Serial protocol: 2400 Baud, No Parity, 8 Data bits, 1 Stop bit

Packet format: \texttt{STX} \ data length \ … \ data \ … \ Checksum

\texttt{(ASCII 0x02)} \ \texttt{byte} \ \texttt{byte}

The whole packet has a maximum length of 256 bytes.

All the numeric data are little-endian, i.e. are sent LSB first.

STX indicates the start of the packet.

Data length is the number of bytes of data + the check byte.

The "check" byte is computed as the sum modulus 256 of all the bytes in the packet except the STX and the check byte itself.

In case of reception of an invalid checksum or a partial packet, no answer will be supplied.

In case of an invalid command the answer will be:

\begin{verbatim}
byte = STX \quad [0x02]
byte = data length \quad [0x04]
byte = received command \quad […]
byte = ‘K’ \quad [0x4B]
byte = ‘o’ \quad [0x6F]
byte = Checksum \quad […]
\end{verbatim}

In order to flush the receiver buffer of UPS, send 255 bytes of NUL (ASCII 0) without expecting any answer.

The serial communication is half duplex: while the UPS is sending an answer to a pending packet, the receiver is disabled.
<table>
<thead>
<tr>
<th>ID code</th>
<th>Config</th>
<th>family</th>
<th>model</th>
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<tbody>
<tr>
<td># 1</td>
<td>1</td>
<td>HF Line</td>
<td>HF Line (1 board)</td>
</tr>
<tr>
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<td># 1</td>
<td>3</td>
<td>HF Line</td>
<td>HF Line (3 boards)</td>
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<tr>
<td># 1</td>
<td>4</td>
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<td>ECO Network 1050/1500</td>
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<td>ECO Network 1500/2000</td>
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<td>ECO Network 1800/2500</td>
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<tr>
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<td># 3</td>
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<tr>
<td># 4</td>
<td>3</td>
<td>HF Line / 2</td>
<td>HF Line (6 boards) / 2</td>
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<tr>
<td># 4</td>
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<td>HF Line / 2</td>
<td>HF Line (7 boards) / 2</td>
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<tr>
<td># 4</td>
<td>5</td>
<td>HF Line / 2</td>
<td>HF Line (8 boards) / 2</td>
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<td>HF 820</td>
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<td>HF 910</td>
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<tr>
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<td>2</td>
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<td>HF 950 / 2</td>
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<tr>
<td># 7</td>
<td>3</td>
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<td>5</td>
<td>HF TOP Line</td>
<td>HF 980 / 2</td>
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<td>ECO 508</td>
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<td>ORDINATORE DUE</td>
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<td>Harviot 730 SX</td>
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<td># 10</td>
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<td>ECO 308 SX / ORDINATORE</td>
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<td>ally HF 800</td>
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<td>ally HF 2000</td>
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<tr>
<td># 13</td>
<td>1</td>
<td>ally HF</td>
<td>ally HF 1250</td>
</tr>
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<td>ally HF 2500</td>
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<td>Megaline 1250</td>
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<tr>
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<tr>
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<td># 15</td>
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<td>DHEA 1500</td>
</tr>
</tbody>
</table>
**Common commands**

# 0 UPS info (read):
Request command:
byte = 0
Answer:
byte Command (replica of the request command)
byte ID code (family code - see model table)
byte Config (number and/or type of modules - see model table)
word Maximum active power (W)
byte Firmware version
byte Firmware subversion
char [1 ..12] Serial number

# 1 Output data (read):
Request command:
byte = 1
Answer:
byte Command (replica of the request command)
integer Active power (W)              { -1: overrange }    { -2: not available }
integer Voltage (V)                   { -1: overrange }    { -2: not available }
integer Current (Arms*10)             { -1: overrange }    { -2: not available }
integer Peak current (A*10)           { -1: overrange }    { -2: not available }

# 2 Input data (read):
Request command:
byte = 2
Answer:
byte Command (replica of the request command)
integer Active power (W)              { -1: overrange }    { -2: not available }
integer Voltage (V)                   { -1: overrange }    { -2: not available }
integer Current (Arms*10)             { -1: overrange }    { -2: not available }
integer Peak current (A*10)           { -1: overrange }    { -2: not available }

# 3 UPS status (read):
Request command:
byte = 3
Answer:
byte Command (replica of the request command)
byte Status
0: Running on mains power
1: Running on battery power
2: Battery reserve
3: Bypass engaged
4: Manual bypass engaged
byte Fault
0: All right
1: Overload
2: Overheat
3: Hardware Fault
4: Battery charger failure (overcharging)
5: Replace batteries
byte UPS Temperature in °C + 128 { i.e T = n-128 °C }   { 0: not available }
# 4 Battery data (read):
  Request command:
    byte = 4
  Answer:
    byte Command (replica of the request command)
    word Actual value (V*10)
    word Reserve Threshold (V*10)
    word Exhaust Threshold (V*10)

# 5 History data (read):
  Request command:
    byte = 5
  Answer:
    byte Command (replica of the request command)
    longint UPS Total Run Time (s)
    longint Inverter Total Run Time (s)
    word Inverter Interventions
    word Battery Full Discharges
    integer Stabiliser or Bypass Interventions { -2: not available }
    integer Overheatings { -2: not available }

# 6 Scheduling (read):
  Request command:
    byte = 6
  Answer:
    byte Command (replica of the request command)
    longint Remaining time to shutdown (s) { -1: no shutdown }
    longint Programmed time to restart (s) { -1: no restart }

# 7 Event list (most recent first) (read):
  Request command:
    byte = 7
  Answer:
    byte Command (replica of the request command)
    byte Event Absolute Counter (roll over at 256)
    variable length; 1 byte for each event; the list can be empty
    1: Odd Turn Off
    2: Memory Error!
    3: Battery Limit
    4: Battery Charger
    5: Overload
    6: Long Overload
    7: Neutral Wrong
    8: Neutral Wrong while running
    9: Modules Number
   10: Programmed battery time expired
   11: Programmed reserve time expired
   12: Earth Fault
   13: Load Waiting
   14: HV Bus Runaway
   15: Output DC Level
   16: Bad Wiring
   17: Hardware Fault: Unknown
   18: Hardware Fault: Inverter
   19: Hardware Fault: P.F.C.
   20: Hardware Fault: Inverter P.F.C.
   21: Hardware Fault: Booster
   22: Hardware Fault: Inverter Booster
   23: Hardware Fault: P.F.C. Booster
   24: Hardware Fault: Inverter P.F.C. Booster
   25: Hardware Fault: Overheat
   26: Hardware Fault: Inverter Overheat
   27: Hardware Fault: P.F.C. Overheat
   28: Hardware Fault: Inverter P.F.C. Overheat
29: Hardware Fault: Booster Overheat
30: Hardware Fault: Inverter Booster Overheat
31: Hardware Fault: P.F.C. Booster Overheat
32: Hardware Fault: Inverter P.F.C. Booster Overheat
33: Hardware Fault: Battery charger
34: Hardware Fault: Overheat & Battery charger
35: Output Plug Removed

# 8 Times on battery (read):
Request command:

byte = 8

Answer:

byte Command (replica of the request command)
integer Max time on battery (s) { 0: not purposely limited }
{ -2: not available }
integer Max time after battery reserve (s) { 0: not purposely limited }
{ -2: not available }
byte not 0 -> Autorestart after battery depleted enabled

# 9 Neutral sense (read):
Request command:

byte = 9

Answer:

byte Command (replica of the request command)
byte not 0 -> Neutral sense enabled
byte not 0 -> Ignore while running

# 10 Scheduling (set):
Request command:

byte = 10
longint Remaining time to shutdown (s) { -1 = no shutdown }
longint Programmed time to restart (s) { -1 = no restart }

Answer:

byte Command (replica of the request command)
longint Remaining time to shutdown (s) { -1 = no shutdown }
longint Programmed time to restart (s) { -1 = no restart }

N.B.: If a selected time is longer than the maximum allowed the UPS uses the maximum and reports this in the answer.

# 11 Neutral sense (set):
Request command:

byte = 11
byte not 0 -> Neutral sense enabled
byte not 0 -> Ignore while running

Answer:

byte Command (replica of the request command)
byte not 0 -> Neutral sense enabled
byte not 0 -> Ignore while running
# 12 Times on battery (set):
Request command:
```
byte   = 12
word   Max time on battery (s)  { 0 = not purposely limited }
word   Max time after battery reserve (s)  { 0 = not purposely limited }
byte   not 0 -> Autorestart after battery depleted enabled
```
Answer:
```
byte   Command (replica of the request command)
word   Max time on battery (s)  { 0 = not purposely limited }
{ -2: not available }
word   Max time after battery reserve (s)  { 0 = not purposely limited }
{ -2: not available }
byte   not 0 -> Autorestart after battery depleted enabled
```
N.B.: If a selected time is longer than the maximum allowed the UPS uses the maximum and reports this in the answer.

# 13 Buzzer mute (set):
Request command:
```
byte   = 13
byte   0 -> not muted
       1 -> muted
       2 -> read current status
```
Answer:
```
byte   Command (replica of the request command)
byte   0 -> not muted
       1 -> muted
```
N.B.: Buzzer can be disabled only up to the next alarm condition.

# 14 Battery test (set):
Request command:
```
byte   = 14
byte   0 -> perform the battery test
       1 -> force the UPS to work on battery power
       2 -> restore the UPS standard mode (on mains power)
```
Answer (at the end of the battery test if it’s required):
```
byte   Command (replica of the request command)
byte   0 -> Generic ok
       1 -> Battery charge: 20 %
       2 -> Battery charge: 40 %
       3 -> Battery charge: 60 %
       4 -> Battery charge: 80 %
       5 -> Battery charge: 100 %
       254 -> Batteries must be replaced
       255 -> Test impossible
```
“ECO” specific commands

# 19  Stabiliser level (read):
    Request command:
    byte = 19
    Answer:
    byte Command (replica of the request command)
    byte Stabiliser set level (1..3)

# 20  Stabiliser level (set):
    Request command:
    byte = 20
    byte Stabiliser set level (1..3)
    Answer:
    byte Command (replica of the request command)
    byte Stabiliser set level (1..3)

N.B.: If the level is outside the allowed range the UPS keeps the previous level.
“HF” specific commands

# 21 No load threshold (set):
Request command:
byte = 21
word No load threshold (W)
Answer:
byte Command (replica of the request command)
word No load threshold (W)
N.B.: If the threshold is above or below the allowed range the UPS uses the maximum or minimum value respectively. This will be reported in the answer.

# 22 No load threshold (read):
Request command:
byte = 22
Answer:
byte Command (replica of the request command)
word No load threshold (W)

# 23 Output voltage control (set):
Request command:
byte = 23
byte Output set level (V)
byte not 0 -> Output 60 Hz
byte not 0 -> PLL inhibited
byte not 0 -> Extended PLL lock range
byte Dip detector speed:
   1 -> fast
   2 -> standard
   3 -> slow
Answer:
byte Command (replica of the request command)
byte Output set level (%) (for internal use only)
byte not 0 -> Output 60 Hz
byte not 0 -> PLL inhibited
byte not 0 -> Extended PLL lock range
byte Dip detector speed:
   1 -> fast
   2 -> standard
   3 -> slow
N.B.: If the level is above or below the allowed range, the UPS uses the maximum or minimum value respectively. This will be reported in the answer.

# 24 Output voltage control (read):
Request command:
byte = 24
Answer:
byte Command (replica of the request command)
byte Output set level (%) (for internal use only)
byte not 0 -> Output 60 Hz
byte not 0 -> PLL inhibited
byte not 0 -> Extended PLL lock range
byte Dip detector speed:
   1 -> fast
   2 -> standard
   3 -> slow
# 25  Bypass (set):
Request command:
  byte = 25
  byte not 0 -> Bypass enabled
  byte not 0 -> Bypass is forced
  byte not 0 -> Off-line mode of operation
  byte not 0 -> Load Waiting Mode enabled

Answer:
  byte Command (replica of the request command)
  byte not 0 -> Bypass enabled
  byte not 0 -> Bypass is forced
  byte not 0 -> Off-line mode of operation
  byte not 0 -> Load Waiting Mode enabled

N.B.: Load Waiting Mode, Off-line mode and forced bypass can not be enabled if the bypass is disabled.

# 26  Bypass (read):
Request command:
  byte = 26

Answer:
  byte Command (replica of the request command)
  byte not 0 -> Bypass enabled
  byte not 0 -> Bypass is forced
  byte not 0 -> Off-line mode of operation
  byte not 0 -> Load Waiting Mode enabled

# 27  Hardware status report (read):
Request command:
  byte = 27

Answer:
  byte Command (replica of the request command)
  shortint Number of faulty modules { -2 = not available }
  byte Hardware Fault:
    0: Unknown or none
    1: Inverter
    2: P.F.C.
    3: Inverter P.F.C.
    4: Booster
    5: Inverter Booster
    6: P.F.C. Booster
    7: Inverter P.F.C. Booster
    8: Overheat
    9: Inverter Overheat
   10: P.F.C. Overheat
   11: Inverter P.F.C. Overheat
   12: Booster Overheat
   13: Inverter Booster Overheat
   14: P.F.C. Booster Overheat
   15: Inverter P.F.C. Booster Overheat
   16: Battery charger
   17: Overheat & Battery charger

# 30  A/D average values (read):
Request command:
  byte = 30

Answer:
  byte Command (replica of the request command)
  byte Vin A/D
  byte Iin A/D
  byte Vout A/D
  byte Iout A/D
# 31 Bus voltages (read):
Request command:
byte \( = 31 \)
Answer:
byte Command (replica of the request command)
word Positive bus voltage
word Negative bus voltage (absolute value)

# 32 Battery thresholds (set):
Request command:
byte \( = 32 \)
word Reserve Threshold \((V \times 10)\) \{ 0 = automatic \}
word Exhaust Threshold \((V \times 10)\) \{ 0 = automatic \}
byte not 0 \( \rightarrow \) Perform an automatic battery test after turn on with mains power present
Answer:
byte Command (replica of the request command)
word Reserve Threshold \((V \times 10)\) \{ 0 = automatic \}
word Exhaust Threshold \((V \times 10)\) \{ 0 = automatic \}
byte not 0 \( \rightarrow \) Perform an automatic battery test after turn on with mains power present

N.B.: If a threshold is above or below the allowed range the UPS uses the maximum or minimum value respectively.
If Reserve Threshold < Exhaust Threshold then Reserve Threshold = Exhaust Threshold. This will be reported in the answer.
Exception: selecting a level of 0 V for at least one of the thresholds means using for both the default levels that are load dependent (automatic mode).

# 33 Battery thresholds mode (HF only) (read):
Request command:
byte \( = 33 \)
Answer:
byte Command (replica of the request command)
byte not 0 \( \rightarrow \) Automatic battery thresholds
byte not 0 \( \rightarrow \) Perform an automatic battery test after turn on with mains power present
"ALLY HF" specific commands

# 21  No load threshold (set):
      same as HF specific command ( # 21 )

# 22  No load threshold (read):
      same as HF specific command ( # 22 )

# 23  Output voltage control (set):
      same as HF specific command ( # 23 )

# 24  Output voltage control (read):
      same as HF specific command ( # 24 )

# 25  Bypass (set):
      same as HF specific command ( # 25 )

# 26  Bypass (read):
      same as HF specific command ( # 26 )

# 27  Hardware status report (read):
      same as HF specific command ( # 27 )

# 30  A/D average values (read):
      same as HF specific command ( # 30 )

# 31  Bus voltages (read):
      same as HF specific command ( # 31 )

# 32  Battery thresholds (set):
      same as HF specific command ( # 32 )

# 33  Battery thresholds mode (read):
      same as HF specific command ( # 33 )

# 36  Line frequency autoselect (set):
      Request command:
      byte  = 36
      byte   0 -> Line frequency autoselect disabled
              1 -> Line frequency autoselect enabled
              2 -> Read line frequency autoselect

      Answer:
      byte  Command (replica of the request command)
      byte   0 -> Line frequency autoselect disabled
              1 -> Line frequency autoselect enabled
"MEGALINE" specific commands

# 21  No load threshold (set):
    same as HF specific command (# 21)

# 22  No load threshold (read):
    same as HF specific command (# 22)

# 23  Output voltage control (set):
    same as HF specific command (# 23)

# 24  Output voltage control (read):
    same as HF specific command (# 24)

# 25  Bypass (set):
    same as HF specific command (# 25)

# 26  Bypass (read):
    same as HF specific command (# 26)

# 27  Hardware status report (read):
    same as HF specific command (# 27)

# 31  Bus voltages (read):
    same as HF specific command (# 31)

# 32  Battery thresholds (set):
    same as HF specific command (# 32)

# 33  Battery thresholds mode (read):
    same as HF specific command (# 33)

# 36  Line frequency autoselect (set):
    same as ally HF specific command (# 36)

# 37  Battery state of charge (read):
    Request command:
    byte = 37
    Answer:
    byte Command (replica of the request command)
    byte 0 -> Data are valid
          1 -> Data are not valid (battery discharge learning required)
          255 -> Impossible (classic management is selected)
    word Remaining time to battery exhaust (s)
    byte Battery remaining charge (%)

# 38  Battery discharge learning (set):
    Request command:
    byte = 38
    byte 0 -> Start battery discharge learning
          1 -> Read battery discharge learning status
          2 -> Abort battery discharge learning
    Answer:
    byte Command (replica of the request command)
    byte Battery discharge learning status
          0: Running
          1: Not running
          2: Ended
          255: Impossible (UPS on battery power or classic management is selected)
# 39 Battery autonomy management (read / set):
Request command:

byte = 39
byte 0 -> Set classic management
  1 -> Set S.O.C. management
  2 -> Read actual status

Answer:
byte Command (replica of the request command)
byte Actual battery autonomy management
  0: Classic management
  1: S.O.C. management

# 40 Battery reserve time (set):
Request command:

byte = 40
word Reserve time (m)

Answer:
byte Command (replica of the request command)
word Actual reserve time (m)

# 41 Battery reserve time (read):
Request command:

byte = 41

Answer:
byte Command (replica of the request command)
word Actual reserve time (m)

# 44 Output voltage control (set):
Request command:

byte = 44
byte Output set level (V)
byte not 0 -> Output 60 Hz
byte not 0 -> PLL inhibited
byte not 0 -> Extended PLL lock range
byte Dip detector speed:
  1 -> fast
  2 -> standard
  3 -> slow

Answer:
byte Command (replica of the request command)
byte Output set level (V)
byte not 0 -> Output 60 Hz
byte not 0 -> PLL inhibited
byte not 0 -> Extended PLL lock range
byte Dip detector speed:
  1 -> fast
  2 -> standard
  3 -> slow

N.B.: If the level is above or below the allowed range, the UPS uses the maximum or minimum value respectively.
This will be reported in the answer.
# 45  Output voltage control (read):
Request command:
   byte = 45
Answer:
   byte Command (replica of the request command)
   byte Output set level (V)
   byte not 0 -> Output 60 Hz
   byte not 0 -> PLL inhibited
   byte not 0 -> Extended PLL lock range
   byte Dip detector speed:
      1 -> fast
      2 -> standard
      3 -> slow

# 46  Single event read (read):
Request command:
   byte = 46
   byte = 0 -> Reset (answer will contain most recent event)
   byte = 1 -> Autoincrement
Answer:
   byte Command (replica of the request command)
   byte Time Stamp - Year (BCD packed)
   byte Time Stamp - Month (BCD packed)
   byte Time Stamp - Day (BCD packed)
   byte Time Stamp - Hour (BCD packed)
   byte Time Stamp - Min (BCD packed)
   byte Event Code – LSB
      0 = Regular Turn Off
      1 = Irregular turn Off
      2 = Memory Error!
      3 = Low Battery Turn Off
      4 = Battery Runaway
      5 = Overload Turn Off
      6 = Long Overload
      7 = Neutral Wrong Turn Off
      8 = Neutral Wrong while running
      9 = Modules Number Error
     10 = Programmed battery time expired
     11 = Programmed reserve time expired
     12 = Earth Fault Turn Off
     13 = Load Waiting Turn Off
     14 = HV Bus Runaway
     15 = Output DC Level
     16 = Bad Wiring
     17 = Hardware Fault: Unknown
     18 = Hardware Fault: Inverter
     19 = Hardware Fault: P.F.C.
     20 = Hardware Fault: Inverter P.F.C.
     21 = Hardware Fault: Inverter Booster
     22 = Hardware Fault: Inverter Booster
     23 = Hardware Fault: P.F.C. Booster
     24 = Hardware Fault: Inverter P.F.C. Booster
     25 = Hardware Fault: Inverter Overheat
     26 = Hardware Fault: Inverter Overheat
     27 = Hardware Fault: P.F.C. Overheat
     28 = Hardware Fault: Inverter P.F.C. Overheat
     29 = Hardware Fault: Inverter Booster Overheat
     30 = Hardware Fault: Inverter Booster Overheat
     31 = Hardware Fault: P.F.C. Booster Overheat
     32 = Hardware Fault: Inverter P.F.C. Booster Overheat
     33 = Hardware Fault: Battery charger
     34 = Hardware Fault: Overheat & Battery charger
     35 = Output Plug Removed
     36 = Mains Power: voltage very high
37 = Watchdog reset
38 = Battery Startup failed
39 = Battery Calibration aborted by user
40 = Mains Power: SAG
41 = Mains Power: SWELL
42 = Mains Power: BROWNOUT
43 = Mains Power: SPIKE
44 = Mains Power: Harmonic distortion
45 = Neutral Voltage: SWELL
46 = Neutral Voltage: SPIKE

byte Event Code - extended byte 1
byte Event Code - extended byte 2
byte Event Memory Position

# 48  Date/Time (set):
Request command:
    byte = 48
    byte Year (BCD packed)
    byte Month (BCD packed)
    byte Day (BCD packed)
    byte Hour (BCD packed)
    byte Min (BCD packed)
    byte Sec (BCD packed)
    byte Day of Week { 0 = Sunday; 1 = Monday; … }

Answer:
    byte Command (replica of the request command)
    byte Year (BCD packed)
    byte Month (BCD packed)
    byte Day (BCD packed)
    byte Hour (BCD packed)
    byte Min (BCD packed)
    byte Sec (BCD packed)
    byte Day of Week { 0 = Sunday; 1 = Monday; … }

# 49  Date/Time (read):
Request command:
    byte = 49

Answer:
    byte Command (replica of the request command)
    byte Year (BCD packed)
    byte Month (BCD packed)
    byte Day (BCD packed)
    byte Hour (BCD packed)
    byte Min (BCD packed)
    byte Sec (BCD packed)
    byte Day of Week { 0 = Sunday; 1 = Monday; … }

# 52  Calendar scheduling (set):
Request command:
    byte = 52
    byte Step index (0..step_memory_dimension-1)
    byte Month (BCD packed) { 0xAA = wildcard }
    byte Day (BCD packed) { 0xAA = wildcard }
    byte Day of Week { 0 = Sunday; 1 = Monday; … ; 0xAA = wildcard }
    byte Hour (BCD packed)
    byte Min (BCD packed)
    byte Action
        0: No Action – Delete Step
        1: Turn Off
        2: Turn On
        3: Battery Calibration
        4: Battery Test

Answer:
    byte Command (replica of the request command)
byte  Step index  (0..step_memory_dimension-1)
byte  Month  (BCD packed)  { 0xAA = wildcard }
byte  Day  (BCD packed)  { 0xAA = wildcard }
byte  Day of Week  { 0 = Sunday; 1 = Monday; … ; 0xAA = wildcard }
byte  Hour  (BCD packed)
byte  Min  (BCD packed)
byte  Action
   0: No Action
   1: Turn Off
   2: Turn On
   3: Battery Calibration
   4: Battery Test
   255: Step index out of range

# 53  Calendar scheduling (read):
    Request command:
       byte = 53
       byte  Step index  (0..step_memory_dimension-1)
    Answer:
       byte  Command (replica of the request command)
       byte  Step index
       byte  Month  (BCD packed)  { 0xAA = wildcard }
       byte  Day  (BCD packed)  { 0xAA = wildcard }
       byte  Day of Week  { 0 = Sunday; 1 = Monday; … ; 0xAA = wildcard }
       byte  Hour  (BCD packed)
       byte  Min  (BCD packed)
       byte  Action
          0: No Action
          1: Turn Off
          2: Turn On
          3: Battery Calibration
          4: Battery Test
          255: Step index out of range

# 54  Calendar scheduling enable (read / set):
    Request command:
       byte = 54
       byte  0 -> Disable
             1 -> Enable
             2 -> Read actual status
    Answer:
       byte  Command (replica of the request command)
       byte  0 -> Disabled
             1 -> Enabled
DHEA specific commands

# 21 No load threshold (set):
    same as HF specific command (# 21 )
# 22 No load threshold (read):
    same as HF specific command (# 22 )
# 23 Output voltage control (set):
    same as HF specific command (# 23 )
# 24 Output voltage control (read):
    same as HF specific command (# 24 )
# 25 Bypass (set):
    same as HF specific command (# 25 )
# 26 Bypass (read):
    same as HF specific command (# 26 )
# 27 Hardware status report (read):
    same as HF specific command (# 27 )
# 31 Bus voltages (read):
    same as HF specific command (# 31 )
# 32 Battery thresholds (set):
    same as HF specific command (# 32 )
# 33 Battery thresholds mode (read):
    same as HF specific command (# 33 )
# 36 Line frequency autoselect (set):
    same as ally HF specific command (# 36 )
# 37 Battery state of charge (read):
    same as ally HF specific command (# 37 )
# 38 Battery discharge learning (set):
    same as ally HF specific command (# 38 )
# 39 Battery autonomy management (read / set):
    same as ally HF specific command (# 39 )
# 40 Battery reserve time (set):
    same as ALLY HF specific command (# 40 )
# 41 Battery reserve time (read):
    same as ALLY HF specific command (# 41 )
# 44 Output voltage control (set):
    same as MEGALINE specific command (# 44 )
# 45 Output voltage control (read):
    same as MEGALINE specific command (# 45 )
# 46 Single event read (read):
    same as MEGALINE specific command (# 46 )
# 48 Date/Time (set):
    same as MEGALINE specific command (# 48 )
# 49  Date/Time (read):
   same as MEGALINE specific command ( # 49 )

# 52  Calendar scheduling (set):
   same as MEGALINE specific command ( # 52 )

# 53  Calendar scheduling (read):
   same as MEGALINE specific command ( # 53 )

# 54  Calendar scheduling enable (read/set):
   same as MEGALINE specific command ( # 54 )

# 55  Auxiliary output (set):
   Request command:
   byte = 55
   byte AUX OUT 1 max time on battery (m)
   byte AUX OUT 2 max time on battery (m)
   byte AUX OUT 1 OFF on battery reserve (1 => OFF on battery reserve)
   byte AUX OUT 2 OFF on battery reserve (1 => OFF on battery reserve)
   Answer:
   byte Command (replica of the request command)
   byte AUX OUT 1 max time on battery (m)
   byte AUX OUT 2 max time on battery (m)
   byte AUX OUT 1 OFF on battery reserve
   byte AUX OUT 2 OFF on battery reserve

# 56  Auxiliary output (read):
   Request command:
   byte = 56
   Answer:
   byte Command (replica of the request command)
   byte AUX OUT 1 max time on battery (m)
   byte AUX OUT 2 max time on battery (m)
   byte AUX OUT 1 OFF on battery reserve
   byte AUX OUT 2 OFF on battery reserve