

Table 57 Encompass 4 Reader Commands Listed Alphabetically

Command Name	Number	Reader Message
Enable IAG	487	Done if tag protocol supported/Error if tag protocol is unsupported
Enable input inversion	6941	Done
Enable multi-tag sort	454	Done
Enable presence without tag reports	6901	Done
Enable Retransmit	845	
Enable second alternate group select	459	Done
Enable SeGo	485	Done if tag protocol supported/Error if tag protocol is unsupported
Enable software flow control (default)	6141	Done
Enable tag translation mode	453	Done
Enable third alternate group select	491	Done
Enable Wiegand mode	451	Done
Load default operating parameters	66F	Done
No auxiliary information appended (default)	310	Done
No time and date appended	300	Done
Output pulse duration set to 228 ms (default)	67C	Done
Report buffered handshakes	577	XX = number of handshakes
Report change on input0	821	Done
Report change on input1	822	Done
Report changes on input0 and input1	823	Done
Reset power fail bit	65	Done
Reset reader	63	Model E4 Series Ver X.XX SNSSSSSS
Reset uniqueness	440	Done
RF Control	640N	Done
Select 1 valid ID code (default)	4200	Done

Table 57 Encompass 4 Reader Commands Listed Alphabetically

Command Name	Number	Reader Message
Select 2 valid ID codes	4201	Done
Select 3 valid ID codes	4202	Done
Select 4 valid ID codes	4203	Done
Select basic protocol (default)	610	Done
Select Baud Rate	100N	Done
Select ECP protocol	611	Done
Select ECP Timeout	612NN	Done
Select even parity	1021	Done
Select Flow Control Option	614N	Done
Select four ID separation	4103	Done
Select Input Inversion Option	694N	Done
Select Input Status Change Report Option	82N	Done
Select odd parity	1022	Done
Select one ID separation (default)	4100	Done
Select Parity	102N	Done
Select predefined output mode (default)	621	Done
Select presence without tag report option	690N	Done
Select rF Control Algorithm	692N	Done
Select RF operating frequency	642NN	Done
Select RF operating frequency	647NNN	Done
Select RF-by-input control (default)	641	Done
Select Stop Bits	101N	Done
Select three ID separation	4102	Done
Select two ID separation	4101	Done
Select unique ID code criteria	410N	Done
Select valid ID code criteria	420N	Done
Set ATA operating range (Distance)	643NN	Done

Table 57 Encompass 4 Reader Commands Listed Alphabetically

Command Name	Number	Reader Message
Set ATA operating range to longest range (default)	6431F	Done
Set baud rate = 1200 baud	1002	Done
Set baud rate = 19.2 K baud	1006	Done
Set baud rate = 2400 baud	1003	Done
Set baud rate = 38.4 K baud	1007	Done
Set baud rate = 4800 baud	1004	Done
Set baud rate = 9600 baud (default)	1005	Done
Set date	21	Done
Set ECP timeout = 12.7 sec (default)	612FE	Done
Set eGo or eGo Plus operating range	645NN	Done
Set eGo or eGo Plus operating range to longest range (default)	6451F	Done
Set IAG RF attenuation	646NN	Done
Set IAG RF attenuation (default)	64604	Done
Set output control	620N	Done
Set output pulse duration	67N	Done or Error
Set reader ID number NN = 00 to FF	60NN	Done
Set reader ID number to 00 (default)	6000	Done
Set RF attenuation NN = 00 to 0A	644NN	Done
Set RF attenuation to 0 dB (full power) (default)	64400	Done
Set RF timeout period	693N	Done
Set RF timeout to infinite (default)	693F	Done
Set serial number S...S = ASCII string (maximum length of 6 characters)	695S...S	Done
Set synchronization hold-off time	649NN	Done
Set synchronization output delay time	648NN	Done
Set time	20	Done
Set uniqueness timeout	44N	Done
Set uniqueness timeout to 15 seconds	442	Done

Table 57 Encompass 4 Reader Commands Listed Alphabetically

Command Name	Number	Reader Message
<i>Set uniqueness timeout to 2 minutes (default)</i>	441	Done
Set uniqueness timeout to 30 seconds	443	Done
Set user-programmable group select equals (GSE) filter	697	Done
Set Wiegand retransmit interval	46NN	Done
<i>Set Wiegand retransmit interval to 1 second (default)</i>	4601	Done
Store hardware configuration string S...S = ASCII string (maximum length of 20 characters)	696S...S	Done
Switch to command mode	1	Done
<i>Switch to data mode (default)</i>	0	Done
<i>Time and date appended (default)</i>	302	Done
<i>Timeout or presence false (#529A2, default)</i>	6922	Done
Transmit all IDs	40	Done
<i>Turn off both output ports (default)</i>	6200	Done
Turn off output 0, turn on output1	6202	Done
Turn off output1, turn on output0	6201	Done
Turn off RF	6400	Done
Turn on both output ports	6203	Done
Turn on RF	6401	Done
Turn RF off on timeout	6920	Done
Turn RF off on timeout/tag	6921	Done
<i>Use one stop bit (default)</i>	1010	Done
Use two stop bits	1011	Done

Appendix E Compatible Tag Information

This appendix gives helpful information about the tags that are compatible with the Encompass® 4 Reader.

Tag Configurations

Table 58 lists the TransCore Super eGo® (SeGo) protocol tags that are compatible with the Encompass 4 Reader.

Table 58 Compatible TransCore Tags

Model No	Description	MHz	Frame	Power	Mounting Type	Supported Protocols
AT5118	Transportation tag	915	Full	Beam	Exterior metal	SeGo read/write, ATA read only
AT5133	Transportation tag, high temperature case	915	Full	Beam	Exterior metal	SeGo read/write, ATA read only
AT5400	TollTag®	915	Full	Beam	Interior windshield	SeGo read/write, ATA and eGo read only
AT5402	Access control tag	915	Half	Beam	Interior windshield	SeGo read/write, ATA and eGo read only, Wiegand
AT5406	Access control tag	915/2450	Half	8-year battery	Interior windshield	SeGo read/write, ATA and eGo read only, Wiegand
AT5412	Transportation tag	915	Half	Beam	Exterior metal	SeGo read/write, ATA read only, Wiegand
AT5413	Hardened rail tag, factory sealed, foam-hardened package	915	Full	Beam	Exterior metal	SeGo read/write, ATA read only
AT5414	Transportation tag	915	Half	8-year battery	Exterior metal	SeGo read/write, ATA read only, Wiegand
AT5415	Hardened rail tag, factory sealed, foam-hardened package	915	Half	Beam	Exterior metal	SeGo read/write, ATA read only, Wiegand
AT5417	Steady-state signal tag	915	Half	External	Exterior metal	AAR, ATA, ISO

Table 58 Compatible TransCore Tags

Model No	Description	MHz	Frame	Power	Mounting Type	Supported Protocols
AT5419	Flashing signal tag	915	Half	External	Exterior metal	AAR, ATA, ISO
AT5549	Transportation tag/ Compact end of train tag (EOT)	915	Full	10-year battery	End of Train	SeGo read/write, ATA read only
AT5704	Transportation tag	915/2450	256 bit	External	Exterior metal	ATA
AT5720	Check tag	915/2450	Full	Beam	Check tag	ATA read only
AT5720	Check tag	915/2450	Full	Beam	Check tag	ATA read only
AT5910	Transportation tag	915	Full	8-year battery	Exterior metal	SeGo read/write, ATA read only
AT5944	TollTag®	915/2450	Full	8-year battery	Interior windshield	SeGo read/write, ATA and eGo read only
AT5944	TollTag®	915/2450	Full	8-year battery	Interior windshield	SeGo read/write, ATA and eGo read only
AT5988	TollTag®	915/2450	Full	5-year battery	Interior windshield	SeGo read/write, ATA and eGo read only
eGo Plus License Plate Tag (LPT)	External tag	915	Full/ Half	Beam	Exterior mount	Sego, eGo, ATA
eGo Plus Mini External Tag	External tag	915	Full/ Half	Beam	Exterior mount	Sego, eGo, ATA
eGo Plus Micro Mini Windshield Sticker Tag	Sticker tag	915	Full	Beam	Interior windshield	Sego/ATA

Table 59 lists most legacy tag models that are compatible with the Encompass 4 Reader.

Table 59 Legacy Tags

Model No	Description	MHz	Frame	Power	Mounting Type	Supported Protocols
AT5100	Toll	915	Full	Beam	Interior	ATA

Table 59 Legacy Tags

Model No	Description	MHz	Frame	Power	Mounting Type	Supported Protocols
AT5102	Access control	915	Half	Beam	Interior	ATA/Wiegand
AT5105	Access control	915	Half	5-year battery	Interior	ATA/Wiegand
AT5106	Access control	915/2450	Half	10-year battery	Non-metal Interior or exterior	ATA/Wiegand
AT5107	Access control	915/2450	Half	10-year battery	Non-metal Interior or exterior	ATA/Wiegand
AT5110	Toll/Transportation	915	Full	Beam	Exterior	ATA
AT5112	Access control, transportation	915	Half	Beam	Exterior	ATA/Wiegand
AT5114	Access control, transportation	915/2450	Half	10-year battery	Exterior	ATA/Wiegand
AT5125	Transportation, high temperature	915	Full	Beam	Exterior	ATA
AT5140	Toll	915	Full	10-year battery	Exterior License Plate	ATA
AT5145	Toll	915	Full	Beam	Exterior License Plate	ATAI
AT5146	Access control	915	Half	Beam	Exterior License Plate	ATA/Wiegand
AT5147	Access control	915	Half	10-year battery	Exterior License Plate	ATA/Wiegand
AT5510	Transportation	915/2450	Full	10-year battery	Exterior, metal	ATA
AT5544	Toll	915/2450	Full	10-year battery	Exterior, non-metal	ATA
AT5545	Toll	915/2450	Full	10-year battery	Exterior, metal	ATA
AT5547	Toll	915	Full	5-year battery	Interior windshield	ATA

Table 59 Legacy Tags

Model No	Description	MHz	Frame	Power	Mounting Type	Supported Protocols
AT5707	Transportation	915	256 bits	8-year battery	Exterior metal	ATAI
eGo Plus Security Sticker Tag	Toll, EVR, parking, security access	915	Full	Beam	Interior windshield	Sego, eGo, ATA
Windshield Sticker Tag	Toll, EVR, parking, security access	915	Full	Beam	Interior windshield	Sego, eGo, ATA
eGo License Plate Tag	Toll, EVR, parking, security access	915	Full	Beam	Exterior	Sego, eGo, ATA

a. If desired, in place of 40 six-bit ASCII characters, the AT5707 can support up to 34 seven-bit ASCII characters.

Tag Data Formats

Tags are programmed at the TransCore factory with the tag model number, date of manufacture, and data format. Contact TransCore for special order entry procedures for the format that applies to your system. The following four tag data formats can be used:

- 10-character alphanumeric ASCII — Four alphanumeric characters are fixed and can be used to identify either the dealer or the user. The remaining six positions are numeric and should be unique for each tag issued. For example, the entry ACME000001 might be specified as the first tag on the order entry form from ACME Parking Garage.
- 20-character alphanumeric ASCII — Four alphanumeric characters are typically fixed and the remaining 16 positions are numbered sequentially.
- Wiegand — Tags can be programmed in Wiegand formats with 26 to 54 bits. If you choose this format, complete a Wiegand format worksheet — attached to the order entry form — indicating the data to be programmed into the tags.

Note: Security access control tag models can be Wiegand-formatted. Refer to [Table 58](#) and [Table 59](#) for Wiegand-compatible tag models.

- AAR/ISO — For requirements for this format, refer to ISO 10374 and the most recent version of *Association of American Railroads Standard for Automatic Equipment Identification*.



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