Reference Manual ASCII Protocol



GE Interlogix Kalatel

All Rights Reserved.

Any GE Interlogix, Kalatel division, software supplied with GE Interlogix, Kalatel division, products is proprietary and furnished under license and can be used or copied only in accordance with the terms of such license.

This document contains proprietary information that is protected by copyright. No part of this document may be reproduced or transmitted in any form or by any means without the prior written permission of GE Interlogix, Kalatel division.

The information contained in this document is subject to change without notice. GE Interlogix, Kalatel division, in keeping pace with technological advances, is a company of product innovation. Therefore, it is difficult to ensure that all information provided is entirely accurate and upto-date. GE Interlogix, Kalatel division, accepts no responsibility for inaccuracies or omissions and specifically disclaims any liabilities, losses, or risks, personal or otherwise, incurred as a consequence, directly or indirectly, of the use or application of any of the contents of this document.

For the latest product specifications, visit GE Interlogix, Kalatel division, online at www.kalatel.com or contact your GE Interlogix, Kalatel division, sales representative. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For technical support before and after installation, call 800-469-1676.

Technical support is available 24 hours a day, 7 days a week.

Call: **Tech Support** 800-469-1676 (6 A.M. – 5 P.M. PST Monday through Friday)

Tech Support 541-740-3589 (all other times) 800-343-3358 or 541-754-9133

Fax: **Tech Support** 541-752-9096 (available 24 hours a day)

Main 541-754-7162

Web: www.kalatel.com

1038010A / January 2003

TABLE OF CONTENTS

BE	FORE	You Begin	4
1	INTR	ODUCTION	5
	1.1	SAMPLE SYSTEMS	5
2	Und	ERSTANDING THE DATA AND MESSAGES	8
	2.1	Data Types	8
		2.1.1 Receive Data	8
		2.1.2 Transmit Data	8
	2.2	TRANSMIT DATA MESSAGE TYPES	9
3	Pro	GRAMMING THE COMMAND STRINGS	10
	3.1	RECEIVE COMMANDS	10
	3.2	NON-REPEATING TRANSMIT COMMANDS	10
	3.3	REPEATING TRANSMIT COMMANDS	12
	3.4	KEYPAD COMMANDS FOR PROGRAMMING DIGIPLEX IV SWITCHERS	13
	3.5	KEYPAD COMMANDS FOR PROGRAMMING CYBERDOMES	14
4	GLO	SSARY	15
W	ARRAN	ITY AND RETURN INFORMATION	18

BEFORE YOU BEGIN

Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes.

This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- · A basic knowledge of electrical wiring and low-voltage electrical hookups

Intended use

Use this product only for the purpose for which it was designed; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, please contact Kalatel Technical Support and Sales:

GE Interlogix, Kalatel division

Call: 800-469-1676 Fax: 541-752-9096

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following **WARNING**, **CAUTION**, and **Note** statements identify potential hazards that can occur if the equipment is handled improperly:



* WARNING:

Improper use of this equipment can cause severe bodily injury or equipment damage.



** CAUTION:

Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.

- * This symbol indicates electrical warnings and cautions.
- ** This symbol indicates general warnings and cautions.

1 Introduction

You can use Kalatel's open ASCII protocol and a computer (or other external communication device) to program and control Kalatel[®] CCTV equipment. The ASCII protocol can directly control some Kalatel products; other Kalatel products require a protocol interface. You will use the same protocol command strings for direct control of a Kalatel device and control through an interface device. This document provides the ASCII protocol command strings that you'll need.

Note: Using a computer with ASCII control software eliminates the need for a keypad, but you can include a keypad for added control of some devices. See section 1.1 Sample Systems.

Note: If a Kalatel keypad is used in conjunction with ASCII control software, a protocol interface device is required for the control of CyberDome and CyberScout cameras.

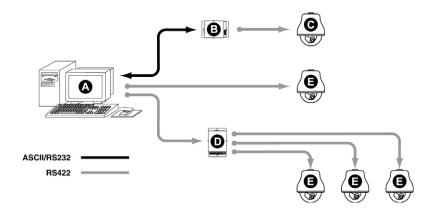
The ASCII protocol communicates with the following Kalatel equipment:

- CyberDome[®] cameras (firmware versions after 01/01/02)
- CyberScout[™] cameras
- Digiplex[®] IV matrix switcher (switch control only)
- KTD-348 Crosspoint 32 matrix switcher (switcher and PTZ control)
- KTD-312 protocol interface
- · KTD-313-1 protocol converter
- · KTD-410 protocol interface

Note: CyberDomes and CyberScouts use RS422 data inputs for ASCII communication; all other devices use RS232 data inputs.

1.1 SAMPLE SYSTEMS

Figure 1 shows the direct connection between a computer with ASCII control software and camera receivers with and without an ASCII translation unit.



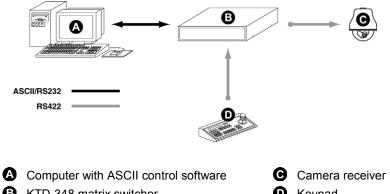
- A Computer with ASCII control software (computer has multiple communication ports)
- **B** ASCII translation unit
- C Any PTZ or receiver

- Data signal distributor
- CyberDome or CyberScout PTZ receiver

Figure 1. System connecting a computer with ASCII control software directly to the camera receivers

1038010A / January 2003 5

Figure 2 shows the connection between a computer with ASCII control software and camera receivers through a KTD-348 matrix switcher.



- **B** KTD-348 matrix switcher

Keypad

Figure 2. System connecting a computer with ASCII control software to camera receivers through a KTD-348 matrix switcher

Figure 3 shows the connection between a computer with ASCII control software and camera receivers through a keypad and digital video multiplexer/recorder. The ASCII translation unit here can be a KTD-312 or KTD-410.

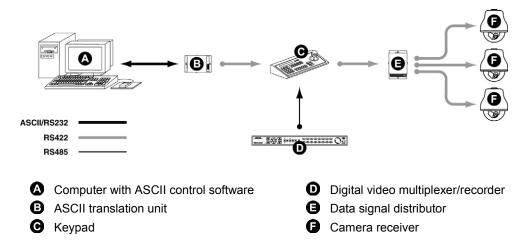


Figure 3. System connecting a computer with ASCII control software to camera receivers through a keypad and digital video multiplexer/recorder

Figure 4 shows the connection between a computer with ASCII control software and camera receivers through a Digiplex IV matrix switcher and alarm interface. The ASCII translation unit here is a KTD-312.

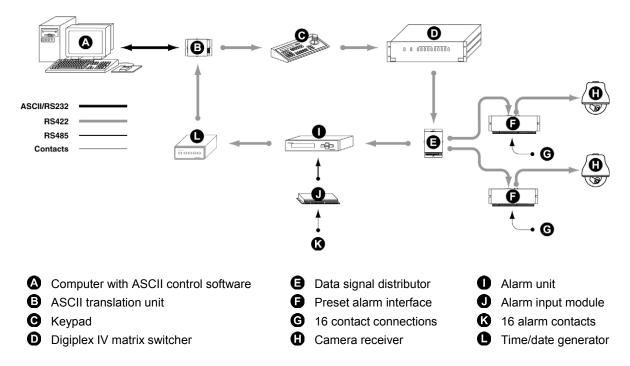


Figure 4. System connecting a computer with ASCII control software to camera receivers through a Digiplex IV matrix switcher and alarm interface

2 Understanding the Data and Messages

2.1 DATA TYPES

Data is transmitted bidirectionally between the ASCII control software and the ASCII translation unit. The ASCII protocol distinguishes between data flowing in each direction. The data sent from the control software to the translation unit is the *transmit data*. The data sent from the translation unit to the control software is the *receive data*.

All receive and transmit data characters are interpreted as ASCII. No control characters are used. Characters are numbered in the order that they are transmitted. All characters must be present. If the site number for a particular command is "0," all three digits of the site-select number must be "0."

2.1.1 RECEIVE DATA

Only the KTD-348 and the KTD-312 output receive data—the KTD-410 and the domes do not.

Data received by the control software is sent by the translation unit in a five-character command string. See section 3 *Programming the Command Strings* for specific programmable command strings and exceptions to the characters.

The five character positions define the following:

Position	ASCII Character	Represents
Character 1	@	Start character (ASCII "@", 40h)
Character 2	alpha-numeric	Function code
Character 3	0 – 5	Normally 100s digit of site-select number
Character 4	0 – 9	Normally 10s digit of site-select number
Character 5	0 – 9	Normally 1s digit of site-select number

2.1.2 TRANSMIT DATA

Data transmitted by the control software is sent to the translation unit in a seven-character command string (e.g., 03'058~). There are two types of transmit data. These are defined in section 2.2 Transmit Data Message Types. See 3 Programming the Command Strings for specific programmable command strings and exceptions to the characters.

The seven character positions define the following:

Position	ASCII Character	Represents
Character 1	0 – 6	Normally 10s digit of monitor-select number
Character 2	0 – 9	Normally 1s digit of monitor-select number
Character 3	alpha-numeric	Function code
Character 4	0 – 5	Normally 100s digit of site-select number
Character 5	0 – 9	Normally 10s digit of site-select number
Character 6	0 – 9	Normally 1s digit of site-select number
Character 7	~ (tilde)	Terminator (ASCII "~", 7Eh)

2.2 TRANSMIT DATA MESSAGE TYPES

Two types of command messages can be transmitted by the Digiplex control signal: non-repeating and repeating. Non-repeating messages (such as switcher commands) are transmitted only once. Repeating messages (such as receiver pan and tilt commands) are transmitted continually for 15 seconds unless they are stopped. All repeating commands have a 15-second time-out. A repeating command message is terminated before the 15-second time-out when the CCTV component being controlled receives the stop form of the original command, a message for a competing command, or a message for a special cancel command (called universal cancel). After 15 seconds the command message must be sent again to continue the command for another 15-second interval.

For example, if receiver 17 is told to pan right, the ASCII translation unit continues to send pan-right command messages for 15 seconds, after which the command times out, or until a competing command (such as a pan-left message for receiver 17) or universal cancel message is received.

Note: The ASCII control software sends its message only once. The ASCII translation unit manages the repetition of any repeating command messages.

3 PROGRAMMING THE COMMAND STRINGS

Follow the instructions for your ASCII control software to program the appropriate command strings.

3.1 RECEIVE COMMANDS

Table 1 provides the command strings for the receive command messages. The Alarm On and Alarm Off commands originate in the internal alarm contacts or the alarm units. When an alarm is sensed, the alarm unit sends an Alarm On command for the site number assigned to that contact. When the alarm is no longer sensed, the alarm unit sends an Alarm Off command for the site number assigned to that contact.

For example, when an alarm contact assigned to site 37 is sensed, the event is reported to the control software in the string @V037. When the same contact is no longer sensed, the event is reported to the control software in the string @W037.

Table 1. Receive commands and their corresponding command strings

Command	Char 1	Char 2	Char 3	Char 4	Char 5
Alarm On	@	"V"=56h	S100	S10	S1
Alarm Off	@	"W"=57h	S100	S10	S1
Annunciate	@	"X"=58h	S100	S10	S1
Annunciate Cancel	@	"Y"=59h	S100	S10	S1

3.2 Non-Repeating Transmit Commands

Table 2 provides the command strings for the non-repeating command messages. For example, 04#007~ is the non-repeating command string for the command that selects CAM 007 on MON 5. In this table, M10 and M1 represent the 10s and 1s digits for the monitor-select numbers, and S100, S10, and S1 represent the 100s, 10s, and 1s digits for the site-select numbers.

Note: Monitors are represented by the monitor number minus one (e.g., monitor 5 is represented by 04).

Note: The minimum and maximum monitor numbers are 01 and 64, and the minimum and maximum site numbers are 000 and 511.

Table 2. Non-repeating commands and their corresponding command strings

Command	Char 1	Char 2	Char 3	Char 4	Char 5	Char 6	Char 7
Alarm Enable/Disable (Note 1)	M10	M1	"7"=37h	"0"	"0"	Note 2	~
Alarm Off	"0"	"0"	"\"=5Ch	S100	S10	S1	~
Alarm On	"0"	"0"	"["=5Bh	S100	S10	S1	~
Annunciate	M10	M1	"."=2Eh	S100	S10	S1	~
Annunciate Cancel	M10	M1	"/"=2FH	S100	S10	S1	~
Auto Focus (Note 3)	M10	M1	"*"=2Ah	S100	S10	S1	~
Camera Power	"1"	"5"	">"=3Eh	S100	S10	S1	~
Camera Select	M10	M1	"#"=23h	S100	S10	S1	~
Clear Screen	M10	M1	"8"=38h	"0"	"0"	"0"	~

Command	Char 1	Char 2	Char 3	Char 4	Char 5	Char 6	Char 7
Day-Nite (Note 4)	"1"	"6"	"<"=3Ch	S100	S10	S1	~
Find Preset	Note 5	Note 5	"E"=45h	S100	S10	S1	~
Flip	"0"	"1"	">"=3Eh	S100	S10	S1	~
Group Select	"0"	"0"	"="=3Dh	"0"	Note 6	Note 6	~
Group Sequence	Note 7	Note 7	"="=3Dh	"0"	"0"	"0"	~
Home	"0"	"0"	">"=3Eh	"0"	"0"	"0"	~
ID	"0"	"4"	">"=3Eh	"0"	"0"	"0"	~
Inch Left	"1"	"0"	">"=3Eh	S100	S10	S1	~
Inch Right	"1"	"1"	">"=3Eh	S100	S10	S1	~
Inch Up	"1"	"2"	">"=3Eh	S100	S10	S1	~
Inch Down	"1"	"3"	">"=3Eh	S100	S10	S1	~
Lens Initialize	"1"	"4"	">"=3Eh	S100	S10	S1	~
Preset Tour (Note 8)	"0"	M1	"^"=5Eh	S100	S10	S1	~
Sequence	M10	M1	"\$"=24h	S100	S10	S1	~
Set Preset	Note 9	Note 9	"Q"=51h	S100	S10	S1	~
Single Step Left	"0"	"6"	">"=3Eh	S100	S10	S1	~
Single Step Right	"0"	"7"	">"=3Eh	S100	S10	S1	~
Single Step Up	"0"	"8"	">"=3Eh	S100	S10	S1	~
Single Step Down	"0"	"9"	">"=3Eh	S100	S10	S1	~
Stabilize	"0"	"5"	">"=3Eh	S100	S10	S1	~
Start Auto Pan	M10	M1	"A"=41h	S100	S10	S1	~
Time/Date (Note 10)	TC	"0"	"&"=26h	"0"	T10	T1	~
Universal Cancel	M10	M1	"_"=5Fh	S100	S10	S1	~
Zero Lux	"0"	"2"	">"=3Eh	S100	S10	S1	~

- Note 1: Alarm enable/disable is a toggling function. When received by the specified switcher, the switcher changes between alarm enabled and alarm disabled. (The switcher changes to the opposite of what it was prior to receipt of the command.) When disabled, the switcher ignores all alarm functions.
- Note 2: Character 6 contains the sequence number ("1" - "4").
- Enables auto-focus mode on the CyberDome. Note 3:
- Toggles between day (color) and night (monochrome) on CyberDome Day-Nite. Character 1 is always 1 and character 2 Note 4: is always 6. Note: The CyberDome Day-Nite must be programmed for manual switch-over.
- Note 5: Character 2 contains the preset location ("0" - "9") and character 1 contains "0." For the CyberDome, characters 1 and 2 are "00 through 63."
- Note 6: Characters 5 and 6 contain the group number. Groups 1 through 32 apply only to the KTD-440 (for monitors 1 – 32), and groups 33 through 64 apply only to the KTD-440N (for monitors 33 - 64).
- Characters 1 and 2 contain the group sequence number. Group sequences 1 through 6 apply only to the KTD-440 (for Note 7: monitors 1 and 2), and groups 7 through 12 apply only to the KTD-440N (for monitors 33 - 64).
- Note 8:
- M10=0 and M1=tour number between 1 and 4 for CyberDome. For the KTA-12 series, only tour 1 is used. Character 2 contains the preset location ("0" "9"), and character 1 contains "0." For KTA-12x-xx-A, KTA-12x-xx-P Note 9: Discrete Domes, and CyberDome, characters 1 and 2 are "62" to set the left autopan limit and "63" to set the right autopan limit. For the CyberDome, characters 1 and 2 are "00 - 63."
- Sets time/date in GE Interlogix, Kalatel division, time/date/title generators. TC="1" for second, "2" for minute, "3" for hour, Note 10: "4" for day, "5" for month, and "6" for year. T10 is 10s digits of quantity ("0" – "9") and T1 is 1s digit of quantity ("0" – "9"). Use the last two digits of the year only. This function is designed to set the time of slave-mode time/date/title generators. Time is saved after seconds is received, so seconds must be sent last.

3.3 REPEATING TRANSMIT COMMANDS

Table 3 provides the command strings for the repeating command messages. Table 3 uses the same format and symbols as Table 2, except there are two entries for each command. The first is the message that starts the repeating command and the second is the message that stops it. For the most part, which commands compete with each other is apparent.

Table 3. Repeating commands and their corresponding command strings

Badge Video (Note 1)	Command		Char 1	Char 2	Char 3	Char 4	Char 5	Char 6	Char 7
Stop M10 M1 T=(4h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Radgo Vidoo (Note 1)	Start	M10	M1	"T"=54h	S100	S10	S1	~
Door 2 Open (Note 2) Stop M10 M1 "x"=78h S100 S10 S1 ~	Bauge video (Note 1)	Stop	M10	M1	"t"=74h	S100	S10	S1	~
Stop M10 M1 "X"=78h S100 S10 S1 ~	Door 1 Open (Note 2)	Start	M10	M1	"X"=58h	S100	S10	S1	~
Stop M10 M1 "w"=77h S100 S10 S1 ~	Door 1 Open (Note 2)	Stop	M10	M1	"x"=78h	S100	S10	S1	~
Stop M10 M1 "W=7/h S100 S10 S1 ~ Stop M10 M1 "Y=59h S100 S10 S1 ~ Stop M10 M1 "Y=59h S100 S10 S1	Door 2 Open (Note 2)	Start	M10	M1	"W"=57h	S100	S10	S1	~
Stop M10 M1 "y"=79h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Door 2 Open (Note 2)	Stop	M10	M1	"w"=77h	S100	S10	S1	~
Stop M10 M1 Y=19h S100 S10 S1 ~	Door 1 Video (Note 1)	Start	M10	M1	"Y"=59h	S100	S10	S1	~
Stop M10 M1 "z"=7Ah S100 S10 S1 ~ ~	Door 1 video (Note 1)	Stop	M10	M1	"y"=79h	S100	S10	S1	~
Face Video (Note 1) Start M10	Door 2 Video (Note 1)	Start	M10	M1	"Z"=5Ah	S100	S10	S1	~
Fast	Door 2 video (Note 1)	Stop	M10	M1	"z"=7Ah	S100	S10	S1	~
Fast	Eaco Vidoo (Note 1)	Start	M10	M1	"S"=53h	S100	S10	S1	~
Stop M10 M1 "k"=6Bh S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Face video (Note 1)		M10	M1	"s"=73h	S100	S10	S1	~
Stop M10 M1 Nr FeBB S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Fast	Start	M10	M1	"K"=4Bh	S100	S10	S1	~
Stop M10 M1 "f"=66h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	rast	Stop	M10	M1	"k"=6Bh	S100	S10	S1	~
Stop M10 M1 "T"=66h S100 S10 S1 ~ Stop M10 M1 "M"=4Eh S100 S10 S1 ~ Stop M10 M1 "M"=6Eh S100 S10 S1 ~ Stop M10 M1 "M"=6Eh S100 S10 S1 ~ Stop M10 M1 "H"=68h S100 S10 S1 ~ Stop M10 M1 "H"=68h S100 S10 S1 ~ Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "b"=62h S100 S10 S1 ~ Stop M10 M1 "b"=63h S100 S10 S1 ~ Stop M10 M1 "C"=63h S100 S10 S1 ~ Stop M10 M1 "C"=63h S100 S10 S1 ~ Stop M10 M1 "D"=50h S100 S10 S1 ~ Stop M10 M1 "D"=50h S100 S10 S1 ~ Stop M10 M1 "D"=40h S100 S10 S1 ~ Stop M10 M1 "D"=40h S100 S10 S1 ~ Stop M10 M1 "D"=40h S100 S10 S1 ~ Stop M10 M1 "D"=60h S100 S10 S1 ~ Stop M10 M1 "T"=60h S100 S10 S1 ~ Stop M10 M1 "J"=40h S100 S10 S1 ~ Stop M10 M1 "J"=40h S100 S10 S1 ~ Stop M10 M1 "J"=60h S100 S10 S1 ~ Stop M10 M1 "J"=50h S100 S10 S1 ~ Stop M10 M1 "J"=60h	Focus For	Start	M10	M1	"F"=46h	S100	S10	S1	~
Stop M10 M1 "n"=6Eh S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Focus Fai	Stop	M10	M1		S100	S10	S1	~
Stop M10 M1 "I"=6Eh S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~	Fogus Noor	Start	M10	M1	"N"=4Eh	S100	S10	S1	~
Stop M10 M1 "h"=68h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Focus Near	Stop	M10	M1	"n"=6Eh	S100	S10	S1	~
Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "B"=42h S100 S10 S1 ~ Stop M10 M1 "C"=43h S100 S10 S1 ~ Stop M10 M1 "C"=43h S100 S10 S1 ~ Stop M10 M1 "C"=63h S100 S10 S1 ~ Stop M10 M1 "C"=63h S100 S10 S1 ~ Stop M10 M1 "P"=50h S100 S10 S1 ~ Stop M10 M1 "C"=40h S100 S10 S1 ~ Stop M10 M1 "1"=60h S100 S10 S1 ~ Stop M10 M1 "1"=72h S100 S10 S1 ~ Stop M10 M1 "1"=72h S100 S10 S1 ~ Stop M10 M1 "1"=60h S100 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M10 M1 "V"=56h S100 S10 S10 S1 ~ Stop M	Cata Class/ON	Start	M10	M1	"H"=48h	S100	S10	S1	~
Stop M10 M1	Gate Close/ON	Stop	M10	M1	"h"=68h	S100	S10	S1	~
Stop M10 M1 "b"=62h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Cata Open/OFF	Start	M10	M1	"B"=42h	S100	S10	S1	~
Stop M10 M1 "c"=63h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Gate Open/OFF	Stop	M10	M1	"b"=62h	S100	S10	S1	~
Stop M10 M1 "c"=63h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Iria Clasa	Start	M10	M1	"C"=43h	S100	S10	S1	~
Stop M10 M1 "p"=70h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	IIIs Close	Stop	M10	M1	"c"=63h	S100	S10	S1	~
Stop M10 M1 "p"=70h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Inia Casa	Start	M10	M1	"P"=50h	S100	S10	S1	~
Stop M10 M1 " " " = 60h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	ins Open		M10	M1	"p"=70h	S100	S10	S1	~
Stop M10 M1 " " " = 60h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Overhead Video (Note 1)	Start	M10	M1	"@"=40h	S100	S10	S1	~
Stop P10 P1 "I"=6Ch S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Overnead video (Note 1)	Stop	M10	M1	"'"=60h	S100	S10	S1	~
Stop P10 P1 "I"=6Ch S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Ban Loft (Note 2)	Start	P10	P1	"L"=4Ch	S100	S10	S1	~
Stop P10 P1 "r"=72h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Pair Leit (Note 3)	Stop	P10	P1	"l"=6Ch	S100	S10	S1	~
Stop P10 P1 "r"=72h S100 S10 S1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Ban Bight (Note 2)	Start	P10	P1	"R"=52h	S100	S10	S1	~
Stow Stop M10 M1 "j"=6Ah S100 S1 ~ Talk (Note 4) Start M10 M1 "V"=56h S100 S1 ~ Stop M10 M1 "V"=76h S100 S1 ~ Tilt Down (Note 3) Start P10 P1 "D"=44h S100 S1 ~ Stop P10 P1 "d"=64h S100 S1 ~ Tilt Up (Note 3) Start P10 P1 "U"=55h S100 S1 ~ Zoom In Start M10 M1 "I"=49h S100 S1 ~ Zoom Out Start M10 M1 "0"=4Fh S100 S1 ~	Pan Right (Note 3)	Stop	P10	P1		S100	S10	S1	~
Stop M10 M1 "j"=6Ah S100 S1 ~ Talk (Note 4) Start M10 M1 "V"=56h S100 S1 ~ Stop M10 M1 "V"=76h S100 S1 ~ Tilt Down (Note 3) Start P10 P1 "D"=44h S100 S10 S1 ~ Stop P10 P1 "d"=64h S100 S10 S1 ~ Tilt Up (Note 3) Start P10 P1 "U"=55h S100 S10 S1 ~ Zoom In Start M10 M1 "I"=49h S100 S10 S1 ~ Zoom Out Start M10 M1 "0"=4Fh S100 S10 S1 ~	Slow	Start	M10	M1	"J"=4Ah	S100	S10	S1	~
Stop M10 M1 "v"=76h S100 S10 S1 ~	Siow	Stop	M10	M1	"j"=6Ah	S100	S10	S1	~
Tilt Down (Note 3) Start P10 P1 "D"=44h S100 S10 S1 ~ Stop P10 P1 "d"=64h S100 S10 S1 ~ Tilt Up (Note 3) Start P10 P1 "d"=64h S100 S10 S1 ~ Stop P10 P1 "U"=55h S100 S10 S1 ~ Stop P10 P1 "u"=75h S100 S10 S1 ~ Zoom In Start M10 M1 "I"=49h S100 S10 S1 ~ Stop M10 M1 "i"=69h S100 S10 S1 ~ Start M10 M1 "i"=69h S100 S10 S1 ~ Start M10 M1 "O"=4Fh S100 S10 S1 ~	Talk (Note 4)	Start	M10	M1	"V"=56h	S100	S10	S1	~
Stop P10 P1 "d"=64h S100 S10 S1 ~	Taik (Note 4)	Stop	M10	M1	"v"=76h	S100	S10	S1	~
Stop P10 P1 "d"=64h S100 S10 S1 ~	Tilt Down (Note 3)		P10	P1					~
Start P10 P1 "U"=55h S100 S1 ~ Stop P10 P1 "u"=75h S100 S1 ~ Zoom In Start M10 M1 "I"=49h S100 S1 ~ Stop M10 M1 "i"=69h S100 S1 ~ Zoom Out Start M10 M1 "O"=4Fh S100 S1 ~	The Down (Note 3)	Stop	P10	P1	"d"=64h	S100	S10	S1	~
Stop P10 P1	Tilt I In (Note 3)		P10	P1	"U"=55h	S100	S10	S1	~
Stop M10 M1 "i"=69h S100 S1 ~ Zoom Out Start M10 M1 "O"=4Fh S100 S1 ~	The Op (Note 3)	Stop	P10	P1		S100	S10	S1	~
Stop M10 M1 "i"=69h S100 S1 ~ Zoom Out Start M10 M1 "O"=4Fh S100 S1 ~	Zoom In	Start	M10	M1		S100	S10	S1	~
Zoom Out Start M10 M1 "O"=4Fh S100 S10 S1 ~	ZOOM III				"i"=69h				~
	Zoom Out		M10	M1	"O"=4Fh	S100	S10	S1	~
	Zoom Out								~

Note 1: Recognized only by KTR-11 face/badge readers.

Note 2: Recognized only by KTR-11 face/badge readers. There are no competing functions.

Note 3: P10 and P1 are two decimal digits of CyberDome speed (01 = slowest, 31 = fastest).

Example: 27L005~ = pan dome #5 left at high speed.

Note 4: Recognized by KTD-336 audio converters. These devices manage Kalatel-format audio over optical fiber and similar links.

3.4 KEYPAD COMMANDS FOR PROGRAMMING DIGIPLEX IV SWITCHERS

Table 4 provides the command strings for emulating the general keypad commands used for programming Digiplex IV switching equipment.

Table 4. Command strings for keypad commands that control Digiplex IV switchers (these command string examples assume that the menus will be displayed on monitor 4)

Command	Command String	Notes			
Menu bank	03'043~	Two commands are required to force the Digiplex IV switcher into menu operation:			
Starting menu number	03'058~	1. Menu bank 0			
Starting menu number	03 030	Starting Digiplex IV menu number			
Keys:	'				
Sequence	03'040~				
Alarm	03'045~				
1 st	03'032~				
Clear	03'039~				
Set	03'038~				
1	03'017~				
2	03'018~				
3	03'019~				
4	03'020~				
5	03'021~				
6	03'022~				
7	03'023~				
8	03'024~				
9	03'025~				
Scroll Up	03'033~				
Scroll Down	03'034~				
Scroll Right	03'035~				
Scroll Left	03'036~				
Exit menus	03'047~	Only one command is needed to exit the Digiplex IV menus, and it can be sent at any time.			

1038010A / January 2003

3.5 **KEYPAD COMMANDS FOR PROGRAMMING CYBERDOMES**

Table 5 provides the command strings for emulating the general keypad commands used for programming CyberDomes.

Table 5. Command strings for keypad commands that control CyberDomes (these command string examples assume that the CyberDome has been sent to address 1 and the menus are displayed on monitor 4)

Command	Command String	Notes
Camera select Menu bank Starting menu number	03#001~ 43)001~ 62)001~	Three commands are required to enter the programming menus: 1. Normal site select command to make sure the CyberDome in question is displayed on the correct monitor 2. Menu bank 0 3. Starting Digiplex IV menu number
Keys:		C. Claiming Digiplox (Viniona name)
Sequence	40)001~	
Alarm	45)001~	
1 st	32)001~	
Clear	39)001~	
Set	38)001~	
1	17)001~	
2	18)001~	
3	19)001~	
4	20)001~	
5	21)001~	
6	22)001~	
7	23)001~	
8	24)001~	
9	25)001~	
Scroll Up	33)001~	
Scroll Down	34)001~	
Scroll Right	35)001~	
Scroll Left	36)001~	
Exit menus	47)001~	Only one command is needed to exit the CyberDome menus, and it can be sent at any time.

4 GLOSSARY

General

Command An instruction that makes a device perform a specified action. It is

transmitted by a non-repeating or repeating message depending upon its

function.

Function Code Character 3 of the seven-character command string.

Non-repeating Message A command message that is transmitted only once (such as a switcher

command).

Message The communication of a command by means of signals or codes.

Protocol The set of rules and standards by which devices communicate.

Receive Data Data sent from the translation unit to the control software.

Receive Command String The five-character string of ASCII code that emulates a Digiplex command

back to the control software. For example, @V037 is the command string for an event report being communicated back to the control software that

an alarm contact is sensed at site 37.

Repeating Message A command message that is transmitted continually for 15 seconds (such

as receiver pan and tilt commands) unless terminated by the stop form of

the original message, a competing command, or a special cancel

command.

Transmit Command String The seven-character string of ASCII code that emulates a Digiplex

command for the Digiplex components of a CCTV system. For example, 04#007~ is the command string for the non-repeating command that

selects CAM 007 on MON 5.

Transmit Data Data sent from the control software to the translation unit, which

translates and sends the data to downline system components.

Receiver Commands

(The following definitions apply to PTZ cameras and receiver sites.)

Annunciate Indicates the receipt of a door call by a controller.

Annunciate Cancel Indicates the response to annunciate by a controller.

Autopan Moves the camera between its left and right limit switches. This command

does not apply to KTD-128 and KTD-129 receivers.

Camera Power Cycles camera power.

Find Preset Instructs a KTD-125P or KTA-12x-xx-P to find previously programmed

pan, tilt, zoom, and focus positions.

Flip Moves the camera 180° from its current position.

Focus Near / Focus Far Adjusts the focal point of a motorized lens.

Iris Open / Iris Close Adjusts the amount of light passing through a motorized lens.

Gate Open / Gate Close Supplies power to the KTD-134's open and close relays.

Home Sends all cameras to a designated preset.

1038010A / January 2003 15

ID Superimposes the model and address of a camera on the video for

approximately 15 seconds.

Inch Down Moves the image viewed on a monitor screen one video frame down from

the current position relative to the measured zoom position.

Inch Left Moves the image viewed on a monitor screen one video frame left from

the current position relative to the measured zoom position.

Inch Right Moves the image viewed on a monitor screen one video frame right from

the current position relative to the measured zoom position.

Inch Up Moves the image viewed on a monitor screen one video frame up from

the current position relative to the measured zoom position.

Left/Right Pans a camera left or right.

Lens Initialize Sends a lens initialization command to a camera.

Slow/Fast Adjusts the pan speed of a camera. These commands apply only to KTD-

121 and KTD-129 receivers.

Relay On / Relay Off Latches the KTD-125's spare relay to the ON or OFF state.

Set Preset Instructs a KTD-125P or KTA-12x-xx-P to store its present pan, tilt, zoom,

and focus positions in the receiver's nonvolatile memory.

Single Step Down Moves the tilt stepper motor down one step. There will be a visible shift in

the image viewed on a monitor screen only if the camera is zoomed in all

the way.

Single Step Left Moves the pan stepper motor left one step. There will be a visible shift in

the image viewed on a monitor screen only if the camera is zoomed in all

the way.

Single Step Right Moves the pan stepper motor right one step. There will be a visible shift in

the image viewed on a monitor screen only if the camera is zoomed in all

the way.

Single Step Up Moves the tilt stepper motor up one step. There will be a visible shift in

the image viewed on a monitor screen only if the camera is zoomed in all

tne way.

Stabilize Toggles the image stabilizer if it is set to manual. The image stabilizer

compensates for slight unsteadiness or bouncing in the camera's

movements.

Universal Cancel Clears the internal buffer of the KTD-312. This command is used if the

external computer wants to immediately terminate all repeating

commands being sent to the system.

Up/Down Tilts a camera up or down.

Zero Lux Overrides the day/night switch setting for a CyberDome Day-Nite camera

and puts it into night (monochrome) mode. The CyberDome Day-Nite

must be programmed for manual switch-over.

Zoom In / Zoom Out Adjusts the focal length of a motorized lens.

Switcher Commands

Alarm Enable Directs the addressed switcher card to disable alarm response if it is

enabled, or to enable alarm response if it is disabled.

Camera Select Directs a video switcher card to select a designated camera site.

Clear Screen Instructs the addressed video switcher card to rewrite all alphanumeric

information to the monitor screen. This command clears the screen of

unwanted characters that sometimes appear.

Sequence Places the addressed video switcher card into an automatic switching

routine. This routine includes all camera sites that have their skip flag

cleared.

Face/Badge Reader Commands

Face Video Switches video to a KTR-11's face camera.

Badge Video Switches video to a KTR-11's badge camera.

Overhead Video Switches video to a KTR-11's overhead camera.

Door 1 Video Switches video to a KTR-11's door 1 camera.

Door 2 Video Switches video to a KTR-11's door 2 camera

1038010A / January 2003 17

WARRANTY AND RETURN INFORMATION

GE Interlogix, Kalatel division, warrants its equipment for three years from the date of purchase. This warranty covers any defects in materials and workmanship. Equipment failures that are due to improper installation, modification, abuse, or acts of nature are not covered by this warranty. The repair department will evaluate all equipment returned for repair to determine warranty coverage. The Tech Support Manager will resolve any questions that may arise during evaluation to make a final determination.

Note: The three-year warranty does not apply to the following products: MobileView [®] and the monitor CRT, which carry a 12-month warranty from the date of purchase.

The warranty specifically covers any defects in material and workmanship and does not cover equipment that has been abused, damaged, or modified.

For all warranty repairs, GE Interlogix, Kalatel division, will cover all costs, including parts, labor, and shipping. Repaired equipment will be returned via the same method of shipment in which it was received. If a customer requests a faster return shipment, the difference will be charged.

For all non-warranty repairs, the customer will be billed for parts, labor, and shipping. Labor will be billed in half-hour increments.

Note: Customers requesting an estimate prior to repair will be notified by phone. If they cannot be reached, they will be notified by fax. If we are unable to reach the contact person for repair authorization after one phone attempt and two fax attempts, the equipment will be returned without being repaired. We will hold equipment no longer than two weeks.

ADVANCE REPLACEMENT POLICY

When an advance replacement is required, we will send the customer replacement equipment from our stock and receive the returned product in exchange. The received equipment will be evaluated and the repair department will determine whether it is a warranty replacement. If it is non-warranty, see our repair policy above for details. The following guidelines will be used for all advance replacements:

- Fewer than 45 days from purchase, GE Interlogix, Kalatel division, will replace the product with new equipment.
- From 45 days to 1 year from purchase, GE Interlogix, Kalatel division, will replace the product with refurbished equipment.
- From 1 year to 3 years from purchase, the product must be sent in for repair. Advance replacements will be sent for a fee of \$100.

If you have questions about this policy, please contact Kalatel's RMA department at 800-469-1676.