CABLETRONIX™

INSTALLATION MANUAL

CTMS-616RKPS and CTMS-616RKPS B-BAND
Rack Mount Satellite Multiswitches
with Power Supply

IMPORTANT INFORMATION

The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

PACKAGE CONTENTS

This package contains:

One CTMS-616RKPS or CTMS-616RKPS B-BAND Rack Mountable Multiswitch
One CTMS-616RKPS Power Supply
One CTMS-616RKPS Instruction Manual

PRODUCT DESCRIPTION

The CTMS-616RKPS series of 6 input, 16 output satellite multiswitches are primarily designed to provide signal to up to 16 satellite tuners from DIRECTV 99°, 101°, 103°, 110°, 119°, 72.5° and 95° satellite positions. Both models are housed in a 19" rack mountable chassis with all of the input, output and power connections located on the rear of the unit making them perfect for use in headend systems and high-end residential applications. The standard CTMS-616RKPS model is compatible with all DIRECTV receivers, and therefore, perfect for applications with a mix of standard definition and high definition receivers. The CTMS-616RKPS B-BAND model has integrated B-Band converter technology. This unit is perfect for applications in which all receivers are HD MPEG-4 and would normally require B-Band converters. This eliminates the need for individual B-Band converters on each receiver.

SPECIFICATIONS

CTMS-616RKPS and CTMS-616RKPS B-BAND

Rack Mountable Satellite Multiswitch with Power Supply Specifications (Typical)

RF	
1. Frequency Range	150 – 2150 MHz
2. Number of Satellite Inputs	6
3. Number of Tuner Outputs	16
4. Satellite Compatibility	DIRECTV Ka/Ku
5. Satellite Input Connections	F female
6. Tuner Output Connections	F female
7. Power Supply Connection	F female
GENERAL and MECHANICAL	
1. Operating Temperature	32 ˚F ~ 122 ˚F
2. Dimensions	19" (W) x 3.5" (H) x 10.75" (D)
3. Weight	10 lb. 11 oz.

INSTALLATION AND OPERATION

NOTE TO SYSTEM INSTALLER

System installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to *the grounding system of the building*, as close to the point of cable entry as practical.

1. UNPACKING and HANDLING

Each unit is shipped with all equipment assembled, and factory tested.

Ensure that all accessories are removed from the container before discarding packing material

2. MECHANICAL INSPECTION

Inspect the front and rear of the equipment for shipping damage. Make sure the equipment is clean, and no connectors are broken, damaged, or loose. If equipment appears to be damaged or defective please contact us at 1-610-429-1511 for assistance.

3. PRODUCT DIAGRAM

1	**Output Ports to Satellite Receivers**	Connections for up to 16 satellite receivers
2	**18V LNB Input Port**	Connection to Slim Line Ka/Ku LNB
3	**13V LNB Input Port**	Connection to Slim Line Ka/Ku LNB
4	**18V – 22K LNB Input Port**	Connection to Slim Line Ka/Ku LNB
5	**13V – 22K LNB Input Port**	Connection to Slim Line Ka/Ku LNB
6	**FlexPort 1**	72.5° W or 95° W satellite positions
7	**FlexPort 2**	72.5° W or 95° W satellite positions
8	**Power Port**	Port for CTMS-616RKPS, CTMS-616RKPS B-BAND Power Supply

4. HARDWARE CONNECTIONS

a. The CTMS-616RKPS is designed for installation in a standard 19" EIA rack.

b. The CTMS-616RKPS is optimized for Slim Line Ka/Ku LNB supporting automatic switching for 99°, 101°, 103°, 110° and 119° W satellite positions.

c. Connect a 75ohm coaxial cable with F-connectors from each Slim Line Ka/Ku LNB Output to each of the CTMS-616RKPS' LNB Input ports (18V, 13V, 18V – 22K and 13V – 22K).

d. ***FlexPort 1 and FlexPort 2 can only be accessed with an Advanced Program Guide (APG) satellite receiver or a MPEG-4 capable HD receiver***. The FlexPorts are used to interface with the dish antennas of two additional DIRECTV satellites at 72.5°W and 95°W. ***The FlexPorts cannot be used for any off-air signal, CATV signal or security camera signal***.

e. With the APG satellite receiver, if you have either 72.5°W or 95°W inputs, always use FlexPort 1. If you have both 72.5°W and 95°W inputs, use FlexPort 1 for 72.5°W and FlexPort 2 for 95°W. In a multi-APG IRD environment, you should run one auto-configure at a time; and before auto-configuring is running make sure the other APG IRDs are on 101°W (Channel 100 is suggested). This will reduce system acquisition time and minimize error.

f. Connect a 75ohm coaxial cable with F-connectors from one of the CTMS-616RKPS's Output ports to the input of a satellite receiver. Repeat for each satellite receiver.

g. Connect the power supply's F-male plug to the CTMS-16RKPS's Power Input port. Plug the power supply into a 120 VAC, 60Hz receptacle***. You must use the power supply provided with the CTMS-616RKPS***.

h. Since the Ka low band occupies a frequency range of 250-750 MHz, off-air antenna and cable signals cannot be diplexed through this unit or on the outputs of this unit when it is supplied with a signal from a Ka/Ku satellite dish.

i. ***Do not put terminators on any unused input or output ports of this switch***.

5. ADJUSTMENT

No adjustments to the CTMS-616RKPS can be made. However, it is important to ensure all headend equipment including modulators, combiners, and amplifiers are adjusted to the proper signal levels per the headend design specifications.

6. TROUBLESHOOTING

a. Ensure you are using quality multiple shielded cables with quality radial or compression F-connectors. Also ensure the F-connector's center conductor is making solid contact with the CTMS-616RKPS Input and Output ports, the LNB connectors, and the satellite receiver input connectors.

b. Further troubleshooting assistance can be found on-line at www.northamericancable.com and www.cabletronix.com in addition to support from Cabletronix sales engineers at 1-610-429-1511.