

GLOSSARY

1. Back Porch -- That portion of the composite picture signal which lies between the trailing edge of the horizontal sync pulse and the trailing edge of the corresponding blanking pulse.
2. Black Clipping -- A video control circuit - found in cameras and VTRs - which regulates and contains the black level of the video signal so that it does not disturb or appear in the sync portion of the signal.
3. Black Level -- The bottom level of the picture signal, below which are the sync, blanking, and other control signals that do not appear as picture information.
4. Breezeway -- In NTSC color, that portion of the back porch between the trailing edge of the horizontal sync pulse and the start of the color burst.
5. Burst Flag -- A pulse produced by a color sync generator; when present, it causes the signaling color camera to produce a burst signal.
6. Burst Signal -- Color burst; a set of high frequency (3.5 MHz) pulses at the beginning of each line which determines the phase of the color signal.
7. Chroma Control -- Control for adjusting color saturation (amount of white), in reproduced video picture.
8. Chroma Key -- The electronic introduction of a color background into a scene; unlike black and white keying, color is present and color values can be adjusted by the operator of the keying unit.
9. Chromaticity -- A subjective evaluation of the hue and saturation of an object.
10. Chrominance -- Chroma; the hue and saturation of an object as differentiated from the brightness value (luminance) of that object.
11. Chrominance Channel -- In a color television system, any path which is intended to carry the chrominance signal.
12. Chrominance Channel Bandwidth -- The bandwidth of the path intended to carry the chrominance signal.
13. Chrominance Signal -- That portion of the NTSC color television signal which contains the color information without the chrominance signal. The received TV picture would be in black and white.
14. Color -- The characteristics of light other than spatial temporal inhomogeneities. Note 1: The measure of color is three-dimensional. One of the many ways of measuring color is in terms of luminance,

dominant wavelength, and purity. Note 2: Inhomogeneities, for example, particular distributions and variations of light, and characteristics of objects which are revealed by variations such as gloss, luster, sheen, texture, sparkle, opalescence, and transparency, are not included among the color characteristics of objects.

15. Color Background Generator -- An electronic circuit used in chroma keying to produce a solid color background of any desired hue and saturation.
16. Color Breakup -- Any fleeting and partial separation of color picture into its "display primary" components caused by a rapid change in the condition of viewing. Note 1: Illustrations of rapid changes in the condition of viewing are: 1) fast movement of the head, 2) fast interruption of the line of sight, 3) blinking of the eyes.
17. Color Burst -- See burst signal.
18. Color Camera -- A video camera capable of changing both the brightness values (luminance), and the color values (hue and saturation, expressed as chrominance), of a scene into a series of electronic pulses.
19. Color Contamination -- An error of color rendition due to incomplete separation of paths carrying different color components of the picture.
20. Color Dissector Tube -- Coloring tube; chrominance tube. A cathode ray tube designed to separate a scene's hue and saturation values into their R, B, G components for electronic encoding as part of the color video signal.
21. Colorizer -- Electronic circuitry used to generate a chrominance signal in relation to the gray values of a black and white video signal. Each gradation of gray from black to white is assigned a color value. The result is an artificially, and often inaccurately, colored picture.
22. Color Killer Circuit -- An electronic circuit used in a VTR to suppress the 3.58 MHz color carrier frequency when a black and white tape is being shown; the same circuit in a black and white VTR used to suppress the color carrier frequency when a color tape is being played back in black and white. Without a color killer, the color signal would appear in the displayed black and white picture as random noise.
23. Color Phase -- The proper timing relationship within a color signal. Color is considered to be in phase when the hue is reproduced correctly on the screen.
24. Color Picture Signal -- The electrical signal which represents

complete color picture information, excluding all synchronizing signals. Note 1: One form of color picture signal consists of a monochrome components plus a subcarrier modulated with chrominance information.

25. Color Picture Tube -- A cathode ray tube, the screen-end of which is capable of glowing with the three primary TV colors -- red, blue, and green. Its cathodes produce three electronic beams (each corresponding to one of the three colors), and its raster area is coated with three different types of phosphor (each one again corresponding to one of the three colors.).
26. Colorplexer -- Encoder; electronic circuitry which processes three separate color signals -- red, blue and green -- coming from the pickup tubes into one composite encoded color video signal.
27. Color Subcarrier -- In NTSC color, the 3.58 MHz carrier whose modulation sidebands are added to the monochrome signal to convey color information.
28. Color Sync -- A control signal necessary for the operation of color cameras, SEGs, and monitors; consists of a 3.58 MHz burst (which sets the color phase and the placement before each line is scanned), and a 3.58 MHz color subcarrier.
29. Color Tape -- (a) A tape on which color television, both audio and video, has been recorded; (b) a misnomer for videotape, since any videotape has the capacity to record either black and white or color, there being no difference physically in videotape.
30. Color Transmission -- The transmission of a signal which represents both the brightness values and the color values in a picture.
31. Compatible Color System -- A color TV system which permits normal black and white reception of transmitted signals without altering the receiver.
32. Compatibility -- That property of a color TV system which permits substantially normal monochrome reception of the transmitted signal by typical unaltered monochrome receivers.
33. Composite Color Signal -- The color picture signal plus blanking and all sync signals.
34. Composite Color Sync -- The signal comprising all the sync signals necessary for proper operation of a color receiver. This includes the deflection sync signals to which the color sync signal is added in the proper time relationship.
35. Dichroic Daylight Conversion Filter -- A lens filter which balances the color values of objects in direct sunlight so that they will match the values of scenes taped in artificial light.
36. Dichroic Mirrors -- Special mirrors which reflect special wavelengths

of the light spectrum, while allowing others to pass through their semitransparent surfaces; used in color TV cameras to divide light into the three primary colors for pickup tubes.

37. Differential Gain -- The amplitude change, usually of the 3.58 MHz color subcarrier, introduced by the overall circuit and measured db or percent and as the subcarrier is varied from blanking to white level.
38. EIAJ Type #1 Recommended Color Standard -- The compatible color standard established by the Electronic Industries Association of Japan; compatible with the EIAJ Type #1 Standard in that color tapes can be played back in black and white on EIAJ Type #1 black and white VTRs, and black and white tapes can be played back in black and white on EIAJ Type #1 color VTRs.
39. Hue -- A term used to describe the position of a color in a range that runs from red to yellow, to green, to blue, to violet, and back to red; all colors have a hue. Black, gray, and white do not have hue.
40. In-Line Color -- A color TV tube system in which the three electron guns producing the primary colors of the color signal are next to each other in a straight line rather than in a triad, as has traditionally been the case in color TV manufacture.
41. Luminance Signal -- That portion of the NTSC color TV signal which contains the luminance or brightness information.
42. NTSC -- National Television Systems Committee. A committee that worked with the Federal Communications Commission in formulating standards for the present day United States color television system.
43. NTSC Color -- The color standard used in the United States and set by the National Television System Committee; compatible color which can be received in black and white.
44. One Tube Color Camera -- A color-capable video camera which produces a color signal through the use of only one pickup tube.
45. PAL -- Phase alternation line; British-German color TV standard.
46. Plumbicon -- The trade name of Philips' special vidicon tube which is more sensitive than a normal vidicon; used in some color cameras.
47. Primary Colors -- The three colors used in color TV, no two of which can be combined to produce the third; red, blue and green.
48. RGB Signal -- The chrominance information; red, blue and green.
49. Reference Black Level -- The picture signal level corresponding to a specified maximum limit for black peaks.
50. Reference White Level -- The picture signal level corresponding to a specified maximum limit for white peaks.

51. Saturation -- The vividness of a color, described by such terms as bright, deep, pastel, pale, etc. Saturation is directly related to the amplitude of the chrominance signal.
52. SECAM -- Séquentiel Couleur à Mémoire; a color TV system developed by the French which differs radically from both the NTSX and PAL color systems.
53. Shadow Mask Color Tube -- RCA developed standard color tube; a color tube equipped with a metal sheet with half a million small holes punched in it. The metal sheet (which is the shadow mask), is placed between the electron guns, which beam the picture signal, and the phosphor-coated screen.
54. Stripe Filter -- A chrominance tube system in which the target area of the tube is divided into sequential striped for R, B, G, and Y, and can therefore derive a color signal by using only one pickup tube.
55. Subcarrier Frequency -- The frequency on which color information is modulated in the color TV system; in the United States it's 3.58 MHz.
56. Subcarrier Phase Shifter -- Special circuitry designed to control the phase relationships of the two portions of the encoded color signal so that they maintain their correct relationship during recording, transmission, and reproduction. A phase shifter allows the user to change the timing of the signals involved so that they are occurring at the correct time and are thus said to be in phase.
57. Three-Tube Color Camera -- A color-capable camera which produces a color signal through the use of three pickup tubes, each assigned to one of the primary colors. An early stage in the development of the color video camera, introduced by RCA in 1940.
58. White Clipper -- A circuit designed to limit white peaks to a predetermined level.
59. White Compression -- Amplitude compression of the signals corresponding to the white regions of the picture; results in differential gain.
60. White Level Set -- White set; a camera control which establishes the luminance level for a color camera.
61. White Peak -- The maximum excursion of the picture signal in the white direction.
62. Y -- The symbol for the luminance portion of a color video signal; the color video signal consists of R, G, B, and Y.

COMPILED FROM:

1. Killion, William D. Video Transmission Techniques, Dynair Electronics,

Inc., San Diego, California. 1968.

2. Robinson, Richard. The Video Primer, Links Books, A Division of Music Sales Corporation, New York, New York. 1974.
3. The Video Handbook, Media Horizons, Inc., New York, New York. 1972.