



## Tech - Info

### Maximum image quality with the IVS

*It is possible to increase detail resolution of the video image by up to 30 % by using the optic which is was specifically designed for to the selected image format. The Y/C output (S-VHS) offers a further increase in the image quality, regardless of which optic is being used. Each measure in itself increases image quality, and in combination ensures maximum results (see pictures on the following page). Frequent inquiries from customers show, however, that these possibilities are often not fully exploited in practice.*

#### Video Lens

One possible source of error is the use of an optic which was not designed for the filming format:

##### 16 mm

The difference is particularly obvious with 16 mm formats. Here 30% of the image area is not utilized if the S 16 optic is used instead of the N 16 video lens. Thus 30% of the detail resolution is irretrievably lost. The Super 16 optic covers an image area based on a format width of 12.35 mm. If this optic is used for a standard 16 image with a width of 10.3 mm, horizontally and vertically unused edges will result.

##### 35 mm

Here it is also technically possible to use the S 35 video lens if working in the 35 mm academy format. However 16 % of the available surface of the video screen will not be utilized. In other words, 16% of the possible detail resolution is thereby irretrievably lost.

#### Remedy

For the N 16 and the academy format in 35 mm, specific lenses were developed which depict the corresponding images in the optimum size, quality and resolution on the video screen. It is easy to change between lens types. In terms of the price for an IVS, the additional cost for an extra lens is low in relation to the increase in quality of up to almost one third.

Camera	Image format	Ident-No. for video-lens
ARRIFLEX 16SR 3 (all types)	N 16	K2.51100.0
ARRIFLEX 16SR 3 (all types)	S 16	K2.51101.0
ARRIFLEX 435	Academy	K2.47231.0
ARRIFLEX 435	Silent 35	K2.47230.0
ARRIFLEX 535B	Academy	K2.47301.0
ARRIFLEX 535B	Silent 35	K2.47298.0

#### Y/C Output

Frequent inquiries show that the possibilities of the Y/C (S-VHS) signal are also seldom used. Compared to the composite output, the Y/C signal offers a considerable improvement in image quality in terms of contrast and resolution of the images, as well as disturbing color artifacts which are unavoidable in the composite output.

#### Remedy

All IVS-models are equipped with Y/C outputs.

For the ARRIFLEX 435 cables are available which connect the IVS output to commercially available Y/C cables.

The cable KC 45 (Ident no. K2.47477.0) transmits video with additional on-screen data, the cable KC 46 (Ident no. K2.47478.0) transmits video without additional data.

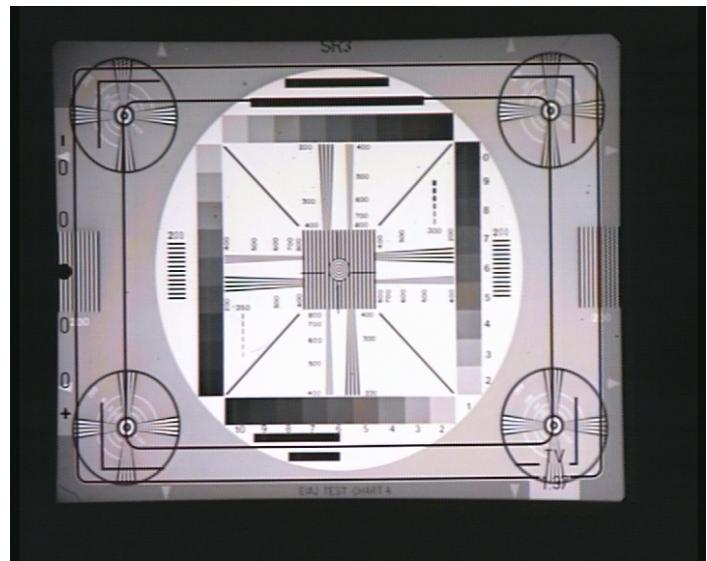
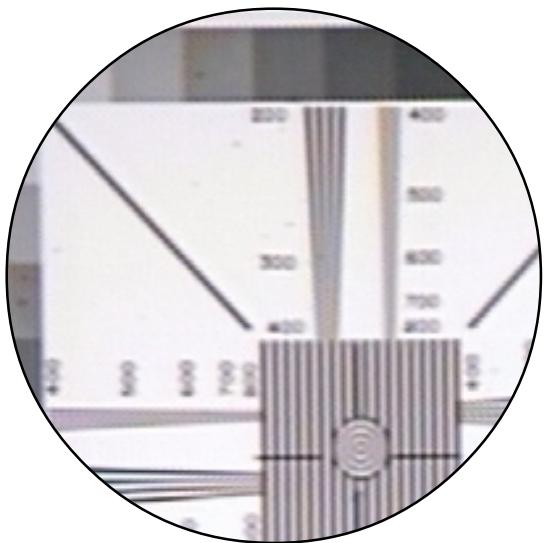
On the IVS for the ARRIFLEX 535 B or the IVS for the ARRIFLEX 16SR 3, the Y/C output is available through the combination of the OUT 1 and OUT 2 BNC sockets if the Y/C output is activated via the keyboard.

A cable to connect these two BNC-sockets with the standard Y/C cables is available in well-stocked electronics stores.

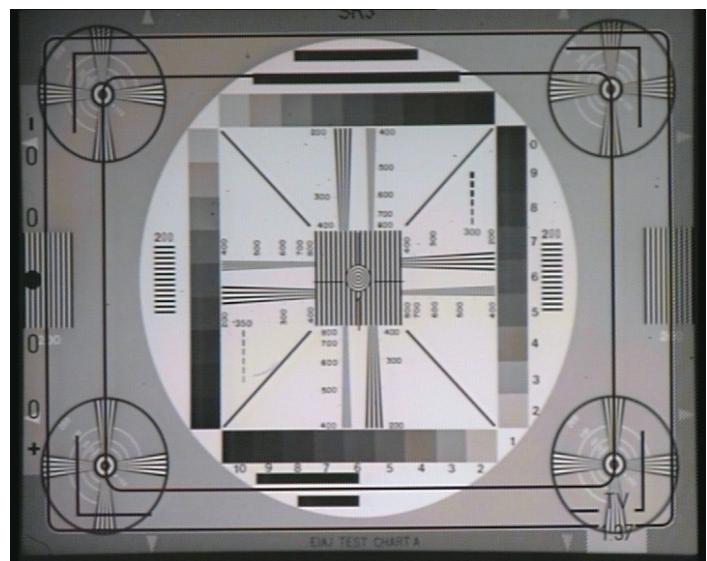
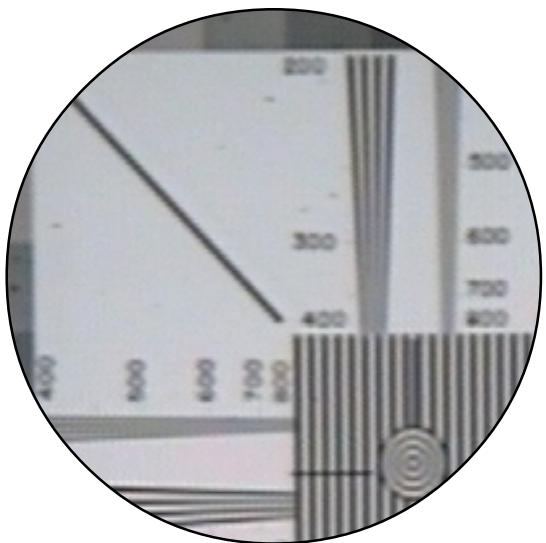
These days most video recorders and monitors are already equipped with Y/C inputs. It is therefore very simple to use this signal to further increase image quality.

Camera	Video output	Cable	Ident No.
ARRIFLEX 435	Video with data	KC 45	K2.47477.0
ARRIFLEX 435	Video without data	KC 46	K2.47478.0

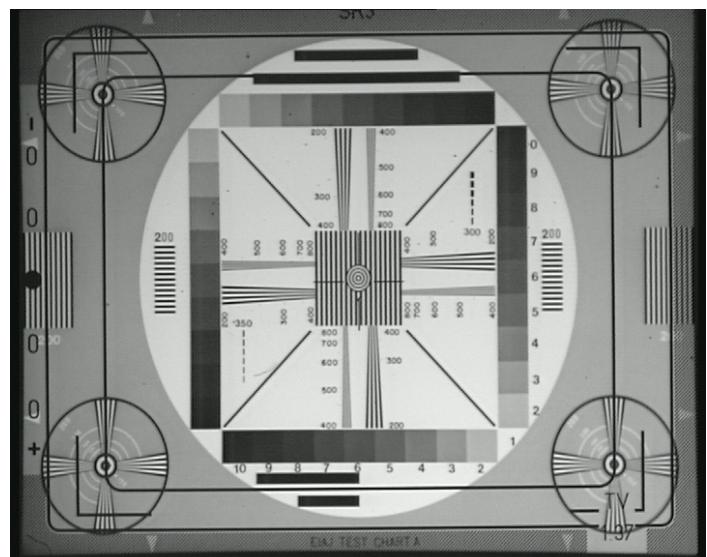
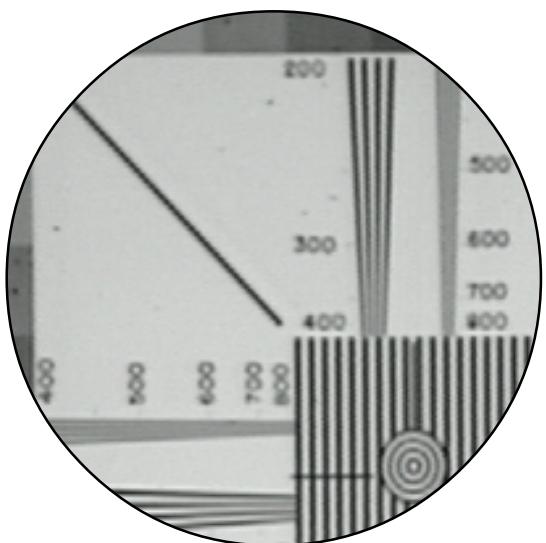
From the start of the development, the IVS was optimized for the maximum achievable image quality. If used in the suitable configuration, impressive results can be achieved. The additional expense for an extra optic or cable is more than compensated for by the gain in image quality.



S-16 video lens, FBAS-output



N-16 video lens, FBAS-output



N-16 video lens, Y/C output

**Reference**

Instruction Manual IVS

**Status**

November 1999

**Further Information**

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