Factory Default Setting

Listed below is a listing of the ESTeem software commands ad their Factory Default settings.

HELP CONTROL

APPENDRU	= 255
CONNECT	
CONVERS	
DISCONNE	
FACTORY	
HELP	
MULTID	= OFF
PACKMON	= OFF
PHONE	= OFF
RADIO	= OFF
RESET	
ROUTE	= 0
RESTORE	= 0
SAVE	
TRANSPAR	= OFF

HELP SETUP

ADDRESS	= 1
COMMAND	= 3
EDIT	= ON
MESSFORM	= OFF
NETWORK	= 37
PACKLENG	= 2000
PROMPT	= ON
RETRY	= 6
SENDPAC	= 13
SETCON	= 2
TERMCONT	= OFF
TERMTIME	= 50
TYPERROR	= OFF
TYPSYSTE	= ON

HELP PLC

A_BCTRL	= OFF
GE_CTRL	= OFF
JOHNCTRL	= OFF
MODCTRL	= OFF
MOORE	= OFF
OPTO	= OFF
PLC_MAST	= OFF
SQDADD	= 0
SQDCTRL	= OFF

HELP RS-232

AUTOLF	= ON
BLOCK	= OFF
DTR_ENAB	= OFF
ECHO	= ON
MODECONT	= OFF
XHFLOW	= OFF
XSFLOW	= ON

HELP SYSTEM

ALTERETR	= 2
ALTEROUT	= OFF
COPRIGHT	
DISACK	= OFF
MODEL	= 19C
POLLED	= OFF
PROGRAM	= 0
REMPROG	= ON
SECURITY	= OFF
S/N	= 0
TXSTAT	
VERSION	= 1.39

HELP RADIO

CARBSY	= 1
FRACK	= 50
LAT	
MODULATE	= ON
RANDOM	= OFF
RFCYCLES	= 10
RXSIGNAL	= OFF
SEL/A1	= 7
SEL/N1	= 0
SEL/N2	= 0
SQUELCH	= 0

ESTEEM

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

A_BCTRL

This function enables the Allen Bradley controller protocol. For further details reference the EST Engineering Report on Allen Bradley controller interfacing.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

ADDress (1-255)

The command defines the ESTeem source address. The default value is whatever address has been stored in nonvolatile memory. Addresses 1 to 254 are usable for unit addressing. Address 255 is used for GLOBAL.

ALTEREtr (0-255)

This command specifies the number of retries to establish a link under the ALTEROUT command. This command is independent from the RETRY command.
Factory default = 2.

Note: *When ALTERROUT = ON, the RETRY variable determines how many times the ESTeem will cycle through the ALTEROUT table before displaying the "Link Is Down" message.*

ALTEROUT (on/off)

This command allows the user to define four alternate routes. When this software switch is enabled the ESTeem will prompt the user for four addition modem addresses or destinations. It is noted that a destination using repeater paths can be used. If the modem is unable to connect to the specific unit addressed or "DESTINATION CONNECTED TO ANOTHER NODE" is encountered the modem will try to connect using an alternate route. The modem will start route selection with the last route used or the SETCONN variable. The ALTERETR command will determine the number of tries the ESTeem will attempt to connect before it switches to the next route defined in the table.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

APPEndru (l#,r#,a1,a2,g)

The APPEndru command appends routes to a connect address that are defined by the ROUTE command.

l # =   Location of route number in memory. Address locations 1 to 16.
r # =   Appended route number. Route numbers 1 to 16.
a1 =   Address of first destination node. Address numbers from 1 to 254.
a2 =   Address of last destination node. . Address numbers from 1 to 254.
g   =   Group feature is enabled by inserting a 1 in this field.

Factory default = 0. APPEndru 0 disables this feature.

Note: *This command is used in conjunction with the ROUTE Command.*

AUtolf (on/off)

This command enables the auto line feed sent to the terminal after each carriage return.

ON: Enabled.
OFF: Disabled.

Factory default = ON.

BLOck (on/off)

The BLOCK command, when enabled, disables the RS-232C/422/485 communications port from receiving or outputting data.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

CARbsy (0-255)

This command defines the carrier busy delay in milliseconds. A value of 0 will disable the carrier busy delay. Factory default = 1.

ESTEEM

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

COMMand (0-255)

This command specifics the value (in decimal) of an ASCII character used to return the ESTeem to COMMAND MODE. If the COMMAND character is read by the ESTeem when in the CONVERSE MODE, the modem will exit to the COMMAND MODE. A value of 0 in this command will disable the function.
Factory default = $O3 (Hex) or CTRL-C.

CONNect (r1,r2,r3,da)

This command performs the CONNECT to a destination ESTeem. This function supports a direct connect or a connect through a maximum of three repeater nodes. The default value is whatever address has been stored by the SETCon COMMAND.

r1 = ESTeem address (1 to 254) of repeater 1.
r2 = ESTeem address (1 to 254) of repeater 2.
r3 = ESTeem address (1 to 254) of repeater 3.
da =Destination address (1 to 254).

CONVers

The execution of this command causes an immediate exit from COMMAND MODE into CONVERSE MODE.

COPright

The execution of this command causes the copyright information to be printed.

DISACK (on/off)

This command when enabled instructs the modem to disable the acknowledgment request on the information packet. This is used when the designation device will respond with its own acknowledgment.
Factory default = OFF.

DISCONnect (1-254)

The disconnect command. The execution of this command immediately initiates a disconnect request with the currently connected node or in a multi-connect environment only a specific node may be addressed.

DTR_enab (on/off)

The DTR enable command. This command, when enabled, allows the ESTeem modem to monitor pin 20 of the RS-232C connector in regards to the status of an external device connected to it.

ON: Enables monitoring the DTR signal on pin 20 of the RS-232C connector. If DTR is at a space condition, then the modem is enabled. If DTR is at a mark condition, then the ESTeem modem will be disabled. The normal operation of this line is for the ESTeem modem to have status on the external device, out-putting to pin 20. This line can act as a status to the ESTeem when the external device is ready to transmit or receive data.

OFF: Disabled

Factory default = OFF.

Note: *If the DTR command is enabled and the line is disabled then the ESTeem will perform a "Disconnect" if connected. The DTR Command will also activate the Data Carrier Detect (DCD) Line (Pin 8) to toggle High when connected and Low when disconnected.*

ECHO (on/off)

This command enables the ESTeem to echo characters received from the input device back to the input device.

ON: Enabled.
OFF: Disabled.

Factory default = ON.

EDit (on/off)

This command enables the EDIT functions from the CONVERSE Mode. Factory default = ON.

FActory

The factory default command. The execution of this command causes the ESTeem to restore the command table values from factory values that are stored permanently in memory. This will allow the user the ability to restore the ESTeem to factory conditions during testing or set-up.

FRAck (1-255)

This command programs the frame acknowledge delay in milliseconds. This value is used as a minimum time before decrementing the retry count and retransmitting a packet if the retry count is not zero. Factory default = 50.

ESTEEM

APPENDIX D
SOFTWARECOMMANDS

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

GE_CTRL

This command enables the General Electric controller protocol. For further information please reference the EST Engineering Report on General Electric controller interfacing.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

HElp

HELP switches are:

HELP	Displays this Help menu.
HELP ALL	Displays All commands switches and arguments.
HELP CHANGE	Displays only the commands that are changed from factory default.
HELP CONTROL	Displays Control commands switches and arguments.
HELP PLC	Displays PLC commands switches and arguments.
HELP RADIO	Displays Radio commands switches and arguments.
HELP RS-232	Displays RS232 commands switches and arguments.
HELP SETUP	Displays Setup commands switches and arguments.
HELP SYSTEM	Displays System commands switches and arguments.

JOHNctrl (on/off)

This function enables the Johnson controller protocol. For further detail Reference the EST Engineering Report on Johnson controller interfacing.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

LAT

Latches the selection of the desired serial frequency synthesizer on the Tx/Rx card

MESSform (on/off)

When enabled all of the system status and error messages will be in a formatted form.

"xx" indicates what error or message (See Error Messages and System Status Messages).

EMxx <CR>	[ESTeem Error Messages]
SExx <CR>	[System Error Messages]
SSxx <CR>	[System Status Messages]
SSxx-xxxx <CR>	[System Status Message W/Returned Value]

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

MOdecontr (on/off)

ON: The mode of the ESTeem modem is controlled by pin 19 of the RS-232C connector. A low (0) directs the ESTeem into the COMMAND mode. A high (1) directs the ESTeem into CONVERSE/TRANSPARENT mode.
OFF: The mode of the ESTeem modem is controlled by ASCII character.

Factory default = OFF

MODEL (xx)

Displays the product model of default firmware that is installed. Model should be the same as product being used. Listed below are the model codes

19C = ESTeem Model 192C
19F = ESTeem Model 192F
19M = ESTeem Model 192M
19V = ESTeem Model 192V
19S = ESTeem Model 192S

ESTEEM

APPENDIX D
SOFTWARECOMMANDS

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

MODCTRL

This command enables the Modicon controller protocol. For further detail Reference the EST Engineering Report on Modicon controller interfacing.

OFF: Disabled.

Factory default = OFF.

MODUlate (on/off)

The radio modulate command. When enabled will transmit a modulated test signal when the RADIO ON command is enabled.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

MOORE (on/off)

This function enables the Moore products using Hart protocol. For further details reference the EST Engineering Report on Moore Products interfacing.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

MULTID (on/off)

This command when enabled allows the ESTeem User to send data to another ESTeem from the CONVERSE MODE by specifying the routing address before the data.

ON: Enabled.
OFF: Disabled.
Factory default = OFF.

Example Of Transmitted Data:

[001]DATA   Routes data to an ESTeem addressed 1.

[100,200,250,1]DATA   Routes data to an ESTeem addressed 1 via ESTeems addressed 100, 200, and 250.

This replaces using the CONNECT command from the COMMAND Mode. Received data packets will have the address of the ESTeem that sent the data at the beginning of the data packet.

Example Of Received Data:

[004]RECEIVED DATA   Data received from an ESTeem addressed 4.

[030,100,244,004]   Data received from an ESTeem addressed 4 via ESTeems addressed 30, 100, and 244.

NETwork (0-255)

Network identification code. This is used to program a common code for all modems in the customers network so that another facility on your frequency using the same addresses will not interfere with your equipment.
Factory default = 37.

OPTO (on/off)

This function enables the Opto 22 protocol. For further details reference the EST Engineering Report on Opto 22 interfacing.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

PACKleng (1-2000)

This command defines the length of the data packet in bytes. Factory default = 2000.

PACKMon (on/off)

Places the ESTeem in the packet monitor mode.
Factory default = OFF.

PHone (on/off)

Phone port enable command. The ESTeem will answer an incoming call when enabled.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

ESTEEM

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

PLC_MAST (on/off)

The programmable logic controller (PLC) command.

ON: When enabled, the ESTeem modem will identify the desired route from the master PLC message. The ESTeem modem will only identify the PLC master route if the master command is enabled in the PLC.

OFF: The ESTeem modem will be configured as to interface to a slave PLC.

Factory default = OFF.

POLLed (on/off)

When enabled the ESTeem will only transmit the contents of its internal transmit buffer when it receives an ENQ (hex 5) from a polling ESTeem. During non polled times the ESTeem transmit buffer will be continuously updated from data being received by the

RS-232C/422 port. This software feature was developed for interfacing the ESTeem to output devices without flow control that are to be polled from a master device.

ON: Enabled will transmit the contents of its transmit buffer when a ENQ (hex 5) is received.

OFF: Disabled.

Factory default = OFF.

PROGram (1-254,1-254,1-254,1-254)

This command is used to remote program another ESTeem unit. Example PROG 10 (Unit 10 is the address of the remote unit). When a connection has been made with the remote ESTeem the RPG: prompt will appear. The RPG: prompt is the command prompt of the remote modem.

Note: *See REMPROG Command.*

PROMpt (on/off)

The prompt enable command.

ON: The prompt responses are enabled. These are the prompts for Converse or Trans Mode that are normally output from the RS-232C serial port by the ESTeem.

OFF: Disabled.

Factory default = ON.

RADio (on/off)

The radio transmitter enable command. The ESTeem radio transmitter will cycle on and off when enabled for tuning and antenna testing procedures.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

RANdom (on/off)

The RANDOM command when enabled will generate a simulated random data output when the RADIO ON command is enabled

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

REMprog (on/off)

This command will disable the ESTeem from being remotely programmed by any another ESTeem.

ON: Enabled.
OFF: Disabled.

Factory default = ON.

RESet

The software reset command for the ESTeem. The execution of this command resets the internal electronics in the ESTeem.

RESTore

The restore command. The execution of this command restores the ESTeem command variables and switches configurations stored in nonvolatile memory.

RETry (1-255)

The retry command number. This is the number specifying the number of retries, retransmission of frames, that are not acknowledged. Frames are retransmitted RETRY times before operation is aborted. Factory default = 6.

ESTEEM

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

RFcycles

This command defines the number of cycles the ESTeem will transmit when programmed with the RADIO COMMAND. Factory default = 10.

ROUTe (l#,r1,r2,r3,)

The ROUTE sets up the route table in the ESTeem.

l #   =   User defined route number. Route numbers 1 to 16 may be used.
r1   =   Address of first repeater. Address numbers from 1 to 254 may be used.
r2   =   Address of second repeater. Address numbers from 1 to 254 may be used.
r3   =   Address of third repeater. Address numbers from 1 to 254 may be used.

Note: *See APPENDRU Command.*

Factory default = 0.

RXSIGNAL (on/off)

This command enables the signal to noise ratio meter output. Output level varies from 0 to 248 (248 being the highest reading).

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

SAve

The save command. The execution of this command stores the current command values and switches.

Note: *Please wait approximately two seconds **after** executing the SAVE command before turning off power to the ESTeem.*

SECURITY (off or 1- 100000)

The security command disables programming the ESTeem.

1 to 100000   This feature is enabled when you enter a number from 1 to 100000. When enabled the ESTeem will return a Security ON message. To disable security enter SECURity xxxxxx.

xxxxxx =   your predefined security number. When disabled the ESTeem will return a Security Off message.
OFF   Security disabled.

Factory default = OFF.

SENDPACK (0-255)

Send packet (SENDPACK) command. The value specifies an ASCII character used to signal when to send the packet. If set to a value of 255 the command is disabled. The factory default value is 13 (Return).

SEL/A1 (1-255)

The SEL/A1 command sets the transceiver for a specific frequency. Factory default (Model 192S) = 7.

SETCon (r1,r2,r3,da)

This command defines the destination address for the ESTeem to perform a connect using the Auto Connect feature. This function supports a direct connect or a connect through a maximum of three repeaters.
r1 = ESTeem address (1 to 254) of repeater 1.
r2 = ESTeem address (1 to 254) of repeater 2.
r3 = ESTeem address (1 to 254) of repeater 3.
da = Destination address (1 to 254).

S/N

Serial Number command. When executed from the Command Model will output the ESTeem serial number of the unit that is defined at the time of manufacturer.

SQDCTRL (on/off)

This function enables the Square D controller protocol. For further detail Reference the EST Engineering Report on Square D controller interfacing. Factory default = OFF.

SQDADD (1-254)

This function is used with the SQDCTRL command to control the address fence when using SQ-D Network Interface Modules. For further details reference the EST Engineering Report on the SQ-D controller. Factory default = 0.

ESTEEM

Definitions

Listed below in alphabetical order are the definitions of the ESTeem software commands.

SQUELCH (0-3)

This command defines the squelch threshold of the receiver. Listed below are the settings:

0	=	-101 dBm	2μV
1	=	- 93 dBm	5μV
2	=	- 87 dBm	10μV
3	=	- 70 dBm	70μV

Factory default = 0.

TERMCont (on/off)

The RS-232C/422/485 receive termination timer.

ON: If there are characters in the RS-232 buffer and the modem is in Converse Mode, the termination timer starts from the time the last receive character is updated in the buffer. If the termination time expires before another character is received, the characters are transmitted.

OFF: Disabled

Factory default = OFF.

TERMTime (10-65535)

The RS-232C/422/485 receive termination timer value. This value can be 10 to 65535 milliseconds. This value is enabled by TERMCONT. Factory default = 5O.

TRANSPAR (on/off)

The transparent mode command. This mode allows the ESTeem link to be completely transparent to the communicating RS-232/422/485 devices. Reference Chapter 2.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

TXSTAT

This command outputs the total number of rf transmissions vs. the total number of retries. After output is completed, the counter is zeroed.

TYPerr (on/off)

This command enables the Communication Error Messages.
ON: Enabled.
OFF: Disabled.

Factory default = OFF.

TYPSyste (on/off)

This command enables the System and Error Message Commands.

ON: Enabled.
OFF: Disabled.

Factory default = ON.

VERSION

This command will display the current software version being used by the ESTeem.

XHflow (on/off)

This command enables hardware flow control.

ON: Enabled.
OFF: Disabled.

Factory default = OFF.

XSflow (on/off)

This command enables software flow control.

ON: Enabled.
OFF: Disabled.

Factory default = ON

ESTEEM