System4 Video Management Systems incorporate advanced circuitry and expanded memory with improved color sampling and processing to produce high quality, true-to-life color video images. Enhanced circuitries allow increased image accuracy and faster display rates without annoying onscreen flickering (aliasing) common with multiscreen displays. These units can be used as matrix switchers, displaying any camera to either monitor A or B and include custom alarm display on monitor A with up to 4 pre-position call-ups in a single alarm contact. Also, with the internal universal power supply, the System4 intelligently detects the video input signal input voltage and automatically sets the unit for PAL/NTSC or EIA/CCIR.

**Functions**

The advanced features of System4 are accessible through the optional IntuiKey remote keyboard. The IntuiKey keyboard is capable of controlling Bosch AutoDome systems and receiver/drivers for pan/tilt/zoom control. The System4 remote keyboards control all primary functions of any selected Bosch VCR. Up to 30 System4 units and 30 VCRs can be programmed and controlled by one keyboard. With Master Clock Synchronization, the System4 automatically synchronizes all of the clocks. With a keyboard port expander unit (see OPTIONS), up to four keyboards can be used to program and control a System4 video controller.

The LTC 2682/90 16-channel Triplex multiplexer allows for the following:
- Simultaneous recording and multiscreen viewing on both monitors.
- Simultaneous recording and playback and live viewing multiscreen.
- Can play back the recording formats of 6 different manufacturers.

The system's user-friendly controls allow fast and easy programming and operation. System4 units include an onscreen menu for programming which is available in English, French, German, Spanish, Dutch, or Italian. Programming allows for either AutoSet or customized system configuration via the Advanced Setup program. Help screens provide explanation and instruction, guiding operators step-by-step through the setup process. When the AutoSet feature is enabled, System4 will automatically configure itself for recording, sequencing, and video loss listing based on the number of connected cameras.

All System4 models provide digital motion detection, ensuring that cameras with motion present become the priority for recording. Recording may be programmed as either "exclusive" or "interleave", based on motion or alarm detection. Four levels of
sensitivity are available including direction sensing, target size, and a special walk-through setup to eliminate false alarms. A selectable audible buzzer is available in this mode. Parameter setup can be preprogrammed using the Timed Events feature, which allows several configurations for system operation and recording. Up to six separate System4 operational parameters may be programmed and stored in the system memory for manual call-up or time activation. System4 units include front panel controls, synchronization with VCR head switching, freeze, 4X zoom, video loss indicators, alarm capture, password security, multi-relay outputs, and full function time/date with 16-character titling record capability. All units are compatible with standard VHS and SVHS formats and normal and high density VCRs. No external synchronization of camera inputs is required, as integrated time based correction is included in all models.

A Log Events feature tracks event history and a console port allows PC control of the system, full duplex VCR control including remote VCR setup and a time/date/search function to reduce tape viewing time, or interaction with Access Control Systems and Bosch LTC 2650/00 Graphical User Interface (GUI) software packages.

Today's growing business demands security that is sophisticated, reliable and easy to use. From discount stores to commercial offices, System4 intelligently provides a multifunction system capable of handling up to 9 or 16 camera inputs with switching and multiplexer control, pan/tilt/zoom, and VCR control in one compact unit.

### Certifications and approvals

<table>
<thead>
<tr>
<th>Electromagnetic Compatibility (EMC)</th>
<th>CE Immunity, CE Emission Class A, FCC Class A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>CE, UL, cUL</td>
</tr>
</tbody>
</table>

### Installation/configuration notes

#### System4 Triplex, Typical Operation

1. Data
2. Video
3. Terminated Resistor
4. VEXT Connection 21 to 11 and 25 to 15 (GND)
5. S1383
6. S-VHS Type VCR
7. S-VHS Video

#### System4, Typical Configuration

1. AutoDome
2. Video
3. Record/Playback VCR
4. Data
5. Out
6. In
7. Up to 16 Cameras
8. Recording VCR
9. PIR Sensor

#### Simultaneous Recording to Two VCR's (Triplex Operation)

The LTC 2682 provides two independent VCR outputs; each output can be programmed to encode camera sequences. Using the LTC 2682 in this mode offers the flexibility to distribute the number of cameras between two VCRs to provide a fast update rate for each camera. Two VCRs may also be programmed so that one VCR may be used for normal encoding while the other is used for action/alarm encoding. In this triplex mode of operating, Monitor A always displays the image in multi-screen, quad, full, or multiple cameras in a sequence mode.
## Technical specifications

### Electrical

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage Range</th>
<th>Power/ Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-channel Triplex</td>
<td>108 to 253 VAC, 50/60 Hz</td>
<td>30 W/0.5 A</td>
</tr>
</tbody>
</table>

### Synchronization

**Full Time-based Correction**
- Monochrome: 625 line, 50 Hz, CCIR
- Monochrome: 525 line, 60 Hz, EIA RS-170
- Color: 625 line, 50 Hz, PAL
- Color: 525 line, 60 Hz, NTSC

### Digital Memory

720 H x 576 V

AGC: Automatic or manual adjustment for each video input. Video Input Level: 0.5 Vp-p to 2.0 Vp-p composite video signal.

### Operating Modes

- Simultaneous record and multi-screen viewing on both monitors.
- Simultaneous record and playback and multi-screen viewing.

### Display Modes

**Live**
- Monitor A: Full, quad, or multi-screen display
- Monitor B: Full (alarm or action call-up only), quad, or multi-screen display

**Playback**
- Monitor A: Full, quad, or multi-screen display
- Monitor B: Full

### Controls and Indicators - Front panel

#### Inputs

- **Camera**: 9 (16) inputs; 18 (32) BNC connectors, automatic looping termination BNC
- **VCR IN**: One (1) BNC
- **VCR IN**: One (1) Y/C

#### Outputs

- **Monitor A**: One (1) BNC
- **Monitor B**: One (1) BNC
- **VCR OUT**: One (1) BNC
- **Monitor A**: One (1) Y/C
- **Monitor B**: One (1) Y/C
- **VCR OUT**: One (1) Y/C

### Connectors

**Power**: IEC socket, 3-wire power cord with grounded plug; 1.8 m (6 ft)

**Accessory Inputs/Outputs**: One (1), 25-pin D-type connector for alarms and accessories

**Alarm Inputs**: 9 (16) individually selectable NO or NC alarm

**Relay Output**: Three (3) relay outputs (selectable NO or NC), one (1) for action/alarm (VCR # 1), one (1) for action/alarm (VCR # 2) and one (1) for video loss (these relay contacts handle up to 1 A at 40 VAC/VDC)

**SDA**: 15-pin D type for 5 Bi-Phase outputs

**Console**: 9-pin D type for RS-232 controls

**VEXT inputs**: Two (2)

### Mechanical

**Construction**: Steel chassis with sheet metal cover and plastic bezel

**Finish**: Charcoal case

**Dimensions (W x H x D)**: 440 x 305 x 40 mm (17.3 x 12 x 1.7 in.)

**Weight**: 5 kg (11 lb)

**Rack Mount Kit (Included)**: For mounting one unit in an EIA 48 cm (19 in.) rack

### Environmental

**Operating Temperature**: 10°C to 55°C (50°F to 131°F)

**Storage Temperature**: –20°C to 60°C (–4°F to 140°F)

**Humidity**: 0% to 90% relative, non-condensing

### Ordering information

**LTC 2672/90 Video Management System**
- 9 channel multiplexer, color and B&W, triplex, 105–253 VAC, 50/60 Hz
- Order number **LTC 2672/90**

**LTC 2682/90 Video Management System**
- 16 channel multiplexer, color and B&W, triplex, 105–253 VAC, 50/60 Hz
- Order number **LTC 2682/90**

**Accessories**

**KBD-Universal Keyboard**
- IntuiKey Universal Keyboard for use with Allegiant, Divar, System4 Multiplexers, Bosch VMS, and VIDOS
- Order number **KBD-UNIVERSAL**
<table>
<thead>
<tr>
<th>Product Description</th>
<th>Order Number</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>KBD-Digital Keyboard</td>
<td>KBD-DIGITAL</td>
<td>IntuiKey Digital Keyboard for use with Divar Digital Video Recorders, System4 Multiplexers, Bosch VMS, and VIDOS.</td>
</tr>
<tr>
<td>LTC 2601/00 Keyboard</td>
<td>LTC 2601/00</td>
<td>for 6plex and System4 with push button PTZ control.</td>
</tr>
<tr>
<td>LTC 2604/50 Keyboard Port Expander Unit</td>
<td>LTC 2604/50</td>
<td>System4, 230 V, 50 Hz.</td>
</tr>
<tr>
<td>LTC 2604/60 Keyboard Port Expander Unit</td>
<td>LTC 2604/60</td>
<td>System4, 120 V, 60 Hz.</td>
</tr>
<tr>
<td>LTC 2609/00 System4 Extension Kit</td>
<td>LTC 2609/00</td>
<td>links up to six (6) System4 Multiplexers, 90 units.</td>
</tr>
<tr>
<td>LTC 2650/00 Graphical User Interface (GUI)</td>
<td>LTC 2650/00</td>
<td>Graphical User Interface for programming and controlling.</td>
</tr>
<tr>
<td>LTC 2605/91 System4 Video Manager</td>
<td>LTC 2605/91</td>
<td>for use with Divar and System 4 Multiplexers, 105–253 VAC, 50/60 Hz.</td>
</tr>
<tr>
<td>S1386 VCR Control Cable</td>
<td>S1386</td>
<td>for Philips LTC multiplexers and VCRs.</td>
</tr>
<tr>
<td>S1383 VCR Control Cable</td>
<td>S1383</td>
<td>VCR control cable for mux to VCR.</td>
</tr>
<tr>
<td>LTC 8558/00 Keyboard Cable</td>
<td>LTC 8558/00</td>
<td>optional, 30.5 m (100 feet).</td>
</tr>
</tbody>
</table>

Represented by:

- **Americas:** Bosch Security Systems, Inc.
  - 130 Perinton Parkway
  - Fairport, New York, 14450, USA
  - Phone: +1 800 389 0096
  - Fax: +1 585 233 9180
  - security.sales@us.bosch.com
  - www.boschsecurity.us

- **Europe, Middle East, Africa:** Bosch Security Systems B.V.
  - P.O. Box 80002
  - 5617 BA Eindhoven, The Netherlands
  - Phone: +31 40 2577 384
  - Fax: +31 40 2577 330
  - eMEA.security@systems@bosch.com
  - www.boschsecurity.com

- **Asia-Pacific:** Robert Bosch (SEA) Pte Ltd, Security Systems
  - 11 Bishan Street 21
  - Singapore 573943
  - Phone: +65 6571 2808
  - Fax: +65 6571 2699
  - apr.security@systems@bosch.com
  - www.boschsecurity.asia

- **China:** Bosch (Shanghai) Security Systems Ltd
  - 201 Building, No. 333 Fuqian Road
  - North IBP
  - Changning District, Shanghai 200335 China
  - Phone +86 21 22181111
  - Fax: +86 21 22182388
  - asia.security@systems@bosch.com
  - www.boschsecurity.com.cn

- **America Latina:** Robert Bosch Ltd Security Systems Division
  - Via Anhanguera, Km 98
  - CEP 13065-900
  - Campinas, Sao Paulo, Brazil
  - Phone: +55 19 2103 2860
  - Fax: +55 19 2103 2862
  - latam.security@systems@bosch.com
  - www.boschsecurity.com