

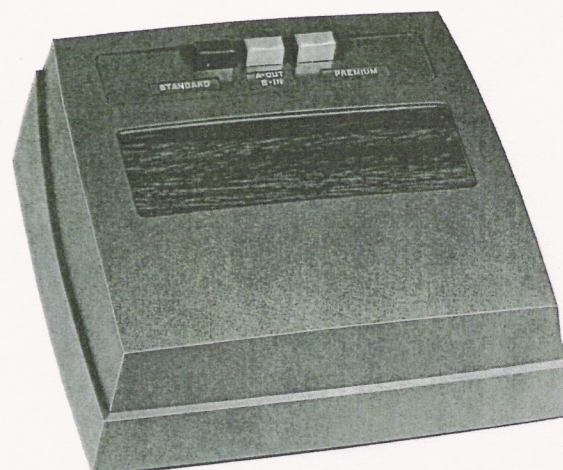
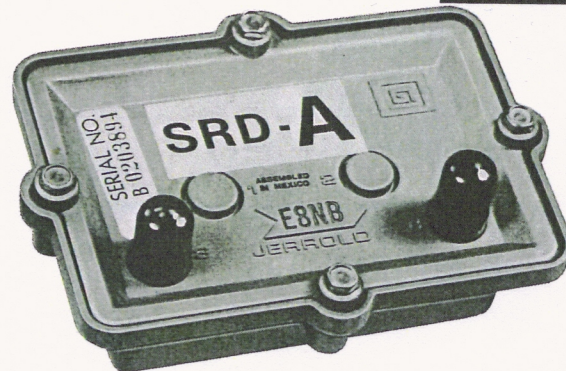


# STARPACK™

## Pay-TV Security System

### Featuring:

- ★ Revenue Protection
- ★ Superior Design
- ★ Flexibility
- ★ Upgradability



## Four ways to initiate . . . or upgrade . . . A Pay-TV Security System

- ★ **OUTDOOR DESCRAMBLERS** — with electronics outside the home — for single-level (one specific group of programs) and two-level, combination services. **Model SRD.**
- ★ **INDOOR DESCRAMBLERS** — Incorporate preamp for low drop levels . . . single-level and two level services . . . built-in self-destruct, anti-tamper mechanism. **Model SD.**
- ★ **SIMPLE INDOOR CONTROL UNIT** — attractively styled, inexpensive two-level device . . . straight-through

operation of any STARPACK descrambler for VHF channels . . . or with a set converter for all CATV channels. **Model SC.**

- ★ **MIDBAND INDOOR CONTROL UNITS** — functionally the same as Model SC . . . plus a two channel midband converter. Can be used to add one or two scrambled channels to a fully loaded 12-channel system. Or can be used as a standalone Pay-TV converter. **Model SCCU.**

All STARPACK Pay-TV security systems use a positive scrambling technique to suppress video sync information for any CATV channel within the 54-300 MHz range.

The headend signal is scrambled directly at RF by adding 6 dB of additional attenuation to the signal path during the sync interval.

A separate modulated RF carrier is sent out on the cable system as a reference for the individual descramblers, which reconstitute the scrambled video.

With Jerrold's popular outdoor descramblers, the descrambling electronics are in a rugged, weather-proof, RF-sealed housing for strand, eave or pedestal mounting, and are completely inaccessible to the subscriber.

All indoor descramblers contain a self-destruct, anti-tamper device to prevent theft of services and equipment.

Every STARPACK system — indoor or outdoor uses attractively styled units that are perfect companions to the Jerrold line of push-button set converters.

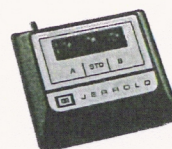
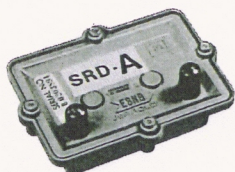
Only STARPACK combines all of these important features: low-cost two-piece configuration for signal and equipment security; (to prevent loss of services and protect your Pay-TV revenue) Broadband operation, for compatibility with existing CATV systems and existing converters, and for inventory flexibility from system to system and an upgradeable product family from single to multiple levels.

All together, STARPACK is the most complete system available to the cable industry today.



# STARPACK™ SECURITY SYSTEM

## EQUIPMENT SPECIFICATIONS



### OUTDOOR DESCRAMBLER MODEL SRD

Input and Output Frequency Range/Channels 54/300 MHz/All CATV Channels 2-13, A-W

Insertion loss:  
Premium Mode 4 dB sync, 10 dB video nominal  
Standard Mode 1 dB nominal  
Unpowered 4.5 dB nominal

Input Channel Carrier Level +20 dBmV max.

Timing Carrier:  
(a) Input Level Range -10 to +10 dBmV  
(b) Frequencies  
SRD-A Unit 93 MHz  
SRD-B Unit 99 MHz  
SRD-A & B Unit 93-99 MHz

Impedance (In and Out) 75  $\Omega$

Return Loss (powered) 12 dB

Powering Low Voltage 12-14V, via drop cable (Safe for outdoor usage under UL1410)

### INDOOR DESCRAMBLERS MODEL SD

Input and Output Frequency Range/Channels 54-300 MHz/All CATV Channels 2-13, A-W

Gain:  
Premium Mode 5 dB sync, -1 dB video, nominal  
Standard Mode 5 dB nominal

Input Channel Carrier Level +10 dBmV max. for 35 ch.  
@ -64 dB second order  
@ -66 dB crossmod

Noise Figure (standard) 9 dB max.

Timing Carrier:  
(a) Input Level Range -10 to +5 dBmV  
(b) Frequencies  
SD-A Unit 93 MHz  
SD-B Unit 99 MHz  
SD-A & B Unit 93-99 MHz

Impedance (In and Out) 75  $\Omega$

Return Loss 11 dB min.

Powering Low Voltage 12-14V, via drop cable (Safe for outdoor usage under UL 1410 Preamp lightning protected)

Built-in anti-tamper mechanism is a self-destruct device

### SIMPLE CONTROL UNIT MODEL SC

Input and Output Frequency Range 54-300 MHz

Impedance 75  $\Omega$

Return loss 11 dB min.

Controls (3 push-buttons) A, B, Standard

Power-UL Approval Pending 105-125V A.C., 60 Hz, 4 Watts

A knockout is available for mounting a parental guidance keylock.

### SCRAMBLER SPECIFICATIONS MODEL SSE-200

Scrambled Channel Any Channel Within Input Frequency Range: 54 to 300 MHz

RF Input Level from Modulator +60 dBmV max.

Insertion Loss:  
SCRAMBLE Mode Sync 7 dB; Video 1 dB  
STANDBY Mode 4 dB

Video Level requirements 0.8V to 1.2V p-p

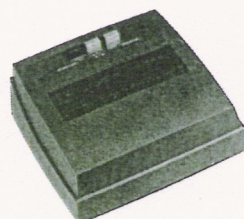
Timing Channel Frequency  
Level A 93 MHz  
Level B 99 MHz  
Output Level +35 to +54 dBmV (adjustable at headend)

Impedance 75  $\Omega$

Connectors F-type

Headend Connections Composite Video (loop-thru) Modulated RF Channel (loop-thru)

The Service Encoder is used in conjunction with a standard Modulator. Full Modular Specifications apply.



### MIDBAND INDOOR CONTROL UNIT—MODEL SCCU

	Standard Mode	Converter Mode
Input Frequency Range	54-220 MHz	162-174 MHz
Output Frequency Range	54-220 MHz	60-66 MHz (Ch 3) or 66-72 MHz (Ch 4)
Insertion Loss	2.5 dB max.	—
Gain	—	4 dB nominal
Maximum input level	—	+15 dBmV @ -60 dB crossmod
Noise Figure	—	12 dB nominal
Oscillator: at Input at Output	—	0 dBmV max. +10 dBmV max.
Impedance	75 $\Omega$	75 $\Omega$
Return Loss Input Output	11 dB 11 dB	10 dB 5 dB
Fine Tune Range	—	$\pm 1$ MHz min.
Controls	3 push-buttons / A, B, Standard / Fine Tune Control	
Power - UL Approval Pending	105-125 VAC, 60 Hz, 4.5 W	

Built-In Flexibility: (1) Available with or without STARPACK input powering connection... can be reconfigured in the field from stand-alone to STARPACK descrambler service. (2) An internal switch allows field conversion from 2 channel scrambled to 1 scrambled and 1 clear.

