

## Warranty

Digital Security Controls Ltd. warrants that for a period of 12 months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

**WARNING:** Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected

**IMPORTANT INFORMATION:** Changes or modifications not expressly approved by Digital Security Controls Ltd. could void the user's authority to operate this equipment.

## FCC COMPLIANCE STATEMENT

**CAUTION:** Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Important:

All requirements for installation of CAT5 cable should be met for proper operation of connected equipment. Do not strip off cable sheathing more than required for proper termination. Do not kink or knot cable. Do not crush cable with cable ties. Do not bend cable at right angles or create any other sharp bends. All cable bends should have a minimum of a 2" radius. Do not untwist twisted pairs more than 1/2 inch.

All requirements for installation of coaxial cable should be met for proper operation of connected equipment. Do not strip off cable sheathing more than required for proper termination. Do not kink or knot cable. Do not crush cable with cable ties. Do not bend cable at right angles or make any other sharp bends. All cable bends should have a minimum of a 2" radius.

## Note:

The telecom module is intended for use with analog telephones and POTS (Plain Old Telephone Service). Any other use may cause improper operation of the connected equipment. All IDC connectors (except IDC 1 Telephone Line In) are connected in parallel and therefore output connections can be made at any IDC connector. Input lines 2, 3 and 4 are connected in parallel to all of the IDC connectors. Line 1 is designed for use with RJ-31X connector and is connected in parallel with the IDC connectors when no RJ-31X plug is in the jack.



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## HS-VT1680

1x6 Telecom with  
1x8 Passive APP Video Combo Module

## Installation Instructions

### Introduction

The HS-VT1680 is a 1 x 6 telecom module combined with 1 x 8 passive video module on one mounting plate for use with the DSC Concourse Home Wiring Systems Solution. The telecom section features one 110 IDC connector for up to 4 incoming lines, six 110 IDC connections for connecting outlets to the system and an RJ-31X Jack on line 1 as a security system connection. The passive video module is all ports power passing (APP) with one CATV/ANT input and eight outputs for multi-room video signal distribution. The passive video module can also be used as an 8 input to one output video combiner. All connectors use "F" style fittings.

### Contents of Package

Qty 1..... 1 x 8 Video Module on a mounting plate  
Qty 1..... 1 x 6 Telecom Card  
Qty 7..... plastic standoffs

### Specifications

RF Splitter

Bandwidth (MHz)	5 – 40	40 – 400	400 – 600	600 – 1000
Insertion Loss	10 dB (max)	11 dB (max)	11 dB (max)	13 dB (max)
Isolation P to P	16 dB (min)	25 dB (min)	25 dB (min)	22 dB (min)
Return Loss	18 dB (min)	22 dB (min)	22 dB (min)	20 dB (min)
Impedance	75 Ohm			
RFI Shielding	-130 dB			
Power Passing	All ports, 24Vdc, 500 mA			

Telecom Module

Telephone Input Lines:..... 4 max.  
Applicable Wiring Standard:..... T568A  
Output Connections:..... 6  
Security Interfaces (RJ-31X):..... Line 1  
Input Connection: ..... 110 Style IDC  
Output Connection: ..... 110 Style IDC  
Line Out Connection: ..... None

### RJ-31X - Security Panel Connection

An RJ-31X jack is provided on Line 1 for a security panel connection. Follow the Installation Instructions included with the security system for proper connection to the RJ-31X jack.

## Installation Instructions

1. There are two sets of holes in the mounting plate that will accommodate the telecom module, use the set of holes located nearest the positioning tabs. Insert the standoffs (7) into the mounting plate to match the hole positions on the telecom distribution module. Refer to figure 1.
2. Align the telecom distribution module over the stand-offs and snap into place.
3. Choose a suitable mounting location for the HS-VT1680 module inside the cabinet. The upper left corner of the cabinet is recommended.
4. Align the two mounting tabs with the slots in the wire raceway and insert the module.
5. Align the locating pin with the hole in the cabinet and snap module into place.

## Wiring Instructions

### Incoming Service Cables

1. Route the incoming telephone service cable(s) into the cabinet through the raceway to the HS-VT1680 module. Allow sufficient length at both ends of the cable run to avoid stress, and to permit proper termination and trim out.
2. Terminate the incoming telecom service cable(s) at the telephone line-in connector labeled IDC 1, using a 110 punchdown tool. Line 1 terminates at L1, Line 2 at L2, Line 3 at L3 and Line 4 at L4. See Figure 1.
3. Route the incoming video service cable into the cabinet through the raceway to the HS-VT1680 module. Allow sufficient length at both ends of the cable run to avoid stress, and to permit proper termination and trim out.
4. Attach an RG6 "F" style connector to the incoming service cable. Connect the terminated incoming service cable at the terminal marked "IN". See Figure 1.
5. Test all connections to confirm proper installation and termination.

### Outlet Cables

1. Home-run CAT5 cable to each desired telecom location and route the cables into the cabinet through the raceway to the HS-VT1680 module. Allow sufficient length at both ends of the cable run to avoid stress, and to permit proper termination and trim out. Label each cable at both ends for easy identification.
2. Terminate each CAT5 drop at the desired location using an RJ-45 keystone jack wired to TIA T568A standard observing proper CAT5 wiring practices. Trim out using the appropriate wall plate. If using a multiple wall outlet, identify the telecom jack accordingly.
3. Terminate each CAT5 drop at the HS-VT1680 module IDC termination blocks labeled IDC 2 through IDC 7 using a 110 punchdown tool and observing proper CAT5 wiring practices. See Figure 1.

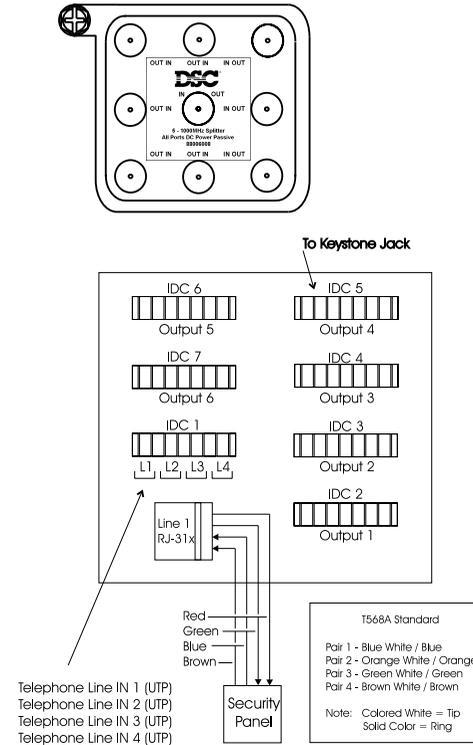
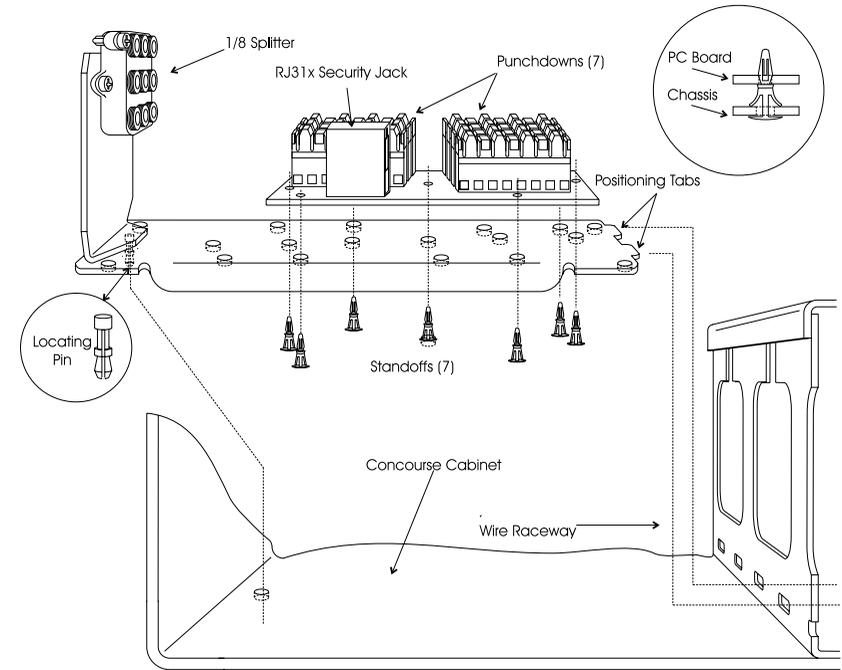


Figure 1 - Installation



4. Home-run RG6 coaxial cable to each desired location and route the cables into the cabinet through the raceway to the HS-VT1680 module. Allow sufficient length at both ends of the cable run to avoid stress, and to permit proper termination and trim out. Label each cable at both ends for easier identification.
5. Terminate each RG6 drop at the desired location using an RG6 "F" style connector. Attach the connector to an "F" style jack and trim out using the appropriate wall plate. If using a multiple wall outlet, identify the jack accordingly.
6. Terminate each RG6 drop at the HS-VT1680 module using a standard "F" style connector. Connect the terminated drops to the terminals marked out.
7. Terminate any unused output terminals with a 75Ω terminator.
8. Test all connections to confirm proper installation and termination.

### Video Module as Combiner

When used with an HS-VH400, HS-VH1800, HS-VA800 or other DSC Concourse Video Module, the passive splitter on the HS-VT1680 can be used to combine and distribute external (CATV/ANT) and internal (e.g., CCTV) video signals.

1. Route the incoming CATV/ANT service cables(s) into the cabinet through the raceway to the HS-VT1680. Allow sufficient length at both ends of the run to avoid stress, and for proper termination and trim out.
2. Route the incoming modulated internal video cables(s) into the cabinet through the raceway to the HS-VT1680. Allow sufficient length at both ends of the run to avoid stress, and for proper termination and trim out.
3. Attach RG6 "F" style connectors to the incoming CATV/ANT service and internal modulated video cables. Connect terminated incoming service and internal modulated cables at the terminals marked "IN" in red on the passive video module.
4. Make up an RG6 patch cord of sufficient length to connect the red "OUT" terminal of the HS-VT1680 to the black "IN" terminal of the HS-VH400 or another HS-VT1680 or to the white "INPUT" terminal of the HS-VA800. All drops to outlets will terminate at the black "OUT" terminals of the HS-VH400 or HS-VH1800 or at the white "OUTPUT" terminals of the HS-VA800.
5. Terminate any unused "IN" terminals with a 75 Ohm terminator.
6. Test all connections to confirm proper installation and termination.