedule without these.

All essential video must be **4x3 safe**. The preferred resolution of animated video is **1920x1080, 8 bit color depth (16.7 million colors) + (rgb plus alpha)**.

Animated billboards may be provided with sound effects (channels 1 & 2), but no other audio (voice over announce or music) will be accepted.

A note about content:

The animated billboards that provide the most flexibility and have proven to work best follow this format: moving video which transitions to an end card with your company logo and tagline.

Delivery

Please email all logos two weeks prior to air date to Karyn Karmin at kdkarmin@cbs.com.

We also accept animated billboards as a .mov attachment or downloadable link emailed to Karyn Karmin at kdkarmin@cbs.com.

Contact Information

If you have any questions, please contact the following personnel:

Traffic

Karyn Karmin	Manager Sales Coordination 212-975-2764 kdkarmin@cbs.com
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Specs and Procedures

CBS Sports Production	212- 975-4528
Adrienne Ford	acford@cbs.com
Susan Jacobs	sjacobs@cbs.com

Appendix A: Broadcast Materials Technical Specification

High Definition Television Format

Delivery Format

CBS requires the delivery of 1920 pixels per line by 1080 lines, 59.94 fields/ second with a 1.78 (16x9) aspect ratio commercials material via one of the following media or services:

High Definition Digital File Format

File Parameter	Detail	
Compression format	XDCAM-HD MPEG-2	MPEG-4
Data Rate	50 Mbps (CBR)	15 Mbps
Video Sampling for Y:Cb:Cr	4:2:2	4:2:0
Group of Pictures (GOP)	12-15	30-32
Frame Cadence	IBBPBBPBBPBBPBB	
Audio compression	None- PCM	
Audio channel assignment	Per section 2.8.4 of this document	
File wrapper	MXF	
VANC Data	Per SMPTE 436 MXF Mappings for VBI Lines and Ancillary Data Packets	
VANC line	9	
Accompanying metadata file	XML (see Appendix for sample file)	
File Naming	11 character alpha-numeric followed by H with the extension .MPG Example : 1234567890AH.MPG Examples of special characters <u>not permitted</u> include, but are not limited to ! @ # \$ % ^ & * () _ + { } : " < > ? = [] \ ; ' , . /	

The following table lists the acceptable digital file delivery services:

File Delivery Service	Status
Comcast (Radiance)	Approved
Extreme Reach	Approved
Javelin (Hula)	Approved
On the Spot Media (Easy Spot)	Approved
Syncro	Approved
Yangaroo	Approved

Safe Action and Safe Title Area

All titles and credits must be contained within the safe title area for the central 1.33 (4x3) image area as specified in SMPTE ST-2046 Specifications for Safe Action and Safe Title Areas for television systems (Appendix H).

Video

The video information must conform to SMPTE 274M System 5 with 1920 pixels per line by 1080 lines, 59.94 fields/sec (29.97 frames / second). The commercial File Delivery Services shall pass the full range of video levels specified in SMPTE-274M, including the peak white (tent) signal at + 763 mv (0 x 3FB) and peak black (pluge) at -28mv (0 x 01D).

Audio

The program supplier has the option of providing one of three formats: Discrete Two Channel Stereo, Matrixed Surround Sound (Lt, Rt), or 5.1 Surround Sound.

Digital audio must conform to the AES3 Specification. The digital audio sampling depth may be at 16, 20 or 24 bit with a sampling frequency of 48 kHz and conform to SMPTE RP-155 for -20 dBFS reference level.

Audio / video offset (lip sync) timing should be within ± 2 msec.

DISCRETE TWO CHANNEL STEREO

Discrete left and right stereo audio signals shall be recorded on Channels 1 and 2 respectively. All other channels shall be silent. At the option of the program supplier, Channel 7 may contain Secondary Audio Program-SAP (Spanish or Video Description).

SURROUND STEREO (Lt, Rt)/LEFT TOTAL - RIGHT TOTAL; MATRIXED 5 CHANNEL AUDIO

The left total and right total audio signals shall be recorded on Channel 1 and 2 respectively. All other channels shall be silent. At the option of the program supplier, Channel 7 may contain Secondary Audio Program-SAP (Spanish or Video Description).

SURROUND SOUND

The six discrete channels that comprise the 5.1 Surround Sound signal shall be recorded on the following channels:

CH-1 Left (music & effects)

CH-2 Right (music & effects)

CH-3 Center (dialogue)

CH-4 Low Frequency Effects (LFE)

CH-5 LS - Left Surround (music & effects)

CH-6 RS - Right Surround (music & effects)

At the option of the program supplier, Channel 7 may contain Secondary Audio Program- SAP (Spanish or Video Description). **Note:** If channel-7 contains Spanish language or Video Description for the visually impaired, then the CBS library must be notified in advance of delivery.

For all of the above audio formats, the ITU-R BS-1770-2 loudness measurement technique shall be used to confirm the measured loudness does not exceed the ATSC Recommended Practice A/85 Annex-J target of -24 LKFS ± 2 dB with all channels measured for the length of the commercial.

In addition to measuring the 5.1 surround sound mix for loudness, the Lt/Rt downmix should also be measured with the downmix parameters listed in the Appendix. The maximum true peak stereo audio level shall never exceed -2 dBFS and a loudness of -24 LKFS ± 2 dB when down mixed from 5.1.

If the commercial content fails to meet this loudness target, then CBS will process the material per the ITU-R BS.1770-2 loudness measurement technique to meet the ASTC Recommended Practice A/85 Annex-J target of -24 LKFS \pm 2 dB. This delivery requirement ensures the commercial will be in compliance with the CALM Act and Federal Communications Commission's Regulations.

Time Code

Continuous SMPTE drop frame time code, as specified in SMPTE 12M, shall be recorded on the longitudinal time code track of all delivered video tape. The time code shall be synchronous to the recorded video. Multiple videotape copies furnished to CBS with the same commercial content must contain identical time code.

Leader

The leader shall contain a minimum of 60 seconds of 100% saturated bars with a 100% white reference. No audio, video or time code should precede the color bars. A 400 or 1KHz Hz audio tone at a reference level of -20dBFS shall be recorded on all channels containing program audio, with the exception of channel 4 (LFE) for 5.1 Surround Sound content shall contain 100 Hz audio tone at a reference level of -20 dBFS. After the test bars and tone have begun, there shall be no non-synchronous switches and the completed file or tape will contain no false starts or other extraneous video material. The visual program slate shall be present for at least 8 seconds and contain the following information:

- Client name
- Product name with Commercial ID
- Agency name
- Length of commercial
- Audio Format – discrete channel 1&2 stereo or Matrixed Surround channel (Lt/Rt) 1&2 stereo or 5.1 Surround Sound.
- Captioning – yes or no
- Secondary Audio Program- SAP (Spanish or Video Description).

The slate shall end at least 2 seconds before start of commercial. The optional countdown clock shall conclude 2 seconds before commercial with color black and silent audio occupying the 2 seconds prior to commercial. Time code shall be continuously ascending from color bars through the trailer. First program should begin at a time code of 1 hour, 0 minutes, 0 seconds and 0 frames.

Trailer

There shall be at least 20 seconds of synchronous color black, silent audio and continuing time code following the conclusion of commercial material.

Captioning

If the program supplier is providing closed captions, then embedded closed captioning data shall conform to EIA-708-D.

The captioning shall be inserted in the VANC space on line 9, luminance channel in accordance with SMPTE 334M. The caption distribution packet (CDP) will contain the caption service descriptor, EIA 708-D captions, and EIA 608-E caption data. The SMPTE 334M Data ID (DID) number shall be set to 61h (hex), the Secondary ID (SID) number shall be set to 01h (hex).

Start of Message/Duration

The Start of Message (SOM) is defined as first audio and/or first video, whichever appears first. This is the basis on which spot duration will be determined.

Metadata

CBS uses fixed format audio metadata parameters listed in Table - 1 of the Appendix. The commercial supplier shall not author audio metadata. CBS will not pass supplier provided audio metadata.

Since Active Format Descriptor (AFD) used for aspect ratio control is an optional part of the ATSC digital transmission standard to the home, CBS can not guarantee that the signal will be transmitted to 100 % of the audience. Many consumer sets and set top boxes do not support this signal and those that do, may default to "center cut" to extract the 4x3 frame from the 16x9 HD image. As a result, the only procedure that can ensure that 100% of the audience views the essential graphics and action is to center cut protect the 16 x 9 image. Therefore, CBS does not pass AFD through the CBS Network plant, nor through CBS Owned Television Stations and cannot ensure that AFD will pass through its affiliated stations, cable and satellite head ends.

Standard Definition Television Format

Any standard definition material (720 x 480 / 59.94i) delivered to CBS will be upconverted to the 1920 x 1080 / 59.94 I High Definition format to transmission on the Network.

Time Code

Continuous SMPTE drop frame time code as specified in SMPTE 12M shall be recorded on the longitudinal time code track of all delivered video tape. The time code shall be synchronous to the recorded video. Multiple videotape copies furnished to CBS with the same commercial content must contain identical time code.

Leader

The leader shall contain a minimum of 60 seconds of SMPTE EG 1 color bars or alternate 75% saturated bars with a 100% white reference. No audio, video or time code should precede the color bars. A 400 or 1 KHz Hz audio tone at a reference level of -20 dBFS for digital and 0 dB for analog shall be recorded on all channels containing program audio. After the test bars and tone have begun, there shall be no non-synchronous switches and the completed tape will contain no false starts or other extraneous video material. The visual program slate shall be present for at least 8 seconds and contain the following information:

Client name
Product name with Commercial ID
Agency name
Length of commercial
Audio Format – discrete stereo on channel 1&2 or Surround stereo (Lt/Rt)
matrixed on channel 1&2
Captioning – Yes or no
Secondary Audio Program- SAP (Spanish or Video Description).

The slate shall end at least 2 seconds before start of commercial. The optional countdown clock shall conclude 2 seconds before commercial with color black and silent audio occupying the 2 seconds prior to commercial. Time code shall be continuously ascending from color bars through the trailer. First program should begin at a time code of 1 hour, 0 minutes, 0 seconds and 0 frames.

Standard Definition File Format

File Parameter	Detail	
Compression format	MPEG-2	MPEG-4
Data Rate	5 Mbps (CBR)	3-4 Mbps
Video Sampling for Y:Cb:Cr	4:2:2	4:2:0
Group of Pictures (GOP)	12-15	30-32
Frame Cadence	IBBPBBPBBPBBPBB	IBBPBBPBBPBBPBB PBBPBBPBBPBBPBB
Audio compression	None- PCM	
Audio channel assignment	Per section 2.8.4 of this document	
File wrapper	MXF	

VANC Data	Per SMPTE 436 MXF Mappings for VBI Lines and Ancillary Data Packets
VANC captioning line	21
Accompanying metadata file	XML (see Appendix for sample file)
File Naming	12 character alpha-numeric followed by the extension .MPG Example : 1234567890AB.MPG Examples of special characters not permitted include, but are not limited to! @ # \$ % ^ & * () _ + { } : " < > ? = [] \ ; ' , . /

Analog Video

Video information must conform to SMPTE 170M. Luminance video information will be 1.0 volt peak to peak with 100 IRE units of video and 40 IRE units of sync. Fixed setup will be at 7.5 IRE units.

Analog Audio

All content should be delivered with stereo audio on tracks 1 and 2. Track 1 must be in phase with track 2. All audio tracks should be recorded at 0 dB nominal level. Noise reduction should not be used on analog audio recordings.

The ITU-R BS-1770-2 loudness measurement technique shall be used to confirm the loudness measurement does not exceed the ATSC Recommended Practice A/85 Annex-J target of -24 LKFS \pm 2 dB with all channels measured for the length of the commercial.

If the commercial content fails to meet this loudness target, then CBS will process the material per the ITU-R BS.1770-2 loudness technique to meet the ASTC Recommended Practice A/85 Annex-J target of -24 LKFS \pm 2 dB. This delivery requirement ensures the commercial will be in compliance with the CALM Act and Federal Communications Commission's Regulations.

Digital Video

Digital video must conform to SMPTE-259-M-C for Digi-Beta.

Digital Audio

Digital audio must conform to the AES3 Specification. All content should be delivered with stereo audio on AES channels 1/2. The digital audio sampling depth may be at 16, 20 or 24 bit with a sampling frequency of 48 kHz and conform to SMPTE RP-155 for -20dBFS reference level.

The ITU-R BS-1770 Loudness measurement technique shall be used to confirm the loudness measurement does not exceed the ATSC Recommended Practice A/85 Annex-J target of -24 LKFS \pm 2 dB with all channels measured for the length of the commercial.

If the commercial content fails to meet this loudness target, then CBS will process the material per the ITU-R BS.1770-2 loudness technique to meet the ASTC Recommended Practice A/85 Annex-J target of -24 LKFS \pm 2 dB. This delivery requirement ensures the commercial will be in compliance with the CALM Act and Federal Communications Commission's Regulations.

Audio Video Delay

Audio timing should be within ± 2 msec as referenced to video.

Timing Requirements

CBS requests content delivery consistent with the table below. After the bars and test tone have begun, there cannot be any non-synchronous switches, non synchronous or discontinuous timecode, false starts or other extraneous audio or video material.

(Note: This table assumes a: 30 second spot. For: 20 second spots, Clip Duration will change EOM time code numbering)

<u>Element</u>	<u>Time Code</u> (hh:mm:ss:ff)	<u>Duration</u>
Calibration Test Signal (75% SMPTE bars and test Tone at 400 Hz / 0 dB for analog & 400 Hz / -20 dBFS for digital)	00:58:38:00 (latest time code entry point)	~00:01:00:00
Black/Silence	00:59:38:00	00:00:12:00
Slate	00:59:50:00	00:00:08:00
Start of Message	01:00:00:00	
Commercial spot	01:00:00:00	00:00:30:00
End of Audio (Silence)	01:00:29:28	
End of Video	01:00:29:29	
Black Trailer	01:00:29:29	00:00:20:00

Closed Captioning

Closed caption information must conform to EIA-608-E. Caption data must be located on line 21, field 1. Commercials sent with missing or misspelled captioning cannot be corrected by CBS and will be returned for re-editing. Closed Captioning data must begin with first audio and video and not before.

Commercials and public service announcements shall not contain embedded triggers or data in VANC or HANC data space, active picture area or in the audio channels. If triggers of any nature are present, CBS reserves the right to delete them without providing notice. Any questions regarding the production of or policies related to captioning may be addressed to:

CBS Television Network Captioning Department
555 West 57th Street
Suite 1327
New York, New York 10019
Phone: 212-975-7917
Fax: 212-975-3197

Audio

Table 1 - Audio Metadata Settings

Parameter	5.1 Surround	Lt/Rt Stereo	SAP –mono
Dialogue Level	-24	-24	-24
Channel Mode	3/2	2/0	1/0
LFE Channel	Enabled	Disabled	Disabled
Bitstream Mode	Main Complete	Main Complete	Main Complete
Line Mode Pro	None	None	None
RF Mode Pro	None	None	None
RF Over modulation Protect	Disabled	Disabled	Disabled
Center Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Surround Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Dolby Surround Mode	Not Indicated Note-1	Not Indicated	Not Indicated Note-3
Audio Prod Info	No Note-1	No Note-2	No Note-3
Mix Level	80 dB SPL Note-1	80 dB SPL Note-2	80 dB SPL Note-3
Room type	Not Indicated Note-1	Not Indicated Note-2	Not Indicated Note-3
Copyright	Yes	Yes	Yes
Original Bitstream	Yes	Yes	Yes
Extended Bitstream	Disabled	Disabled	Disabled
Preferred Stereo Downmix	Lt/Rt	Lt/Rt	Lt/Rt Note-3
Lt/Rt Center Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Lt/Rt Surround Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Lo/Ro Center Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Lo/Ro Surround Downmix Level	0.707 (-3 dB)	0.707 (-3 dB)	0.707 (-3 dB) Note-3
Dolby Surround EX Mode	Not Surround EX	Not Surround EX	Not Surround EX Note-2
A/D Converter Type	Standard	Standard	Standard Note-3
De-emphasis	Auto-detect	Auto-detect	Auto-detect
DC Filter	Enabled	Enabled	Enabled Note-3
Lowpass Filter	Enabled	Enabled	Enabled Note-3

Parameter	5.1 Surround	Lt/Rt Stereo	SAP –mono
LFE Lowpass Filter	Enabled	Enabled	Enabled Note-3
Surround 3 dB Attenuation	Disabled	Disabled	Disabled Note-3
Surround Phase Shift	Enabled	Enabled	Enabled Note-3

Note-1: This parameter has no effect in the 3/2 mode (5.1 Surround) and can be set to any value.

Note-2: This parameter has no effect in the 2/0 mode (Lt/Rt Stereo) and can be set to any value.

Note-3: This parameter has no effect in the 1/0 mode (Mono) and can be set to any value.

Note-4: **Bold** boxes indicate that the settings differ from Dolby factory default.

Appendix B: Sales Coordinators

Sectionals

Ivy French, Manager
All Dayparts

212-975-3394
iafrench@cbs.com

PRIME& VOD

FAX: 212-975-8077

Robert Ward, Director, Prime, Daytime & VOD

212-975-4630
rforward@cbs.com

Joanne Castanza Cady, Manager

212-975-4057
iccady@cbs.com

Carol Stewart

Tuesday & Friday programming

212-975-4902
cstewart3@cbs.com

Lili Kwong

Wednesday & Sunday programming

212-975-5127
lili.kwong@cbs.com

Deborah Santiago

Thursday & Saturday programming

212-975-2954
dlsantiago@cbs.com

Christine Campos

Monday programming
VOD

212-975-8751
christine.campos@cbs.com

You can also email Primetime programming traffic to: prime@cbstraffic.com

Sports, News, Late Night

Lisa Lawrence, Director

212-975-6371
llawrence@cbs.com

SPORTS

Karyn Karmin, Manager

FAX: 212-975-8086
212-975-2764
kdkarmin@cbs.com

Dino Masi

212-975-5706
umberto.masi@cbs.com

Michael Acerra

212-975-4053
mike.acerra@cbs.com

Anthony Bishop

212-975-2766
anthony.bishop@cbs.com

You can also email Sports programming traffic to: sports@cbstraffic.com

LATE NIGHT

Erica Torres, Manager

FAX: 212-975-8072
212-975-6315
erica.torres@cbs.com

Steve Rosso

The Late Show with Stephen Colbert

212-975-6283
sarosso@cbs.com

Indira Hemraj

The Late, Late Show with James Corden

212-975-3060
indira.hemraj@cbs.com

You can also email Late Night programming traffic to: latenight@cbstraffic.com

NEWS

Erica Torres, Manager

News Specials
Face the Nation 1 & 2
Saturday AM News

FAX: 212-975-8078

212-975-6315
erica.torres@cbs.com

Monica Washington

CBS This Morning 1 & 2

212-975-4503
mwashington@cbs.com

Sharodd Cook

Overnight News
Saturday & Sunday Evening News

212-975-5776
sharodd.cook@cbs.com

Fred DeCorte

Sunday AM News
Evening News
M- F Morning News

212-975-2191
fred.decorte@cbs.com

You can also email News programming traffic to: news@cbstraffic.com

DAYTIME/PARADES

Kathy Flatley, Manager

Price is Right 1 & 2
Parades
Bold & Beautiful

FAX: 212-975-8087

212-975-4582
kflatley@cbs.com

Agnes LeFlem

Let's Make a Deal 1 & 2

212-975-4581
aleflem@cbs.com

Paige Gill

The Talk

212-975-2632
paige.gill@cbs.com

Max Lundt

Young & Restless

212-975-2634
max.lundt@cbs.com

You can also email Daytime programming traffic to: daytime@cbstraffic.com

Appendix C: Sample Traffic Sheet

SAMPLE TRAFFIC SHEET

Program:	NCIS Los Angeles	Date Issued:	9/10/18
Revision:		Client:	Client A
Network:	CBS	Agency of record:	XYZ
Day:	Monday	Issued By:	John Smith
Time Period:	10-11pm		212-123-4567 <u>jsmith@xxx.com</u>

<u>Airdate</u>	<u>Product</u>	<u>Length</u>	<u>Commercial ID</u>	<u>Title</u>
Sept 1	Corporate	:30	ABCD1234000H	Branding
Sept 8	Corporate	:15	EFGH1234000H	Anthem
Sept 15	Corporate	:30	ABCD5678000H	Branding
Sept 22	Corporate	:15	EFGH5678000H	Anthem

Notes

VOD D8 & DAI Traffic Samples

DAI	+	NON-DAI
<p>Any spot(s) requiring specific flights throughout 28 VOD D8 Flight Duration</p> <p>EXAMPLE:</p> <p>January 2 NCIS VOD</p> <p>ISCI1 Day 8 - Day 18 (1/10 - 1/20)</p> <p>ISCI2 Day 19 - Day 29 (1/21 - 1/31)</p> <p>ISCI3 Day 30 - Day 35 (2/1 - 2/6)</p>		<p>Evergreen Spot for full 28 VOD D8 Flight Duration</p> <p>EXAMPLE:</p> <p>January 2 NCIS VOD</p> <p>ISCI1 Day 8 - Day 35 (1/10 - 2/6)</p>

DAI-Only	
<p>Any spot(s) requiring specific flights throughout 28 VOD D4 Flight Duration</p> <p>EXAMPLE:</p> <p>January 2 NCIS VOD</p> <p>ISCI1 Day 8 - Day 18 (1/10 - 1/20)</p> <p>ISCI2 Day 19 - Day 29 (1/21 - 1/31)</p> <p>ISCI3 Day 30 - Day 35 (2/1 - 2/6)</p>	<p>PROMO & PSA cover NON-DAI</p>

Appendix D: CBS Contacts for Submission of Billboard Materials for Approval

Prime	All Programs	Robert Ward Joanne Castanza Cady Cathy Ramsey	rforward@cbs.com icccady@cbs.com cathy.ramsey@tvc.cbs.com
Sports	All Programs	Melanie McGowan Adrienne Ford Blair Helwig Susan Jacobs Chinevere Vann	mamcgowan@cbs.com acford@cbs.com BHelwig@cbs.com SJacobs@cbs.com cvann@cbs.com
News	Saturday CBS This Morning Face The Nation	Erica Torres Erica Torres	erica.torres@cbs.com erica.torres@cbs.com
	CBS This Morning	Monica Washington	mwashington@cbs.com
	Evening News CBS Sunday Morning M-F Morning News	Fred DeCorte Fred DeCorte Fred DeCorte	fred.decorte@cbs.com fred.decorte@cbs.com fred.decorte@cbs.com
Late Night	Late Show Late Late Show	Steve Rosso Indira Hemraj	sarosso@cbs.com indira.hemraj@cbs.com
Daytime	Y&R and BOLD Only	Mike Kadlec	mike.kadlec@cbs.com

Appendix E: Prime Billboard Technical Spec

CBS Accepted Graphic Formats

The following computer generated graphic formats of logos and text is acceptable by CBS in their order of preference. Also shown are the normal computer file type extensions:

JPEG (Joint Photographic Experts Group) .jpeg, .jpg
PNG (Portable Network Graphics) .png
TIFF (Tagged Image Format File) – for keyable graphics .tif
TARGA (Targa Graphics Adapter Image File) – for keyable graphics .tga
EPS

Acceptable Color Space

Graphic designers should deliver completed graphics in the RGB color space used in broadcasting. Any graphic received in the CMYK color space used in printing will be transformed to the RGB color space and no guarantee of color accuracy can be provided.

Also, due to the wide “color gamut” of the RGB color space, it is recommended that designers adjust graphics to the “NTSC Color Gamut” for standard definition and the “HDTV color gamut” (SMPTE 274M) for High Definition before delivering them to CBS or they will be converted.

Aspect Ratio Sizes and Safe Action Areas

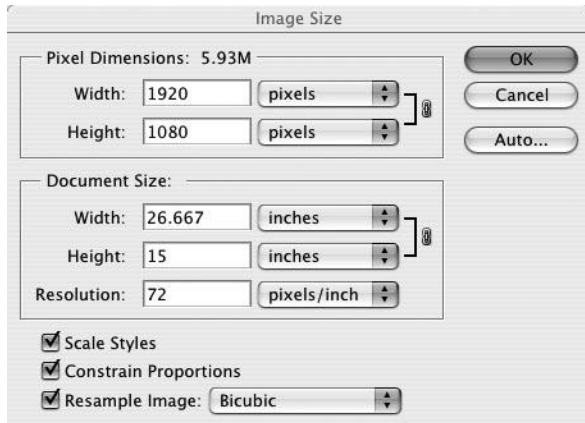
Even though a 16x9 image has 1920 pixels wide and 1080 pixel high, in order to account for any possible overscan areas, a “safe title” area has been adopted. This “safe title” area is the maximum area in which a viewable graphic or text should appear to account for any over scanning of the viewer’s receiver at home. In addition, many local TV stations, cable headends and consumer set top converter boxes are using the HDTV signal to derive a standard definition version by “down converting” the HD signal (See Appendix H for examples). As a result, the action and graphics for HDTV content must be contained within the 4:3 center cut safe action and safe title area of the image.

Below is a chart of the aspect ratios, maximum size, and title safe area size:

16x9 High Definition Full Aspect	1920 Pixels Wide by 1080 Pixels High
Derived 4x3 Standard Definition	1440 Pixels Wide by 1080 Pixels High
4x3 Standard Definition Safe Action	1340 Pixels Wide by 1004 Pixels High
4x3 Standard Definition Safe Title	1296 Pixels Wide by 972 Pixels High

Resolution

The resolution required of the aspect ratio size indicated above is 72 pixels per inch. Higher resolution graphics can be sent and will be scaled to fit within the safe action area of each aspect ratio.



A screen shot of an Adobe Photoshop Image Size Dialog Box showing the dimensions of a 16 x9 graphic.

CBS Treatment of Delivered Graphics

Upon receipt of a graphic for use as a billboard on CBS, we will attempt to follow the specific needs of the client in relation to treatment of their graphic logo, etc. In some instances, it may be necessary for our editors to reposition and correct images that do not meet the standards set forth in these specifications.

Keyable Graphics vs. Non-Keyable Graphics

Delivered graphics may be “keyable or “non-keyable.” The term “keyable” refers to a graphic which has a transparent background and can be superimposed or “keyed” over live video. Examples of each type of graphic are in Appendix I.

If a client wants their graphic treated as a keyable, it should be designed in such a way that the background in which it is assembled is easily removable to be replaced with active video from a CBS show. CBS editors will attempt to make graphic as usable as possible but in some instances, the amount of work required would be extremely excessive.

Appendix F: News Billboards

<u>Show</u>	<u>Requirements</u>	<u>Deadlines</u>	<u>Destination</u>
Face the Nation	Jpeg & :05 second copy movfile FTP link Animated For a still, we also take a .tiff	7 days prior to air	Mary Hager CBS News 2020 M Street Washington, DC 20036 202-457-4308 mhp@cbsnews.com Erica Torres 212-975-6315 erica.torres@cbs.com
CBS Sunday Morning News	Jpeg or EPS file & :05 second copy FTP link Animated	7 days prior to air	Rand L. Morrison Sunday Morning 524 West 57 St. New York, NY 10019 212-975-6412 R1M@cbsnews.com Fred DeCorte 212-975-2191 fred.decorte@cbs.com
Morning News CBS This Morning	Jpeg or EPS file & :05 second copy FTP link Animated	7days prior to air	Maria Sorrenti Henry Holmes 535 West 56 Street Room 1W3-14 New York, NY 10019 212-975-8210/2742 Fax: 212-975-3180 masorrenti@cbs.com haholmes@cbs.com Fred DeCorte (Morning News) 212-975-2191 fred.decorte@cbs.com Monica Washington (CTM) 212-975-4503 mwashington@cbs.com

Ideal resolution would be pixel dimensions of
1920 (W) x 1080 (H), a FULL HD still.
Usually the larger file size, the better Logo requirements:
- 1920 (W) x 1080 (H) hi-res image resolution
- 300 DPI minimum
- JPEG, .TIFF, EPS , avoid .PNG files

Note for animations: It is equally important that animations (moving video) meet the resolution HD standard of 1920X1080 size. Use ProRes compression and output a .mov format is possible.

<u>Show</u>	<u>Requirements</u>	<u>Deadlines</u>	<u>Destination</u>
CTM: Saturday	Jpeg or EPS file & :05 second copy FTP link Animated	7 days prior to air	Tony Dipolvere Saturday Morning 524 West 57 Street 7 th Floor Room 7304 New York, NY 10019 212-975-8861 DipolvereT@cbsnews.com Erica Torres 212-975-6315 erica.torres@cbs.com
CBS Evening News	Jpeg or EPS file & :05 second copy	7 days prior to air	Mosheh Oinounou CBS Evening News 524 West 57 Street New York, NY 10019 212-975-8673 MDO@cbsnews.com Fred DeCorte 212-975-2191 fred.decorte@cbs.com
60 Minutes	TIFF or JPEG file & :05 second copy	14 days prior to air	Robert Ward 212-975-4630 rforward@cbs.com Joanne Castanza Cady 212-975-4057 jccady@cbs.com
48 Hours	JPEG file & :05 second copy	14 days prior to air	Robert Ward 212-975-4630 rforward@cbs.com Joanne Castanza Cady 212-975-4057 jccady@cbs.com

Billboards are not allocated to Weekend News and Overnight News.

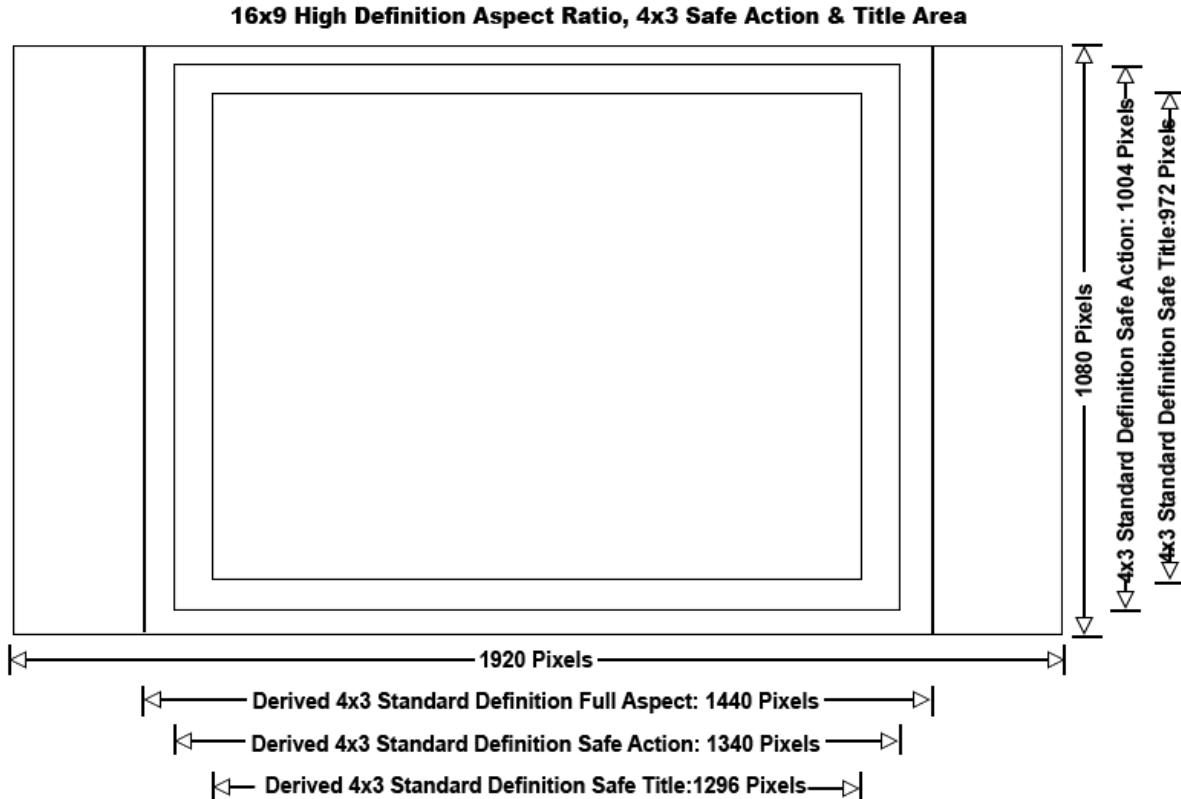
Appendix G: Sample Sports Billboard

Sample picture showing the “look” of CBS Sports billboards.



Appendix H: Aspect Ratio Examples

16x9 High Definition Aspect Ratio



All graphics, whether keyable or non keyable should be delivered to CBS within the maximum size in pixels for either the 4x3 or 16x9 aspect ratios. Any text, logos, pictures, etc., should not exceed the safe title area. (SMPTE ST-2046-1 Figure D.2 – 4:3 Format Safe Action and Safe Title Areas)

Graphics that do not meet the action safe guidelines above will be resized and/or repositioned to fall within those guidelines.

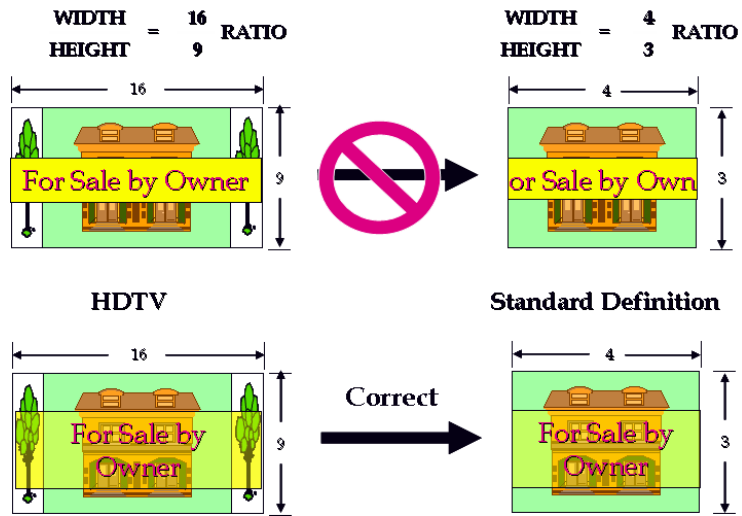
4x3 Standard Definition Safe Action

1340 Pixels Wide by 1004 Pixels High

4x3 Standard Definition Safe Title

1296 Pixels Wide by 972 Pixels High

DOWN CONVERSION PROCESS



Appendix I: Keyable and Non Keyable Examples



Keyable Graphic

Your logo over CBS show video or graphic

Non-keyable graphics are those graphics which are designed to be placed over their own background. These graphics will not be re-composited or modified in any way unless they do not meet the size and aspect ratio requirements specified.



Non-Keyable Graphic

Advertiser's logo over a full background created by advertiser. Not intended to be placed over live video or graphic background produced by CBS.