

VITS Generator & Inserter PM 5654



Extensive full-field capabilities.
Test signals digitally generated for high accuracy and stability.
Built-in security features prevent unauthorized access to programming.

Program protection with by-pass relay.
All 4 CCIR & EBU test signals and color bar inserted as VITS in 625-line version.
Generates NTC-7 and VITS & VIRS in 525-line version.
Inserts 4 (or 6) EXT. SIGNALS, e.g. teletext, data and special test signals.
Remote control of main functions, insertions and full-field signals.

The new PM 5654 VITS Generator & Inserter from Philips inserts digitally-generated test signals to guarantee high accuracy and stability.

The instrument is available in 625-line as well as 525-line versions. (Request separate data sheet for 525-line version). PM 5654 generates VITS (Vertical Interval Test Signals) as well as full-field test signals and inserts signals for TV transmitters, satellite links and terrestrial microwave links. PM 5654 also inserts teletext and data. In transmitter, as well as other applications, the instrument has automatic program signal substitution.

With built-in security measures to prevent unauthorized access to programming, the PM 5654 permits line selection directly from its front panel for storage in a non-volatile memory.

The instrument has special features like Red, color-bar and 50 Hz and 250 kHz square-waves. From the VITS panel, a substitution signal can be selected and then programmed. Without inserting VITS or color bar, line content can still be deleted with the PM 5654. An optional Source Identification (SID) Generator can insert a special digital code in the vertical blanking interval to identify signal source (e.g. STUDIO 2, VTR 24, OB 4).

The PM 5654 is realistically designed for the demands of actual applications. The instrument contains no unnecessary features. This allows the PM 5654 to be priced without charges for unwanted extras.

Functional Description

As input, the PM 5654 accepts regular video signals as well as signals provided with "sound in sync". The PM 5654 VITS Generator & Inserter loops an incoming signal through its inserter/deleter circuit, where insertions of VITS, source identification signal and signals to EXT inputs occur and where other lines may be deleted. Insertions and deletions are programmable on any line from line 6 to line 22 in field 1 and line 319 to line 335 in field 2.

The VITS generated by PM 5654 are in full accord with CCIR Recommendation 473-3 and EBU spec. tech. 3209E. The PM 5654 VITS control panel is under a hinged cover in the center of the unit's front panel. Via the control panel, insertion is enabled for the generated test signals, 4 (or 6) EXT inputs and 4 SID codes selectable via remote control. The lines used for these signals can be monitored for status from the control panel. Any of these lines can be erased via the control panel, and any missing program signal can be automatically substituted for. In testing, the program signal can be

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exchanged for a full-field test signal based on the unit's various test signals and duty modes. Moreover, a separate full-field test signal independent of the VITS generator mode, is also provided.

Options

PM 8538 Source Identification Generator & Detector/VITS Detector

- **DATA Generator.**

Generates source codes consisting of a sequence of biphasic signals as outlined in EBU tech. 3217-E. Four sets selectable by remote control.

- **DATA Detector.**

When enabled, this provides automatic insertion of DATA from either the optional Source Identification Generator or from the signal from one of the EXT inputs in case of missing DATA.

- **VITS Detector.**

When enabled, this provides automatic insertion of VITS in case of a missing test signal on a specific input line which is selectable from the PM 5654 front panel controls. The line number is stored in the non-volatile memory.