



CTI/1

RS422/BBV Coax Telemetry Interface Single Channel



Installation Guide



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INTRODUCTION

GENERAL

The CTI/1 is designed to provide conversion from RS422/485 serial data to BBV Coax Telemetry based systems.

Up the Coax telemetry allows upgrading of static cameras to PTZ without the need for additional cabling.

The RS422/485 input is auto detecting. The CTI/1 will understand BBV RS422 @ 9600 N, 8, 1. & Pelco P @ 9600, N, 8, 1.

1 x BNC output provides Coax Telemetry, connecting to a single receiver.
1 x BNC output provides Video Loop Through.

Each unit is supplied with a 9v 500mA Power Supply, Manual & Adhesive Fixings.

Please Note: The CTI/1 supports eight addresses only

Protocols currently supported are: BBV & Pelco P

The CTI/1 has been tested with the BBV FBM Matrix, BBV TX1500 Matrix, BBV TX400DC/RS485 & Pelco KBD300,

The following pages show address settings and connection details.

PRE-INSTALLATION CHECKS AND SAFETY PROCEDURES

Unpacking - Inspect the packaging for signs of damage. If damage has occurred, advise the carrier and/or the suppliers immediately. Unpack the receiver carefully and check that all the items are present and correct (see checklist on box). If any item is missing contact the supplier.

Retain Packaging - The shipping carton is the safest container in which to transport the unit. Retain undamaged packaging for possible future use.

IMPORTANT SAFETY PRECAUTIONS

Read & Retain Instructions - All relevant safety, installation and operating instructions should be read & retained before attempting to install, connect or operate the unit.

Water and Moisture - Do not expose the internal electronics of this unit to water or dampness.

Power Sources - This unit should be operated only from the supplied power supply.

Servicing - Servicing of the unit should only be undertaken by qualified service personnel.

Damage Requiring Service - Servicing by qualified personnel should be carried out under the following conditions:

- (a) When the power-supply cord or plug is damaged;
- (b) If liquid has been spilled, or objects have fallen into, the unit;
- (c) If the internal electronics of the unit have been exposed to rain or water;
- (d) If the unit does not operate normally by following the operating instructions.
- (e) If the unit has been dropped or the enclosure is damaged;

Replacement Parts - If replacement parts are required, ensure that only replacement parts recommended by the product manufacturer are used.

Safety Check - Upon completion of any service or repairs to the unit, safety checks should be performed to ensure that the unit is in proper operating condition.

Coax Grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded.

Pre-installation Checks - It is recommended that the unit be bench-tested prior to installation on the site.

Adhere to Safety Standards - All normal safety precautions as laid down by British Standards and the Health and Safety at Work Act should be observed.

WARNING

TO PREVENT DANGER OF FIRE OR SHOCK, DO NOT EXPOSE THE INTERNAL COMPONENTS OF THIS EQUIPMENT TO RAIN OR MOISTURE.

Technical Specification

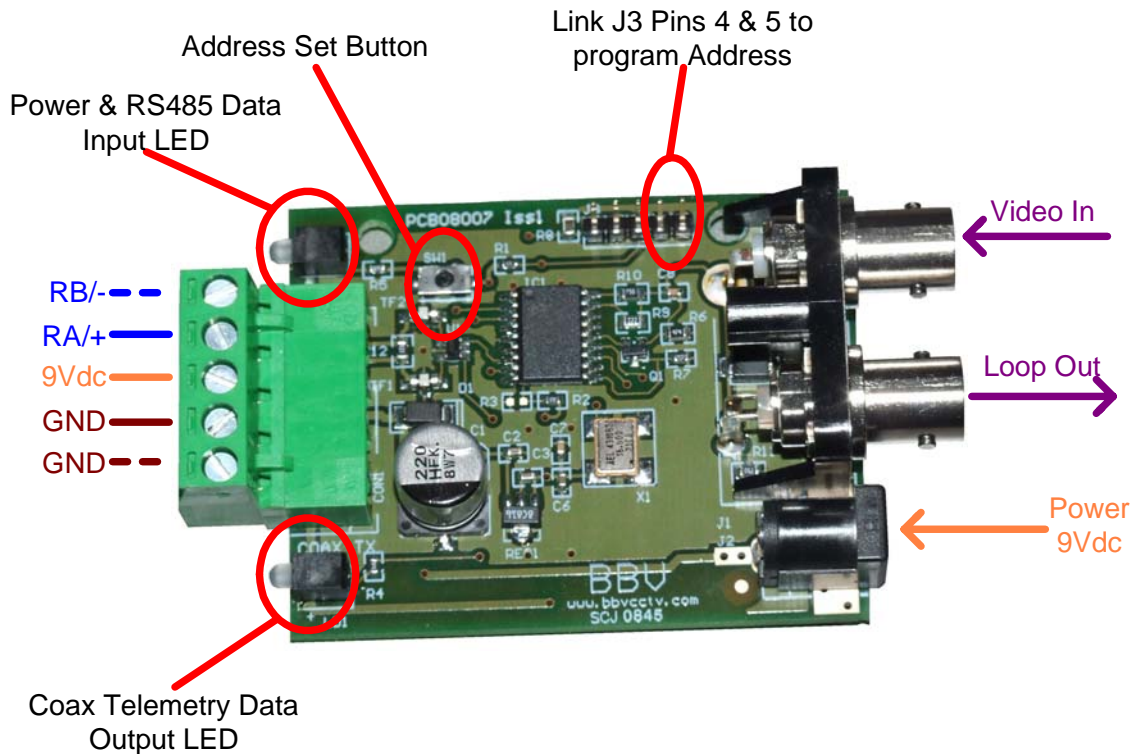
Power Requirements	9Vdc 500mA
Inputs	BBV RS422 or Pelco P 2 Wire RS485, 2 Wire RS422 Simplex via 5 pin Green Screw Terminal Connector Maximum Cable Distance Belden 8723 = 1200mtrs
Outputs	1 x BBV Coax Telemetry via BNC Connectors Minimum Cable distance = 5mtrs Maximum Cable Distance RG59 = 250mtrs CT125 = 500mtrs
Facilities	Supports 8 addresses LED as power & valid RS422/485 Serial Data in indicator LED Coax Telemetry Data out indicator
Boxed Dimensions.	Length 69mm Width 57mm Height 36mm
Weight	64 grams

CTI/1 Software Version History

Version 1 December 2008

- 1. CTI/1 Released
Support of BBV, Pelco P RS485 input protocols converting to BBV Coax output protocol

CTI/1 Connection Diagram



- In normal operation the Power LED is ON, when receiving valid addressed RS485 data the LED flashes OFF.
- In normal operation the Coax LED is OFF, when transmitting valid Coax Telemetry data the LED will flash ON.

Address Setting Procedure

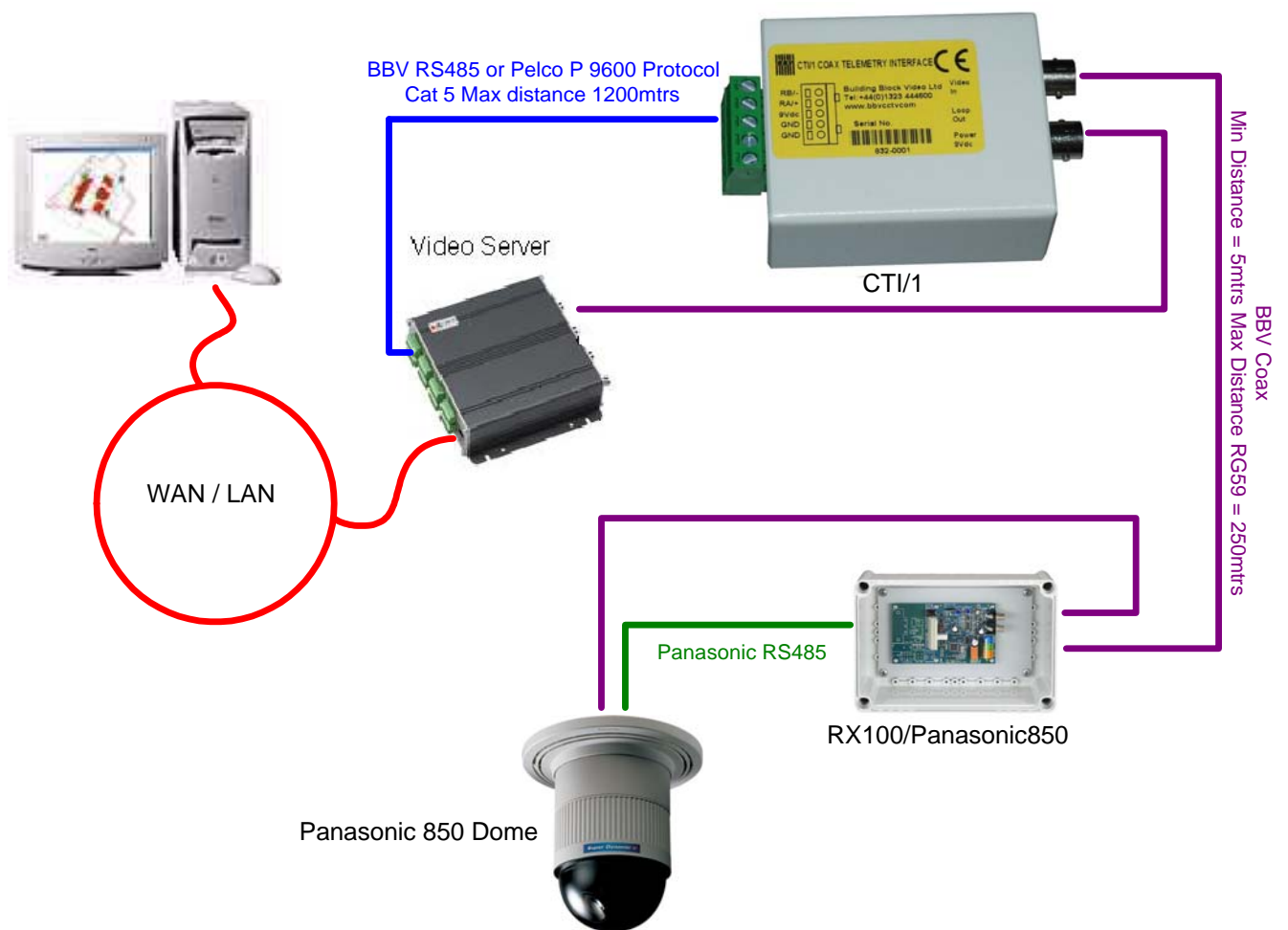
The CTI/1 is defaulted to address 1, to set a new address follow the steps below:

- Remove Power and Plastic Cover.
- Fit Jumper Link to J3 Pins 4 & 5.
- Apply Power.
- Press & Hold SW1 Address Button until the Power LED flashes the required number of times to match the address. (1 – 8 Flashes followed by longer pause)
- Remove Jumper Link.
- Remove Power
- Refit Plastic Cover & Re-apply Power.

Function Command Table

BBV Coax	BBV RS422	Pelco P 9600 N 8 1
1#	1#	Save Preset 95 or Goto Preset 61
2#	2#	Goto Preset 33 or Goto Preset 62
3#	3#	Goto Preset 94 or Goto Preset 63
4#	4#	Goto Preset 34 or Goto Preset 64
Start Patrol 1	Start Patrol 1	Goto Preset 97 or Goto Preset 66
Start Patrol 2	Start Patrol 2	Goto Preset 98 or Goto Preset 67
Autopan	Autopan	Goto Preset 99 or Goto Preset 68

Example System Drawing



BBV products.

Product	Description
TX400	Single camera desktop telemetry transmitter with coax & 20mA telemetry, Pan/Tilt/Lens, Lights, Wash, Wipe, Autopan, 8 presets, preset patrol.
TX400DC	As TX400 including joystick for proportional Pan/Tilt control. Option of RS485 telemetry output.
TX1000 MK2	8 or 16 camera, 2 monitor telemetry transmitter. Up to 2 keyboards. BBV up -the-coax and RS422 standard with options for alarm inputs and 20mA telemetry.
TX1500	Mid size matrix 16 – 96 camera, 8 monitor. Up to 4 control positions (keyboard & remote control) options for alarms, remote control, BBV up-the-coax and RS485 telemetry.
FBM range	Large size matrix. Configurable up to 4096 cameras and 64 monitor outputs. Up to 8 control positions (keyboard & remote control) options for alarms, remote control RS485 telemetry with various options. Please call to discuss requirements.
All RX receivers below are powered by 230V ac or optional 110V or 24V ac.	
RX100	Dome Interface to drive a large library of dome cameras. BBV up-the-coax and 20mA telemetry. Mains or plugtop supply.
RX200	AC receiver for Pan only heads or static cameras, Wash/Wipe/Lights. BBV up-the-coax and 20mA telemetry.
RX300	AC receiver for Pan/Tilt/Zoom/Focus/Iris Override and 1 Auxiliary output. BBV up-the-coax and 20mA telemetry.
RX400P	AC full function receiver. PTZFI 4 Auxiliary outputs, 16 presets. BBV up-the-coax and 20mA telemetry.
RX45X (AC) RX55X (DC) Multi serial protocol and up-the-coax telemetry receivers	Multiple RS485/422 and up -the-coax controllable AC and DC receivers. PTZFI control, 32 presets, preset patrol, 8 local alarm inputs, 12V 500mA supply output. OSD for remote setup, test & diagnostics. 3 Aux. outputs RX55X or 4 Aux. outputs RX45X. Optional Privacy board. BBV RS422, UP-THE-COAX, 20mA current loop BAXALL STANDARD & ALTERNATE UP-THE-COAX, DENNARD RS422/485, PELCO P/D RS422/485, PHILIPS/BOSCH RS422/485 (OPTIONAL BIPHASE INPUT), MOLYNX RS422/485, SENSORMATIC/AD RS422, VCL/HONEYWELL RS422/485, VICON RS422, MEYERTECH RS485, CIRRUS AUDIO MONITORING
High-Res	High Resolution Receiver providing preset positional accuracy & extreme slow speed control. Compatible with Pentax H55 & Fujion D60 Lens
RX450/550	PANASONIC RS485 Protocol only version of RX45X/55X.
STARCARD STARCARD/CONVERTER	8 * RS485 output, 2 wire simplex RS422, 4 wire full -duplex RS422, 2 wire half-duplex RS485. Option STARCARD/CONVERTER offering protocol conversion to drive an increasing range of 3 ^d party protocols.
CTI 16 & CTI 8	Multi-protocol serial converter that gives up -the-coax control to 16 or 8 cameras. BBV RS422, Dennard RS485, Pelco P, Pelco D, Philips/Bosch RS485/232, VCL RS485, Sensormatic RS422, Molynx, Vicon
ACCESSORIES	TxLD (bidirectional RS422-RS232 converter) 98005 (bidirectional 20mARS232 converter)

For all our products visit www.bbvctv.com