REGISTER

This command registers a POS to the device’s list of trusted clients and establishes the data to be passed with each request that is necessary to determine if transactions originating from the POS are authentic.This command sends a 4-digit code to the device. The code must be entered in order to register/unregister the associated POS to/from the device. POS should perform the Test MAC command to verify pairing was successful.

For Version 2.0 (REG_VER 2), the difference is that it’s an 8-character key, it is not sent in the request, and it is returned in the response to the POS. What the key is made up of and how it’s checked is identical to how it is described in the REGISTER_ENCRYPTION method. See section Full Packet Encryption.

> Note
>
> The COUNTER resets to 0 with each REGISTER command.

Device UI Required: Yes

Request Packet

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
FUNCTION_TYPE	Required	Static Value	N/A	N/A	SECURITY	Type of function.
COMMAND	Required	Static Value	N/A	N/A	REGISTER	Command name

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
ENTRY_CODE	Conditional	Character	4	4	Random 4 digits, like 1234	This is required to send if REG_VER = 1. Four digits character code that should be entered through the device UI. This should not be a static value. POS UI should display this value for user to enter on the device for pairing. **NOTE:** If autopair=1, then the Engage devices do not require four character entry through the UI. Refer to Pairing and Key Exchange section for details on AUTOPAIR functionality and Application Parameters for more details on AUTOPAIR parameter.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
KEY	Required	Base64 Encoded Data				The public component of RSA 2048-bit key pair. This value should be DER formatted and base64 encoded. The corresponding private key (not sent here) is used to decrypt the MAC_KEY returned in the response.

Field	Rule	Type	Minimum	Maximum	Value(s)	Description
REG_VER	Conditional	List			• 1 (1.0) – Sends a 4-character ENTRY_CODE that must be entered through the device UI • 2 (2.0) – Does not send a 4-character ENTRY_CODE. POS displays 8-character code to enter on the device. The device takes the code entered and sends it back in the response for the POS to validate.	If REG_VER is not sent, it will be treated as REG_VER 1. Refer Message Authentication for more details.

Sample Request

```
<TRANSACTION>
<FUNCTION_TYPE>SECURITY</FUNCTION_TYPE>
<COMMAND>REGISTER</COMMAND>
<KEY> … </KEY>
</TRANSACTION>
```

Response Packet

Field	Type	Value(s)	Description
RESPONSE_TEXT	Character	Registered [MAC_LABEL]	Processor response text.
RESULT	Character	OK or Error Code	This indicates the Result details.
RESULT_CODE	Numeric	Valid values: • -1 • 59001 • 59020 • 59040 • 59051	This indicates the result code. Refer to Result/Error Codes for details.
TERMINATION_STATUS	Character	SUCCESS or FAILURE	This indicates the transaction termination status. This is the overall status of the transaction irrespective of approved or declined. Like, if the output is generated then the status is SUCCESS and if no output is generated then the status will be FAILURE.
MAC_KEY	Base64 Encoded Data	Encrypted AES-128 bit key	This key is used by POS to encrypt the counter. This value is in Base64 encoded.
MAC_LABEL	Character	P_<Random String>	Value to be stored by POS
ENTRY_CODE	Character	Value entered by user.	Sent in response for POS to validate when REG_VER = 2. It will appear as a Base64 encoded, encrypted value of 8-character code. **Example:** 87654321

Sample Response

```
<RESPONSE>
<RESPONSE_TEXT>Registered P_175</RESPONSE_TEXT>
<RESULT>OK</RESULT>
<RESULT_CODE>-1</RESULT_CODE>
<TERMINATION_STATUS>SUCCESS</TERMINATION_STATUS>
<MAC_KEY> … </MAC_KEY>
<MAC_LABEL>P_175</MAC_LABEL>
</RESPONSE>
```