

|                  | 15   | 14 | 13 | 12 | 11           | 10         | 9         | 8         | 7       | 6      | 5    | 4 | 3   | 2 | 1 | 0 |
|------------------|------|----|----|----|--------------|------------|-----------|-----------|---------|--------|------|---|-----|---|---|---|
| ADD <sup>+</sup> | 0001 |    |    |    | DR           |            | SR1       |           | 0       |        | 00   |   | SR2 |   |   |   |
| ADD <sup>+</sup> | 0001 |    |    |    | DR           |            | SR1       |           | 1       |        | imm5 |   |     |   |   |   |
| AND <sup>+</sup> | 0101 |    |    |    | DR           |            | SR1       |           | 0       |        | 00   |   | SR2 |   |   |   |
| AND <sup>+</sup> | 0101 |    |    |    | DR           |            | SR1       |           | 1       |        | imm5 |   |     |   |   |   |
| BR               | 0000 |    |    |    | n            | z          | p         | PCoffset9 |         |        |      |   |     |   |   |   |
| JMP              | 1100 |    |    |    | 000          |            | BaseR     |           | 000000  |        |      |   |     |   |   |   |
| JSR              | 0100 |    |    |    | 1            | PCoffset11 |           |           |         |        |      |   |     |   |   |   |
| JSRR             | 0100 |    |    |    | 0            | 00         |           | BaseR     |         | 000000 |      |   |     |   |   |   |
| LD <sup>+</sup>  | 0010 |    |    |    | DR           |            | PCoffset9 |           |         |        |      |   |     |   |   |   |
| LDI <sup>+</sup> | 1010 |    |    |    | DR           |            | PCoffset9 |           |         |        |      |   |     |   |   |   |
| LDR <sup>+</sup> | 0110 |    |    |    | DR           |            | BaseR     |           | offset6 |        |      |   |     |   |   |   |
| LEA <sup>+</sup> | 1110 |    |    |    | DR           |            | PCoffset9 |           |         |        |      |   |     |   |   |   |
| NOT <sup>+</sup> | 1001 |    |    |    | DR           |            | SR        |           | 111111  |        |      |   |     |   |   |   |
| RET              | 1100 |    |    |    | 000          |            | 111       |           | 000000  |        |      |   |     |   |   |   |
| RTI              | 1000 |    |    |    | 000000000000 |            |           |           |         |        |      |   |     |   |   |   |
| ST               | 0011 |    |    |    | SR           |            | PCoffset9 |           |         |        |      |   |     |   |   |   |
| STI              | 1011 |    |    |    | SR           |            | PCoffset9 |           |         |        |      |   |     |   |   |   |
| STR              | 0111 |    |    |    | SR           |            | BaseR     |           | offset6 |        |      |   |     |   |   |   |
| TRAP             | 1111 |    |    |    | 0000         |            |           | trapvect8 |         |        |      |   |     |   |   |   |
| reserved         | 1101 |    |    |    |              |            |           |           |         |        |      |   |     |   |   |   |

Formats of the entire LC-3 instruction set. NOTE: <sup>+</sup> Indicates instructions that modify condition codes.