



Parr Instrument Company

Bulletin 6750

6750 Proximate Interface



6750

Designing and Building Quality Pressure Apparatus for 120 Years

6750 Proximate Interface

Simple Data Handling for Proximate Analysis of Coal



6750 Proximate Interface for the Analysis of Coal

The proximate analysis of a coal sample is a tedious procedure involving several separate weights and the handling of data from several sources as needed to calculate Air-Dry Moisture, Total Moisture, Volatile Matter, Fixed Carbon and Ash. The 6750 Proximate Interface is an advanced micro-processor system, which simplifies the collection, storage, calculation, and reporting of data needed during the proximate analysis of coal, coke and related fuel.

Parr Instrument Company has redesigned and significantly enhanced the 6750 Proximate Interface for proximate analysis, including many new features

desired by users of the 1750 model. The new 6750 has the ability to function as a Proximate Analyzer, an ADL Interface, a Total Moisture Interface and a Balance Interface. As compared to a PC, the unit is compact, inexpensive and robust. The Interface weighs only 4.5 pounds and measures 11 inches wide, 5 inches tall, and 9 inches deep, saving precious bench top space.

Numerous Capabilities

Operating seamlessly with current laboratory equipment, the 6750 Proximate Interface will:

- Collect and store all individual weights obtained during the steps required to

determine moisture, volatile matter, ash, BTU's and Sulfur

- Manage up to 1000 samples
- Coordinate and organize data as it becomes available
- Calculate the resulting proximate analysis for each sample on any of four reference bases: As-Determined (AD), As-Received (AR), Dry (DRY) or Dry, Ash-Free (DAF)
- Convert and report BTU and Sulfur values to selected moisture reference bases
- Act as a remote Air Dry Loss, Total Moisture Interface or Balance Interface
- Support data entry, storage and reporting for Free Swelling Index (FSI) and Ash Fusion along with the more traditional mass loss or calorimetric based measurements
- Print all results to a network printer or a 1758 printer. Data can also be transferred to a central computer.
- Obtain a printout or report of the proximate analysis, BTU and Sulfur values for each sample.
- Produce final or preliminary reports at any time for any sample ID.

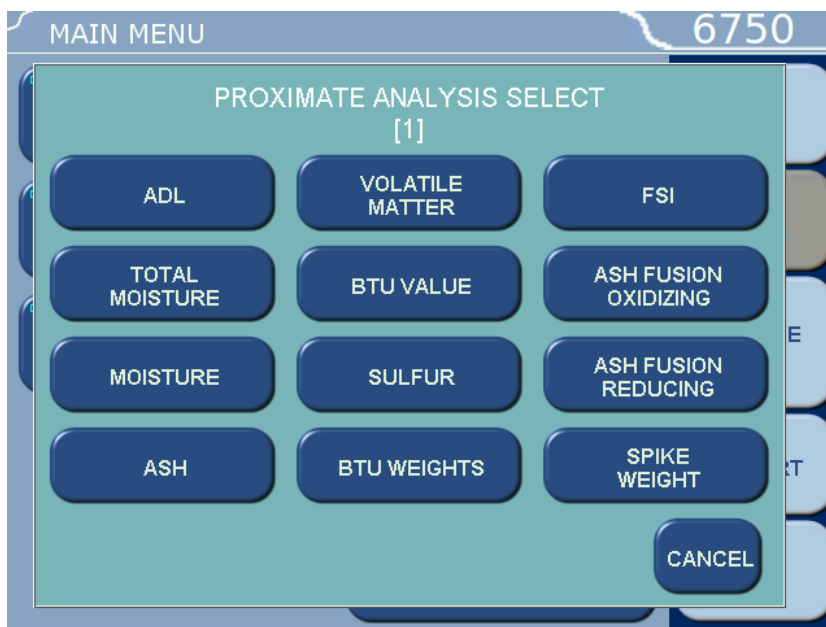


Simplify Data Entry and Organization

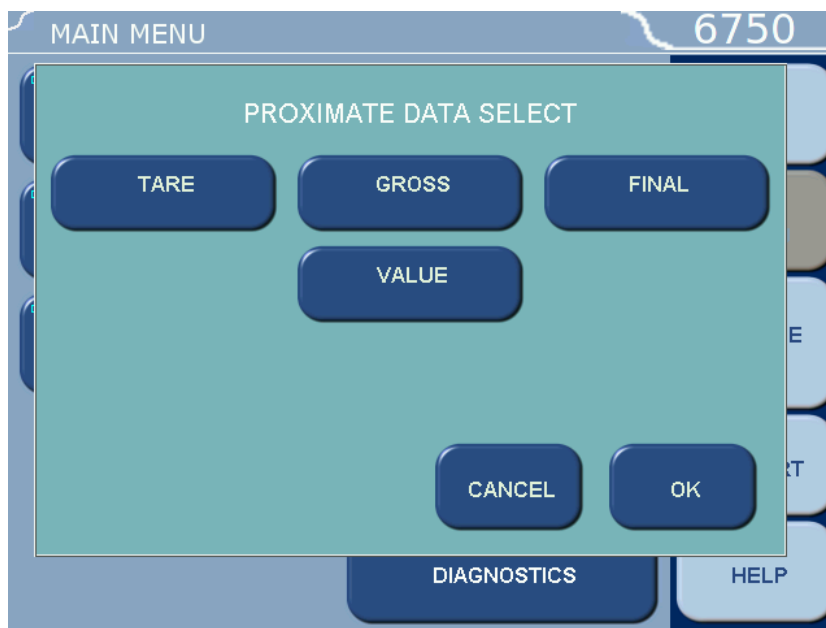
Any order may be used for weighing and treating samples. The 6750 Proximate Interface will accept data from a digital balance as generated; organizing and storing it in the correct order, under operator assigned sample IDs. If desired, an automatic data entry system is available.

Sample weights may also be entered manually using the touch screen keyboard on the console. After each weighing, the entry will be shown on a LCD display of the 6750 Proximate Interface for confirmation before it is entered into memory. The operator will then use the touch screen keyboard to identify each entry test (moisture, ash, volatile matter, BTU or air dry loss) or function (tare, gross or final weight) to which the data applies. The 6750 Proximate Interface will prompt the operator to identify each entry with a valid sample ID. Several selectable options are available to speed data entry procedures by allowing the operator to enter consecutive tare and gross weights automatically with a minimum number of keystrokes.

Weights used to determine Air-Dry Loss (ADL) or Total Moisture may also be entered manually. Alternatively, the ADL or Total Moisture value can be calculated and entered separately as a percent.



Screenshot from the Proximate Interface showing Proximate Analysis Select



Screenshot from the Proximate Interface showing Proximate Data Select

From Raw Data to Attractive Reports

Many options are available to the user to create the desired reporting format. The user can select from a variety of pre-programmed options to obtain either complete or partial reports for individual samples or for a full range of tests. A memory management system will clear the test report memory when desired. Data for up to 1000 samples can be entered before results must be withdrawn to make room for additional data. All data is stored in non-volatile Flash ROM based memory.

There are six standard options for transferring data from the 6750 Proximate Interface:

- Directly to a printer via the USB port
- Manually transfer the data using a SD memory card
- Link to a network printer using the Ethernet port
- Establish a connection using a web browser
- Report file transfer using an FTP client.
- Windows file sharing with Samba (optional feature) using the SMB protocol.

Sample ID: DEMO1		Instrument MAC: 00:60:0C:81:03:03	
State:	Final	Date:	Tue May 20 17:53:52 2008
ADL Tare:	2218.0	Ash Tare:	17.6908
ADL Gross:	6711.0	Ash Gross:	18.6741
ADL Final:	5975.9	Ash Final:	17.7347
ADL:	16.36	Ash As Determined:	4.46
Total Moisture Tare:		Ash As Received:	3.73
Total Moisture Gross:		Ash Dry:	4.86
Total Moisture Final:		Volatile Matter Tare:	16.7701
Moisture Tare:	15.6908	Volatile Matter Gross:	17.7709
Moisture Gross:	16.6925	Volatile Matter Final:	17.2878
Moisture Final:	16.6101	Volatile Matter As Rcvd:	33.49
Moisture As Det'd:	8.23	Volatile Matter Dry:	43.63
Moisture As Received:	23.24	Volatile Matter DAF:	45.87
BTU Tare:	7.4152	Fixed Carbon As Det'd:	47.26
BTU Gross:	8.4008	Fixed Carbon As Rcv'd:	39.53
BTU Net:	0.9856	Fixed Carbon Dry:	51.50
BTU As Det'd:	12495	Fixed Carbon DAF:	54.13
BTU As Rcv'd:	10451	Sulfur As Det'd:	2.25
BTU Dry:	13615	Sulfur As Rcv'd:	1.88
BTU DAF:	14311	Sulfur Dry:	2.45
Spike Wt. Tare:	7.4500	Sulfur DAF:	2.58
Spike Wt. Gross:	8.4600	FSI:	6.5
Spike Wt. Net:	1.0100	Ash Fusion Units:	Centigrade
Ash Fusion Oxidizing IT:	2654.0	Ash Fusion Reducing IT:	2190.0
Ash Fusion Oxidizing ST:	2716.0	Ash Fusion Reducing ST:	2219.0
Ash Fusion Oxidizing HT:	2747.0	Ash Fusion Reducing HT:	2236.0
Ash Fusion Oxidizing FT:	2773.0	Ash Fusion Reducing FT:	2261.0

Screenshot of a report view generated using a web browser



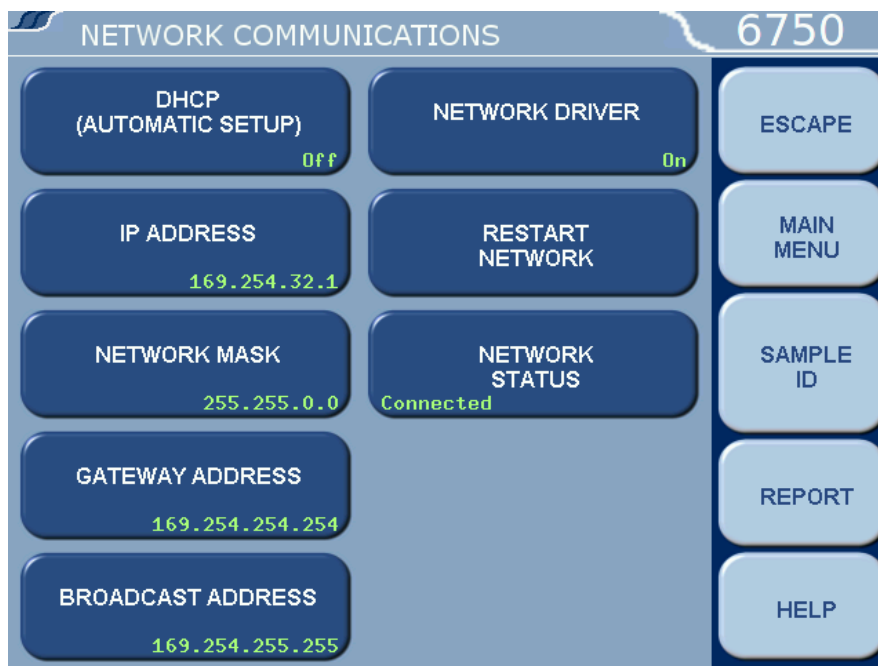
Seamless Integration

The 6750 Proximate Interface does not require a special oven, furnace, or analytical balance. All drying and ashing operations are performed in the same oven and furnace normally used for standard ASTM proximate analyses. The 6750 Proximate Interface can be installed in a variety of configurations and the user will want to choose the proper installation procedures for his or her planned setup.

Each 6750 Proximate Interface is equipped with USB ports, two SD card slots, and an Ethernet network connection.

Normally, one USB connection will be used in conjunction with a stand-alone printer. The user has the ability to configure parameters within the 6750 Proximate Interface to operate with most existing printers. The Parr 1758 Printer is a simple, compact option if a stand-alone printer is desired. A cable to connect the 6750 Proximate Interface to the 1758 Printer is supplied with the printer. Alternatively, the user may print to a network printer using the Ethernet connection.

The other USB port is used to accept sample weights directly from an analytical or top-loader balance. The Interface allows the user to choose from a wide variety of standard balance configurations or to establish



Screenshot from the Proximate Interface showing Network Communications

parameters specific to their laboratory balance. Parr is able to supply cables for common balance connections.

An Ethernet network connection is used when the 6750 Proximate Interface will be installed in conjunction with a calorimeter and / or ADL or Total Moisture interface devices. Additional 6750 Proximate Interfaces may be connected to the network, configured as ADL or Total Moisture interface devices at some remote location. In this system, the primary 6750 Proximate Interface can then be configured to retrieve ADL or Total Moisture weights from the remote 6750 Proximate Interface devices. If the 6750 Proximate Interface is connected to a Parr Calorimeter via an Ether-

net communications network, sample weights for heats of combustion determinations will be transferred automatically to the calorimeter. Determined BTU and Sulfur values can then be transferred back to the 6750 Proximate Interface for incorporation in final reports. If the 6750 Proximate Interface is not connected to a calorimeter controller, BTU and Sulfur values can be entered directly through the touch screen. The 6750 Proximate Interface is compatible solely with the line of 6000 Series instruments.

Contact our sales staff at 1-800-872-7720, for additional information on the newest member of the 6000 Series instruments.

Ordering Guide



6750 Proximate Interface with Barcode Scanner

6750 Ordering Guide

6750 Proximate Interface

<i>Model No.</i>	<i>Description</i>
6750EA	Proximate Interface, 115V/230V, 50/60Hz
6750EF	Proximate Interface, 230V, 50/60Hz

Parr Barcode Support Packages

The use of barcodes in the laboratory has become highly accurate, rapid and inexpensive way to identify samples. Bar coding offers two distinct advantages over traditional keystroke entry:

1. **Speed** - A barcode label can be scanned in the time it takes the operator to enter two keystrokes.
2. **Accuracy** - The error rate for typing is one substitution error every 300 characters typed. Error rates for bar coding are as minimal as one substitution error in every 1 million characters scanned.

Accessories Ordering Guide

<i>Part No.</i>	<i>Description</i>
2202E	USB Reader / Writer
2201E	SD Memory Card
1965E	Remote Feature Key
1758	1758 USB Printer
2203E	Cable, RS-232 to USB
2183E	Samba Server Feature Key

Bar Code Ordering Guide

<i>Part No.</i>	<i>Description</i>
A1950E4	Standard Bar Code Package: Scanner, Printer, Installation CD & Feature Key
A1958E4	Deluxe Bar Code Package: Two Scanners, Printer, Installation CD & Two Feature Keys
1952E2	Bar Code Scanner
A1955E	Bar Code Printer with Power Supply and USB Cable
1394DD	Bar Code Labels

Limited Warranty



Parr Instrument Company (Parr) combustion bombs, calorimeters, reactors, pressure vessels and associated products are designed and manufactured only for use by or under the direct supervision of trained professionals in accordance with specifications and instructions for use supplied with the products. For that reason, Parr sells only to professional users or distributors to such users. Parr produces precision equipment and associated products which are **not intended for general commercial use**.

EXCLUSIVE WARRANTY

To the extent allowed by law, the express and limited warranties herein are the sole warranties. **Any implied warranties are expressly excluded**, including but not limited to implied warranties of merchantability or fitness for a particular purpose.

WARRANTY CONDITIONS:

1. **Non-assignable.** The warranties herein extend **only** to the original purchaser-user and to the distributors to such users. These warranties or any action or claims based thereon are **not assignable or transferable**.
2. **Use of product.** The warranties herein are applicable and enforceable only when the Parr product:
 - a. Is installed and operated in strict accordance with the written instructions for its use provided by Parr.
 - b. Is being used in a lawful manner.
 - c. Has not been modified by any entity other than Parr Instrument Company.
 - d. Has been stored or maintained in accordance with written instructions provided by Parr, or if none were provided, has been stored and maintained in a professionally reasonable manner.
3. **The user's responsibility.** Parr engineers and sales personnel will gladly discuss available equipment and material options with prospective users, but the final responsibility for selecting a reactor, pressure vessel or combustion bomb which has the capacity, pressure rating, chemical compatibility, corrosion resistance and design features required to perform safely and to the user's satisfaction in any particular application or test must rest entirely with the user – not with Parr. It is also the user's responsibility to install the equipment in a safe operating environment and to train all operating personnel in appropriate safety, operational and maintenance procedures.

4. **Warranty period.** Unless otherwise provided in writing by Parr, the warranties herein are applicable for a period of one year from date of delivery of the product to the original purchaser/user. Note, however, that there is no guarantee of a service life of one year after delivery.
5. **Notification.** To enforce any express warranty created herein, the purchaser/user must notify Parr in writing within thirty (30) days of the date any defect is detected. Upon request of Parr, the part or product involved must be returned to Parr in the manner specified by Parr for analysis and non-destructive testing.

EXPRESS WARRANTIES

Subject to the above Conditions, Parr expressly warrants that its products:

1. Are as described in the applicable Parr sales literature, or as specified in Parr shipping documents.
2. Will function as described in corresponding Parr sales bulletins or, for specially engineered assemblies, as stated in the sales proposal and purchase agreement.
3. Will remain free from defects in materials and workmanship for the Warranty Period.

LIMITATIONS ON THE PARR WARRANTY

As to the original purchaser/user and to the distributors to such users, Parr limits its liability for claims other than personal injury as follows:

1. **Replacement or repair.** With respect to express warranties herein, Parr's only obligation is to replace or repair any parts, assemblies or products not conforming to the warranties provided herein.
2. **Disclaimer of consequential damages.** In no event shall Parr be liable for consequential commercial damages, including but not limited to: damages for loss of use, damages for lost profits, and damages for resulting harm to property other than the Parr product and its component parts.

INDEMNITY AND HOLD HARMLESS

Original purchaser-user agrees to indemnify and hold Parr harmless for any personal injuries to original purchaser-user, its employees and all third parties where said injuries arise from misuse of Parr products or use not in accordance with specifications and instructions for use supplied with the Parr products.

The Parr Limited Warranty

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 - b. Is being used in a lawful manner.
 - c. Has not been modified by any entity other than Parr Instrument Company.
 - d. Has been stored or maintained in accordance with written instructions provided by Parr, or if none were provided, has been stored and maintained in a professionally reasonable manner.
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- 2. Disclaimer of consequential damages.** In no event shall Parr be liable for consequential commercial damages, including but not limited to: damages for loss of use, damages for lost profits, and damages for resulting harm to property other than the Parr product and its component parts.

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211 Fifty Third Street Moline, Illinois 61265-1770

1-800-872-7720 | 1-309-762-7716 | parr@parrinst.com | www.parrinst.com