### **The Perfect Solution**

### -All in One Kit-

Thank you for purchasing the new Perfect Solution All in One Kit. The difference between this kit and the ones preceding it is that it contains everything that you need to combine any two IT games into any style cabinet including the dedicated Live cabinets. We hope that this eliminates any of the confusion over which kit to buy for a particular application. This is the only one that you will need.

There are two sets of instructions included with this kit. If you are starting with a cabinet that has a pre-installed JAMMA harness (#15, 16) you will want to follow <u>INSTRUCTION SET 1</u>. If you are installing this kit into a dedicated IT cabinet with a Nighthawk computer and a non-JAMMA I/O board (#14) you will need to follow <u>INSTRUCTION SET 2</u>.

We welcome any comments or suggestions that will make these instructions easier to understand. We are always seeking to improve our products.

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# **INSTRUCTION SET 1**

Locate the package labeled "Aux Harness Kit" and set it aside. You will not need it for this installation.

Leave the existing Golden Tee PCB or JAMMA Nighthawk I/O PCB installed as it is. Disconnect the JAMMA edge connector from the PCB.

Mount the Perfect Solution PCB (#9) to any open space nearby the existing cabinet JAMMA connector using the hardware provided.

Connect the existing cabinet JAMMA connector to J1 of the Perfect Solution PCB. J1 is marked and is the center connector of the board.

Connect the end of the provided short dual JAMMA harness labeled J2 (#12) to J2 of the Perfect Solution board. Connect the other end to the existing JAMMA game or I/O PCB.

Connect the end of the provided long dual JAMMA harness labeled J3 (#13) to J3 of the Perfect Solution board. Connect the other end of the long harness to the JAMMA connector on the newly installed I/O board of the second game. (#17)

# PANEL WIRING INSTRUCTIONS

Connect the trackball harness provided with the new game kit from J5 of the Perfect Solution board to the trackball input connector on the new kit I/O board.

Disconnect the 6 pin MOLEX connector from the existing game trackball and connect it to J6 of the Perfect Solution board.

Use the provided trackball harness (#6) to connect the trackball to J7 of the Perfect Solution board.

At this time mount the two provided buttons (#8) to a convenient place on the control panel by drilling two 1 inch holes.

These buttons can be mounted wherever you like. We used opposite upper corners of the control panel. Trim and insert the two appropriate button legends into the button covers.

The provided button harness (#5) is tied off into three separate groups for simplicity.

Connect the 10 pin in line connector to the open J4 connector on the Perfect Solution board.

Locate the group with a pair of red and black wires ending in a 4 pin MOLEX connector. That connector connects to an open jack on the front of the new Nighthawk computer.

Locate the grouping with 4 wires (red, black, white, blue). This connects to the game one switch (the game that was already in the cabinet) as follows:

The ready made connector with the Black and White wires connects directly to the micro switch of the switch assembly. The Blue and Red wires connect to the two lamp terminals in any direction.

Locate the grouping with 3 wires (red, white, and brown). This connects to the added kit selector switch as follows:

The ready made connector with White and Brown wires connects directly to the micro switch. The Red and Brown wires connect to the two lamp terminals in any order.

### Congratulations! You have just tied both games together for play in one cabinet.

The only step remaining is to make some minor monitor adjustments if needed. There are minor differences in the horizontal scan frequencies of the different games. We have tested this on all of the dedicated monitors and it will work with all types but some older monitors, particularly the WG U5000 mat need careful tuning of the horizontal hold and possibly even some capacitor rework to make it completely stable. With all other monitors there is enough range in the horizontal hold circuit to make both games happy.

If you are installing this kit into a cabinet with a digital monitor, please follow the provided instructions labeled **DIGITAL MONITOR CONNECTIONS.** 

As with any video game, please use caution to avoid any lethal voltages in monitors when making adjustments. Ensure that game cabinet is disconnected from any AC power source prior to installing this kit. If you have any questions about what you are doing, refer to a professional or contact us.

Please refer to our website: <u>www.amusementtechnologies.com</u> or email us at <u>dickdonlan@eastcoastamusements.com</u> for assistance if needed.

# **INSTRUCTION SET 2**

Locate the package labeled "Aux Harness Kit". It consists of harness J1 (#4), harness J2 (#3) and interconnect PCB (#7). You will be using these components to add the second kit to your game. You will not be using the J2 dual JAMMA harness (#13) from the main kit.

Mount the Interconnect PCB to the game cabinet somewhere near the existing I/O PCB.

In the game cabinet, remove J203, J205, J207 and the SPKR connectors from the existing I/O PCB and connect them to the four outside connectors on the I/O PCB (#17). They are labeled appropriately.

Locate the kit harness J1 (#18) and connect the four connectors on one end to the group of four open connectors in the middle of the interconnect PCB.

Locate harness J2 (#20) and connect the four open jacks on the existing I/O PCB from which the connector were removed previously.

Connect the JAMMA side of the new J2 harness to J2 of the Perfect Solution board (#9). Connect the JAMMA side of new harness J1 to J1 of the Perfect Solution board.

Locate the long dual JAMMA harness labeled J3 (#13). Connect the end labeled J3 to J3 of the Perfect Solution board. The other end connects to the new kit JAMMA I/O PCB.

Connect the two open four pin connectors together (#21).

Disconnect the VGA harness from the existing game computer and connect it to the VGA connector in harness J1.

Connect the VGA connector from the J2 harness to the existing game computer.

Connect the VGA connector from the J3 harness to the VGA video connector of the new kit computer.

# TO COMPLETE INSTALLATION PLEASE REFER TO THE PANEL WIRING INSTRUCTIONS FOUND IN INSTRUCTION SET 1.

Refer to our website <u>www.AmusementTechnologies.com</u> for more pictures and future updates.

## DIGITAL MONITOR CONNECTION INSTRUCTIONS FOR:

#### WG 9200/9400, NeoTec NT-500, Kortek Digital

Short Harness: Connect the J2 end of the short JAMMA harness to J2 on the Perfect Solution board.

Disconnect the junction of the 15 pin d-sub connectors (the short part of that harness will have no connection) and connect the long part of that harness directly to the Golden Tee video card, eliminating the short harness that previously connected the video card to the main Golden Tee PCB.

Long Harness: Connect the J3 end of the long JAMMA harness to J3 on the Perfect Solution board.

Disconnect the junction of the 15 pin d-sub connectors (the short part of that harness will have no connection). Connect the long part of that harness to the VGA output of the newly added Nighthawk computer. This connection replaces the VGA connection from the Nighthawk to the associated I/O PCB.

Locate the harness with a 15 pin d-sub on one end and a 6 pin MOLEX on the other (#10). Connect the 15 pin d-sub to the digital monitor. To make a connection to a Kortek you will need to use the provided "gender changer" (#2). The 6 pin MOLEX connects to the matching connector in the golf cabinet.

Locate the single yellow wire in this kit. One end replaces the service switch wire that currently resides in pin R (pin 14 solder side) in the main game JAMMA harness. The pin is easily removed with a small paper clip. The other end goes into the existing 6 pin MOLEX connector to the monitor opposite the yellow wire in the provided harness.

Set the jumpers for VGA mode on the digital monitor. These monitors may have memory for both resolutions. Since the Golf is EGA resolution and the newly added kit is VGW, you must make the monitor adjustments with each game selected. The monitors will remember both settings.

# PICTURES







