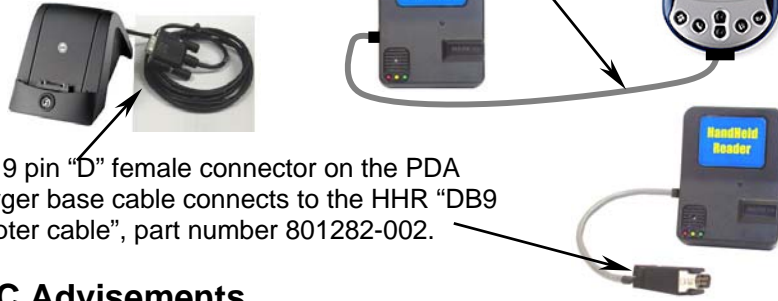


Serial port – RS232 cables

The HHR “direct to PDA cable”, part number 801282-001 connects the HHR directly to the PDA 16 pin “charger base” port.



The 9 pin “D” female connector on the PDA charger base cable connects to the HHR “DB9 adapter cable”, part number 801282-002.

FCC Advisements

Warning: changes and/or modification not expressly approved by Mark IV Industries Ltd. could void the user’s authority to operate the equipment.

**MARK IV
FCC ID: JQU 801283**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and,
2. this device must accept any interference received, including interference that may cause undesired operation.

HHR Specifications (P/N 801283-247)

Note: specifications are subject to change without notice.

- FCC ID: JQU801283
- Operating temperature range: 0°C to 45°C.
- Storage temperature range: -40°C to +85°C for up to 24 hours
- Humidity: 5% through 95% R.H. (non-condensing).
- Shock and vibration: designed for portable use only.
- Operating life (battery): 2+ years, under normal use (<150 transactions/day)
- Dimensions: width 80 mm, length 110 mm, depth 13 mm to 23 mm
- Weight: 107 grams (not including cables)

Manual revisions

Rev	Date (ddmmyy)	Type	Description
@4	6-Oct-03	none	DRAFT not for release yet
A2	9-Oct-03	add	HHR and kit item part numbers
A3	21-Oct-03	add	FCC Advisement
A4	29-Oct-03	change	FCC Advisements

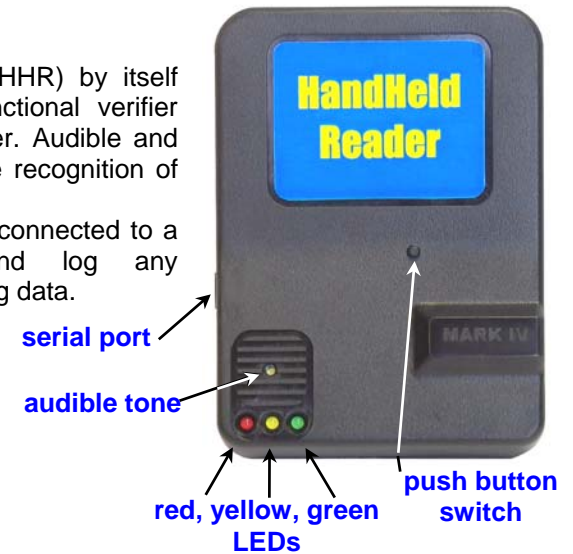
Description:

The handheld reader (HHR) by itself performs as a tag functional verifier and CRC status checker. Audible and visual indicators provide recognition of the tag status.

The serial port may be connected to a PDA to display and log any successfully captured tag data.

Reader software for the PDA is supplied on one diskette in the HHR system kit.

The PDA data logs may be uploaded to a “host” computer.



How to verify/read a tag.

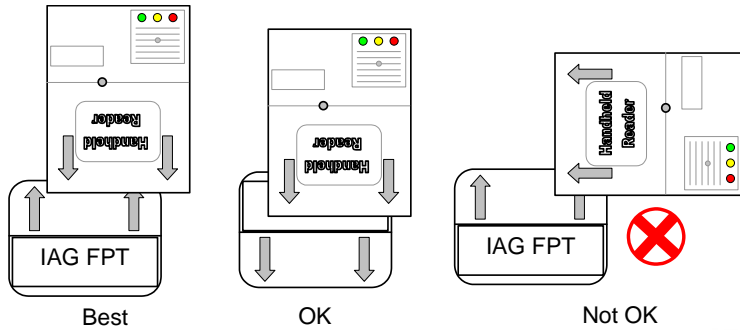
The tag must be an IAG tag or have an IAG compatible data format. Place the tag to be read underneath the handheld reader, see Fig. 2. Press the push button switch for about 1 second and release it. The LEDs and audible tone indicate the tag status as follows:

Table 1- LED and tone status indications

Red	Yellow	Green	Tone	Tag status
off	off	off	2 short beeps	tag not read, try again
off	off	on steady for 5 seconds	4 short beeps	tag is OK
flashing	off	off	on steady for 5 seconds	tag data is faulty
off	flashing	off	8 long beeps	data read but CRC is in error

Fig. 2 - Position the HHR over the tag to be read

Note: it is best to have the arrows on the antennae surfaces of both the reader and the tag aligned in the same direction and “opposed”.



Hold the HHR about 1-8 inches away from the tag. Use the PDA **“Request Tag Data Button”** to initiate the tag read. If the tag is not read, move the HHR closer to the tag and try again.

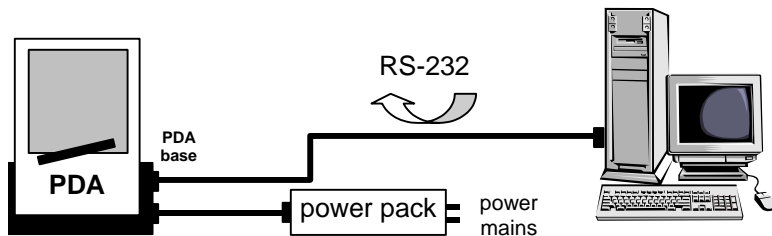
Refer to the **“HHR-PDA Operator’s manual”** document A316000-854 supplied in your HHR system kit.



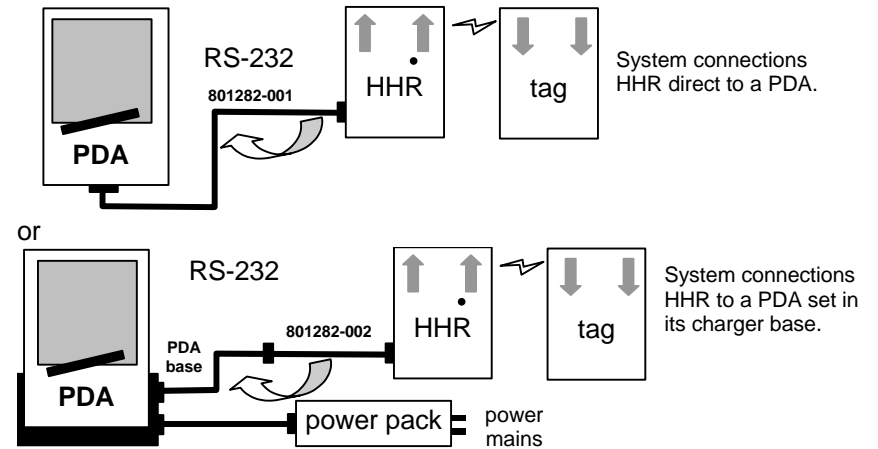
HHR System Kit (excluding documents):

Qty	P/N	Description
1	801283-247	Hand Held Reader
1	801282-001	Cable, HHR to PDA direct
1	801828-002	Cable, DB9 adapter
1	700731-008	diskette with HHR program for download to PDA

System connections for program download to PDA

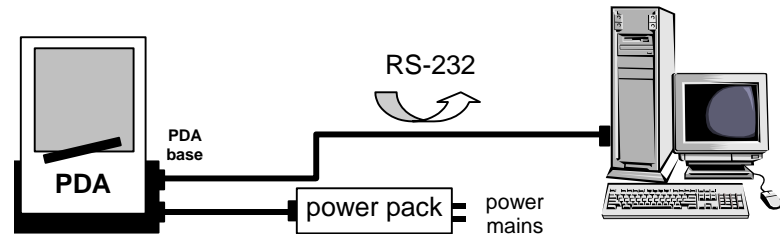


System connections for read, display, collect data



1. Take all tag readings with the PDA attached and store the data.
Note: 801282-002 is the HHR adapter cable. 801282-001 is the HHR to PDA direct connection cable. (See the identity photos on the last page.)

System connections for data upload to a host



2. Re-connect the PDA to the host computer to upload the stored data.

Notes:

Refer to the **“HHR-PDA Operator’s manual”** (document A316000-854 supplied in your HHR system kit) for use of the PDA when you want to:

- read a tag and immediately display the data on the PDA
- review the records of all tags in the PDA database
- “beam” the tag database to another PDA
- upload the tag database from the PDA to a “host” computer
- download the HHRReader program to the PDA from a PC