

## KINCOM™ RESEARCH OPTION KIT

### DEVICE DESCRIPTION

The Research Option Kit provides an external link for the KIN-COM system signals including the loadcell, tachometer, and potentiometer. This manual will provide instructions on the proper methods to be used in hooking up the signals without causing degradation of the machine's performance. Precautions must be used in order to not degrade the signals because they are used by the main CPU to control the machine itself. Any deviations, or improper hookup can result in nuisance errors in machine operation.

### SIGNAL PARAMETERS

The signals are picked off prior to the A/D Converter's multiplexer so it will be necessary to match, as close as possible, the input impedance of the measurement system. This system input impedance is approximately  $10\text{ G}\Omega$  so the auxiliary measurement device must also present a high impedance in order to not degrade the control signals. It is recommended that the user's measuring device use instrumentation amplifiers as their inputs that have a minimum of  $10\text{ G}\Omega$  impedance. Signals can range between  $\pm 10\text{V DC}$ .

### CONNECTOR LOCATION

The research option connector is located on the back of the computer in slot location no. "5" as shown by the accompanying diagram. The ten pin connector is attached to the Multifunction A/D circuit board located in Slot "1" of the I/O. Attach this connector to the 10 pin receptacle designated as "P3".

SEE LAST PAGE

57619 Research system  
 52538 HARN KC B74  
 suitable sub

**CONNECTION DIAGRAM**

The connection diagram below indicates the pinouts for the connector located in slot number "1" at the rear of the computer.

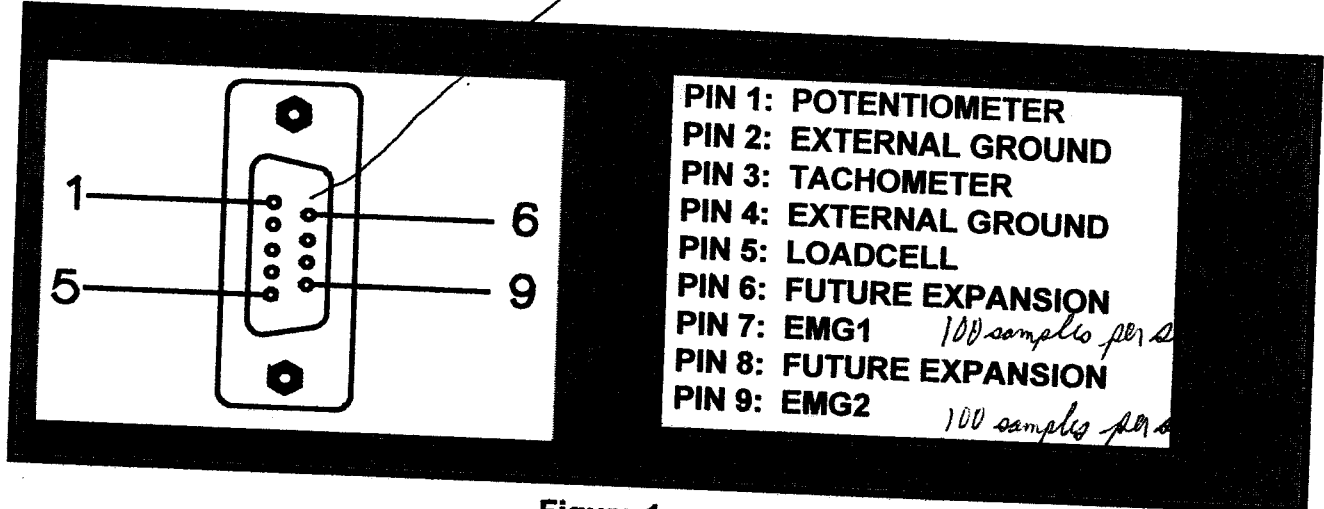
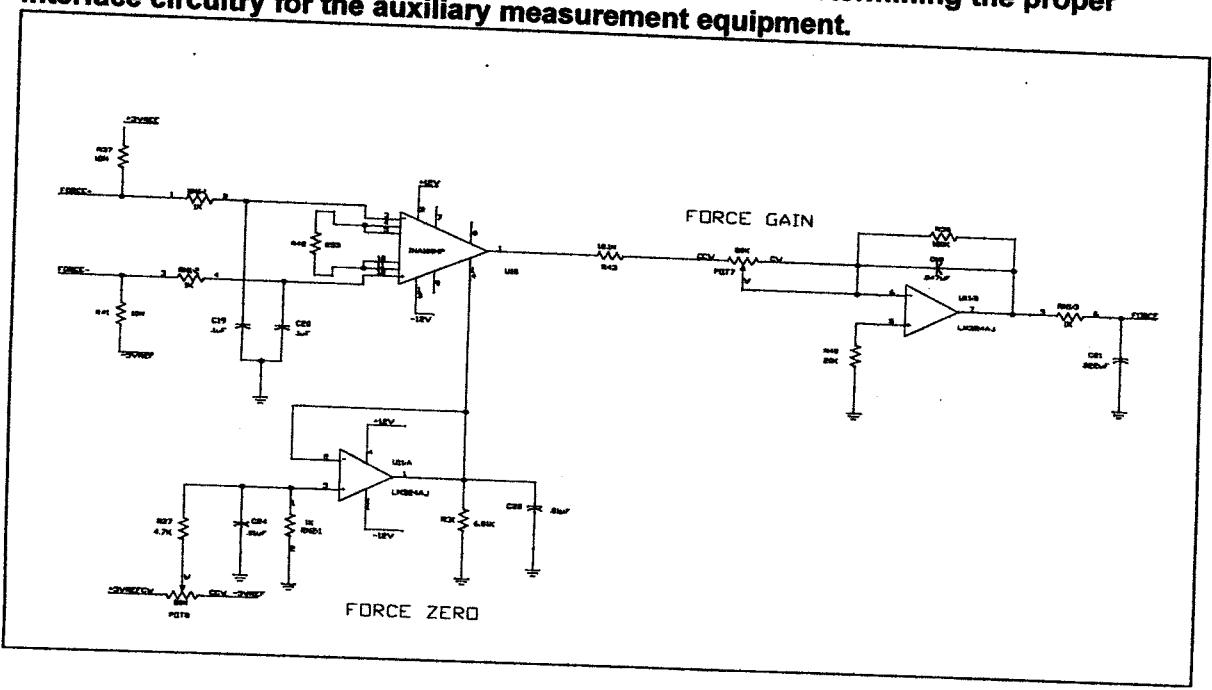


Figure 1

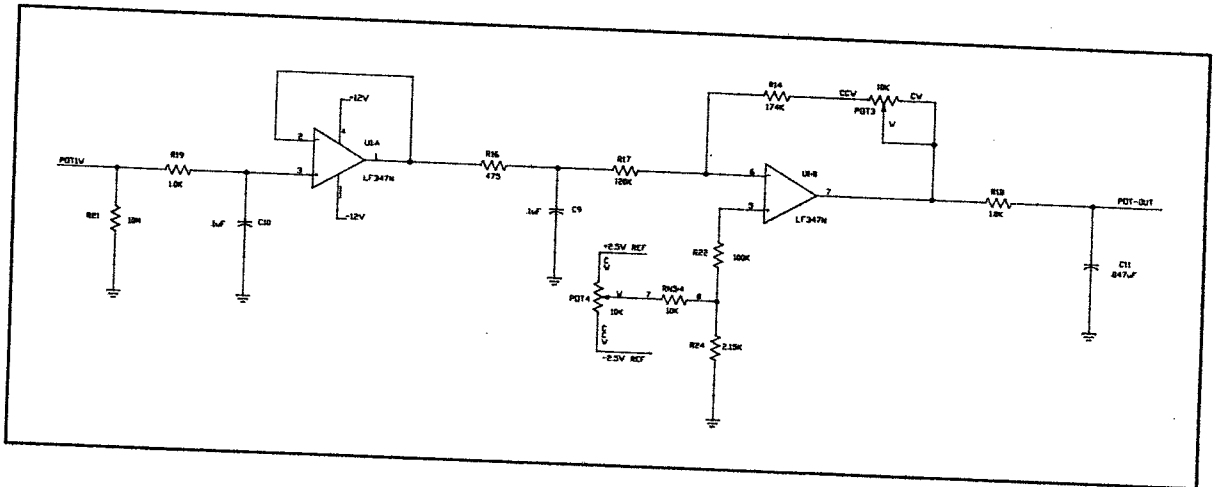
**LOADCELL**

The basic loadcell circuitry is shown below as an aid in determining the proper interface circuitry for the auxiliary measurement equipment.



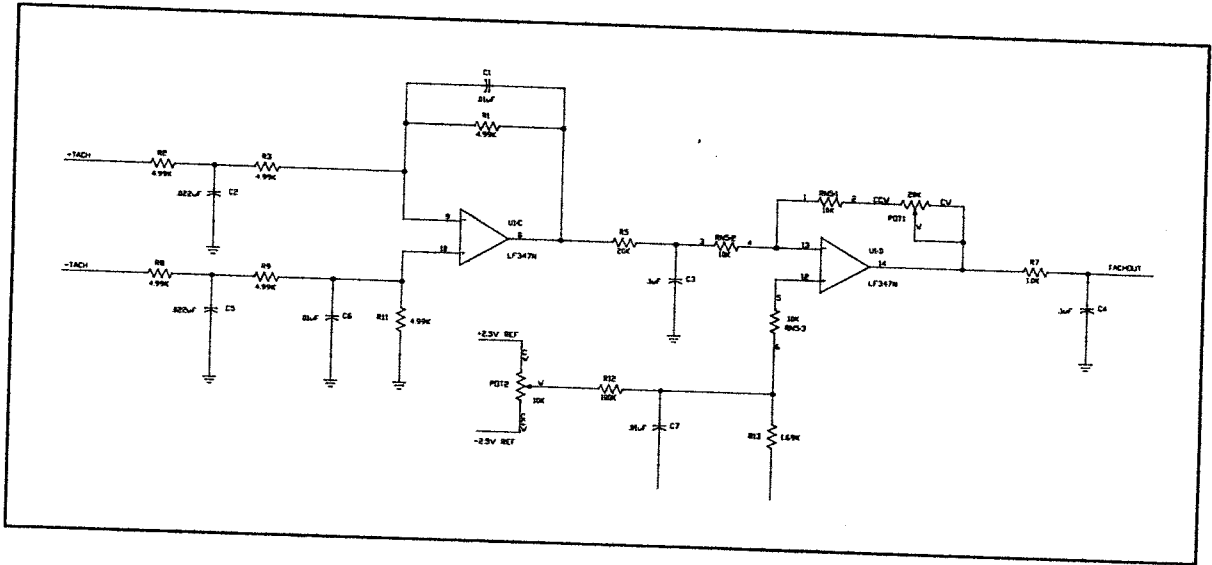
# POTENTIOMETER

The basic potentiometer circuitry is shown below as an aid in determining the proper interface circuitry for the auxiliary measurement equipment.



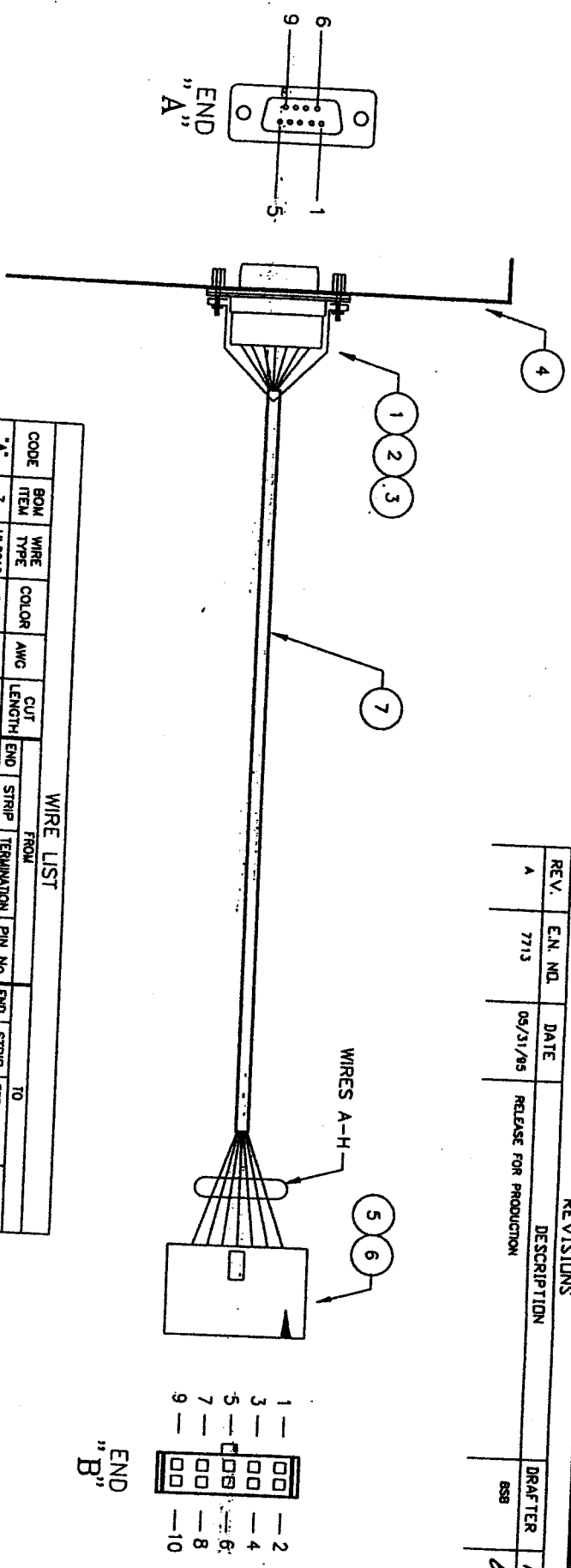
# TACHOMETER

The tachometer circuitry is shown below as an aid in determining the proper interface circuitry for the auxiliary measurement equipment.



| REVISIONS |         |          |                        |
|-----------|---------|----------|------------------------|
| REV.      | EN. NO. | DATE     | DESCRIPTION            |
| A         | 7713    | 05/31/95 | RELEASE FOR PRODUCTION |

DRAFTER: BSB  
APPROVAL: *[Signature]*



| WIRE LIST |          |           |       |     |            |     |       |             |         |
|-----------|----------|-----------|-------|-----|------------|-----|-------|-------------|---------|
| CODE      | BOM ITEM | WIRE TYPE | COLOR | AWG | CUT LENGTH | END | FROM  | TO          | PIN NO. |
| "A"       | 7        | UL2919    | BLK   | 24  | -          | A   | STRIP | TERMINATION | 1       |
| "B"       | 7        | UL2919    | WHT   | 24  | -          | A   | STRIP | TERMINATION | 2       |
| "C"       | 7        | UL2919    | RED   | 24  | -          | A   | STRIP | TERMINATION | 3       |
| "D"       | 7        | UL2919    | GRN   | 24  | -          | A   | STRIP | TERMINATION | 4       |
| "E"       | 7        | UL2919    | BLU   | 24  | -          | A   | STRIP | TERMINATION | 5       |
| "F"       | 7        | UL2919    | ORG   | 24  | -          | A   | STRIP | TERMINATION | 6       |
| "G"       | 7        | UL2919    | SHLD  | 24  | -          | A   | STRIP | TERMINATION | 7       |
| "H"       | 7        | UL2919    | SHLD  | 24  | -          | A   | STRIP | TERMINATION | 8       |

| ITEM | QTY  | DESCRIPTION                       | PART NUMBER | VENDOR |
|------|------|-----------------------------------|-------------|--------|
| 1    | 1    | CONN. HOUSING 9PIN DSUB (75053)   | 205203-3    | AMP    |
| 2    | 7    | TERMINAL SOCKET (72652)           | 66682-2     | AMP    |
| 3    | 1    | FEMALE SCREWLOCKS, 4-40 (70685)   | 207719-1    | AMP    |
| 4    | 1    | BRACKET DR9 PC MOUNT              | X1B-09-E    | OLSEN  |
| 5    | 1    | CONN. HOUSING 10PIN (54324)       | 102387-1    | AMP    |
| 6    | 7    | TERMINAL INTER. PRESS (54325)     | 87046-3     | AMP    |
| 7    | 9.0' | CABLE 7 COND. SHLD. 24GA. (52721) | 9832        | BELDEN |

THIS DOCUMENT CONTAINS INFORMATION AND PROPRIETARY PROPERTY OF CHATTANOOGA CORPORATION AND IS NOT TO BE DISCLOSED TO ANY REPRODUCED OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN CONSENT OF SAID COMPANY.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS ANGLES ARE 1/64 .01 117

APPROVALS  
ENGINEER: BSBAXTER 08.95  
BRAVING: BSBAXTER 08.95  
CHECK: BSBAXTER 08.95

TITLE: HARNESS KCMP RESEARCH  
DRAWING NO: 57619  
SCALE: NONE  
SHEET: 1 OF 1

52538 HAAN KCB

