

systems comprises scanning control functionality for scanning said detection co-ordinates in a multi-stage scanning operation, thereby to home in on multiple locations.

40. Apparatus according to claim 39, wherein said arrangement is a grid and said co-ordinates are Cartesian co-ordinates.

41. Apparatus according to claim 40 wherein said multi-stage scanning operation comprises a first stage of scanning groups of sensors along each axis of said grid, and a second stage of homing in on co-ordinates indicated in said first stage.

42. Apparatus according to claim 41, wherein said first stage comprises applying a sensing signal to all sensors of each group in a first axis, and reading each sensor in said second axis, and then applying a sensing signal to all sensors of each group in said second axis and reading each sensor in said first axis.

43. Apparatus according to claim 42, wherein said scanning control functionality is operable to determine whether an ambiguity is present, and, if an ambiguity is present to define suspect sensors as any sensor giving rise to a signal.

44. Apparatus according to claim 43, wherein said scanning control functionality is further operable to select each suspect sensor one at a time in a first of said axes, to apply a sensing signal thereto, and to read each suspect sensor in a second of said axes.

45. Pressure sensing apparatus for detection of at least two pressure locations, the apparatus comprising:

an arrangement of pressure sensors set out to define detection co-ordinates, and

scanning control functionality for scanning said detection co-ordinates in a multi-stage scanning operation, thereby to home in on said at least two pressure locations.

46. A sensor arrangement for superimposing over a visual display screen, comprising:

a first transparent foil having sensors of a first detection system for detecting a user interaction of a first type, and sensors of a second detection system for detecting a user interaction of a second type, embedded therein, and

a second transparent foil superimposed over said first transparent foil and flexibly spaced therefrom, having further sensors of said first detection system and of said second detection system embedded therein.

47. A pressure sensing arrangement for superimposing over a visual display screen, comprising:

a first transparent foil having a first set of parallel pressure sensors,

a second transparent foil, superimposed over said first transparent foil having a second set of parallel pressure sensors, said transparent foils being orientated such that said first and second sets of transparent foils are respectively orthogonal,

a substantially non-conductive spacer located between said first transparent foil and said second transparent foil to separate between said foils, said spacer being flexible to allow contact between pressure sensors on respective foils about a point of application of pressure, thereby to transfer a signal between contacted pressure sensors, and

a scanning controller for controlling a scanning operation to apply signals to said sensors and to read outputs in such a way as to provide unambiguous pressure information concerning every junction on a grid defined by said pressure sensors.

48. The arrangement of claim 47, wherein said scanning operation comprises two stages, a first stage of scanning groups of sensors on each foil, and a second stage of homing in on junctions indicated in said first stage, thereby to detect simultaneous applications of pressure at multiple points.

49. The arrangement of claim 47, wherein each scanning operation is an exhaustive scanning operation comprising individual testing of each junction.

50. The arrangement of claim 48, wherein said first stage comprises outputting a signal to each sensor on one of said foils and detecting at each sensor on the other of said foils, then outputting a signal to each sensor on said other foil and detecting at each sensor on said one of said foils.

51. The arrangement of claim 50, wherein said second stage comprises outputting a signal to each sensor, on one of said foils, that has been indicated in said first stage, and detecting at each sensor that has been indicated in said first stage on the other of said foils.

52. The arrangement of claim 47, wherein said scanning controller is operable to carry out each of said two stages at substantially twice the frequency of fastest likely changes in a pressure application pattern.

53. A method of sensing of a plurality of pressure sensitive points arranged in a grid for detection of simultaneous applications of pressure at a plurality of said points, the method comprising testing said grid such as to obtain an unambiguous pressure detection result for each of said pressure points in said grid.

54. The method of claim 52, wherein said testing comprises:

outputting a signal to each of a plurality of sensors on one axis of said grid,

detecting at each of a plurality of sensors on a second axis of said grid,

outputting a signal to each of said plurality of sensors on said second axis of said grid,

detecting at each of said plurality of sensors on said first axis of said grid,

from said detecting deducing sensors that are possible sources of ambiguity, and

conducting further outputting and detecting to resolve said ambiguity.

55. The method of claim 54, wherein said conducting further outputting comprises selecting one of said axes and outputting a signal to each of said possible sources of ambiguity thereon, and said detection comprises detecting at each of said possible sources on the other of said axes for each said outputting.

56. The method of claim 53, wherein said testing comprises an exhaustive test of each of said pressure points individually.