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Processes

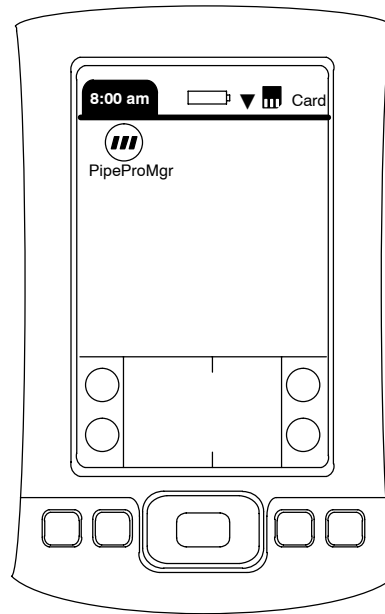


Automatic Welding

Description

PDA Software For Automatic Arc
Welding Power Source

PipePro Program Management Software (PipeProMgr)



Visit our website at
www.MillerWelds.com

OWNER'S MANUAL

File: Global Pipe Systems



From Miller to You

Thank you and congratulations on choosing Miller. Now you can get the job done and get it done right. We know you don't have time to do it any other way.

That's why when Niels Miller first started building arc welders in 1929, he made sure his products offered long-lasting value and superior quality. Like you, his customers couldn't afford anything less. Miller products had to be more than the best they could be. They had to be the best you could buy.

Today, the people that build and sell Miller products continue the tradition. They're just as committed to providing equipment and service that meets the high standards of quality and value established in 1929.

This Owner's Manual is designed to help you get the most out of your Miller products. Please take time to read the Safety precautions. They will help you protect yourself against potential hazards on the worksite.

We've made installation and operation quick and easy. With Miller you can count on years of reliable service with proper maintenance. And if for some reason the unit needs repair, there's a Troubleshooting section that will help you figure out what the problem is. The parts list will then help you to decide the exact part you may need to fix the problem. Warranty and service information for your particular model are also provided.



Miller is the first welding equipment manufacturer in the U.S.A. to be registered to the ISO 9001:2000 Quality System Standard.

Miller Electric manufactures a full line of welders and welding related equipment. For information on other quality Miller products, contact your local Miller distributor to receive the latest full line catalog or individual specification sheets. **To locate your nearest distributor or service agency call 1-800-4-A-Miller, or visit us at www.MillerWelds.com on the web.**



Working as hard as you do – every power source from Miller is backed by the most hassle-free warranty in the business.



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5. **WARRANTY** – MILLER provides this SOFTWARE without any additional warranties than those provided under the standard MILLER warranty for the hardware associated with the SOFTWARE.

SECTION 1 – SAFETY PRECAUTIONS - READ BEFORE USING

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▲ **Warning: Protect yourself and others from injury — read and follow these precautions.**

1-1. Symbol Usage



Means Warning! Watch Out! There are possible hazards with this procedure! The possible hazards are shown in the adjoining symbols.

▲ **Marks a special safety message.**

☞ Means "Note"; not safety related.



This group of symbols means Warning! Watch Out! possible ELECTRIC SHOCK, MOVING PARTS, and HOT PARTS hazards. Consult symbols and related instructions below for necessary actions to avoid the hazards.

1-2. Arc Welding Hazards

▲ **The symbols shown below are used throughout this manual to call attention to and identify possible hazards. When you see the symbol, watch out, and follow the related instructions to avoid the hazard. The safety information given below is only a summary of the more complete safety information found in the Safety Standards listed in Section 1-5. Read and follow all Safety Standards.**

▲ **Only qualified persons should install, operate, maintain, and repair this unit.**

▲ **During operation, keep everybody, especially children, away.**



ELECTRIC SHOCK can kill.

Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and machine internal circuits are also

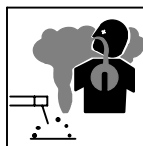
live when power is on. In semiautomatic or automatic wire welding, the wire, wire reel, drive roll housing, and all metal parts touching the welding wire are electrically live. Incorrectly installed or improperly grounded equipment is a hazard.

- Do not touch live electrical parts.
- Wear dry, hole-free insulating gloves and body protection.
- Insulate yourself from work and ground using dry insulating mats or covers big enough to prevent any physical contact with the work or ground.
- Do not use AC output in damp areas, if movement is confined, or if there is a danger of falling.
- Use AC output ONLY if required for the welding process.
- If AC output is required, use remote output control if present on unit.
- Additional safety precautions are required when any of the following electrically hazardous conditions are present: in damp locations or while wearing wet clothing; on metal structures such as floors, gratings, or scaffolds; when in cramped positions such as sitting, kneeling, or lying; or when there is a high risk of unavoidable or accidental contact with the workpiece or ground. For these conditions, use the following equipment in order presented: 1) a semiautomatic DC constant voltage (wire) welder, 2) a DC manual (stick) welder, or 3) an AC welder with reduced open-circuit voltage. In most situations, use of a DC, constant voltage wire welder is recommended. And, do not work alone!
- Disconnect input power or stop engine before installing or servicing this equipment. Lockout/tagout input power according to OSHA 29 CFR 1910.147 (see Safety Standards).
- Properly install and ground this equipment according to its Owner's Manual and national, state, and local codes.
- Always verify the supply ground – check and be sure that input power cord ground wire is properly connected to ground terminal in disconnect box or that cord plug is connected to a properly grounded receptacle outlet.
- When making input connections, attach proper grounding conductor first – double-check connections.
- Frequently inspect input power cord for damage or bare wiring – replace cord immediately if damaged – bare wiring can kill.

- Turn off all equipment when not in use.
- Do not use worn, damaged, undersized, or poorly spliced cables.
- Do not drape cables over your body.
- If earth grounding of the workpiece is required, ground it directly with a separate cable.
- Do not touch electrode if you are in contact with the work, ground, or another electrode from a different machine.
- Do not touch electrode holders connected to two welding machines at the same time since double open-circuit voltage will be present.
- Use only well-maintained equipment. Repair or replace damaged parts at once. Maintain unit according to manual.
- Wear a safety harness if working above floor level.
- Keep all panels and covers securely in place.
- Clamp work cable with good metal-to-metal contact to workpiece or worktable as near the weld as practical.
- Insulate work clamp when not connected to workpiece to prevent contact with any metal object.
- Do not connect more than one electrode or work cable to any single weld output terminal.

SIGNIFICANT DC VOLTAGE exists in inverter-type welding power sources after removal of input power.

- Turn Off inverter, disconnect input power, and discharge input capacitors according to instructions in Maintenance Section before touching any parts.



FUMES AND GASES can be hazardous.

Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Keep your head out of the fumes. Do not breathe the fumes.
- If inside, ventilate the area and/or use local forced ventilation at the arc to remove welding fumes and gases.
- If ventilation is poor, wear an approved air-supplied respirator.
- Read and understand the Material Safety Data Sheets (MSDSs) and the manufacturer's instructions for metals, consumables, coatings, cleaners, and degreasers.
- Work in a confined space only if it is well ventilated, or while wearing an air-supplied respirator. Always have a trained watch-person nearby. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be sure the breathing air is safe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals, such as galvanized, lead, or cadmium plated steel, unless the coating is removed from the weld area, the area is well ventilated, and while wearing an air-supplied respirator. The coatings and any metals containing these elements can give off toxic fumes if welded.



ARC RAYS can burn eyes and skin.

Arc rays from the welding process produce intense visible and invisible (ultraviolet and infrared) rays that can burn eyes and skin. Sparks fly off from the weld.

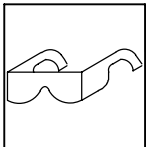
- Wear an approved welding helmet fitted with a proper shade of filter lenses to protect your face and eyes when welding or watching (see ANSI Z49.1 and Z87.1 listed in Safety Standards).
- Wear approved safety glasses with side shields under your helmet.
- Use protective screens or barriers to protect others from flash, glare and sparks; warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material (leather, heavy cotton, or wool) and foot protection.



WELDING can cause fire or explosion.

Welding on closed containers, such as tanks, drums, or pipes, can cause them to blow up. Sparks can fly off from the welding arc. The flying sparks, hot workpiece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure the area is safe before doing any welding.

- Remove all flammables within 35 ft (10.7 m) of the welding arc. If this is not possible, tightly cover them with approved covers.
- Do not weld where flying sparks can strike flammable material.
- Protect yourself and others from flying sparks and hot metal.
- Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas.
- Watch for fire, and keep a fire extinguisher nearby.
- Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.
- Do not weld on closed containers such as tanks, drums, or pipes, unless they are properly prepared according to AWS F4.1 (see Safety Standards).
- Connect work cable to the work as close to the welding area as practical to prevent welding current from traveling long, possibly unknown paths and causing electric shock, sparks, and fire hazards.
- Do not use welder to thaw frozen pipes.
- Remove stick electrode from holder or cut off welding wire at contact tip when not in use.
- Wear oil-free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap.
- Remove any combustibles, such as a butane lighter or matches, from your person before doing any welding.
- Follow requirements in OSHA 1910.252 (a) (2) (iv) and NFPA 51B for hot work and have a fire watcher and extinguisher nearby.



FLYING METAL can injure eyes.

- Welding, chipping, wire brushing, and grinding cause sparks and flying metal. As welds cool, they can throw off slag.
- Wear approved safety glasses with side shields even under your welding helmet.



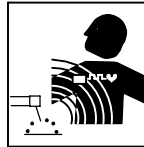
BUILDUP OF GAS can injure or kill.

- Shut off shielding gas supply when not in use.
- Always ventilate confined spaces or use approved air-supplied respirator.



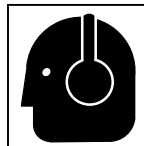
HOT PARTS can cause severe burns.

- Do not touch hot parts bare handed.
- Allow cooling period before working on gun or torch.
- To handle hot parts, use proper tools and/or wear heavy, insulated welding gloves and clothing to prevent burns.



MAGNETIC FIELDS can affect pacemakers.

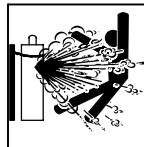
- Pacemaker wearers keep away.
- Wearers should consult their doctor before going near arc welding, gouging, or spot welding operations.



NOISE can damage hearing.

Noise from some processes or equipment can damage hearing.

- Wear approved ear protection if noise level is high.



CYLINDERS can explode if damaged.

Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Since gas cylinders are normally part of the welding process, be sure to treat them carefully.

- Protect compressed gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, sparks, and arcs.
- Install cylinders in an upright position by securing to a stationary support or cylinder rack to prevent falling or tipping.
- Keep cylinders away from any welding or other electrical circuits.
- Never drape a welding torch over a gas cylinder.
- Never allow a welding electrode to touch any cylinder.
- Never weld on a pressurized cylinder – explosion will result.
- Use only correct shielding gas cylinders, regulators, hoses, and fittings designed for the specific application; maintain them and associated parts in good condition.
- Turn face away from valve outlet when opening cylinder valve.
- Keep protective cap in place over valve except when cylinder is in use or connected for use.
- Use the right equipment, correct procedures, and sufficient number of persons to lift and move cylinders.
- Read and follow instructions on compressed gas cylinders, associated equipment, and Compressed Gas Association (CGA) publication P-1 listed in Safety Standards.

1-3. Additional Symbols For Installation, Operation, And Maintenance



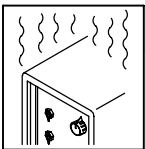
FIRE OR EXPLOSION hazard.

- Do not install or place unit on, over, or near combustible surfaces.
- Do not install unit near flammables.
- Do not overload building wiring – be sure power supply system is properly sized, rated, and protected to handle this unit.



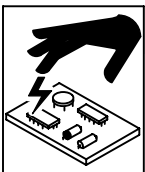
FALLING UNIT can cause injury.

- Use lifting eye to lift unit only, NOT running gear, gas cylinders, or any other accessories.
- Use equipment of adequate capacity to lift and support unit.
- If using lift forks to move unit, be sure forks are long enough to extend beyond opposite side of unit.



OVERUSE can cause OVERHEATING

- Allow cooling period; follow rated duty cycle.
- Reduce current or reduce duty cycle before starting to weld again.
- Do not block or filter airflow to unit.



STATIC (ESD) can damage PC boards.

- Put on grounded wrist strap BEFORE handling boards or parts.
- Use proper static-proof bags and boxes to store, move, or ship PC boards.



MOVING PARTS can cause injury.

- Keep away from moving parts.
- Keep away from pinch points such as drive rolls.



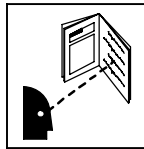
WELDING WIRE can cause injury.

- Do not press gun trigger until instructed to do so.
- Do not point gun toward any part of the body, other people, or any metal when threading welding wire.



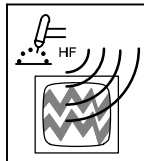
MOVING PARTS can cause injury.

- Keep away from moving parts such as fans.
- Keep all doors, panels, covers, and guards closed and securely in place.
- Have only qualified persons remove doors, panels, covers, or guards for maintenance as necessary.
- Reinstall doors, panels, covers, or guards when maintenance is finished and before re-connecting input power.



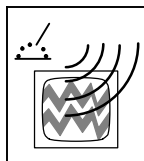
READ INSTRUCTIONS.

- Read Owner's Manual before using or servicing unit.
- Use only genuine Miller/Hobart replacement parts.



H.F. RADIATION can cause interference.

- High-frequency (H.F.) can interfere with radio navigation, safety services, computers, and communications equipment.
- Have only qualified persons familiar with electronic equipment perform this installation.
- The user is responsible for having a qualified electrician promptly correct any interference problem resulting from the installation.
- If notified by the FCC about interference, stop using the equipment at once.
- Have the installation regularly checked and maintained.
- Keep high-frequency source doors and panels tightly shut, keep spark gaps at correct setting, and use grounding and shielding to minimize the possibility of interference.



ARC WELDING can cause interference.

- Electromagnetic energy can interfere with sensitive electronic equipment such as computers and computer-driven equipment such as robots.
- Be sure all equipment in the welding area is electromagnetically compatible.
- To reduce possible interference, keep weld cables as short as possible, close together, and down low, such as on the floor.
- Locate welding operation 100 meters from any sensitive electronic equipment.
- Be sure this welding machine is installed and grounded according to this manual.
- If interference still occurs, the user must take extra measures such as moving the welding machine, using shielded cables, using line filters, or shielding the work area.

1-4. California Proposition 65 Warnings

- ▲ **Welding or cutting equipment produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code Section 25249.5 et seq.)**
- ▲ **Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.**

For Gasoline Engines:

- ▲ **Engine exhaust contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.**

For Diesel Engines:

- ▲ **Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.**

1-5. Principal Safety Standards

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, from Global Engineering Documents (phone: 1-877-413-5184, website: www.global.ihs.com).

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping, American Welding Society Standard AWS F4.1 from Global Engineering Documents (phone: 1-877-413-5184, website: www.global.ihs.com).

National Electrical Code, NFPA Standard 70, from National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (phone: 617-770-3000, website: www.nfpa.org).

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, from Compressed Gas Association, 1735 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102 (phone: 703-412-0900, website: www.cganet.com).

Code for Safety in Welding and Cutting, CSA Standard W117.2, from Canadian Standards Association, Standards Sales, 178 Rexdale

Boulevard, Rexdale, Ontario, Canada M9W 1R3 (phone: 800-463-6727 or in Toronto 416-747-4044, website: www.csa-international.org).

Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, from American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002 (phone: 212-642-4900, website: www.ansi.org).

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B, from National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (phone: 617-770-3000, website: www.nfpa.org).

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, and Part 1926, Subpart J, from U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250 (there are 10 Regional Offices--phone for Region 5, Chicago, is 312-353-2220, website: www.osha.gov).

1-6. EMF Information

Considerations About Welding And The Effects Of Low Frequency Electric And Magnetic Fields

Welding current, as it flows through welding cables, will cause electromagnetic fields. There has been and still is some concern about such fields. However, after examining more than 500 studies spanning 17 years of research, a special blue ribbon committee of the National Research Council concluded that: "The body of evidence, in the committee's judgment, has not demonstrated that exposure to power-frequency electric and magnetic fields is a human-health hazard." However, studies are still going forth and evidence continues to be examined. Until the final conclusions of the research are reached, you may wish to minimize your exposure to electromagnetic fields when welding or cutting.

To reduce magnetic fields in the workplace, use the following procedures:

1. Keep cables close together by twisting or taping them.
2. Arrange cables to one side and away from the operator.
3. Do not coil or drape cables around your body.
4. Keep welding power source and cables as far away from operator as practical.
5. Connect work clamp to workpiece as close to the weld as possible.

About Pacemakers:

Pacemaker wearers consult your doctor before welding or going near welding operations. If cleared by your doctor, then following the above procedures is recommended.

SECTION 2 – CONSIGNES DE SÉCURITÉ – LIRE AVANT UTILISATION

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▲ **Avertissement : se protéger et protéger les autres contre le risque de blessure — lire et respecter ces consignes.**

2-1. Symboles utilisés



Symbole graphique d'avertissement ! Attention ! Cette procédure comporte des risques possibles ! Les dangers éventuels sont représentés par les symboles graphiques joints.



Ce groupe de symboles signifie Avertissement ! Attention ! Risques d'ÉLECTROCUTION, ORGANES MOBILES et PARTIES CHAUDES. Consulter les symboles et les instructions afférentes ci-dessous concernant les mesures à prendre pour supprimer les dangers.

▲ **Indique un message de sécurité particulier**

☞ Signifie NOTE ; n'est pas relatif à la sécurité.

2-2. Dangers relatifs au soudage à l'arc

▲ **Les symboles représentés ci-dessous sont utilisés dans ce manuel pour attirer l'attention et identifier les dangers possibles. En présence de l'un de ces symboles, prendre garde et suivre les instructions afférentes pour éviter tout risque. Les instructions en matière de sécurité indiquées ci-dessous ne constituent qu'un sommaire des instructions de sécurité plus complètes fournies dans les normes de sécurité énumérées dans la Section 2-5. Lire et observer toutes les normes de sécurité.**

▲ **Seul un personnel qualifié est autorisé à installer, faire fonctionner, entretenir et réparer cet appareil.**

▲ **Pendant le fonctionnement, maintenir à distance toutes les personnes, notamment les enfants de l'appareil.**



UNE DÉCHARGE ÉLECTRIQUE peut entraîner la mort.

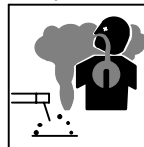
Le contact d'organes électriques sous tension peut provoquer des accidents mortels ou des brûlures graves. Le circuit de l'électrode et de la pièce est sous tension lorsque le courant est délivré à la sortie. Le circuit d'alimentation et les circuits internes de la machine sont également sous tension lorsque l'alimentation est sur Marche. Dans le mode de soudage avec du fil, le fil, le dérouleur, le bloc de commande du rouleau et toutes les parties métalliques en contact avec le fil sont sous tension électrique. Un équipement installé ou mis à la terre de manière incorrecte ou impropre constitue un danger.

- Ne pas toucher aux pièces électriques sous tension.
- Porter des gants isolants et des vêtements de protection secs et sans trous.
- S'isoler de la pièce à couper et du sol en utilisant des housses ou des tapis assez grands afin d'éviter tout contact physique avec la pièce à couper ou le sol.
- Ne pas se servir de source électrique à courant électrique dans les zones humides, dans les endroits confinés ou là où on risque de tomber.
- Se servir d'une source électrique à courant électrique UNIQUEMENT si le procédé de soudage le demande.
- Si l'utilisation d'une source électrique à courant électrique s'avère nécessaire, se servir de la fonction de télécommande si l'appareil en est équipé.
- D'autres consignes de sécurité sont nécessaires dans les conditions suivantes : risques électriques dans un environnement humide ou si l'on porte des vêtements mouillés ; sur des structures métalliques telles que sols, grilles ou échafaudages ; en position coincée comme assise, à genoux ou couchée ; ou s'il y a un risque élevé de contact inévitable ou accidentel avec la pièce à souder ou le sol. Dans ces conditions, utiliser les équipements suivants, dans l'ordre indiqué : 1) un poste à souder DC à tension constante (à fil), 2) un poste à souder DC manuel (électrode) ou 3) un poste à souder AC à tension à vide réduite. Dans la plupart des situations, l'utilisation d'un poste à souder DC à fil à tension constante est recommandée. En outre, ne pas travailler seul !
- Couper l'alimentation ou arrêter le moteur avant de procéder à l'installation, à la réparation ou à l'entretien de l'appareil. Déverrouiller l'alimentation selon la norme OSHA 29 CFR 1910.147 (voir normes de sécurité).
- Installer le poste correctement et le mettre à la terre convenablement selon les consignes du manuel de l'opérateur et les normes nationales, provinciales et locales.
- Toujours vérifier la terre du cordon d'alimentation. Vérifier et s'assurer que le fil de terre du cordon d'alimentation est bien raccordé à la borne de terre du sectionneur ou que la fiche du cordon est raccordée à une prise correctement mise à la terre.
- En effectuant les raccordements d'entrée, fixer d'abord le conducteur de mise à la terre approprié et contre-vérifier les connexions.

- Vérifier fréquemment le cordon d'alimentation afin de s'assurer qu'il n'est pas altéré ou à nu, le remplacer immédiatement s'il l'est. Un fil à nu peut entraîner la mort.
- L'équipement doit être hors tension lorsqu'il n'est pas utilisé.
- Ne pas utiliser des câbles usés, endommagés, de grosseur insuffisante ou mal épiés.
- Ne pas enrouler les câbles autour du corps.
- Si la pièce soudée doit être mise à la terre, le faire directement avec un câble distinct.
- Ne pas toucher l'électrode quand on est en contact avec la pièce, la terre ou une électrode provenant d'une autre machine.
- Ne pas toucher des porte électrodes connectés à deux machines en même temps à cause de la présence d'une tension à vide doublée.
- N'utiliser qu'un matériel en bon état. Réparer ou remplacer sur-le-champ les pièces endommagées. Entretenir l'appareil conformément à ce manuel.
- Porter un harnais de sécurité si l'on doit travailler au-dessus du sol.
- S'assurer que tous les panneaux et couvercles sont correctement en place.
- Fixer le câble de retour de façon à obtenir un bon contact métal-métal avec la pièce à souder ou la table de travail, le plus près possible de la soudure.
- Isoler la pince de masse quand pas mis à la pièce pour éviter le contact avec tout objet métallique.
- Ne pas raccorder plus d'une électrode ou plus d'un câble de masse à une même borne de sortie de soudage.

Il reste une TENSION DC NON NÉGLIGEABLE dans les sources de soudage onduleur quand on a coupé l'alimentation.

- Arrêter les convertisseurs, débrancher le courant électrique et décharger les condensateurs d'alimentation selon les instructions indiquées dans la partie Entretien avant de toucher les pièces.



LES FUMÉES ET LES GAZ peuvent être dangereux.

Le soudage génère des fumées et des gaz. Leur inhalation peut être dangereuse pour la santé.

- Ne pas mettre sa tête au-dessus des vapeurs. Ne pas respirer ces vapeurs.
- À l'intérieur, ventiler la zone et/ou utiliser une ventilation forcée au niveau de l'arc pour l'évacuation des fumées et des gaz de soudage.
- Si la ventilation est médiocre, porter un respirateur anti-vapeurs approuvé.
- Lire et comprendre les spécifications de sécurité des matériaux (MSDS) et les instructions du fabricant concernant les métaux, les consommables, les revêtements, les nettoyeurs et les dégraisseurs.
- Travailler dans un espace fermé seulement s'il est bien ventilé ou en portant un respirateur à alimentation d'air. Demander toujours à un surveillant dûment formé de se tenir à proximité. Des fumées et des gaz de soudage peuvent déplacer l'air et abaisser le niveau d'oxygène provoquant des blessures ou des accidents mortels. S'assurer que l'air de respiration ne présente aucun danger.
- Ne pas souder dans des endroits situés à proximité d'opérations de dégraissage, de nettoyage ou de pulvérisation. La chaleur et les rayons de l'arc peuvent réagir en présence de vapeurs et former des gaz hautement toxiques et irritants.
- Ne pas souder des métaux munis d'un revêtement, tels que l'acier galvanisé, plaqué en plomb ou au cadmium à moins que le revêtement n'ait été enlevé dans la zone de soudure, que l'endroit soit bien ventilé et en portant un respirateur à alimentation d'air. Les revêtements et tous les métaux renfermant ces éléments peuvent dégager des fumées toxiques en cas de soudage.



LES RAYONS D'ARC peuvent entraîner des brûlures aux yeux et à la peau.

Le rayonnement de l'arc du procédé de soudage génère des rayons visibles et invisibles intenses (ultraviolets et infrarouges) susceptibles de provoquer des brûlures dans les yeux et sur la peau.

Des étincelles sont projetées pendant le soudage.

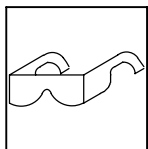
- Porter un casque de soudage approuvé muni de verres filtrants appropriés pour protéger visage et yeux pendant le soudage (voir ANSI Z49.1 et Z87.1 énumérés dans les normes de sécurité).
- Porter des lunettes de sécurité avec écrans latéraux même sous votre casque.
- Avoir recours à des écrans protecteurs ou à des rideaux pour protéger les autres contre les rayonnements les éblouissements et les étincelles ; prévenir toute personne sur les lieux de ne pas regarder l'arc.
- Porter des vêtements confectionnés avec des matières résistantes et ignifuges (cuir, coton lourd ou laine) et des bottes de protection.



LE SOUDAGE peut provoquer un incendie ou une explosion.

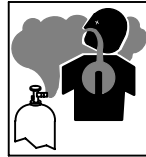
Le soudage effectué sur des conteneurs fermés tels que des réservoirs, tambours ou des conduites peut provoquer leur éclatement. Des étincelles peuvent être projetées de l'arc de soudure. La projection d'étincelles, des pièces chaudes et des équipements chauds peuvent provoquer des incendies et des brûlures. Le contact accidentel de l'électrode avec des objets métalliques peut provoquer des étincelles, une explosion, une surchauffe ou un incendie. Avant de commencer le soudage, vérifier et s'assurer que l'endroit ne présente pas de danger.

- Déplacer toutes les substances inflammables à une distance de 10,7 m de l'arc de soudage. En cas d'impossibilité, les recouvrir soigneusement avec des protections homologuées.
- Ne pas souder dans un endroit où des étincelles peuvent tomber sur des substances inflammables.
- Se protéger, ainsi que toute autre personne travaillant sur les lieux, contre les étincelles et le métal chaud.
- Des étincelles et des matériaux chauds du soudage peuvent facilement passer dans d'autres zones en traversant de petites fissures et des ouvertures.
- Afin d'éliminer tout risque de feu, être vigilant et garder toujours un extincteur à la portée de main.
- Le soudage effectué sur un plafond, plancher, paroi ou séparation peut déclencher un incendie de l'autre côté.
- Ne pas effectuer le soudage sur des conteneurs fermés tels que des réservoirs, tambours, ou conduites, à moins qu'ils n'aient été préparés correctement conformément à AWS F4.1 (voir les normes de sécurité).
- Brancher le câble de masse sur la pièce la plus près possible de la zone de soudage pour éviter le transport du courant sur une longue distance par des chemins inconnus éventuels en provoquant des risques d'électrocution, d'étincelles et d'incendie.
- Ne pas utiliser le poste de soudage pour dégeler des conduites gelées.
- En cas de non-utilisation, enlever la baguette d'électrode du porte-électrode ou couper le fil à la pointe de contact.
- Porter des vêtements de protection exempts d'huile tels que des gants en cuir, une veste résistante, des pantalons sans revers, des bottes et un casque.
- Avant de souder, retirer toute substance combustible de ses poches telles qu'un allumeur au butane ou des allumettes.
- Suivre les consignes de OSHA 1910.252 (a) (2) (iv) et de NFPA 51B pour travaux de soudage et prévoir un détecteur d'incendie et un extincteur à proximité.



DES PARTICULES VOLANTES peuvent blesser les yeux.

- Le soudage, l'écaillage, le passage de la pièce à la brosse en fil de fer, et le meulage génèrent des étincelles et des particules métalliques volantes. Pendant la période de refroidissement des soudures, elles risquent de projeter du laitier.
- Porter des lunettes de sécurité avec écrans latéraux ou un écran facial.



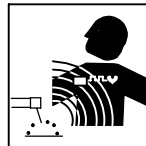
LES ACCUMULATIONS DE GAZ risquent de provoquer des blessures ou même la mort.

- Fermer l'alimentation du gaz protecteur en cas de non-utilisation.
- Veiller toujours à bien aérer les espaces confinés ou se servir d'un respirateur d'adduction d'air homologué.



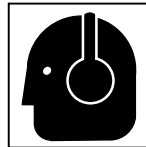
DES PIÈCES CHAUDES peuvent provoquer des brûlures graves.

- Ne pas toucher des parties chaudes à mains nues.
- Prévoir une période de refroidissement avant d'utiliser le pistolet ou la torche.
- Ne pas toucher aux pièces chaudes, utiliser les outils recommandés et porter des gants de soudage et des vêtements épais pour éviter les brûlures.



LES CHAMPS MAGNÉTIQUES peuvent affecter les stimulateurs cardiaques.

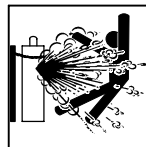
- Porteurs de stimulateur cardiaque, rester à distance.
- Les porteurs d'un stimulateur cardiaque doivent d'abord consulter leur médecin avant de s'approcher des opérations de soudage à l'arc, de gougeage ou de soudage par points.



LE BRUIT peut endommager l'ouïe.

Le bruit des processus et des équipements peut affecter l'ouïe.

- Porter des protections approuvées pour les oreilles si le niveau sonore est trop élevé.



LES BOUTEILLES peuvent exploser si elles sont endommagées.

Des bouteilles de gaz protecteur contiennent du gaz sous haute pression. Si une bouteille est endommagée, elle peut exploser. Du fait que les bouteilles de gaz font normalement partie du procédé de soudage, les manipuler avec précaution.

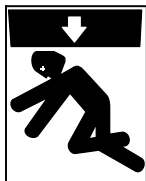
- Protéger les bouteilles de gaz comprimé d'une chaleur excessive, des chocs mécaniques, des dommages physiques, du laitier, des flammes ouvertes, des étincelles et des arcs.
- Placer les bouteilles debout en les fixant dans un support stationnaire ou dans un porte-bouteilles pour les empêcher de tomber ou de se renverser.
- Tenir les bouteilles éloignées des circuits de soudage ou autres circuits électriques.
- Ne jamais placer une torche de soudage sur une bouteille à gaz.
- Une électrode de soudage ne doit jamais entrer en contact avec une bouteille.
- Ne jamais souder une bouteille pressurisée – risque d'explosion.
- Utiliser seulement des bouteilles de gaz protecteur, régulateurs, tuyaux et raccords convenables pour cette application spécifique ; les maintenir ainsi que les éléments associés en bon état.
- Détourner votre visage du détendeur-régulateur lorsque vous ouvrez la soupape de la bouteille.
- Le couvercle du détendeur doit toujours être en place, sauf lorsque la bouteille est utilisée ou qu'elle est reliée pour usage ultérieur.
- Utiliser les équipements corrects, les bonnes procédures et suffisamment de personnes pour soulever et déplacer les bouteilles.
- Lire et suivre les instructions sur les bouteilles de gaz comprimé, l'équipement connexe et le dépliant P-1 de la CGA (Compressed Gas Association) mentionné dans les principales normes de sécurité.

2-3. Dangers supplémentaires en relation avec l'installation, le fonctionnement et la maintenance



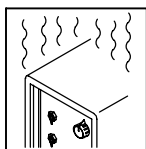
Risque D'INCENDIE OU D'EXPLOSION.

- Ne pas placer l'appareil sur, au-dessus ou à proximité de surfaces inflammables.
- Ne pas installer l'appareil à proximité de produits inflammables.
- Ne pas surcharger l'installation électrique – s'assurer que l'alimentation est correctement dimensionnée et protégée avant de mettre l'appareil en service.



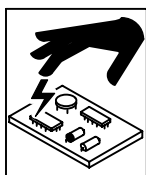
LA CHUTE DE L'APPAREIL peut blesser.

- Utiliser l'anneau de levage uniquement pour soulever l'appareil, NON PAS les chariots, les bouteilles de gaz ou tout autre accessoire.
- Utiliser un équipement de levage de capacité suffisante pour lever l'appareil.
- En utilisant des fourches de levage pour déplacer l'unité, s'assurer que les fourches sont suffisamment longues pour dépasser du côté opposé de l'appareil.



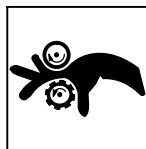
L'EMPLOI EXCESSIF peut SURCHAUFFER L'ÉQUIPEMENT.

- Prévoir une période de refroidissement ; respecter le cycle opératoire nominal.
- Réduire le courant ou le facteur de marche avant de poursuivre le soudage.
- Ne pas obstruer les passages d'air du poste.



LES CHARGES ÉLECTROSTATIQUES peuvent endommager les circuits imprimés.

- Établir la connexion avec la barrette de terre avant de manipuler des cartes ou des pièces.
- Utiliser des pochettes et des boîtes antistatiques pour stocker, déplacer ou expédier des cartes PC.



DES ORGANES MOBILES peuvent provoquer des blessures.

- Ne pas s'approcher des organes mobiles.
- Ne pas s'approcher des points de coincement tels que des rouleaux de commande.



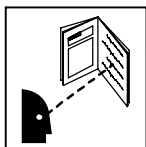
LES FILS DE SOUDAGE peuvent provoquer des blessures.

- Ne pas appuyer sur la gâchette avant d'en avoir reçu l'instruction.
- Ne pas diriger le pistolet vers soi, d'autres personnes ou toute pièce mécanique en engageant le fil de soudage.



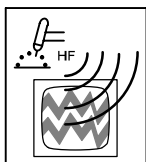
DES ORGANES MOBILES peuvent provoquer des blessures.

- S'abstenir de toucher des organes mobiles tels que des ventilateurs.
- Maintenir fermés et verrouillés les portes, panneaux, recouvrements et dispositifs de protection.
- Seules des personnes qualifiées sont autorisées à enlever les portes, panneaux, recouvrements ou dispositifs de protection pour l'entretien.
- Remettre les portes, panneaux, recouvrements ou dispositifs de protection quand l'entretien est terminé et avant de rebrancher l'alimentation électrique.



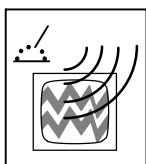
LIRE LES INSTRUCTIONS.

- Lire le manuel d'utilisation avant d'utiliser ou d'intervenir sur l'appareil.
- Utiliser uniquement des pièces de rechange Miller/Hobart.



LE RAYONNEMENT HAUTE FRÉQUENCE (HF) risque de provoquer des interférences.

- Le rayonnement haute fréquence (HF) peut provoquer des interférences avec les équipements de radio-navigation et de communication, les services de sécurité et les ordinateurs.
- Demander seulement à des personnes qualifiées familiarisées avec des équipements électroniques de faire fonctionner l'installation.
- L'utilisateur est tenu de faire corriger rapidement par un électricien qualifié les interférences résultant de l'installation.
- Si le FCC signale des interférences, arrêter immédiatement l'appareil.
- Effectuer régulièrement le contrôle et l'entretien de l'installation.
- Maintenir soigneusement fermés les portes et les panneaux des sources de haute fréquence, maintenir les éclateurs à une distance correcte et utiliser une terre et un blindage pour réduire les interférences éventuelles.



LE SOUDAGE À L'ARC risque de provoquer des interférences.

- L'énergie électromagnétique peut gêner le fonctionnement d'appareils électroniques comme des ordinateurs et des robots.
- Veiller à ce que tout l'équipement de la zone de soudage soit compatible électromagnétiquement.
- Pour réduire la possibilité d'interférence, maintenir les câbles de soudage aussi courts que possible, les grouper, et les poser aussi bas que possible (ex. par terre).
- Veiller à souder à une distance de 100 mètres de tout équipement électronique sensible.
- Veiller à ce que ce poste de soudage soit posé et mis à la terre conformément à ce mode d'emploi.
- En cas d'interférences après avoir pris les mesures précédentes, il incombe à l'utilisateur de prendre des mesures supplémentaires telles que le déplacement du poste, l'utilisation de câbles blindés, l'utilisation de filtres de ligne ou la pose de protecteurs dans la zone de travail.

2-4. Proposition californienne 65 Avertissements

▲ Les équipements de soudage et de coupage produisent des fumées et des gaz qui contiennent des produits chimiques dont l'État de Californie reconnaît qu'ils provoquent des malformations congénitales et, dans certains cas, des cancers. (Code de santé et de sécurité de Californie, chapitre 25249.5 et suivants)

▲ Les batteries, les bornes et autres accessoires contiennent du plomb et des composés à base de plomb, produits chimiques dont l'État de Californie reconnaît qu'ils provoquent des cancers et des malformations congénitales ou autres problèmes de procréation. Se laver les mains après manipulation.

Pour les moteurs à essence :

▲ Les gaz d'échappement des moteurs contiennent des produits chimiques dont l'État de Californie reconnaît qu'ils provoquent des cancers et des malformations congénitales ou autres problèmes de procréation.

Pour les moteurs diesel :

▲ Les gaz d'échappement des moteurs diesel et certains de leurs composants sont reconnus par l'État de Californie comme provoquant des cancers et des malformations congénitales ou autres problèmes de procréation.

2-5. Principales normes de sécurité

Safety in Welding, Cutting, and Allied Processes, ANSI Standard Z49.1, de Global Engineering Documents (téléphone : 1-877-413-5184, site Internet : www.global.ihs.com).

Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping, American Welding Society Standard AWS F4.1 de Global Engineering Documents (téléphone : 1-877-413-5184, site Internet : www.global.ihs.com).

National Electrical Code, NFPA Standard 70, de National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (téléphone : 617-770-3000, site Internet : www.nfpa.org).

Safe Handling of Compressed Gases in Cylinders, CGA Pamphlet P-1, de Compressed Gas Association, 1735 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102 (téléphone : 703-412-0900, site Internet : www.cganet.com).

Code for Safety in Welding and Cutting, CSA Standard W117.2, de Canadian Standards Association, Standards Sales, 178 Rexdale

Boulevard, Rexdale, Ontario, Canada M9W 1R3 (téléphone : 800-463-6727 ou à Toronto 416-747-4044, site Internet : www.csa-international.org).

Practice For Occupational And Educational Eye And Face Protection, ANSI Standard Z87.1, de American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002 (téléphone : 212-642-4900, site Internet : www.ansi.org).

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, NFPA Standard 51B, de National Fire Protection Association, P.O. Box 9101, 1 Battery March Park, Quincy, MA 02269-9101 (téléphone : 617-770-3000, site Internet : www.nfpa.org).

OSHA, Occupational Safety and Health Standards for General Industry, Title 29, Code of Federal Regulations (CFR), Part 1910, Subpart Q, and Part 1926, Subpart J, de U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250 (il y a 10 bureaux régionaux—le téléphone de la région 5, Chicago, est 312-353-2220, site Internet : www.osha.gov).

2-6. Information EMF

Considérations sur le soudage et les effets de basse fréquence et des champs magnétiques et électriques.

Le courant de soudage, pendant son passage dans les câbles de soudage, causera des champs électromagnétiques. Il y a eu et il y a encore un certain souci à propos de tels champs. Cependant, après avoir examiné plus de 500 études qui ont été faites pendant une période de recherche de 17 ans, un comité spécial ruban bleu du National Research Council a conclu : « L'accumulation de preuves, suivant le jugement du comité, n'a pas démontré que l'exposition aux champs magnétiques et champs électriques à haute fréquence représente un risque à la santé humaine ». Toutefois, des études sont toujours en cours et les preuves continuent à être examinées. En attendant que les conclusions finales de la recherche soient établies, il vous serait souhaitable de réduire votre exposition aux champs électromagnétiques pendant le soudage ou le coupage.

Pour réduire les champs magnétiques sur le poste de travail, appliquer les procédures suivantes :

1. Maintenir les câbles ensemble en les tordant ou en les enveloppant.
2. Disposer les câbles d'un côté et à distance de l'opérateur.
3. Ne pas courber pas et ne pas entourer pas les câbles autour de votre corps.
4. Garder le poste de soudage et les câbles le plus loin possible de vous.
5. Connecter la pince sur la pièce aussi près que possible de la soudeuse.

En ce qui concerne les stimulateurs cardiaques

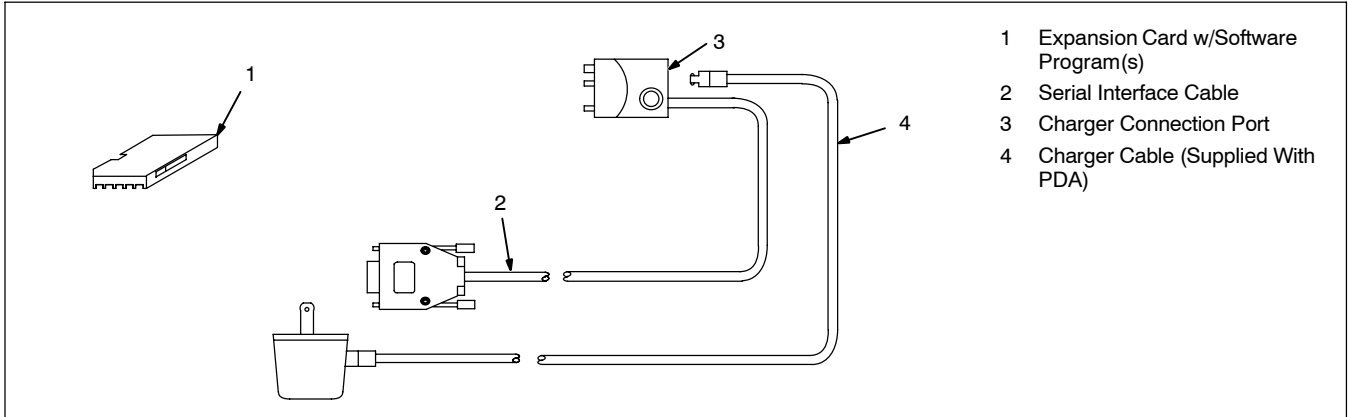
Les porteurs de stimulateur cardiaque doivent consulter leur médecin avant de souder ou d'approcher des opérations de soudage. Si le médecin approuve, il est recommandé de suivre les procédures précédentes.

SECTION 3 – INSTALLATION

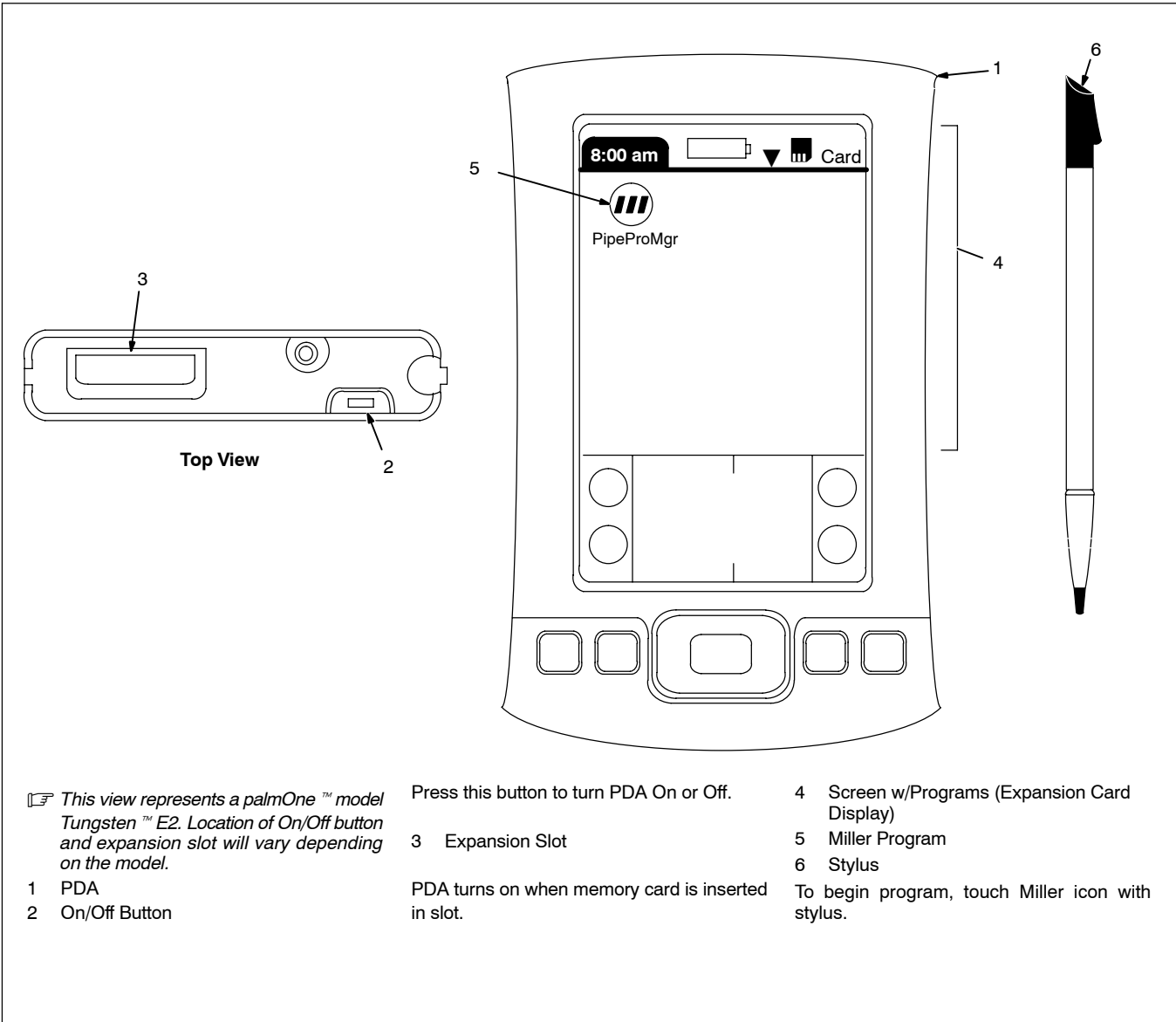
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
Terminology in this manual will refer to the palmOne™ as PDA (personal digital assistant).

3-1. Supplied Items

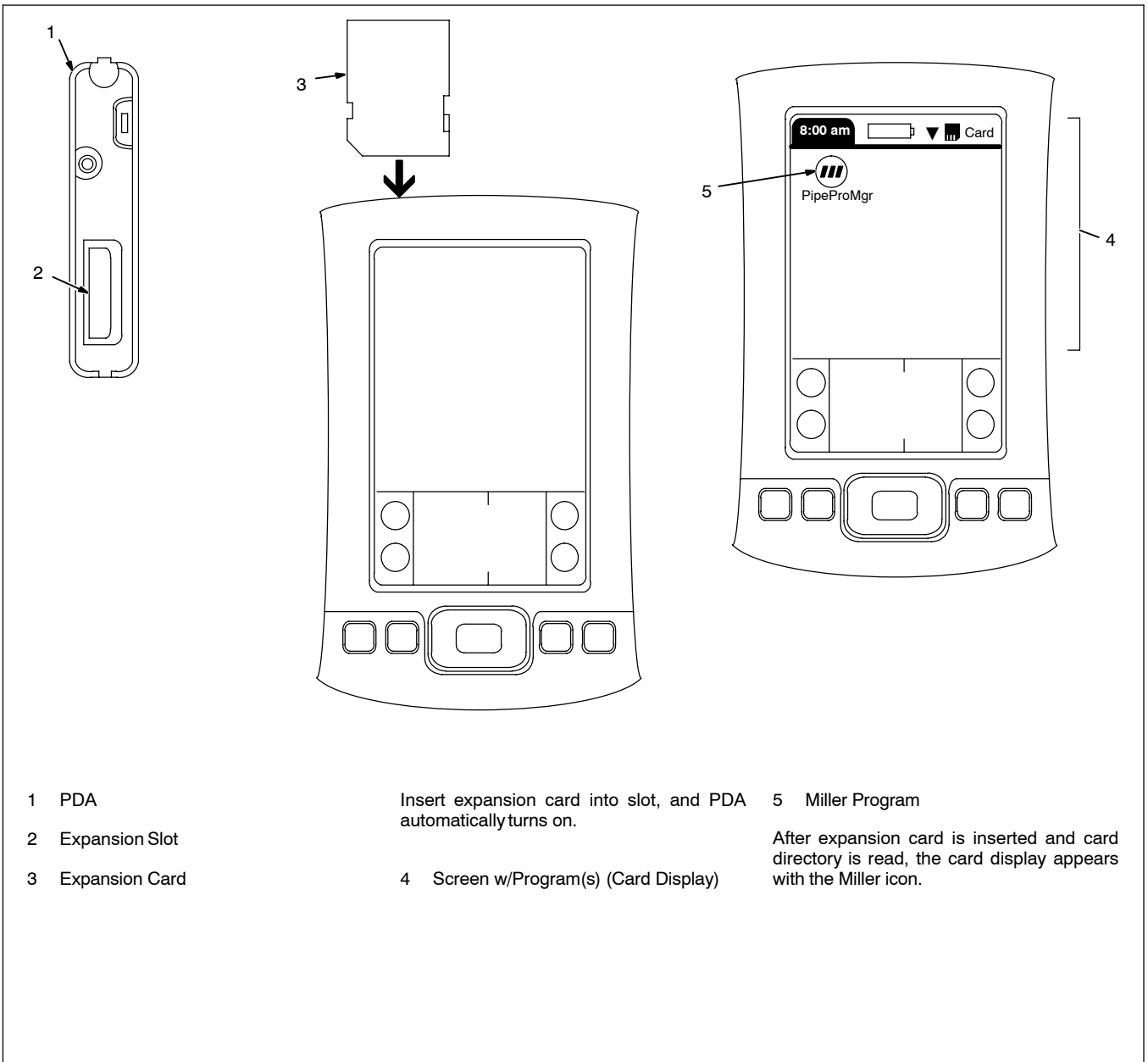


3-2. PDA Features



 This view represents a palmOne™ model Tungsten™ E2. Location of On/Off button and expansion slot will vary depending on the model.

3-3. Activating Miller Software



- 1 PDA
- 2 Expansion Slot
- 3 Expansion Card

Insert expansion card into slot, and PDA automatically turns on.

4 Screen w/Program(s) (Card Display)

5 Miller Program

After expansion card is inserted and card directory is read, the card display appears with the Miller icon.

3-4. Software Licensing Agreement

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 3-1).

The first time that the software program is launched, a licensing agreement screen will appear on the display. Declining the agreement will prevent use of the software program. The agreement must be accepted to allow use of the software program. This screen will not appear again after accepting the licensing agreement.

Tap Accept to allow use of the software program.

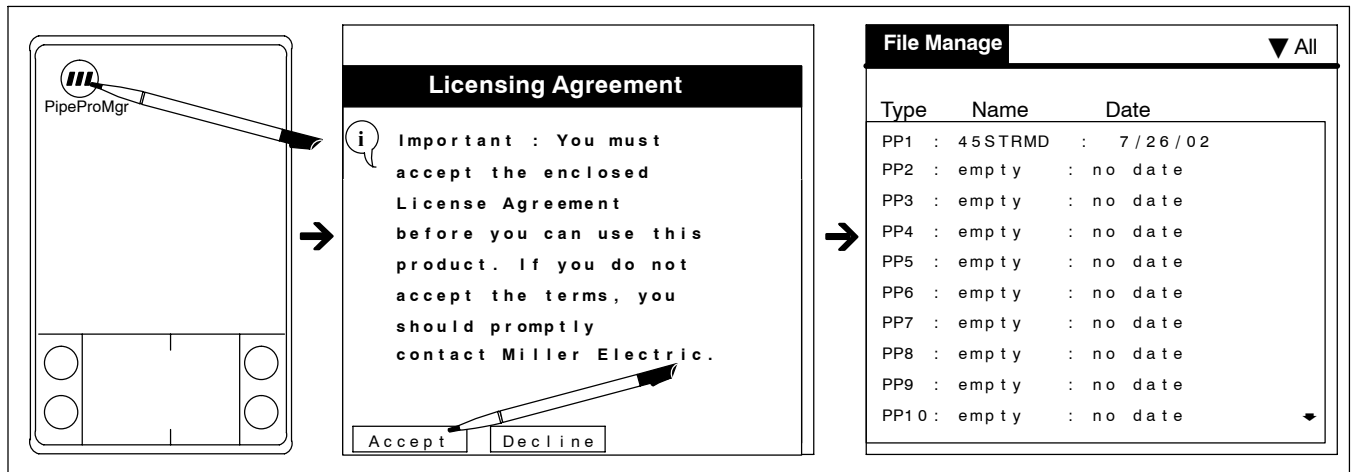


Figure 3-1. Software Licensing Agreement Display

3-5. Viewing PipeProMgr Version Number And Revision Date

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 3-2).

Tap File Manage in upper left portion of display.

Tap Options.

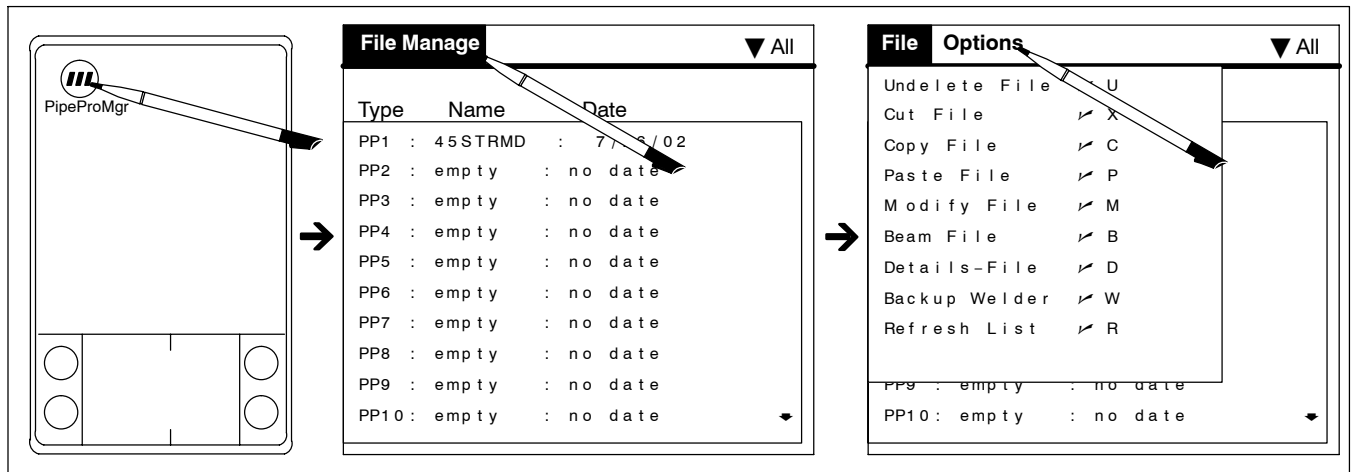


Figure 3-2. Initial Display From Main Menu

Tap About PipePro... in the popdown menu.

Tap OK to continue PDA operations.

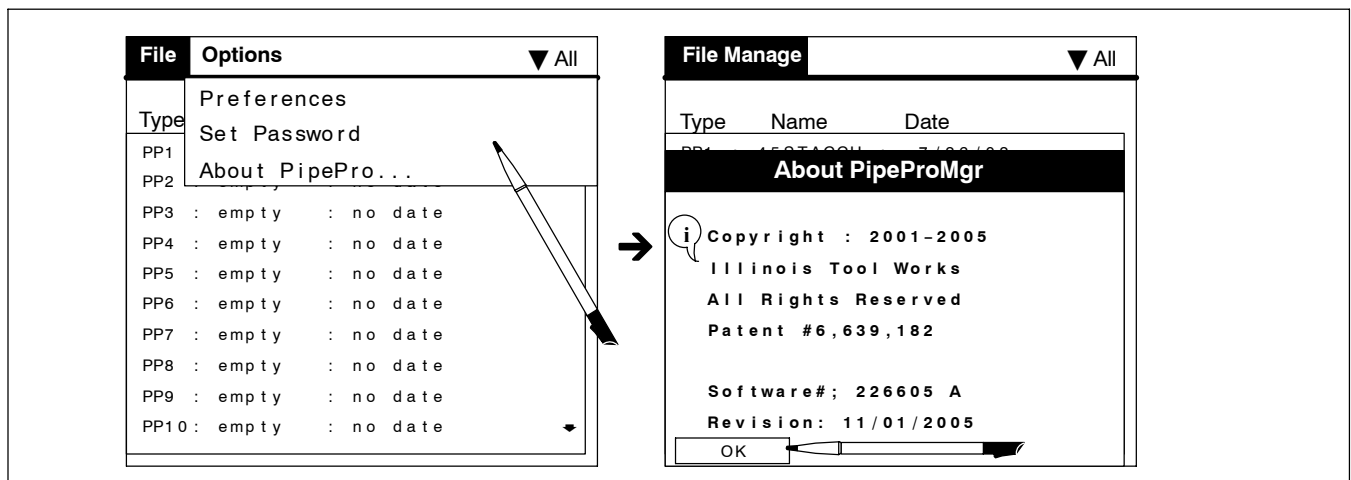


Figure 3-3. Software Version Number And Revision Date

3-6. PipeProMgr Preferences

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 3-4).

Tap File Manage in upper left portion of display.

Tap Options.

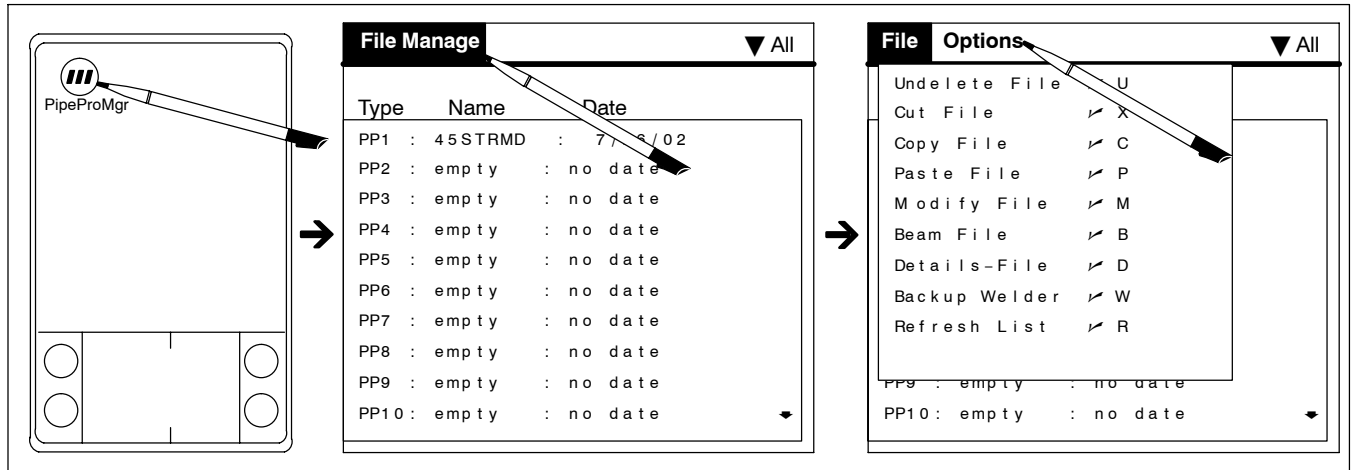


Figure 3-4. Initial Display From Main Menu

Tap Preferences in the popdown menu.

To change the Welder/PDA connect setting, tap the connection type next to the popdown arrow.

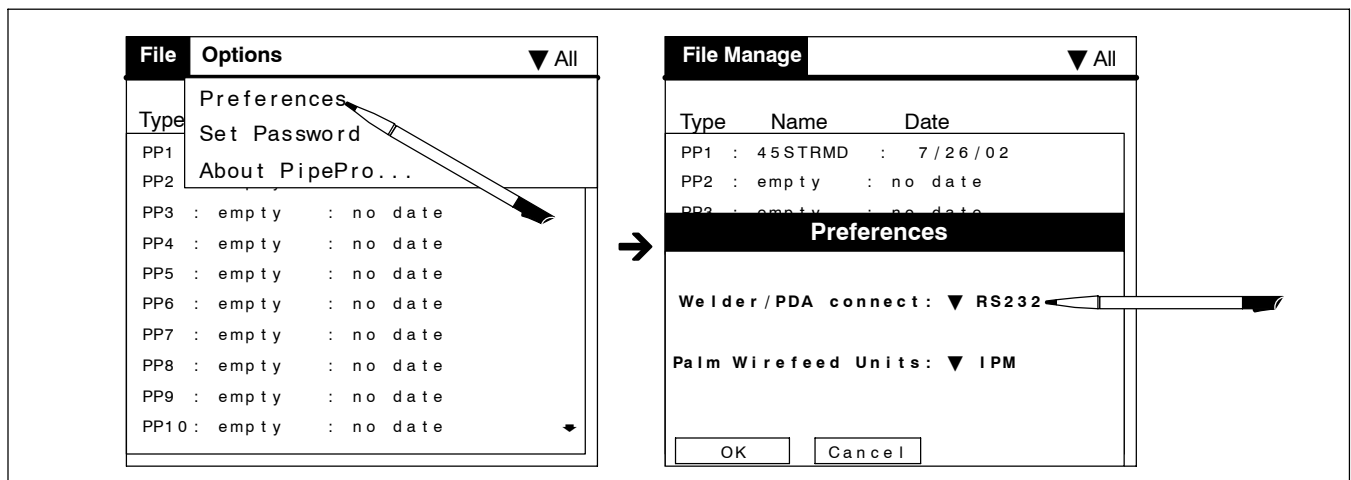


Figure 3-5. PipeProMgr Mgmt Preferences

The Welder/PDA connect item allows selection of either RS232 (standard connection) or Bluetooth (optional connection). Bluetooth connection capability is PDA model specific and this selection will only appear on those particular PDA models.

Tap the connection type that matches the cable connection between the welding power source and PDA. A special adapter cable (customer supplied) is required for the Bluetooth connection.

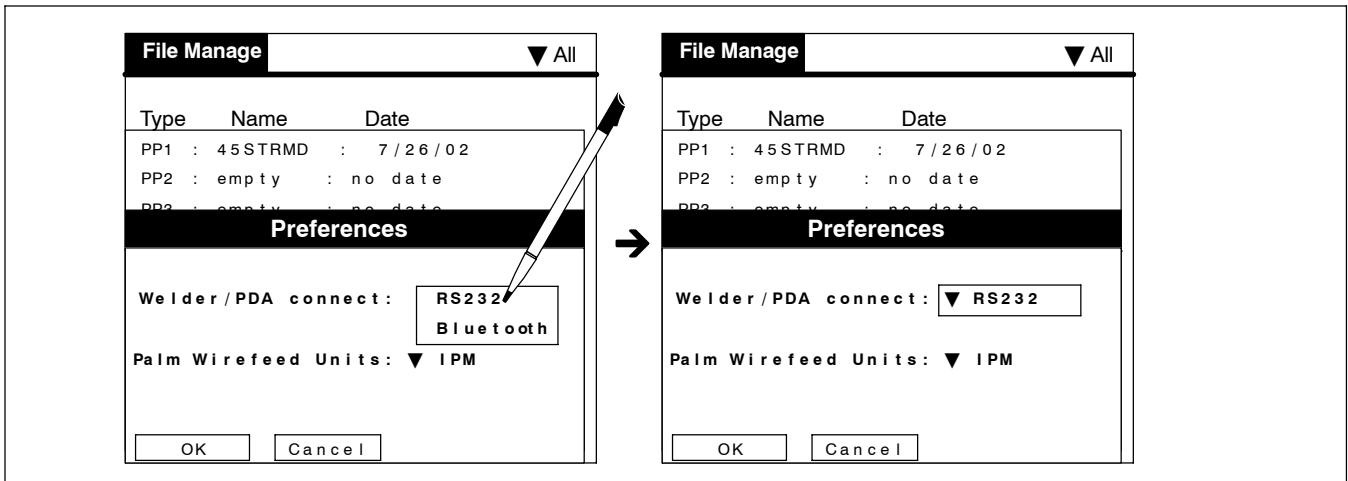


Figure 3-6. Selecting Welder/PDA Connection Setting

To change the Palm Wirefeed Units, tap the unit designation next to the popdown arrow.

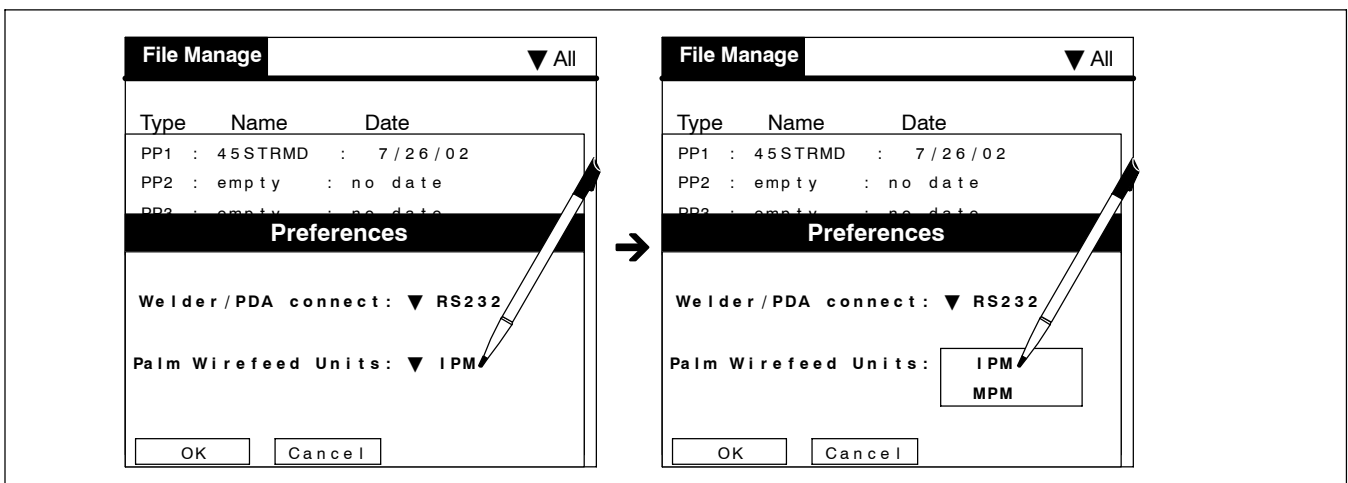


Figure 3-7. Selecting Palm Wirefeed Units Setting

The Palm Wirefeed Units item allows selection of either IPM (inches per minutes) or MPM (meters per minute). Tap the desired wirefeed units. This selection will cause all wirefeed settings to be shown in the chosen units. To enter the changes, tap OK; otherwise, to retain the settings when Preferences was selected, tap Cancel.

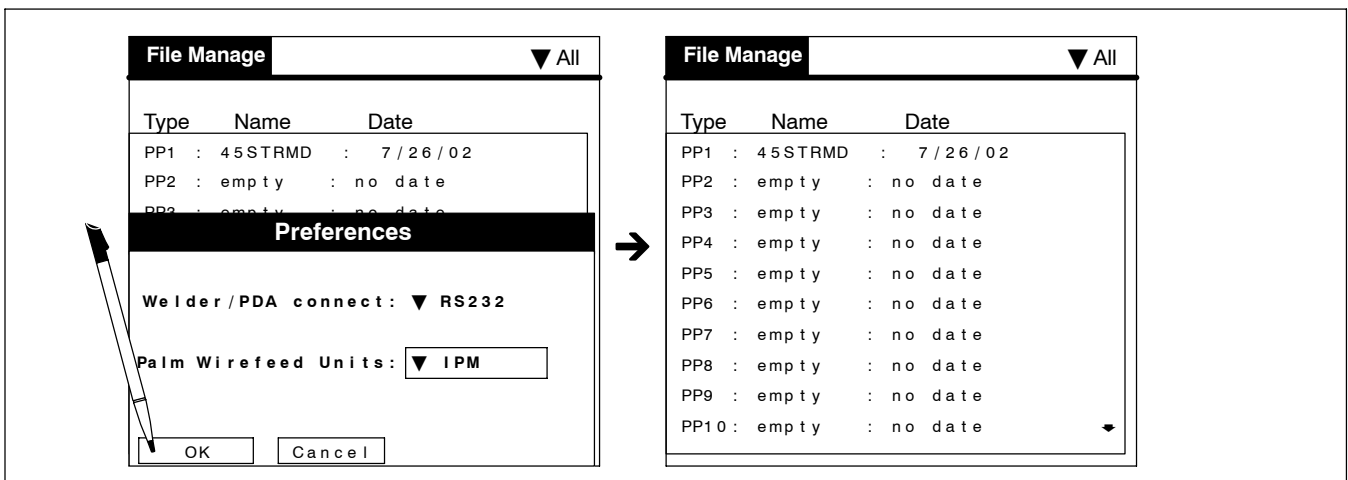
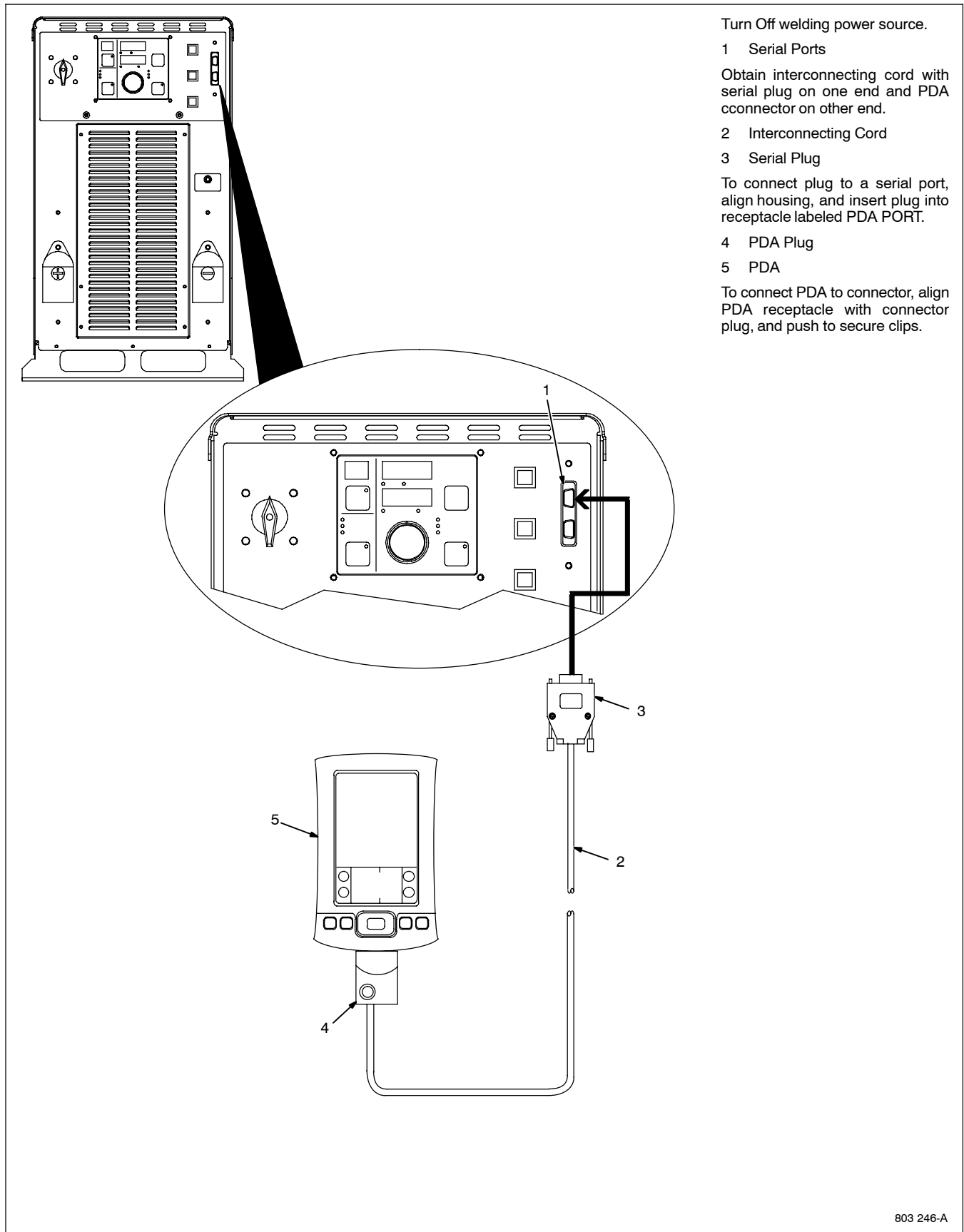


Figure 3-8. Entering Preferences Settings

3-7. Connecting PDA To Welding Power Source



SECTION 4 – OPERATION

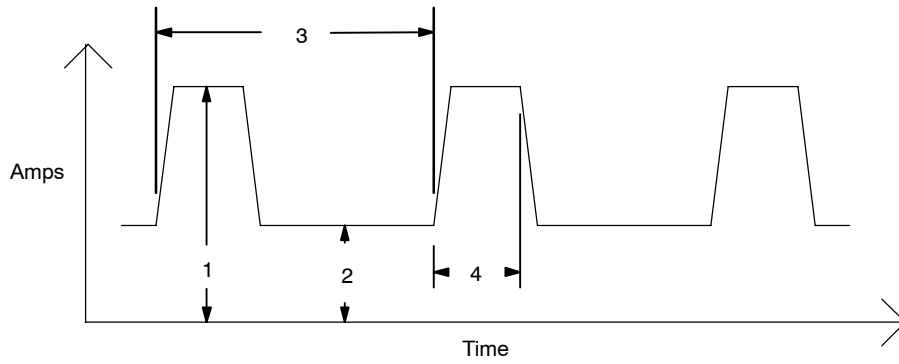
4-1. Operational Terms

The following is a list of terms and their definitions as they apply to this interface unit:

General Terms:

Pro-pulse	Pulse process utilizing constant current ramps with constant voltage control of peaks and backgrounds. Adaptive response is controlled by peak and minimum current levels. Benefits are shorter arc lengths, better puddle control, more tolerant of tip-to-work variation, less audible noise, no arc wandering, allows weld to fill in at toes increasing travel speed and deposition, and more tolerant to poor fit up and gaps.
Adjust	Control knob used to change or set parameters and functions.
Amps	Indicates average amperage while welding and 3 seconds hold value at end of weld.
Arc Adjust	Term used to represent arc length adjustments in pulse programs. Increasing Arc Adjust increases the actual arc length. Likewise, decreasing arc adjust shortens arc length. Arc Adjust is replaced by volts in MIG programs.
Arc Control	Pressing this button will allow setting of inductance in MIG mode and sharp arc in pulse, Pro-pulse, and RMD-Pro. Also, this button allows setting dig in stich mode.
Arc Length	Distance from end of wire electrode to workpiece.
Crater	Allows setting of voltage/arc adjust, wire feed rate, and time value for arc ends (which is only available in the Arc On and Analog input or the Arc On and No Analog input modes). These values can be changed using a PDA with File Management/WaveWriter software.
Gas Type	Selection of shielding gas being used in application.
Inductance	In short circuit GMAW welding, an increase in inductance will decrease the number of short circuit transfers per second (provided no other changes are made) and increase the arc-on time. The increased arc-on time makes the welding puddle more fluid.
MIG	CV weld process with individual settings of voltage and wire speed.
Process	A selection made for MIG, Pulse, Pro-pulse, RMD-Pro, Stick, Carbon Arc, Flux Core (FCAW), and Lift-TIG.
Process Set Up	Selection procedure for entering program.
Program	Eight active slots for selection of various processes, wire types, and parameters.
Program Load	Enters selected program information (process, wire type, gas, etc.) into program slot (1-8).
Pulse	Conventional pulse program using peak, background, pulse width, frequency, and peak voltage as factory taught data. Adaptive method is controlled by frequency adjustment.
RMD-Pro	RMD-Pro refers to Regulated Metal Deposition. A precisely controlled short-circuit transfer. Benefits of RMD-Pro are well suited to root pass welding on pipe, improves gap filling and spatter reduction. Provides less heat input into workpiece, minimizes distortion and allows use of larger diameter wire on thin gauge materials.
Sharp Arc	In pulse and Pro-pulse mode this adjustment changes the arc cone by adjusting the preprogrammed factory pulse data. In RMD-Pro this control will affect the arc in much the same way as inductance.
Start	Provides voltage/arc adjust, wire feed rate, and time value for modified arc starts (which is only adjustable with the optional PDA with File Management software).
Synergic	Synergic refers to the unit's ability to use preprogrammed pulse parameters to determine the actual pulse settings of Peak Amperage, Background Amperage, Pulse Frequency and Pulse Width at any specific wire feed speed setting.
Volts	Preset voltage in MIG mode at idle, actual voltage while welding, and 3 seconds hold value at end of weld.
Wire Type	Selection of wire type by alloys and classification.
WFS	Term used to represent wire feed speed. In MIG mode, wire feed setting is independent of voltage setting. In pulse, Pro-pulse, and RMD-Pro adjusting wire feed speed also increases power level on wire electrode (one knob control).

4-2. Pulse Welding Terms



1 A_{pk} = Peak Amperage

Increasing A_{pk} increases penetration.

V_{pk} = Peak Voltage

Arc voltage during peak current phase of the pulse waveform. This determines arc length during adaptive pulse welding.

2 A_{bk} = Background Amperage
Maintains arc between pulses.

3 PPS = Pulses Per Second

Increasing PPS increases travel speed.

4 PW_{ms} = Pulse Width In
Milliseconds

Increasing PW_{ms} increases bead width.

SECTION 5 – REFRESH LIST

Refresh List provides a screen refresh to view Welder Program Files or Welder Config file if the PipeProMgr program is started before connecting to a welding power source or the PDA is disconnected from one welding power source and connected to a different welding power source.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 5-1).

Tap All in upper right portion of display.

Tap either Welder Prog Files or Welder Config in the popdown menu list (e.g. Welder Prog Files).

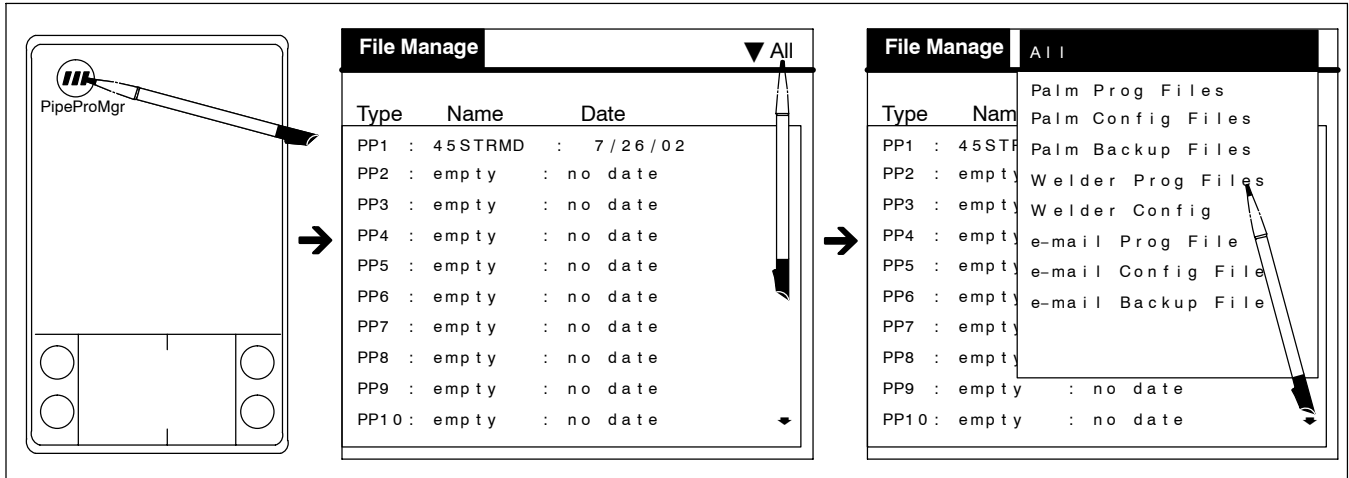


Figure 5-1. Initial Display From Main Menu

Connect PDA to welding power source.

Tap File Manage in upper left portion of display.

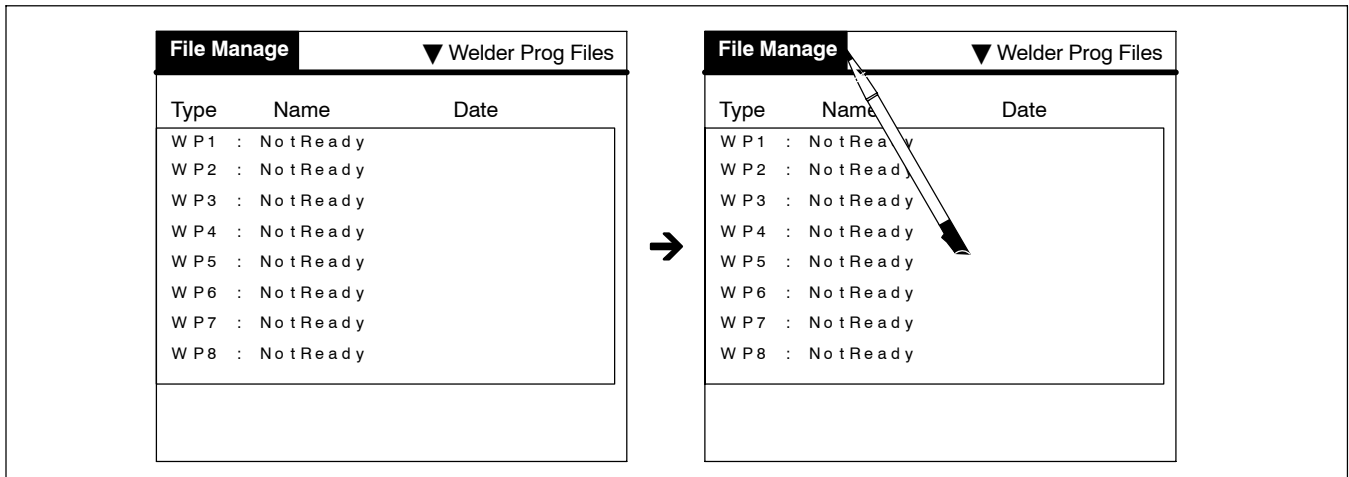


Figure 5-2. Program List For The Refresh Operation

Tap Refresh List.

Welder Prog Files data should now appear on the display.

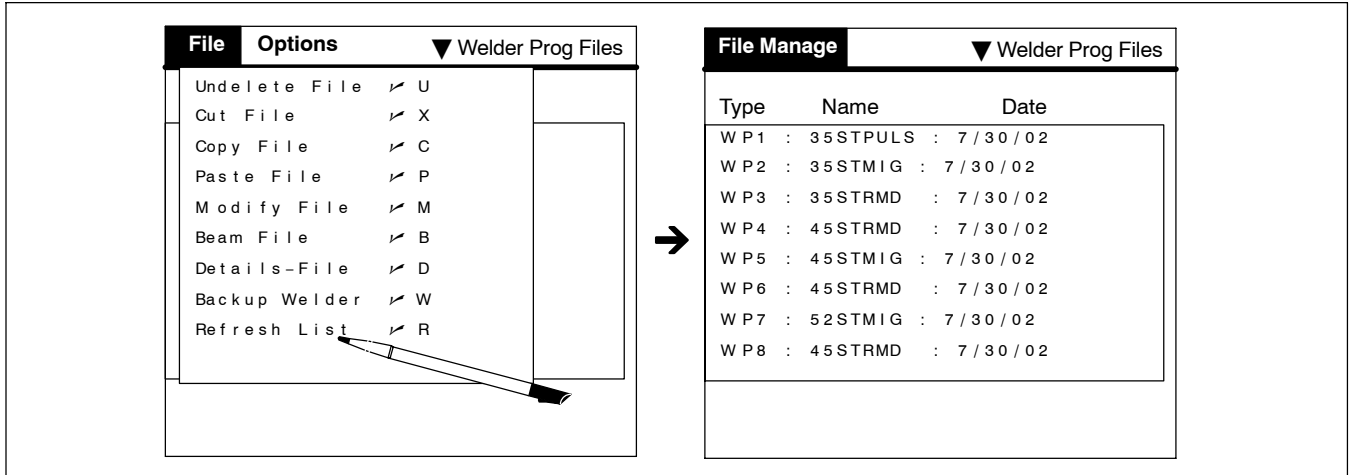


Figure 5-3. Refresh List Selection

Tap desired selection to continue PDA operations.

SECTION 6 – DETAILS–FILE

Details–File provides information about files such as Name, Creation Date, Process, Author, and Description. This function also allows the ability to change Name, Author, and Description.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 6-1).

Tap All in upper right portion of display.

Tap desired item in the popdown menu list for the detail operation (e.g. Palm Backup Files).

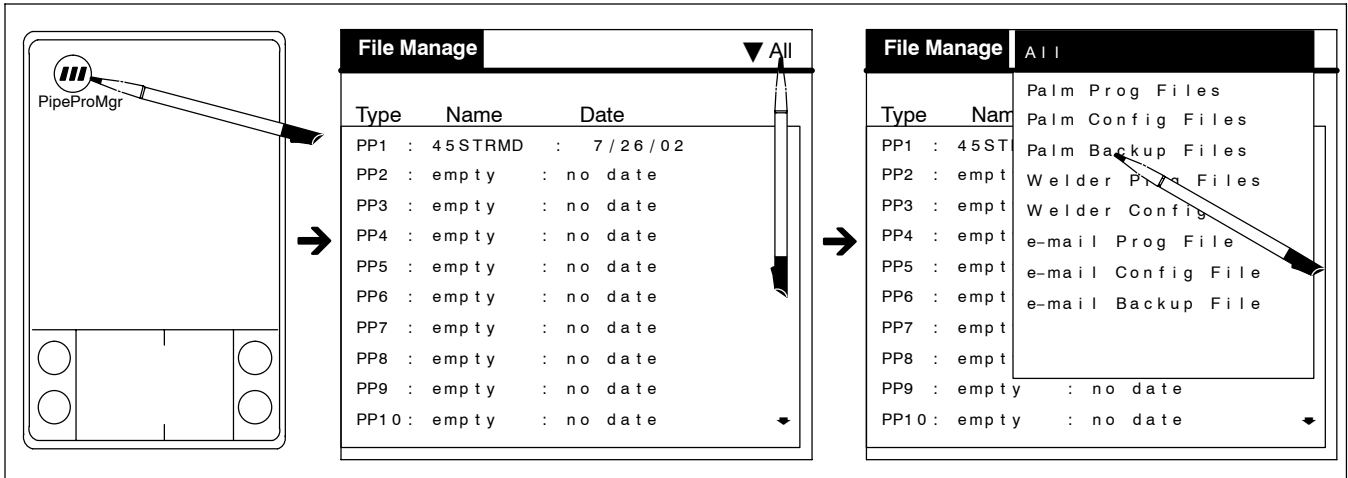


Figure 6-1. Initial Display From Main Menu

Tap a file and the selection will be highlighted.

Tap File Manage in upper left portion of display.

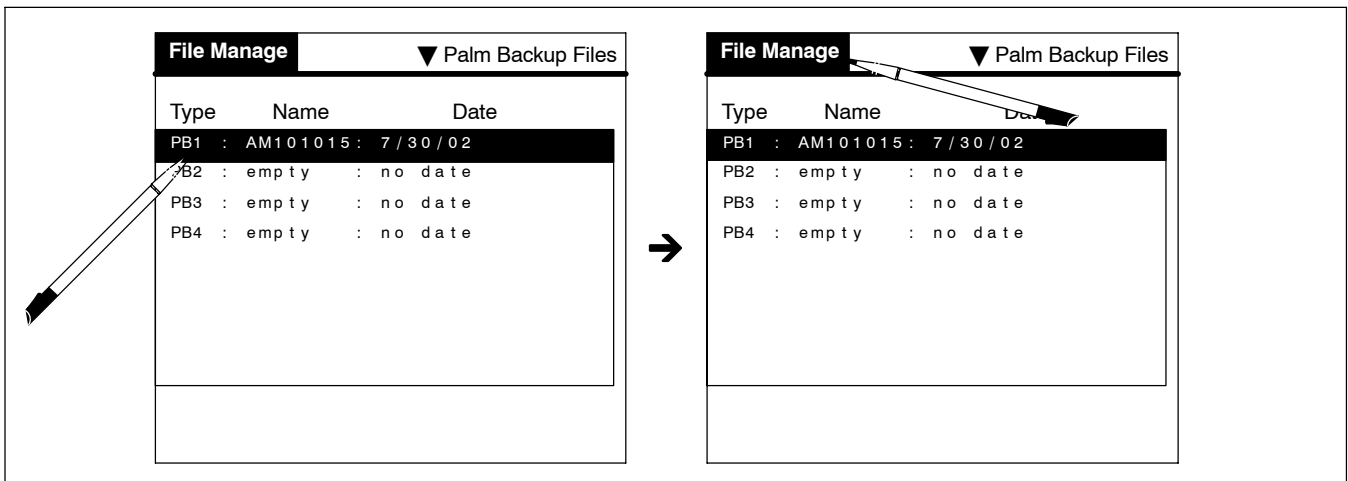


Figure 6-2. Program List For The Detail Operation

Tap Details-File.

The Details information display should now appear for the Palm Backup file.

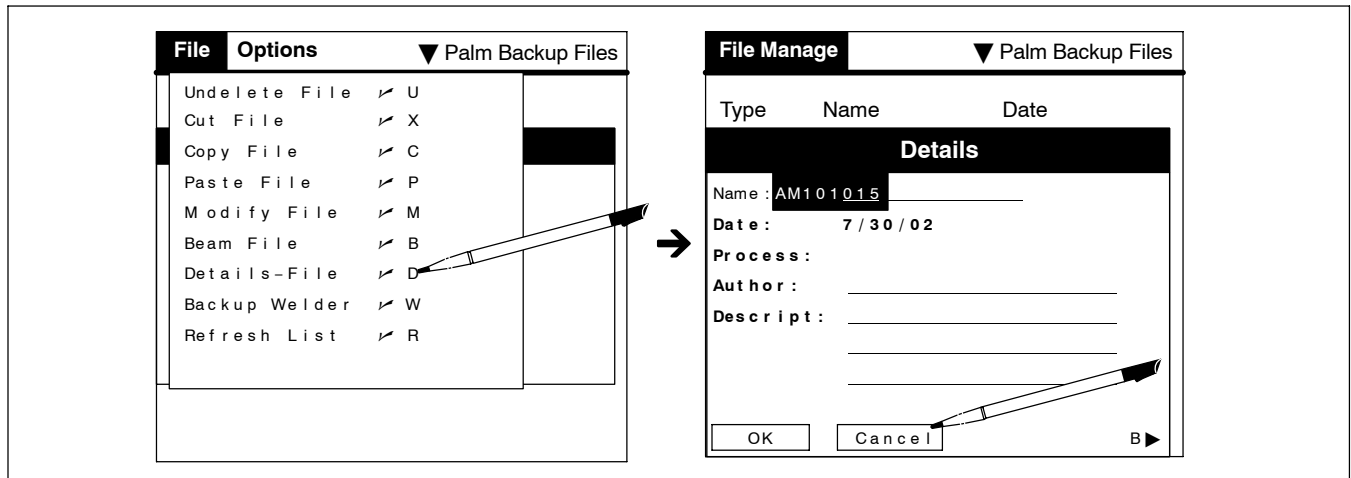


Figure 6-3. Detail-List Program Information

To make changes, tap the line next to the item (Name, Author, or Descript).

Numerous methods are available to the operator to change text or a numeric value as follows:

- The 1 2 3 or a b c keyboard selection in the graffiti area of the display (PDA model dependent)
- The full keyboard (PDA model dependent)
- Use graffiti to write changes in the graffiti area of the display
- The increase or decrease (up or down) function of the 5-way navigator (for numeric input only).

Choose a preferred method to make any desired changes. Tap OK after changes are completed.

Tap Cancel to exit the display without any changes.

Tap the right arrow next to the B to view details of the 8 weld programs and the config file that are part of the backup file.

Use the same method to change information by tapping the line next to the item; otherwise, tap Cancel to exit a display without any changes.

Tap desired selection to continue PDA operations.

SECTION 7 – SETTING WELDER CONFIGURATION

Welder Configuration menu selection allows setting the WFS units and remote program select enable.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 7-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

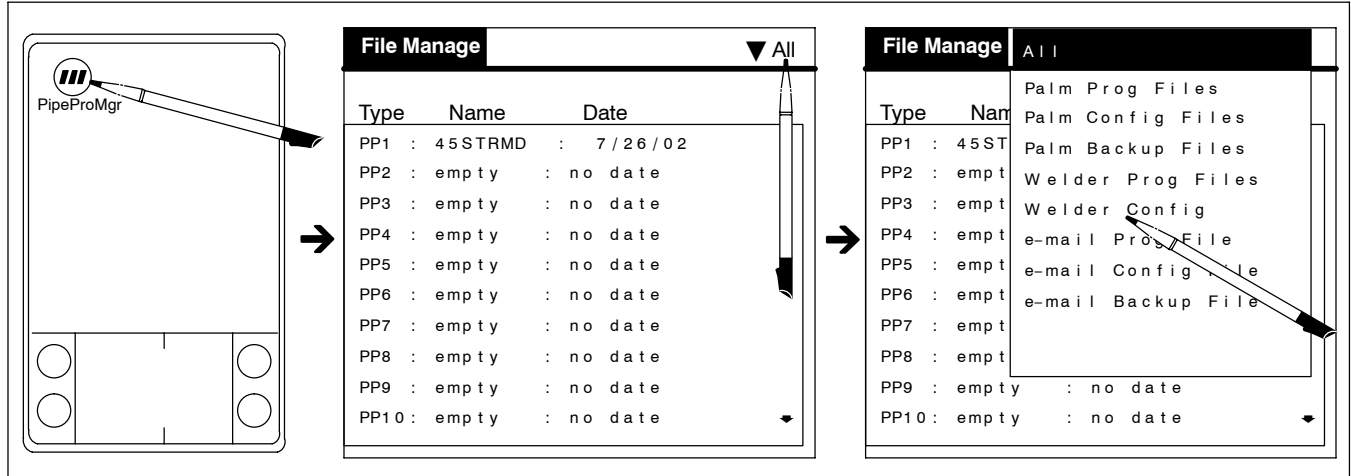


Figure 7-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 7-2).

Tap File Manage in upper left portion of display.

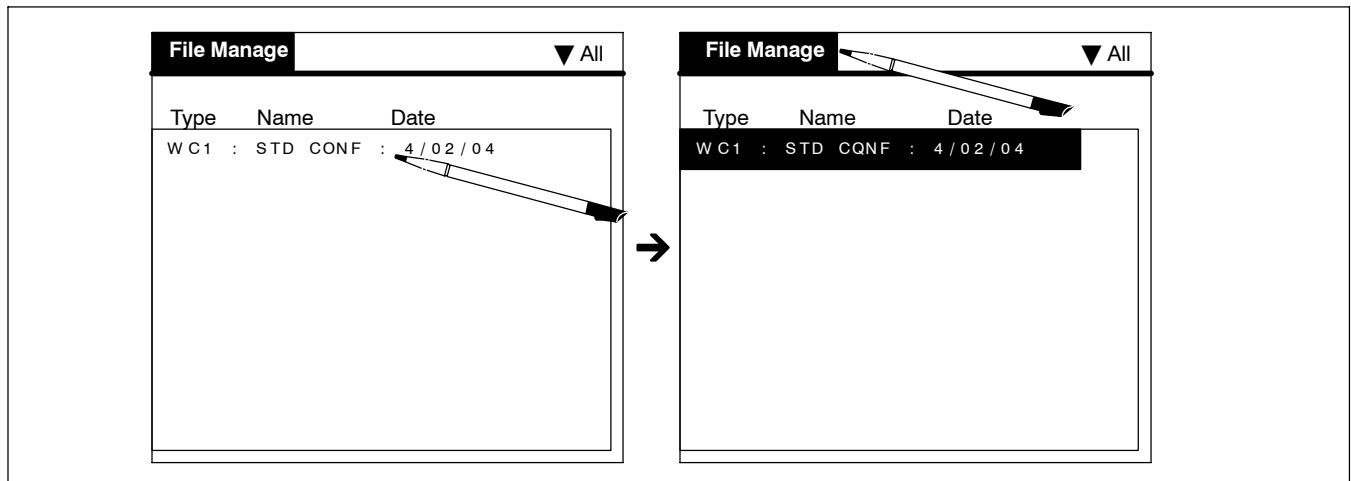


Figure 7-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 7-3).

Items that can be changed under Type are as follows:

- Metric welder WFS values
- Remote Program Select Enabled.

To change wire feed speed (WFS) values to metric, tap Metric welder WFS values and the following message will appear on the screen.

If no changes are made to settings, use stylus to tap Done.

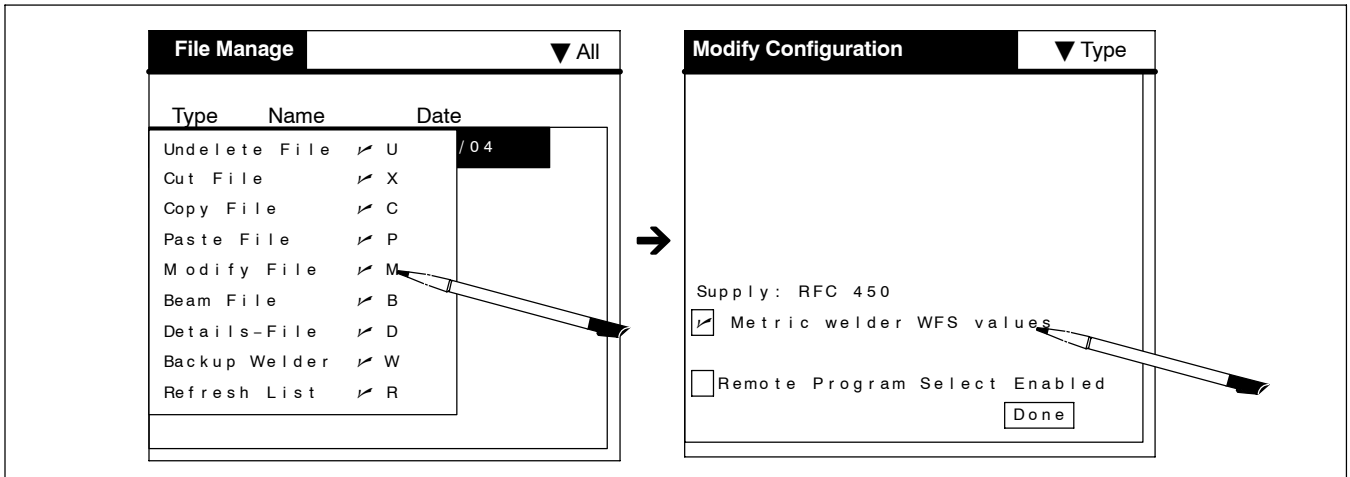


Figure 7-3. Configuration Type Display

Tap OK and tap Done. Cycle power on the welding power source according to the directions in the message.

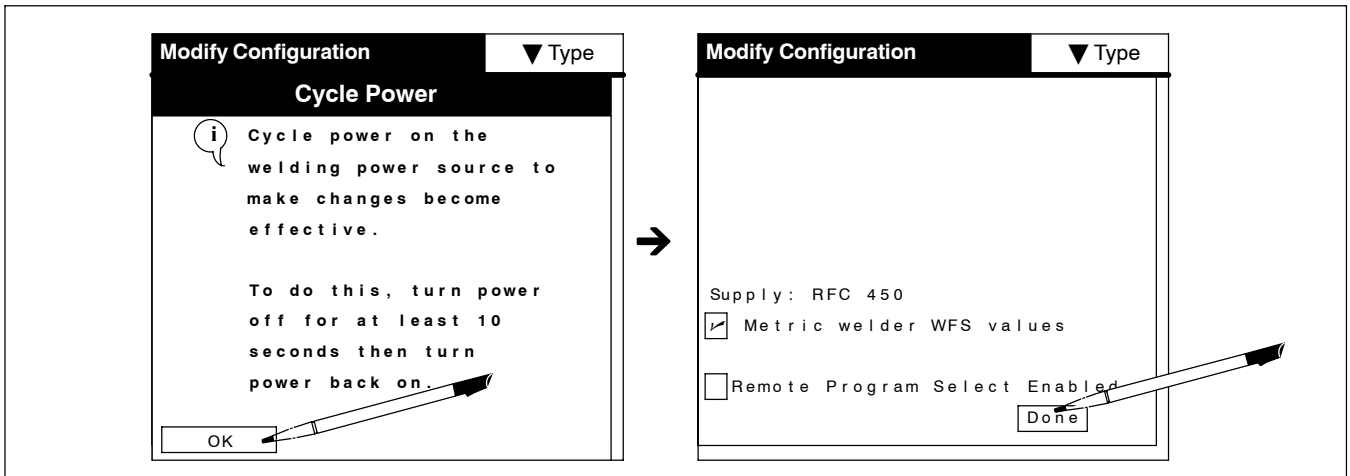


Figure 7-4. Saving A New Setting Message Display

Tap desired selection to continue PDA operations.

SECTION 8 – SETTING SYSTEM ERRORS

The Errors menu selection allows enabling and disabling the checking for system errors by components in the welding system.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 8-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

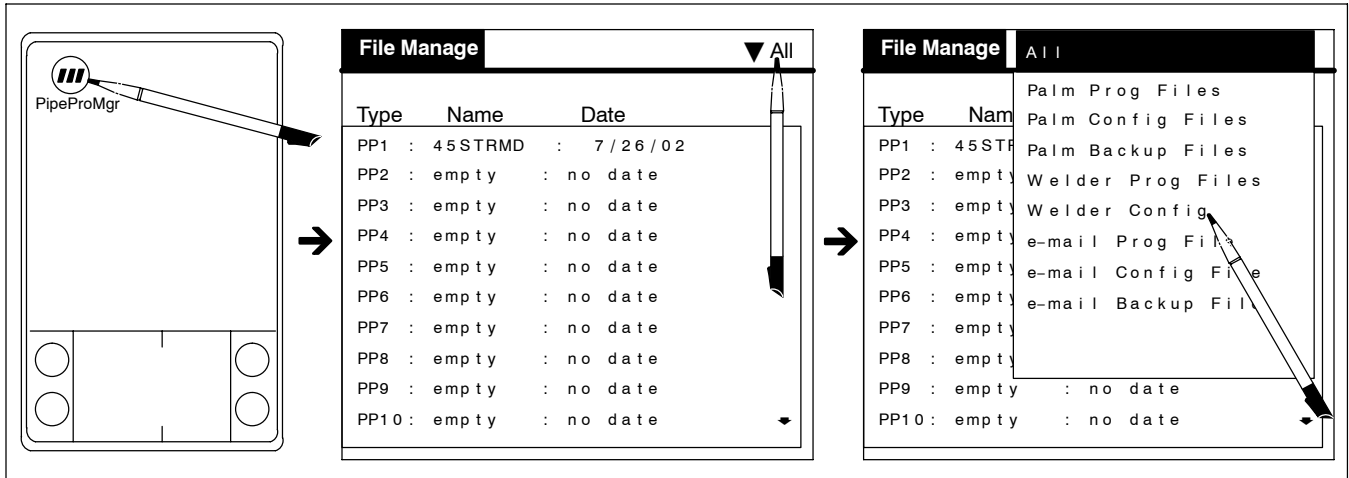


Figure 8-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 8-2).

Tap File Manage in upper left portion of display.

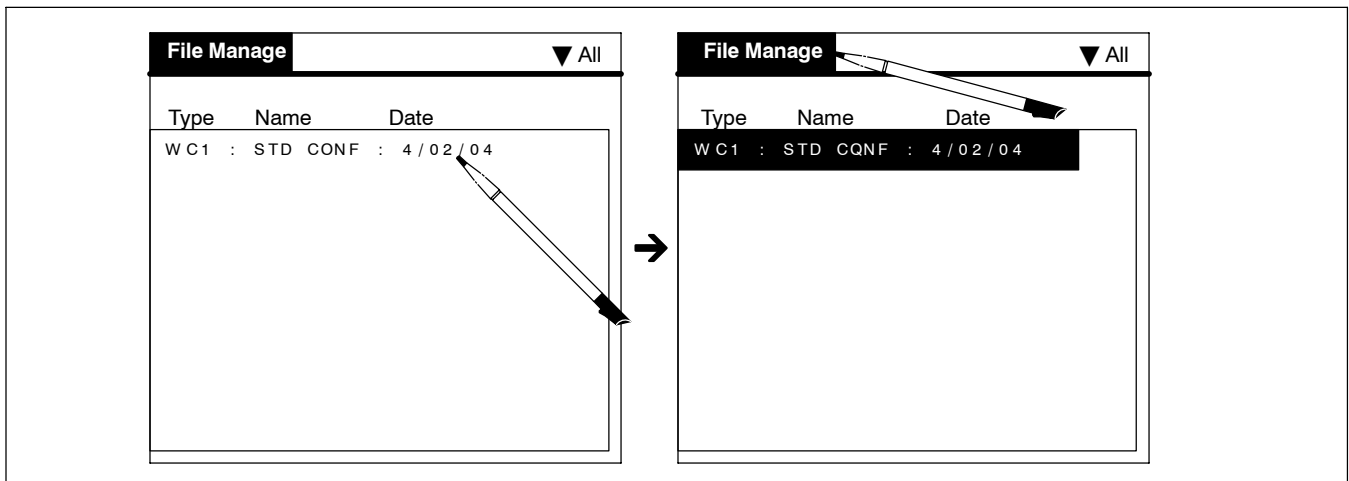


Figure 8-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 8-3).

Use stylus to tap Type.

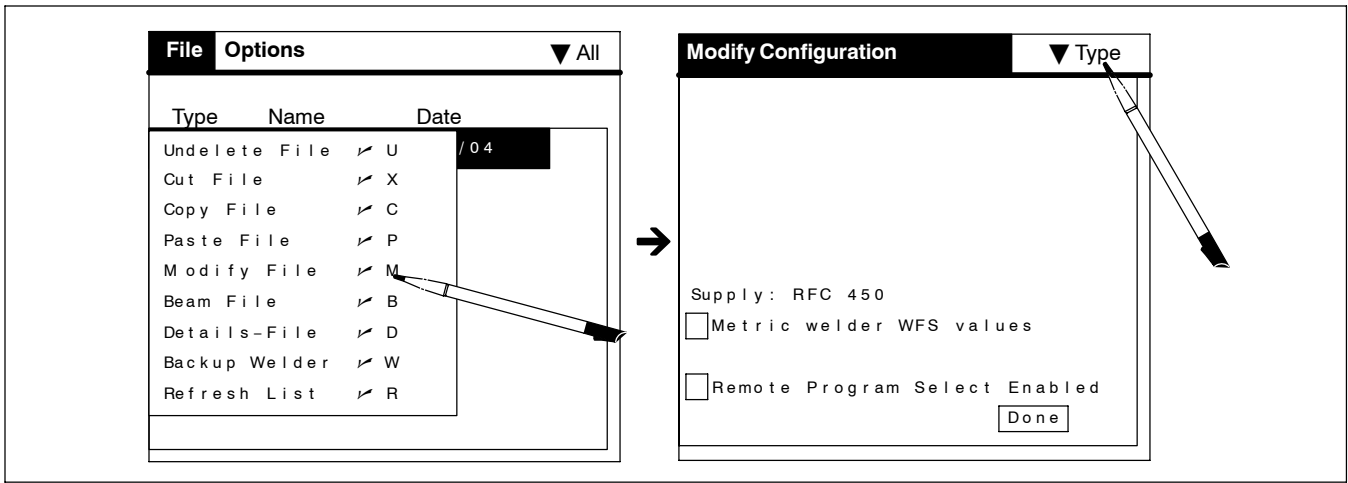


Figure 8-3. Configuration Type Display

Tap Errors in the popdown menu (see Figure 8-4).

Items can be changed under Errors by adding or removing a check mark in the box next to each item.

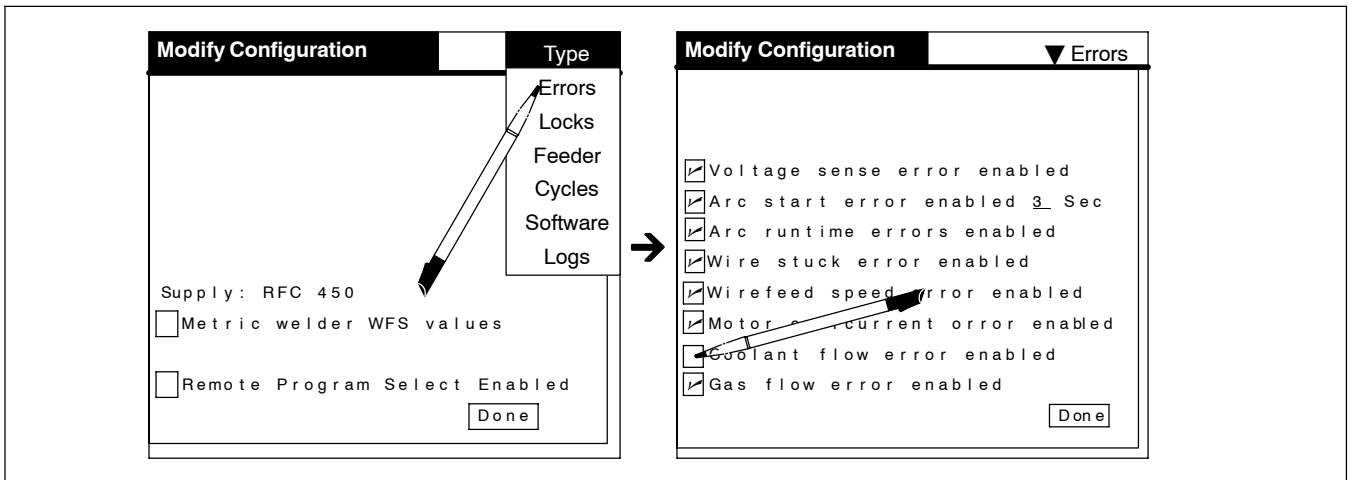


Figure 8-4. Errors Type Display

Use stylus to tap Done to complete changes (see Figure 8-5).

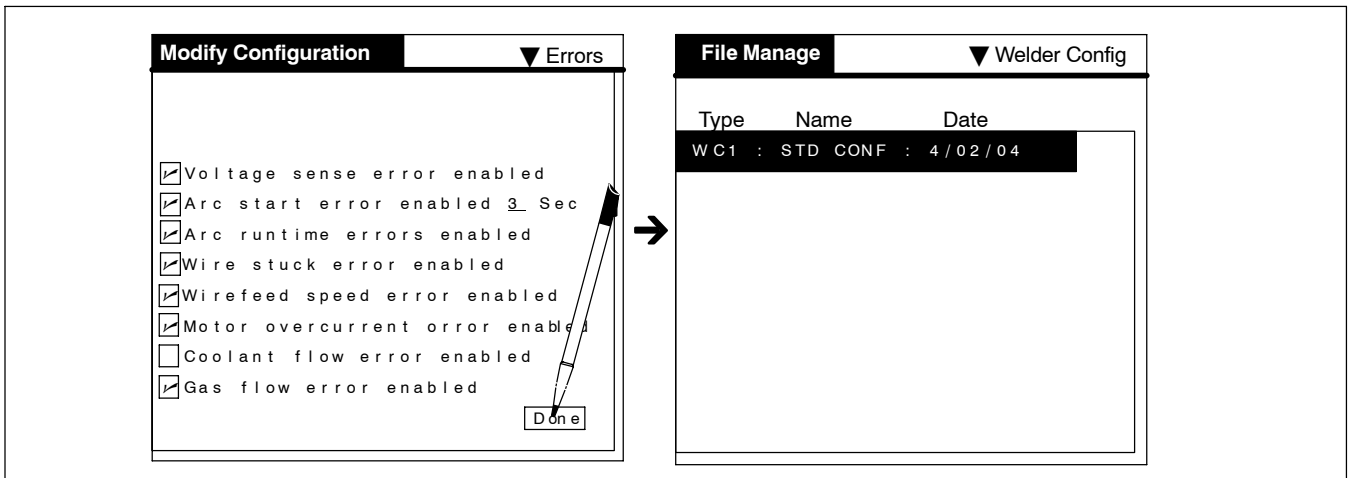


Figure 8-5. Errors Type Selection

Tap desired selection to continue PDA operations.

SECTION 9 – SETTING PROGRAM LOCKS

The Locks menu allows enabling and disabling program locks to either prevent or allow parameter changes.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 9-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

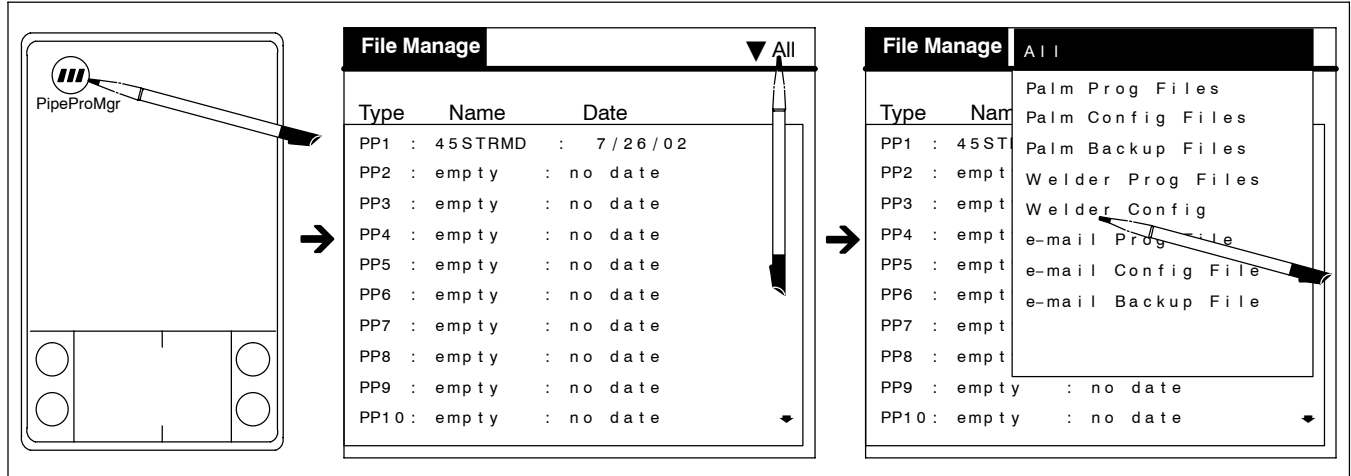


Figure 9-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 9-2).

Tap File Manage in upper left portion of display.

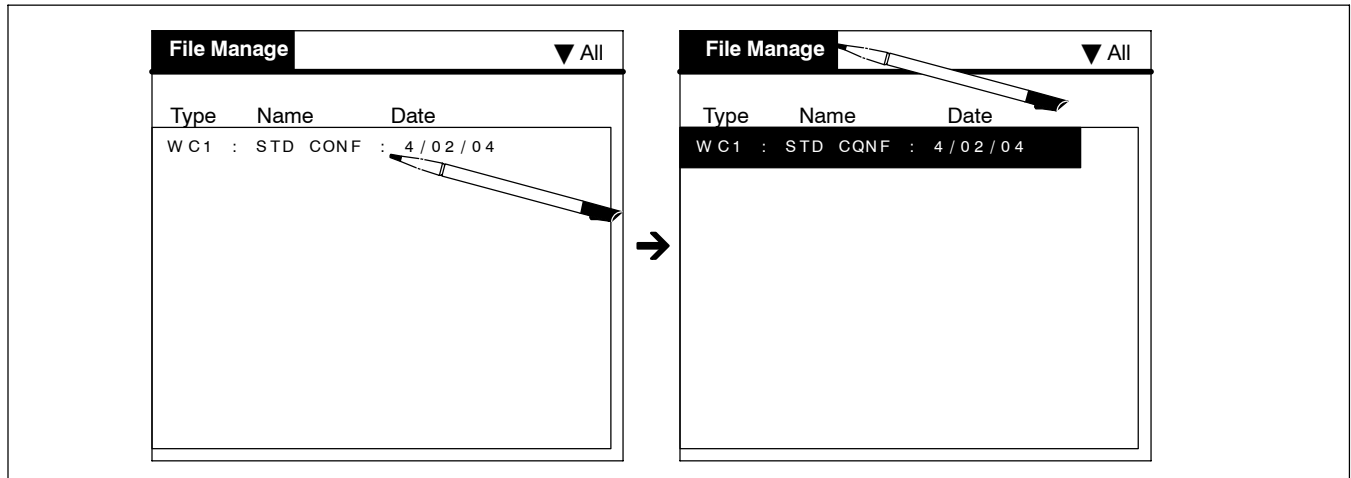


Figure 9-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 9-3).

Use stylus to tap Type.

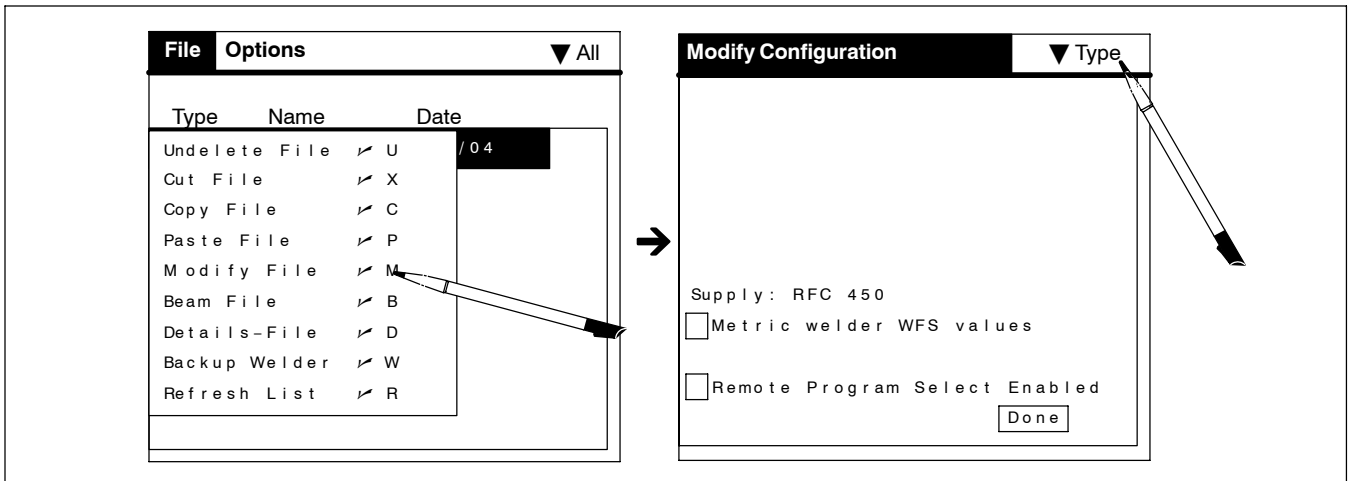


Figure 9-3. Configuration Type Display

Tap Locks in the popdown menu (see Figure 9-4).

Global locks to programs can be set by adding a check mark to the box next to the Locks enabled.

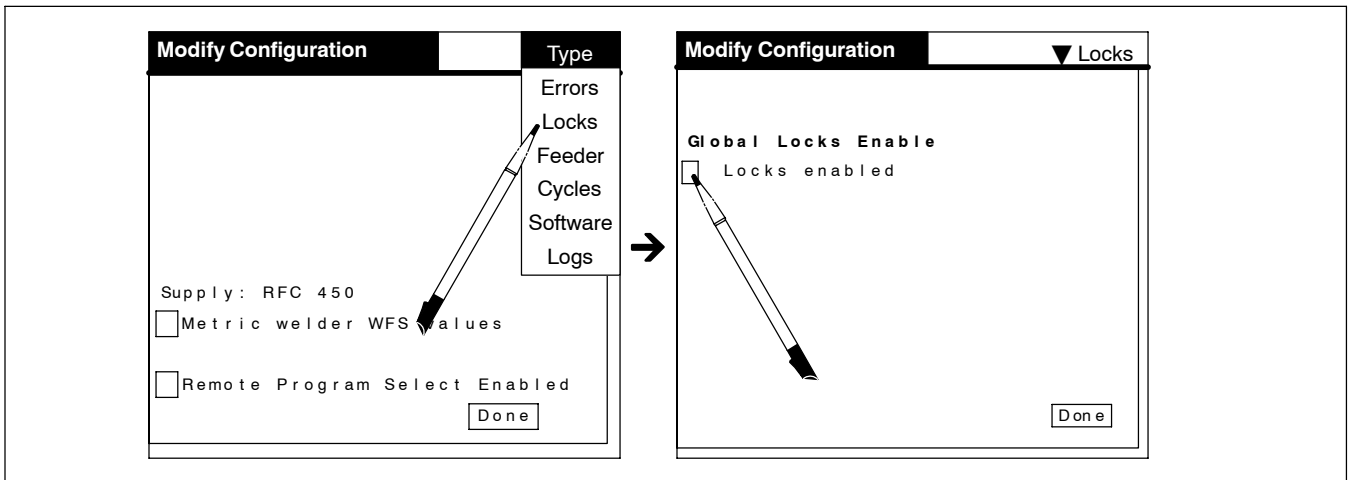


Figure 9-4. Locks Display

The default setting is for all programs to be enabled (this allows users to select/use these programs). To disable programs, use the stylus to tap the check box and remove the check mark (see Figure 9-5).

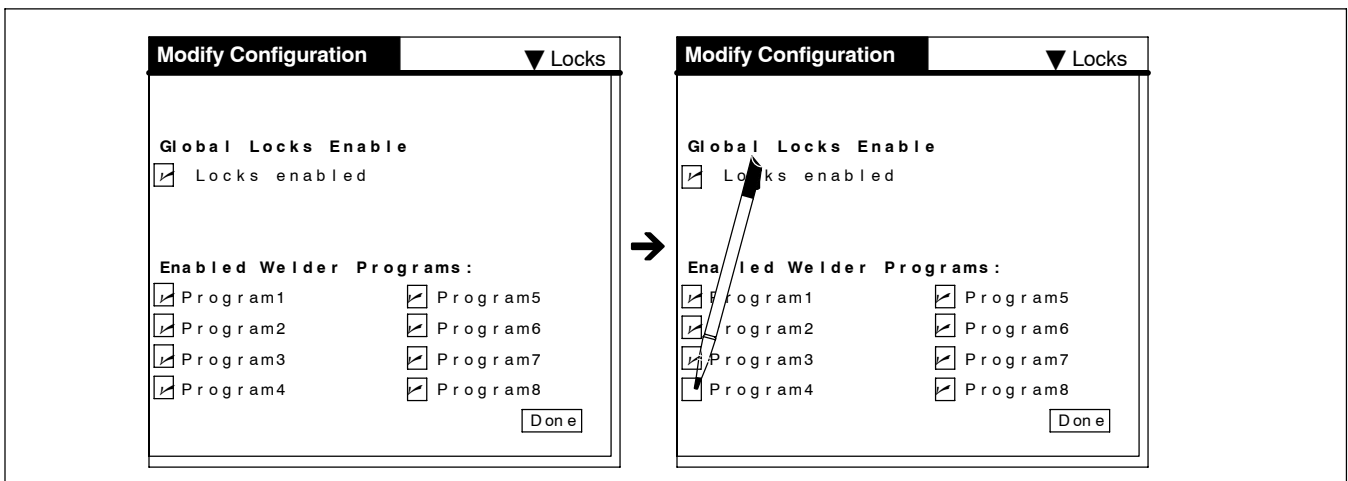


Figure 9-5. Program Locks Display

Use stylus to tap Done to complete changes (see Figure 9-6).

After tapping Done, a message screen will appear on the display. Follow the instructions to set Program Limits for the appropriate Welder Prog File.

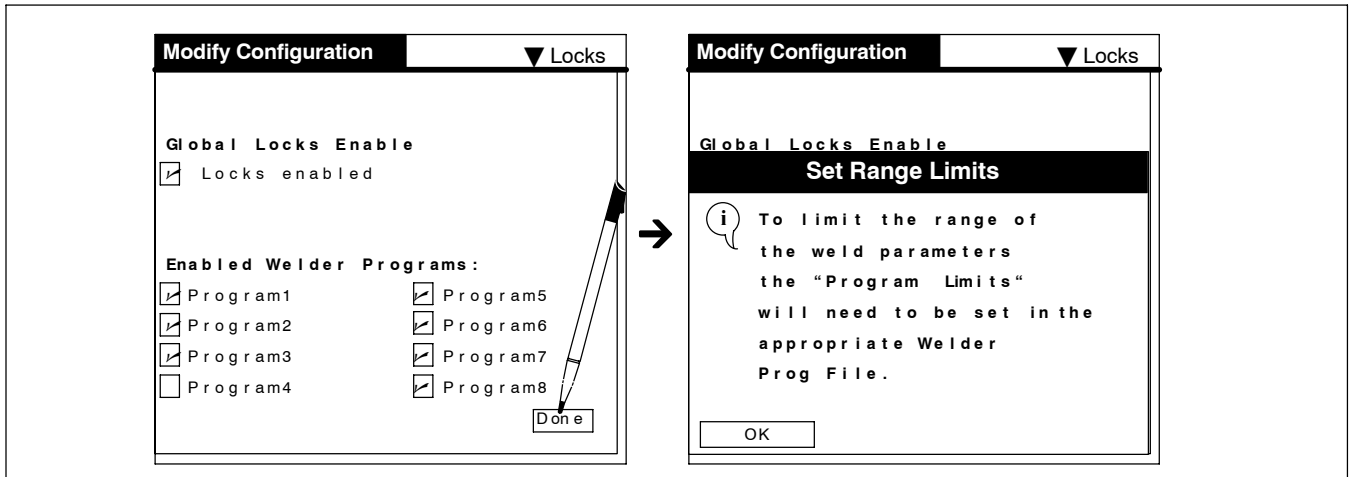


Figure 9-6. Program Locks Selection

Tap OK.

Tap Welder Config in upper right portion of the display.

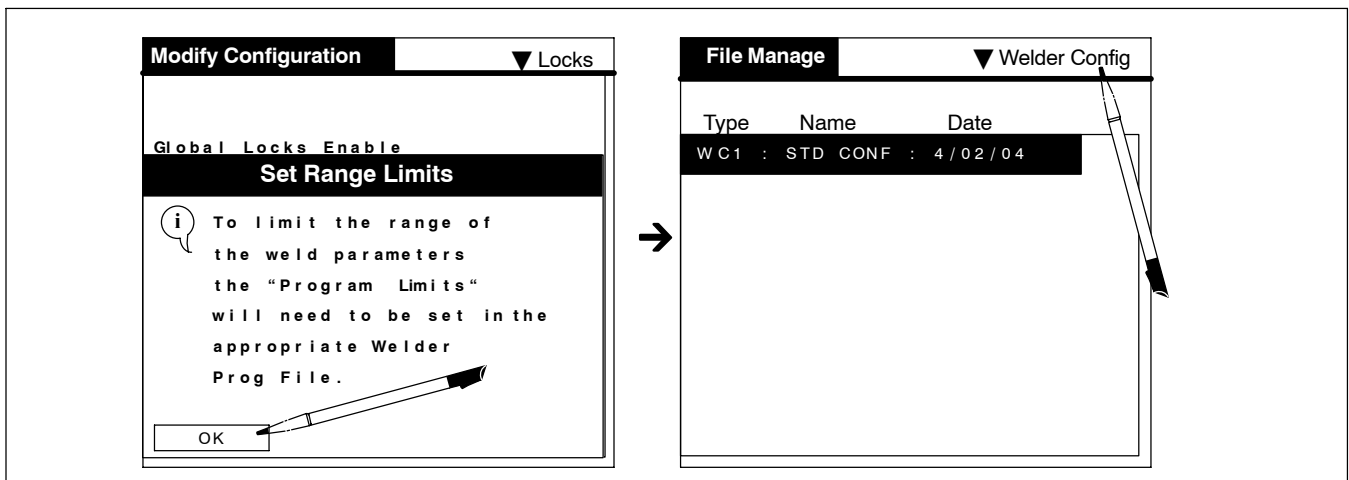


Figure 9-7. Program Locks Selection

Tap Welder Prog Files to view weld programs.

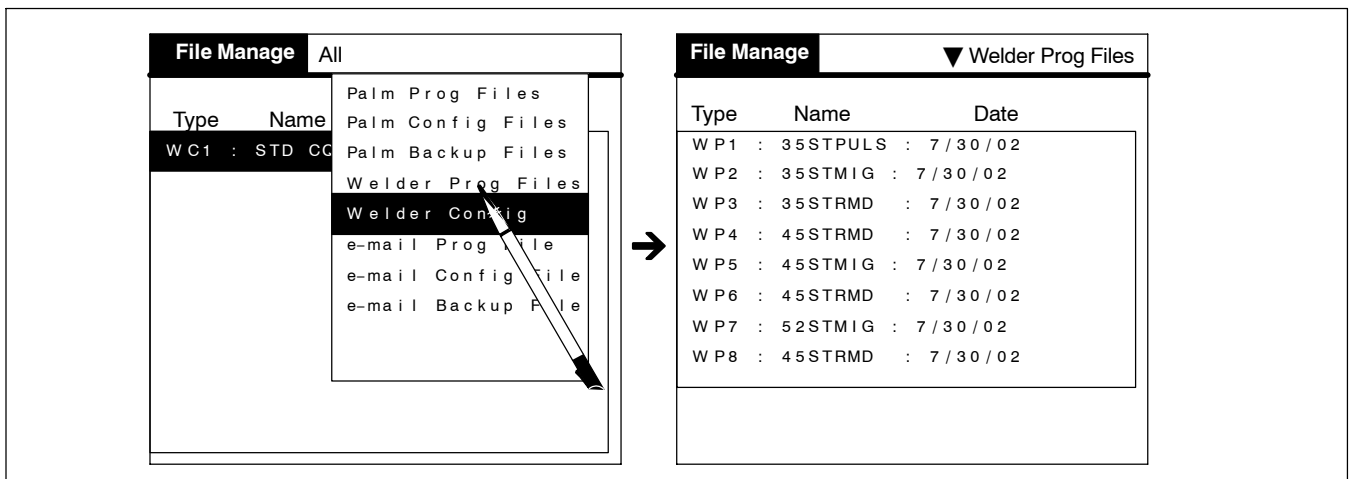


Figure 9-8. Viewing Welder Prog Files

Use stylus to tap the weld program that was previously locked (e.g. WP4), and the line will highlight on the display (see Figure 9-9).

Tap File Manage in upper left portion of display.

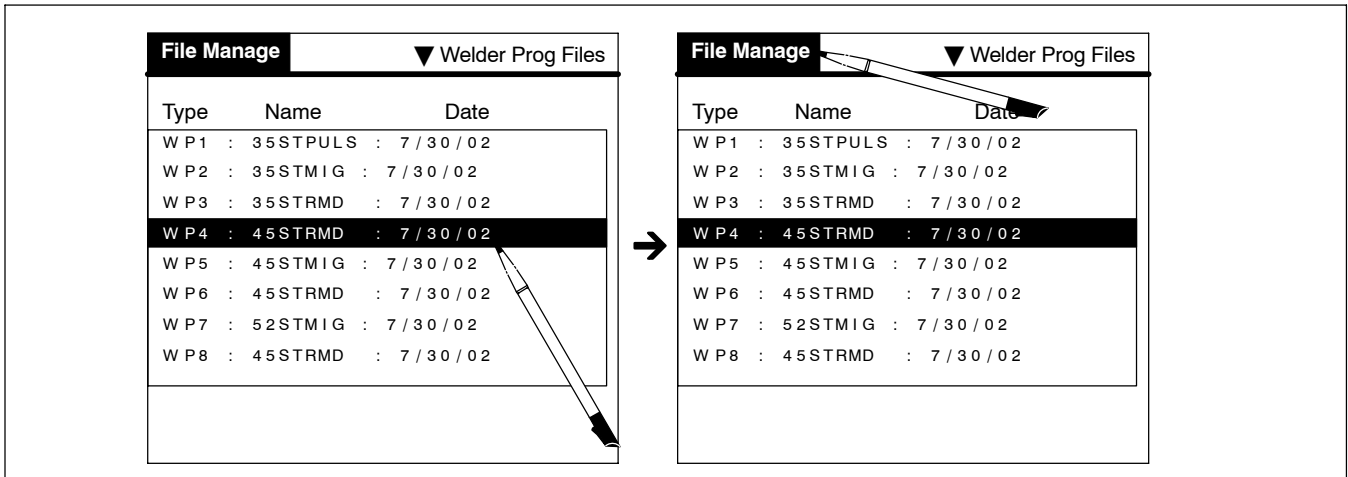


Figure 9-9. File Manage For Modify File Selection

Tap Modify File in the popdown menu (see Figure 9-10).

A “Welder Program Locked-Out” message appears on the display.

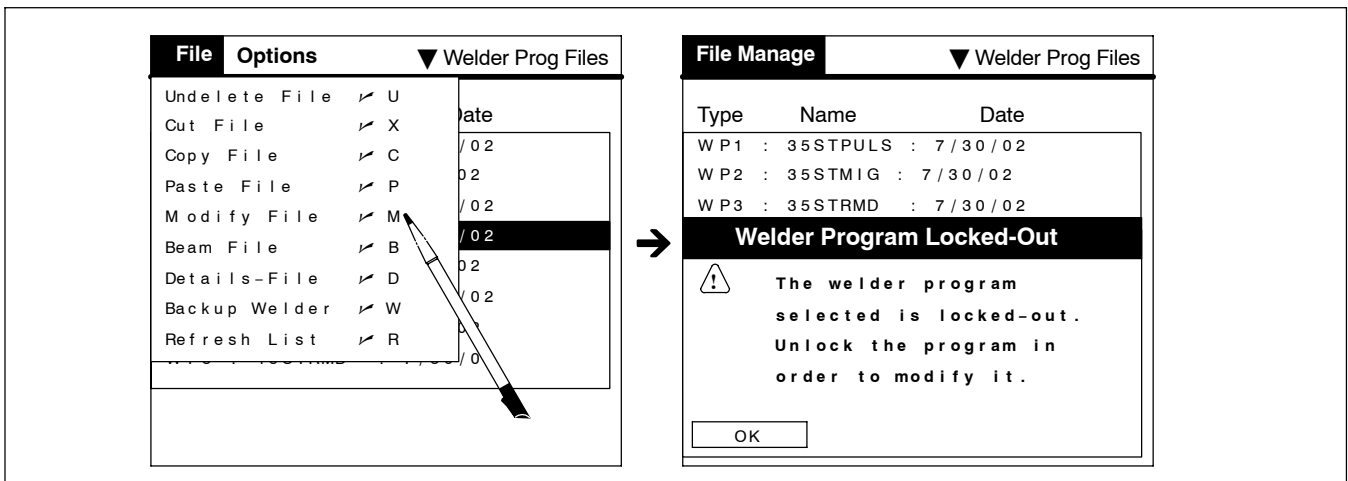


Figure 9-10. Modify File Selection

To continue, tap OK.

The weld program that was previously locked will now appear with the lock symbol at the end of the line.

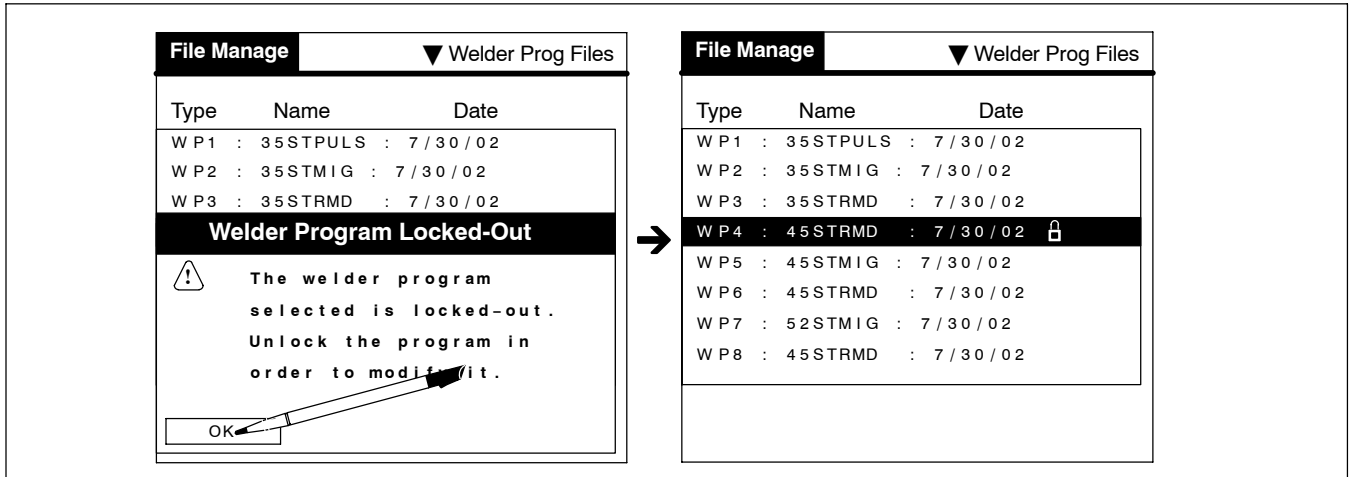


Figure 9-11. Weld Program Locked Indicator

Tap desired selection to continue PDA operations.

SECTION 10 – RESETTNG CYCLE COUNTS

The Cycles menu allows resetting cycle counts for Arc Time, Arc Starts, and Wire Used.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 10-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

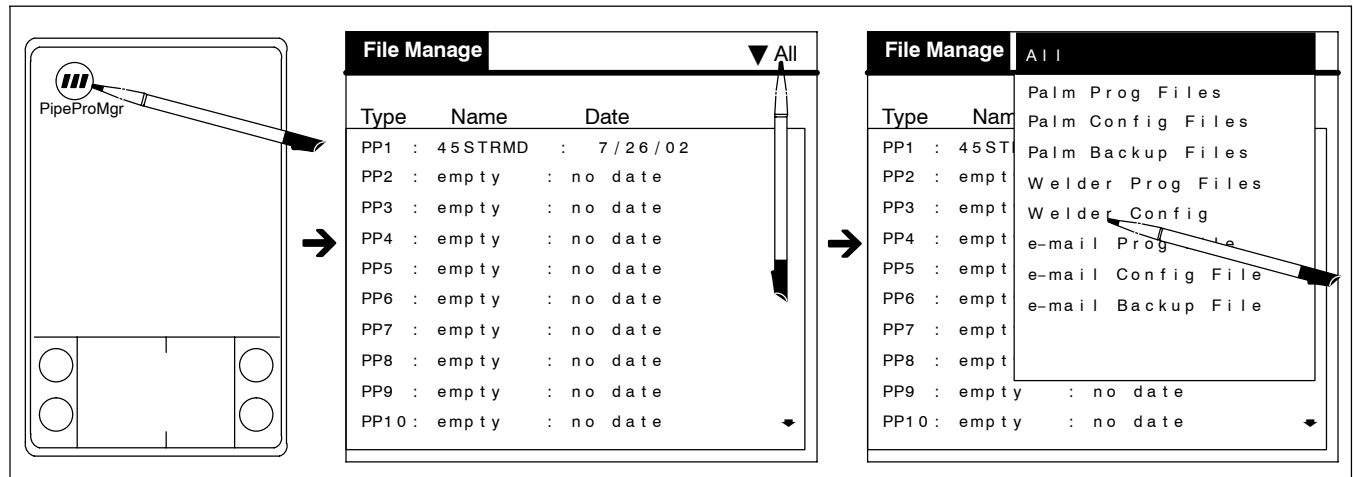


Figure 10-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 10-2).

Tap File Manage in upper left portion of display.

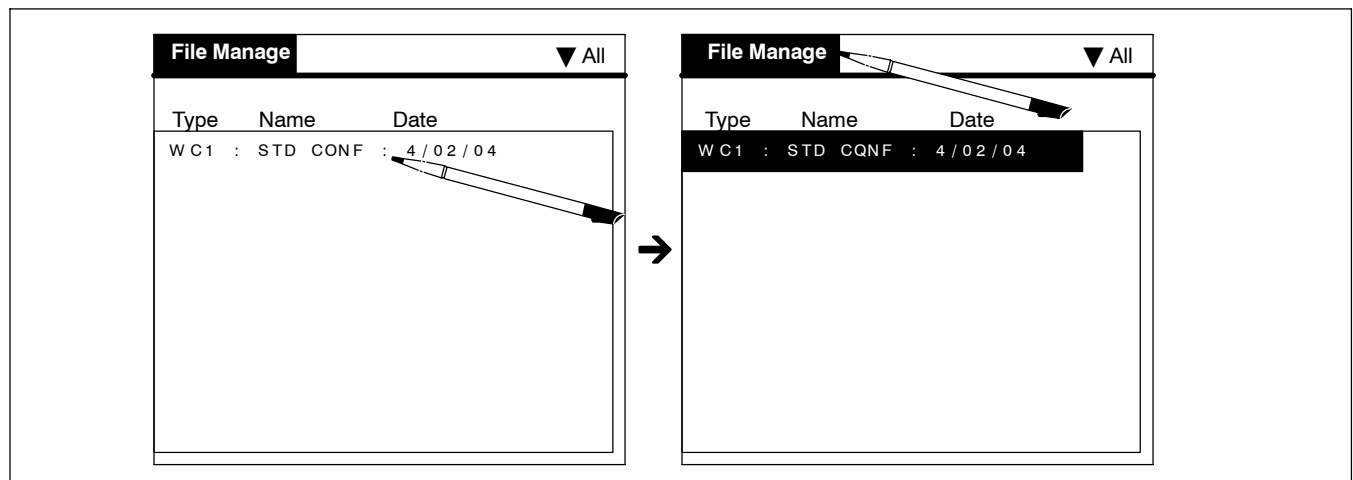


Figure 10-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 10-3).

Use stylus to tap Type.

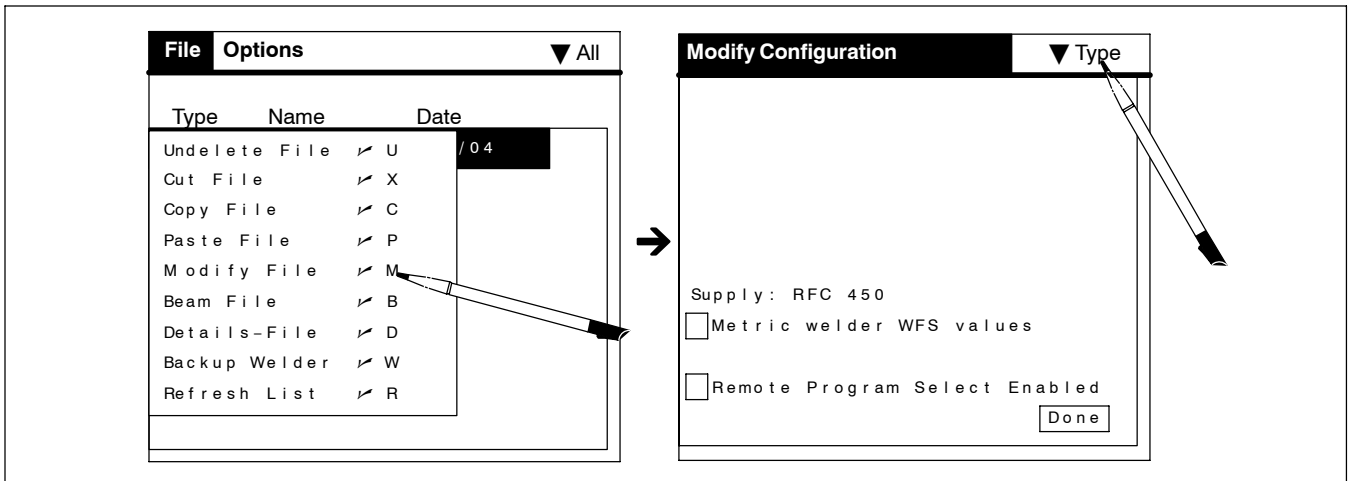


Figure 10-3. Configuration Type Display

Tap Cycles in the popdown menu (see Figure 10-4).

Cycle counts for Arc Time, Arc Starts, and Wire Used can be reset to zero (0) by using the stylus to touch Reset Cycle Counts.

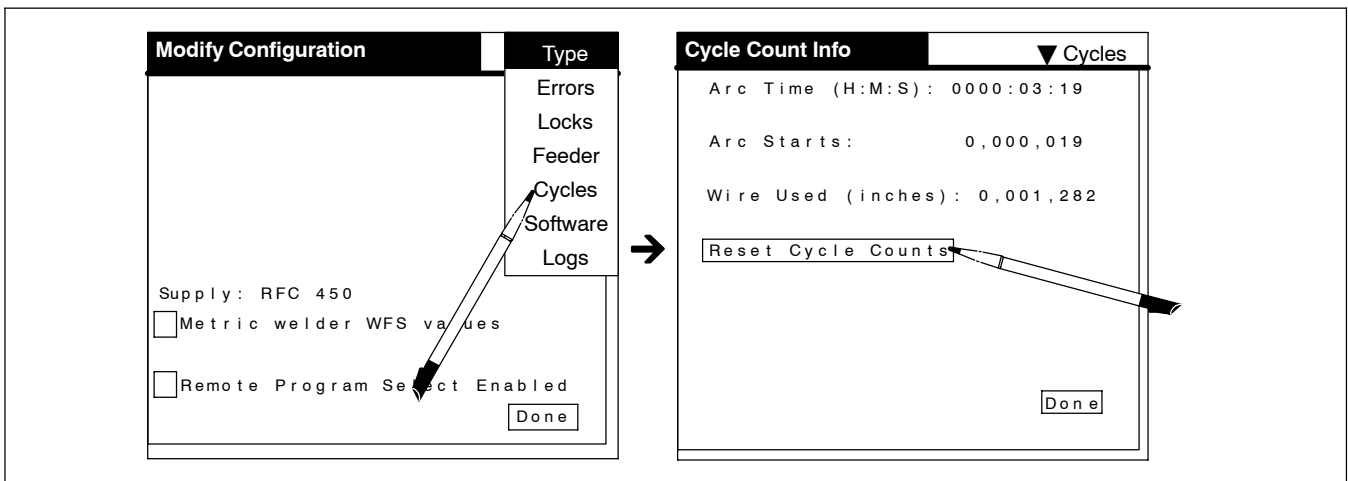


Figure 10-4. Cycle Counts Display

Tap OK to reset cycle count data (see Figure 10-5).

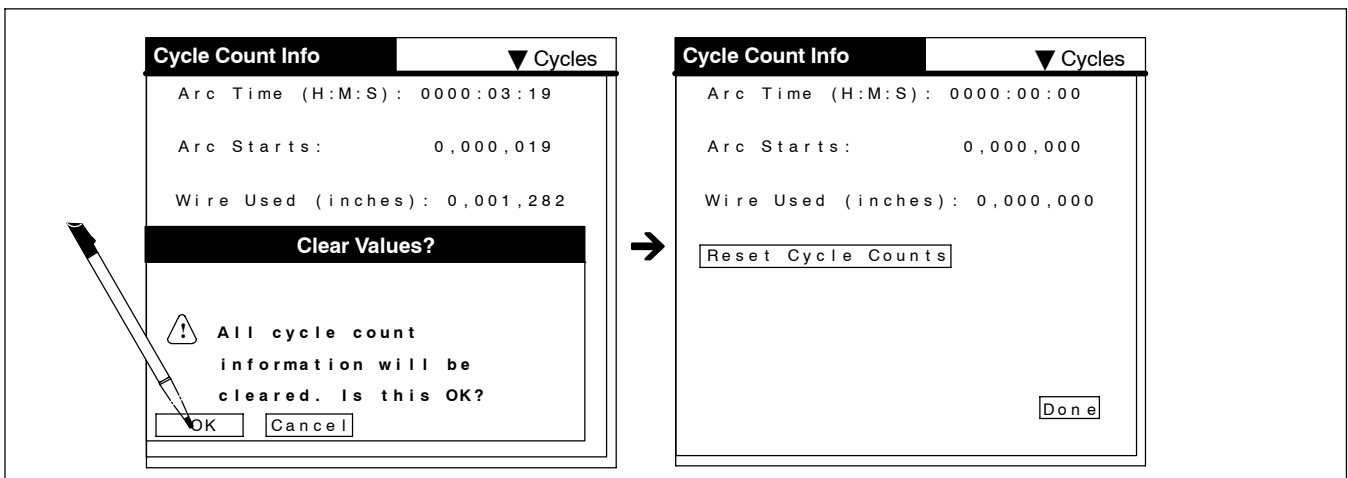


Figure 10-5. Cycles Reset Display

Use stylus to tap Done to complete changes.

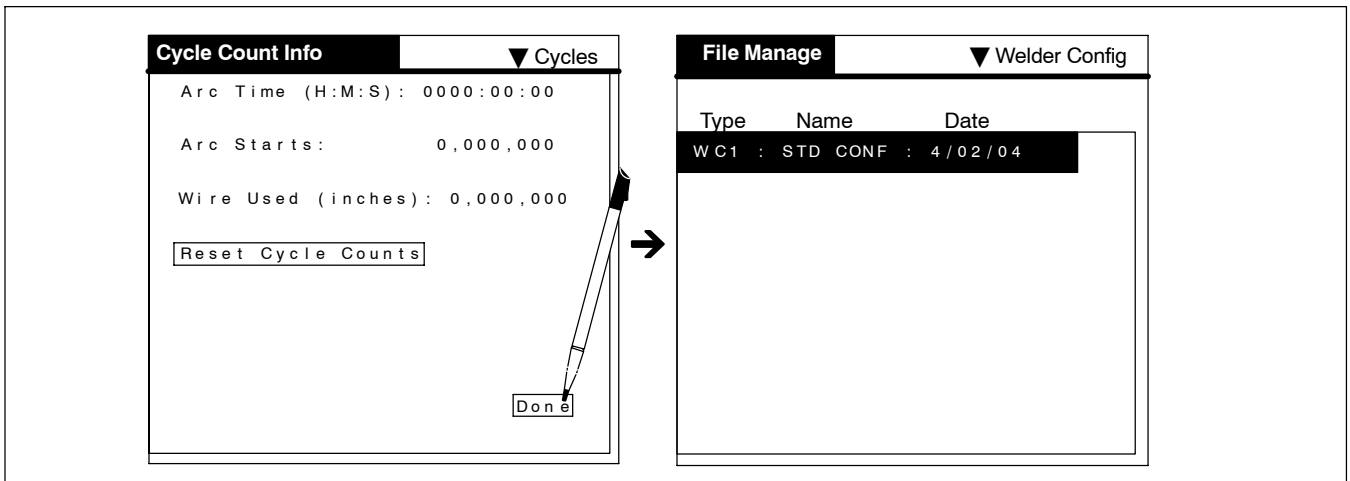


Figure 10-6. Completing Cycles Reset Function

Tap desired selection to continue PDA operations.

SECTION 11 – SOFTWARE VERSION

The Software menu provides the current software version part number installed on the following: Process board, Interface board, and Automation board, if applicable.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 11-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

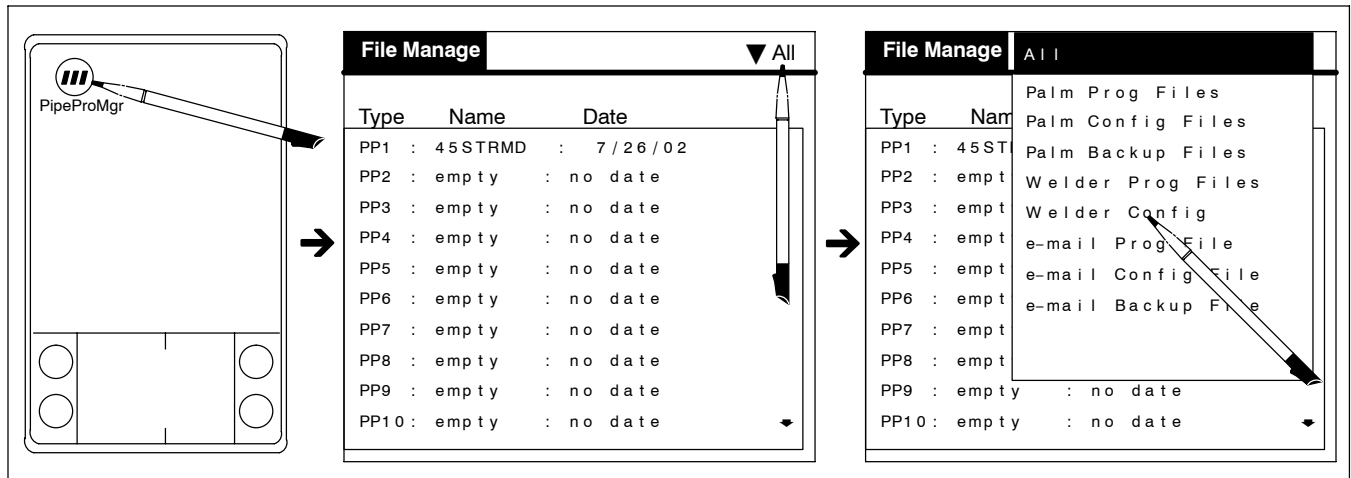


Figure 11-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 11-2).

Tap File Manage in upper left portion of display.

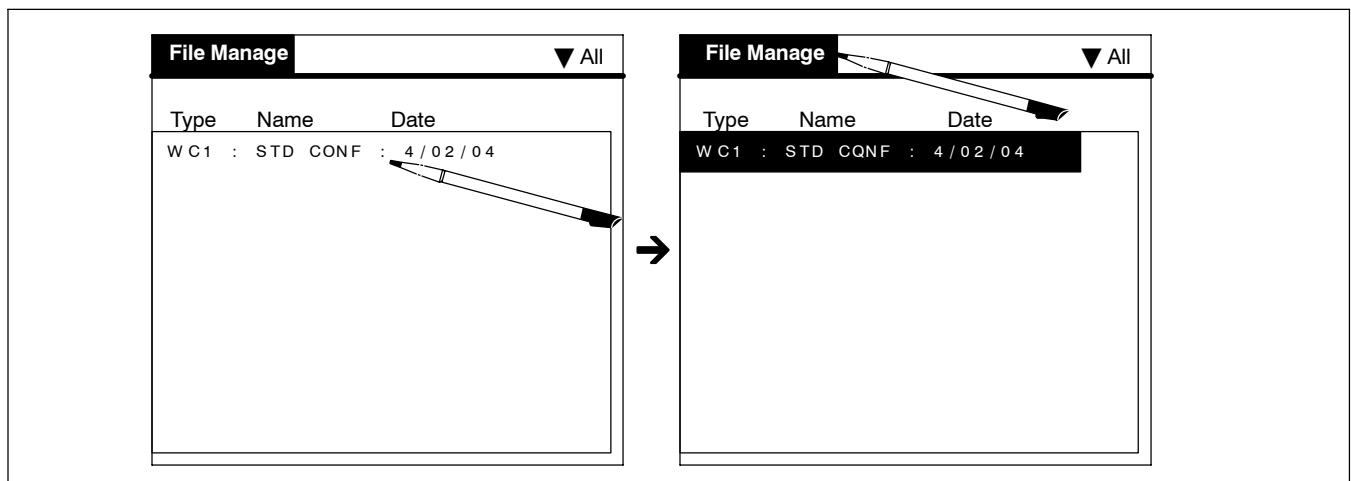


Figure 11-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 11-3). Use stylus to tap Type.

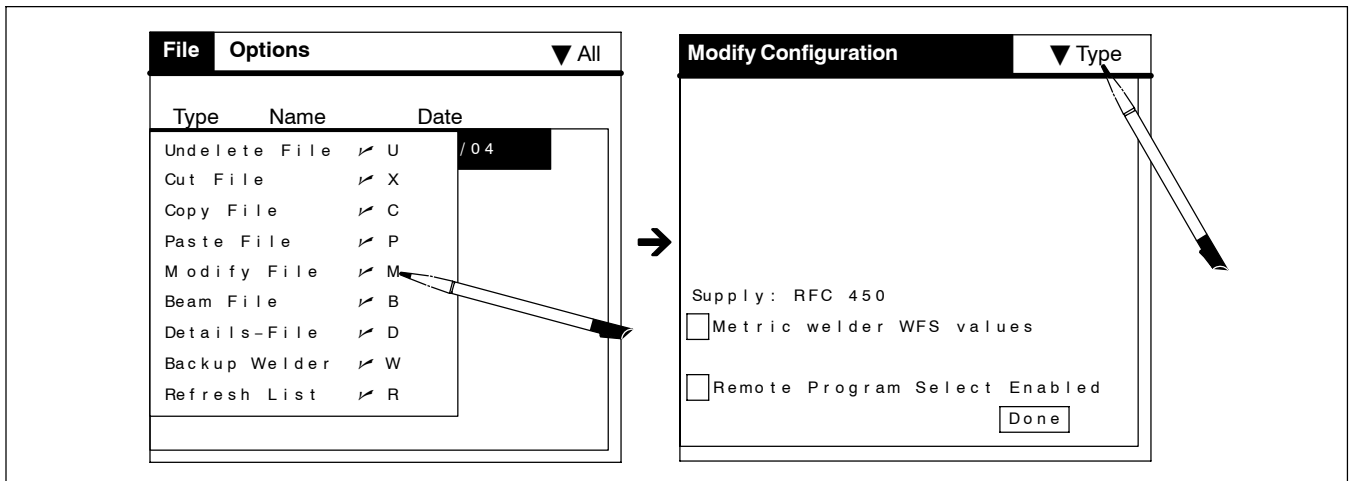


Figure 11-3. Robot/Feeder Type Display

Tap Software in the popdown menu (see Figure 11-4).

The display shows the current software version part number installed on the following: Process board, Interface board, and Automation board if applicable.

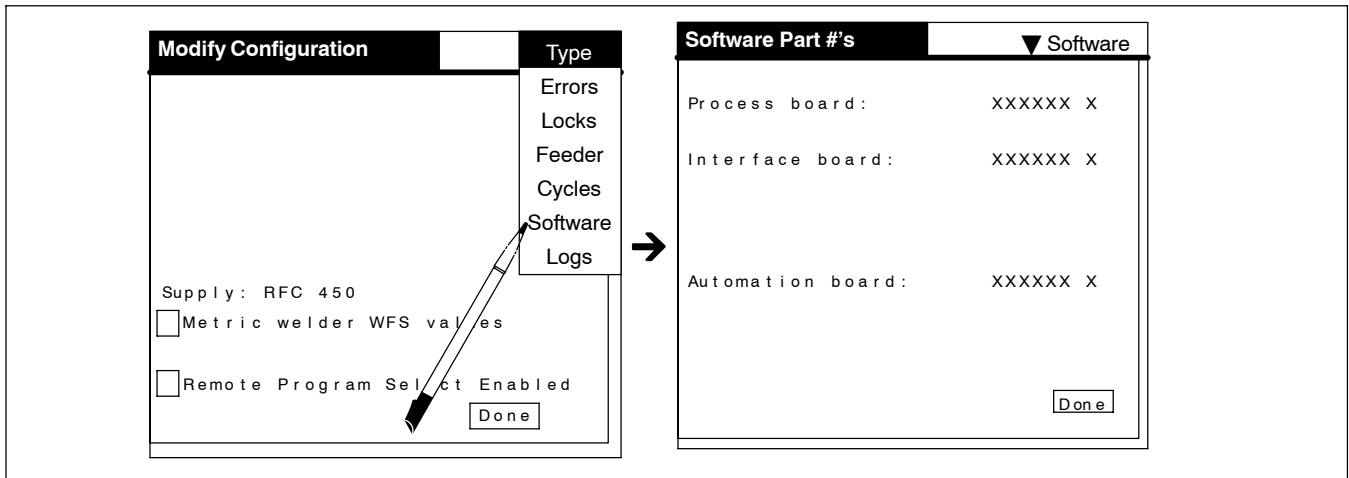


Figure 11-4. Software Display

Use stylus to tap Done.

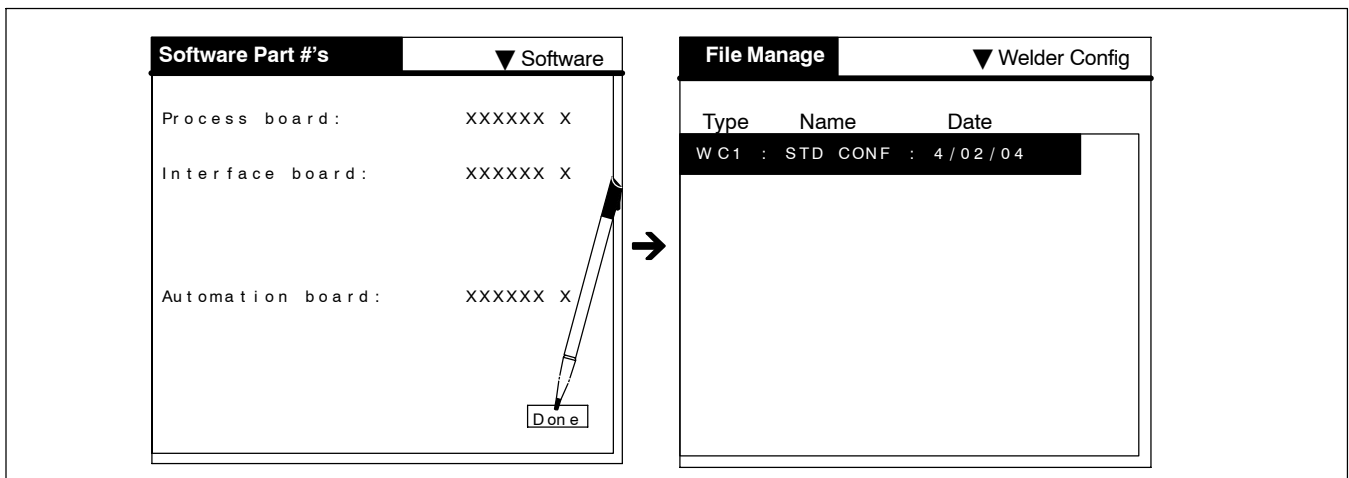


Figure 11-5. Completing Software Display Selection

Tap desired selection to continue PDA operations.

SECTION 12 – SYSTEM LOGS

The Logs menu provides a record of Error Logs and the time they occurred.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 12-1).

Tap All in upper right portion of display.

Tap Welder Config in the popdown menu.

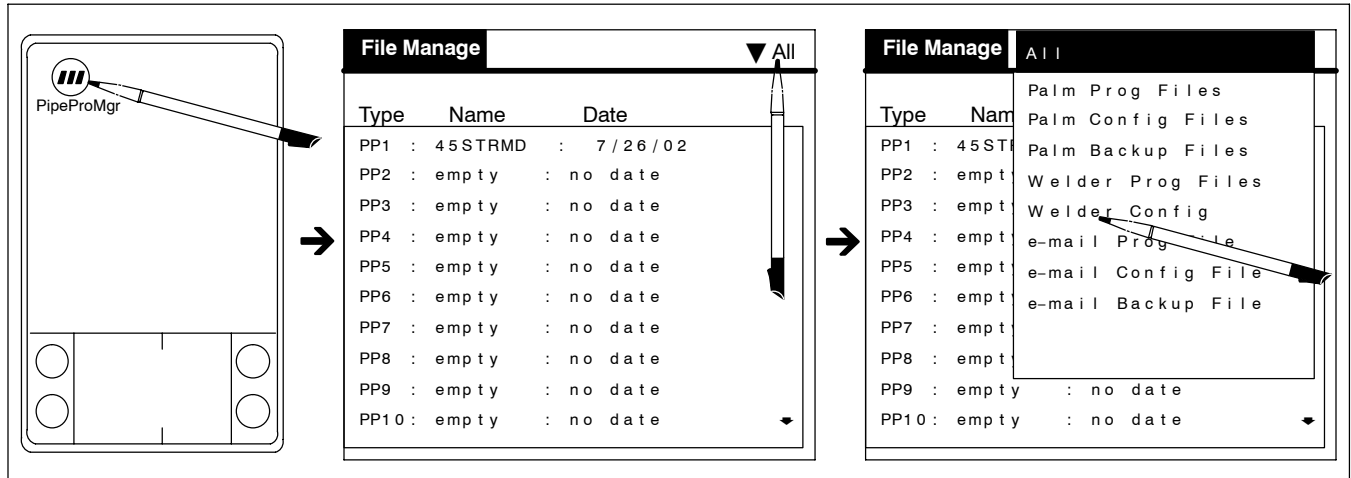


Figure 12-1. Initial Display From Main Menu

Use stylus to tap WC1 STD CONF and the line will highlight on the display (see Figure 12-2).

Tap File Manage in upper left portion of display.

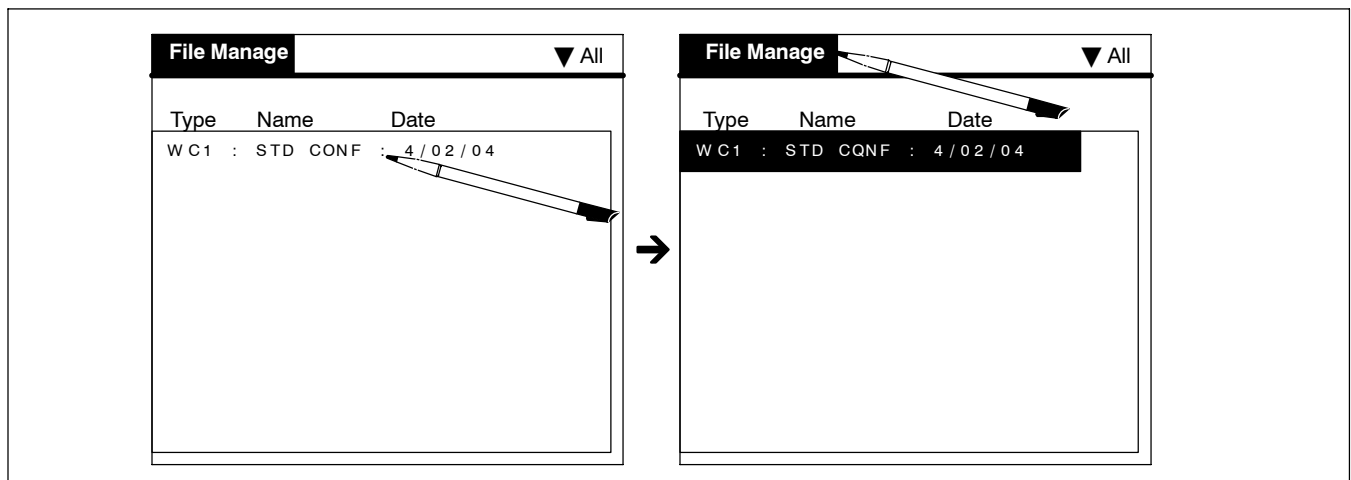


Figure 12-2. File Manage For Welder Configuration

Tap Modify File in the popdown menu (see Figure 12-3).

Use stylus to tap Type.

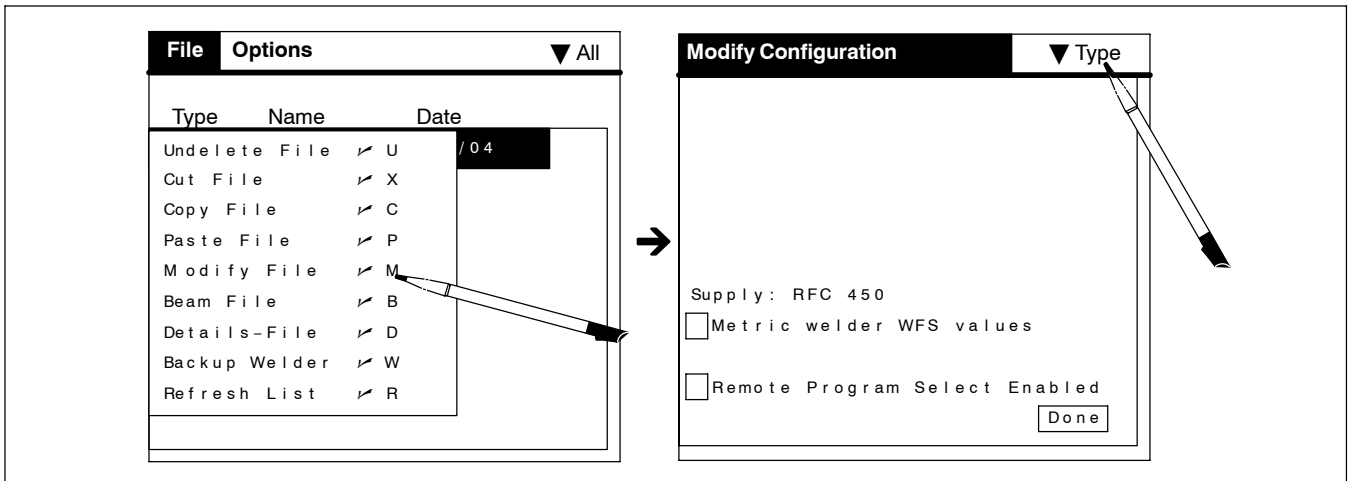


Figure 12-3. Configuration Type Display

Tap Logs in the popdown menu (see Figure 12-4).

The display shows a record of Error Logs and the time they occurred.

Tap Clear Error Log to erase all error logs.

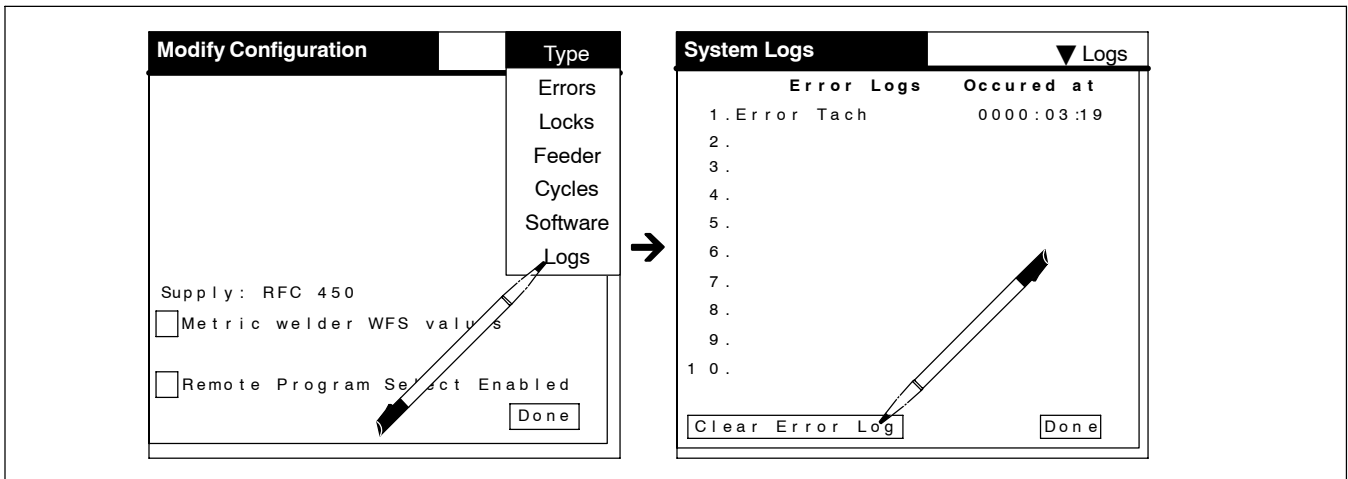


Figure 12-4. Logs Display

Use stylus to tap Done to exit the System Logs display.

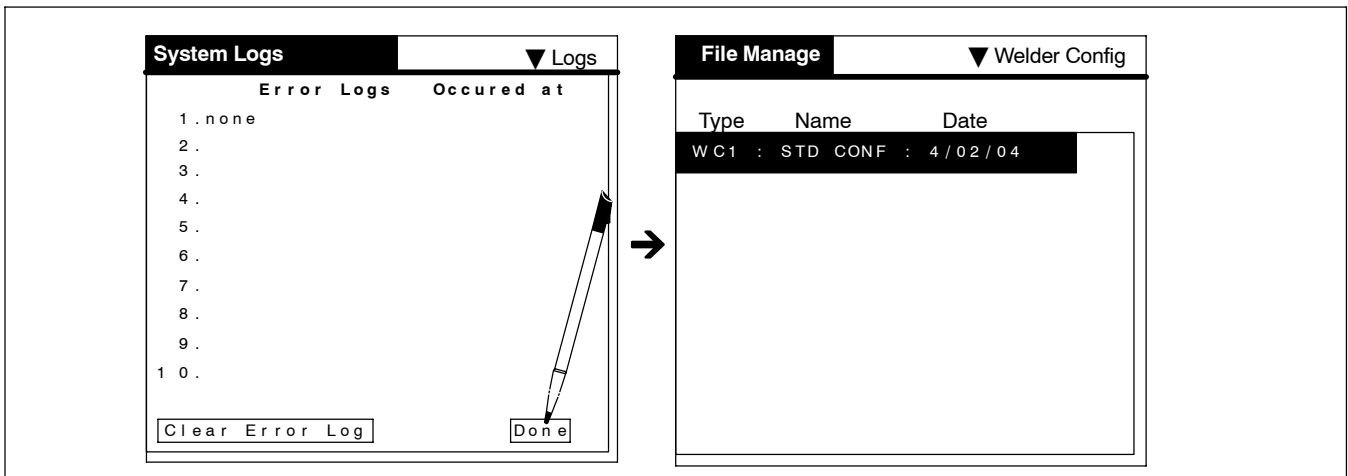


Figure 12-5. Completing System Logs Display Selection

Tap desired selection to continue PDA operations.

SECTION 13 – BEAM FILE

Beam File allows the ability to transmit data between PDA's by means of the infrared transceiver built into each unit. Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 13-1).

Tap All in upper right portion of display.

Tap desired item in the popdown menu list for the beam operation (e.g. Palm Backup Files).

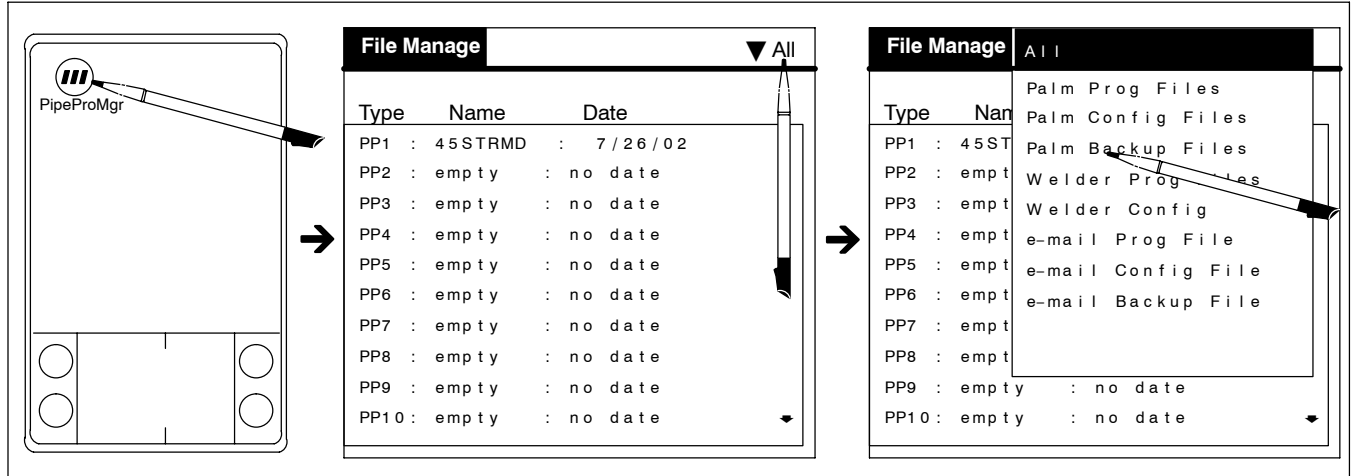


Figure 13-1. Initial Display From Main Menu

Tap a file and the selection will be highlighted.

Tap File Manage in upper left portion of display.

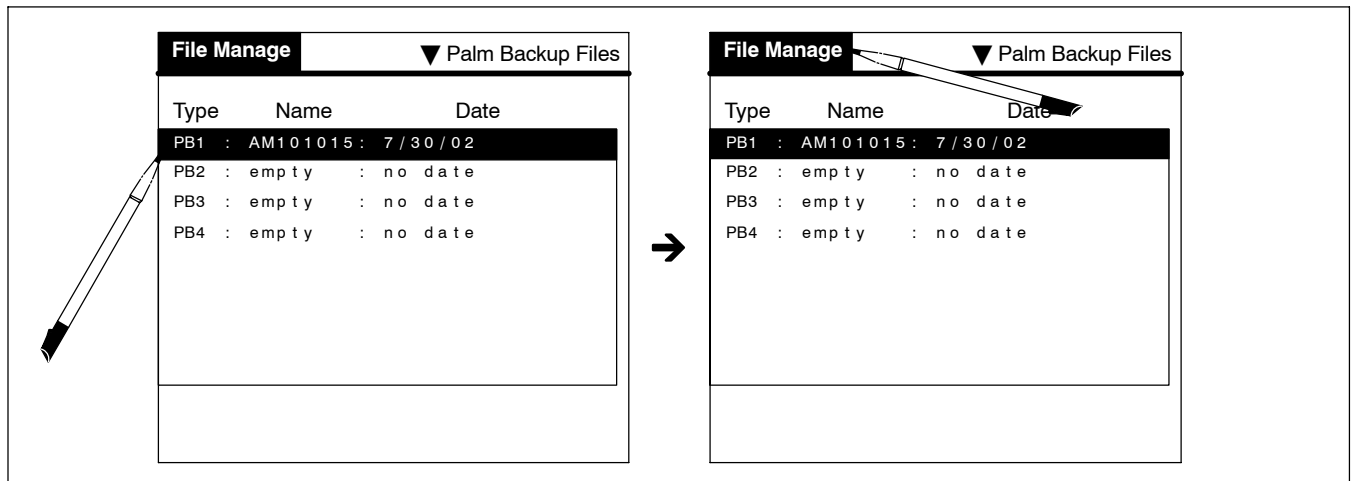


Figure 13-2. Program Selection For The Beaming Operation

Tap Beam File.

“Searching” appears on the display momentarily until the source PDA establishes a connection with the destination PDA.

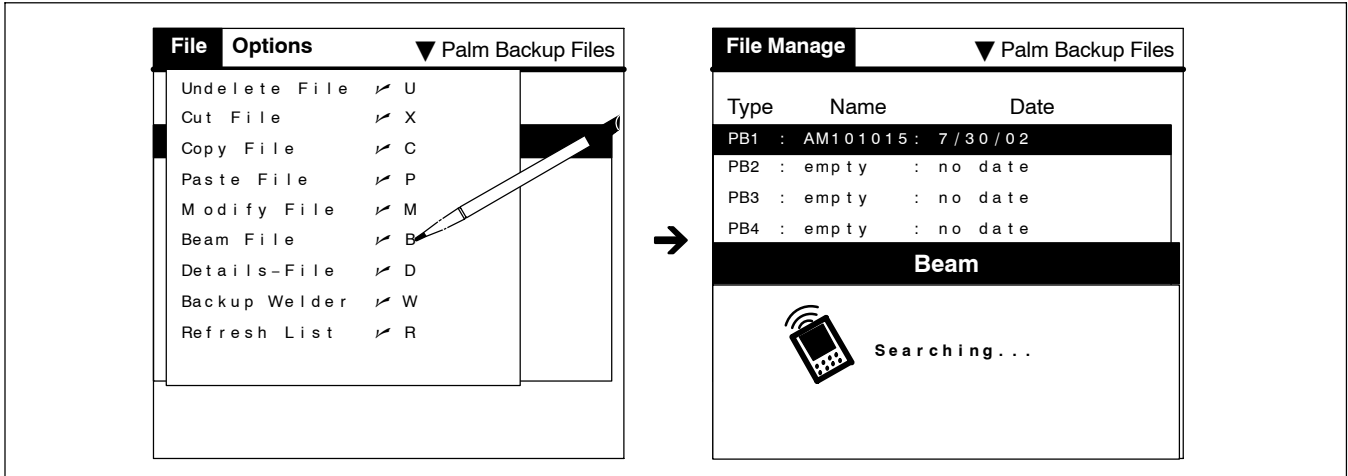


Figure 13-3. Selecting Beam File

If the source PDA cannot establish a connection with the destination PDA, an error message appears on the display. Tap OK and the display returns to the previous data selection display.

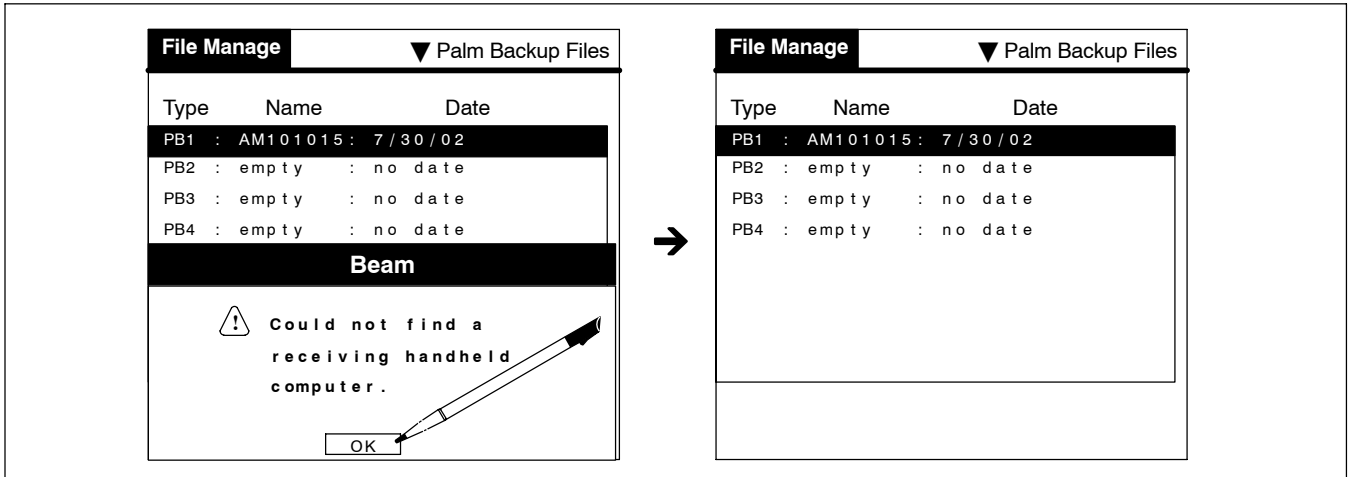


Figure 13-4. Error Message For Receiving Unit Not Found

“Beaming” appears on the display during the data transfer operation.
To stop the beaming operation before completion, tap Cancel to exit the display without beaming any data.
Once beaming is completed, the display returns to the previous data selection display.

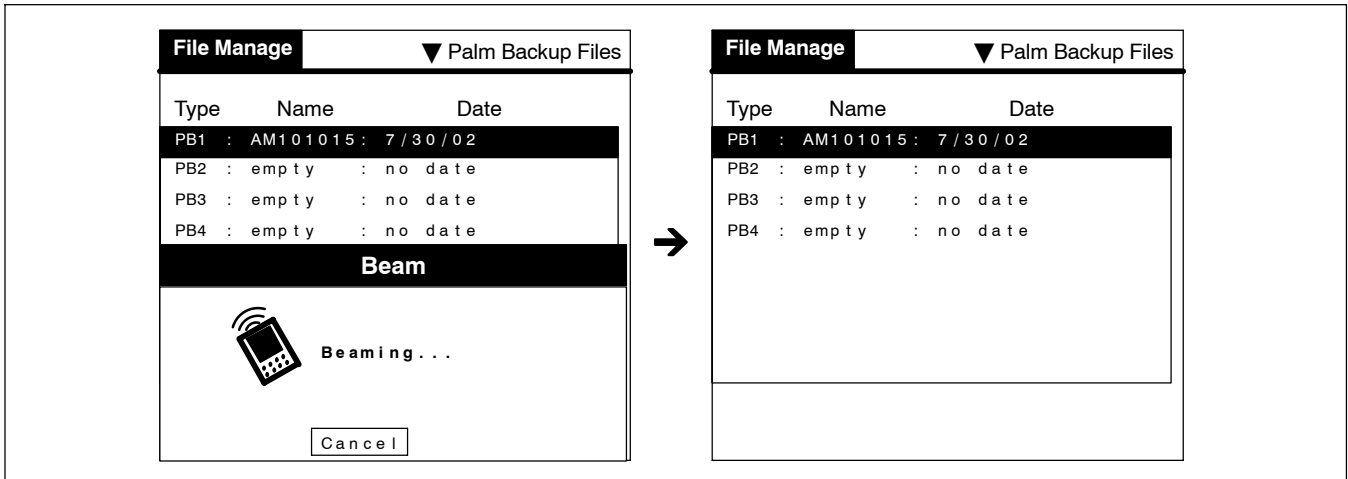


Figure 13-5. Display During Beaming Operation

Tap desired selection to continue PDA operations.

SECTION 14 – FILE COPY AND PASTE

The Copy and Paste functions allow making copies of files and pasting them within the PDA software.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 14-1).

Tap All in upper right portion of display.

Tap Welder Prog Files in the popdown menu.

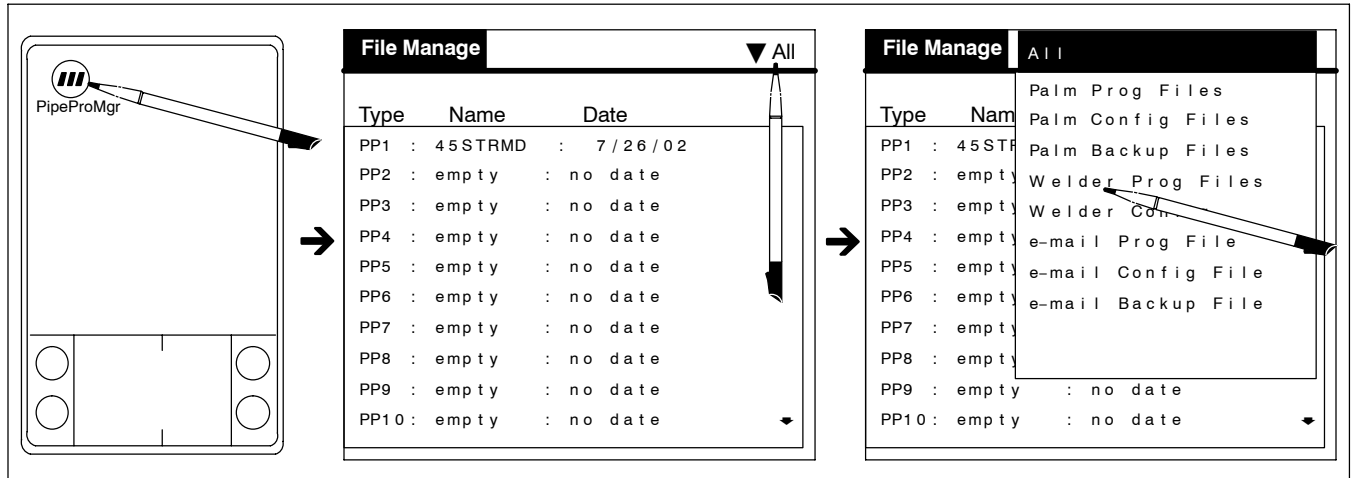


Figure 14-1. Initial Display From Main Menu

Use stylus to tap the desired program to be copied (e.g. WP7), and the line will highlight on the display (see Figure 14-2).

Tap File Manage in upper left portion of display.

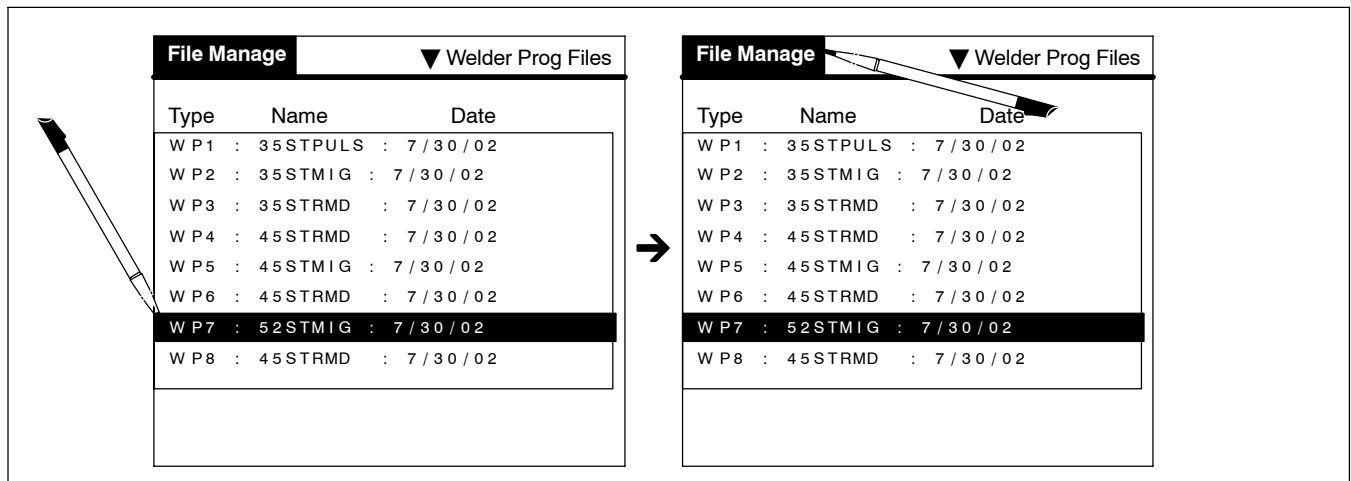


Figure 14-2. File Manage For File Copy And Paste Selection

Use stylus to tap Copy File (see Figure 14-3).

Tap Welder Prog Files

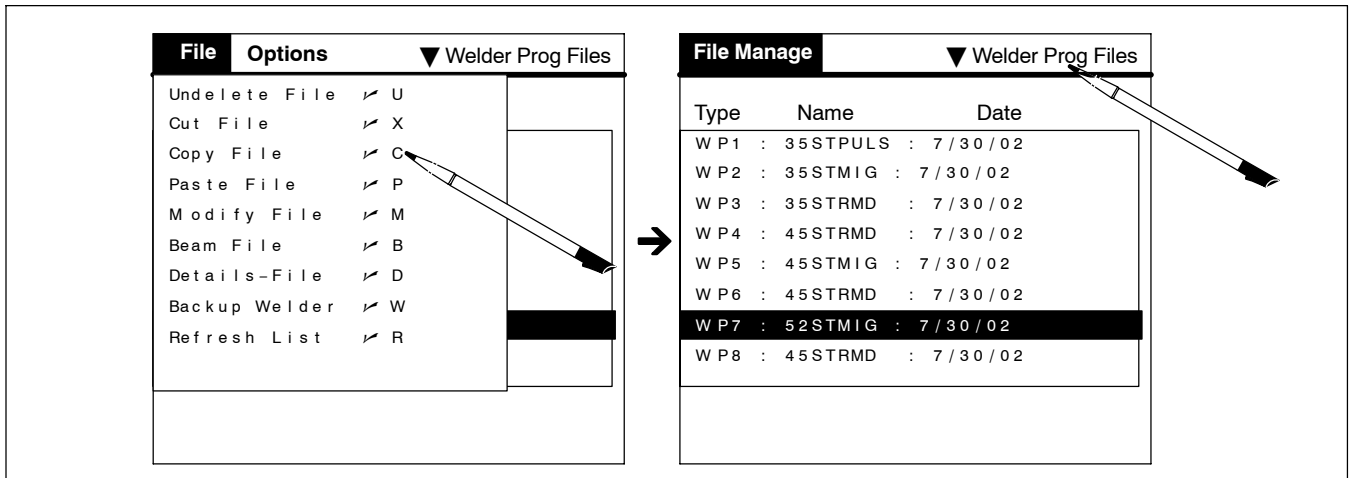


Figure 14-3. File Copy Selection

Tap Palm Prog Files.

Tap an empty Palm Program file (e.g. PP7).

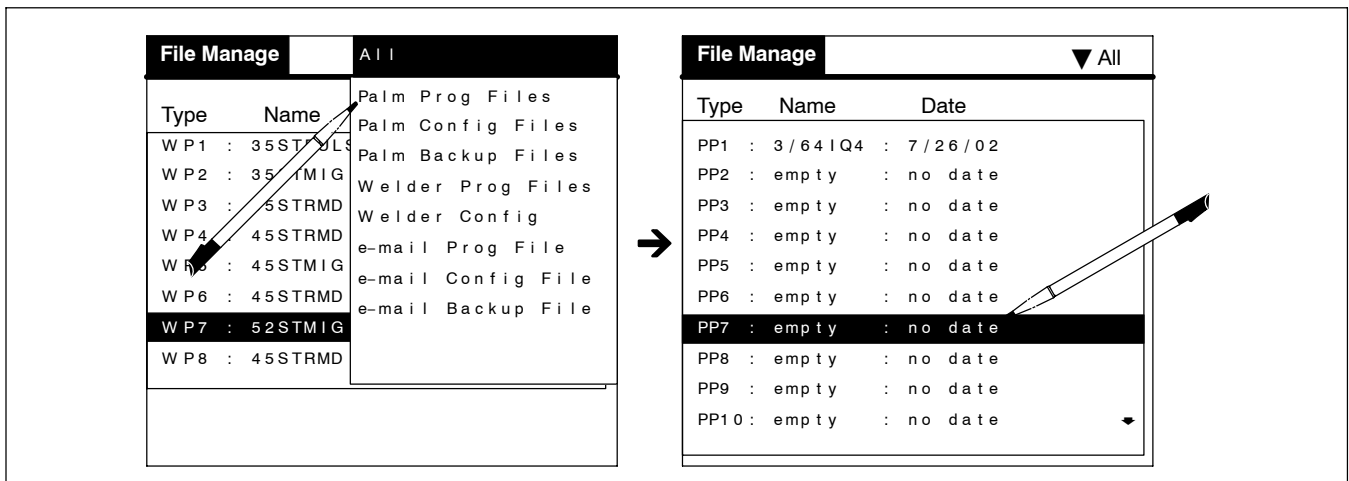


Figure 14-4. Selecting A File Paste Location

Tap File Manage in upper left portion of display.

Tap Paste File.

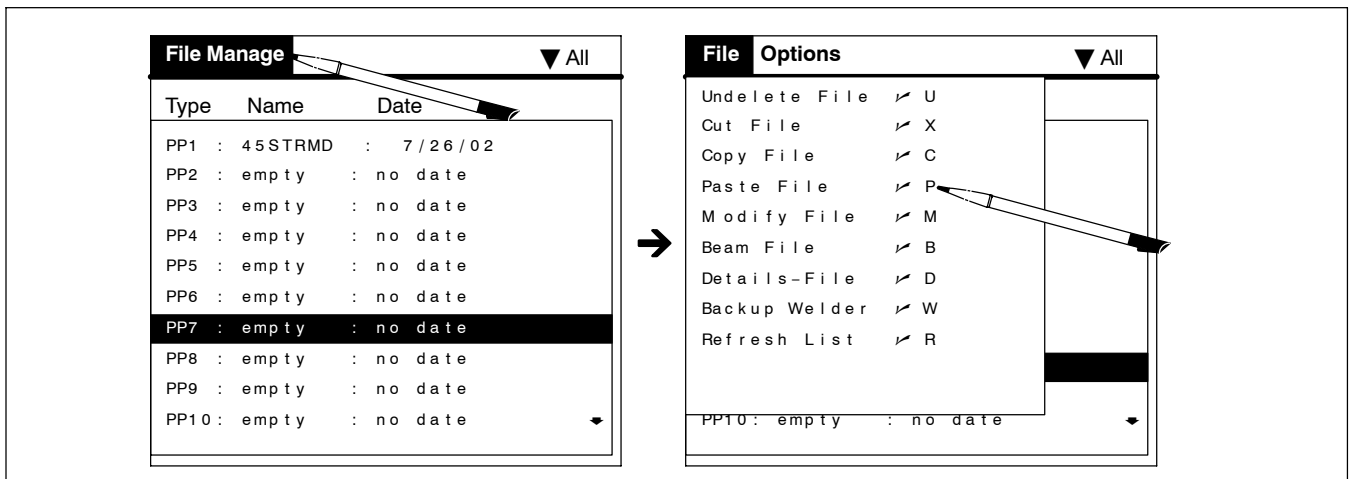


Figure 14-5. Selecting The Paste Function

A "File Copied Confirmation" message appears on the display.

Tap OK.

The file name and date appear in the selected Palm Program location (PP7).

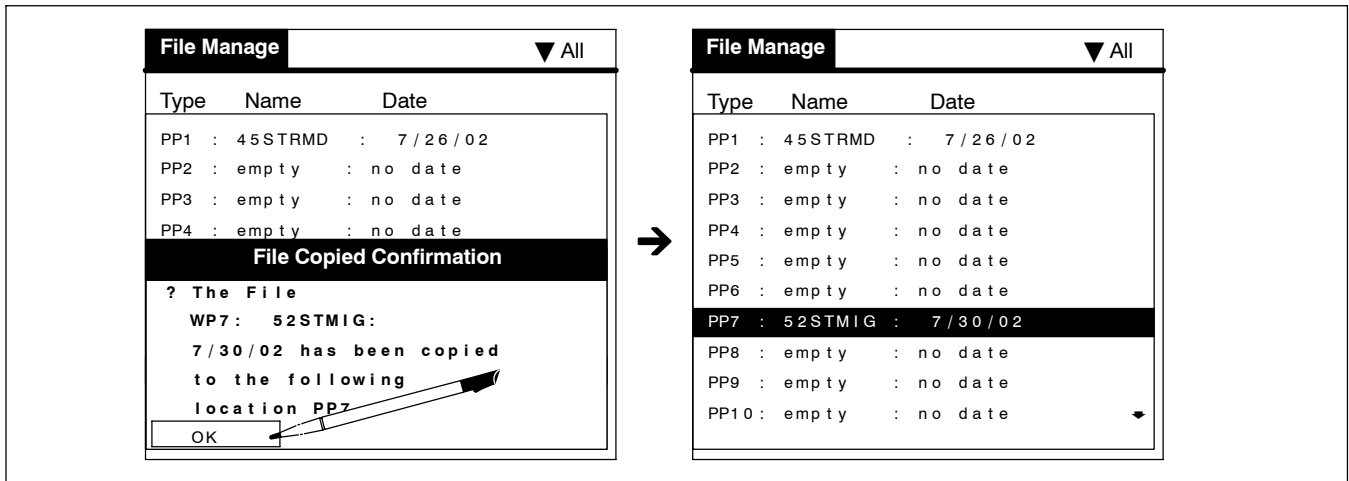


Figure 14-6. Final Display After The Paste Operation

Tap desired selection to continue PDA operations.

SECTION 15 – CUT FILE AND UNDELETE FILE

The Cut and Undelete functions allow removing or recovering deleted files within the PipeProMgr software.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 15-1).

Tap the desired program to be cut (e.g. PP7), and the line will highlight on the display.

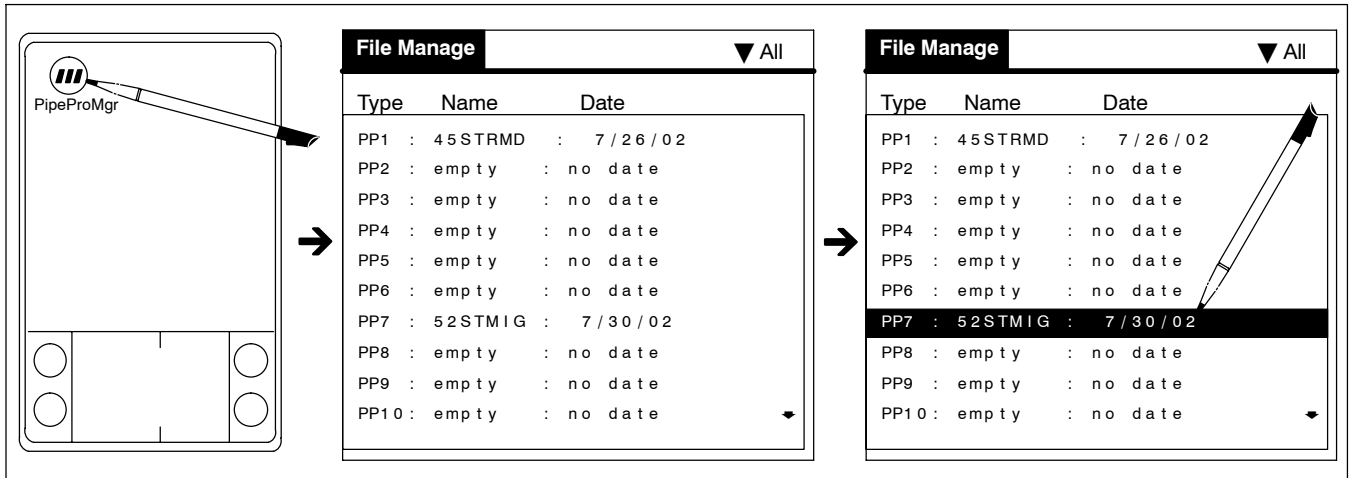


Figure 15-1. Initial Display From Main Menu

Use the stylus to tap File Manage (see Figure 15-2).

Tap Cut File.

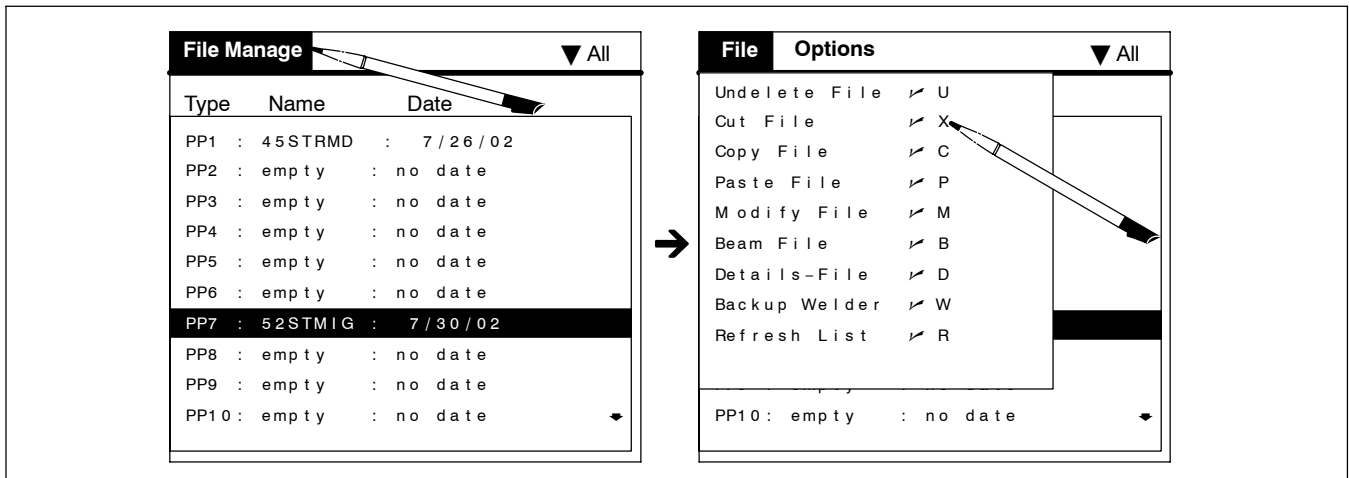


Figure 15-2. File Manage For Cut File Selection

A “Remove File?” message appears on the display.

Before a file is cut, the option is provided to select OK or Cancel.

If Cancel is selected, the file remains in the PDA memory.

To cut the file, tap OK.

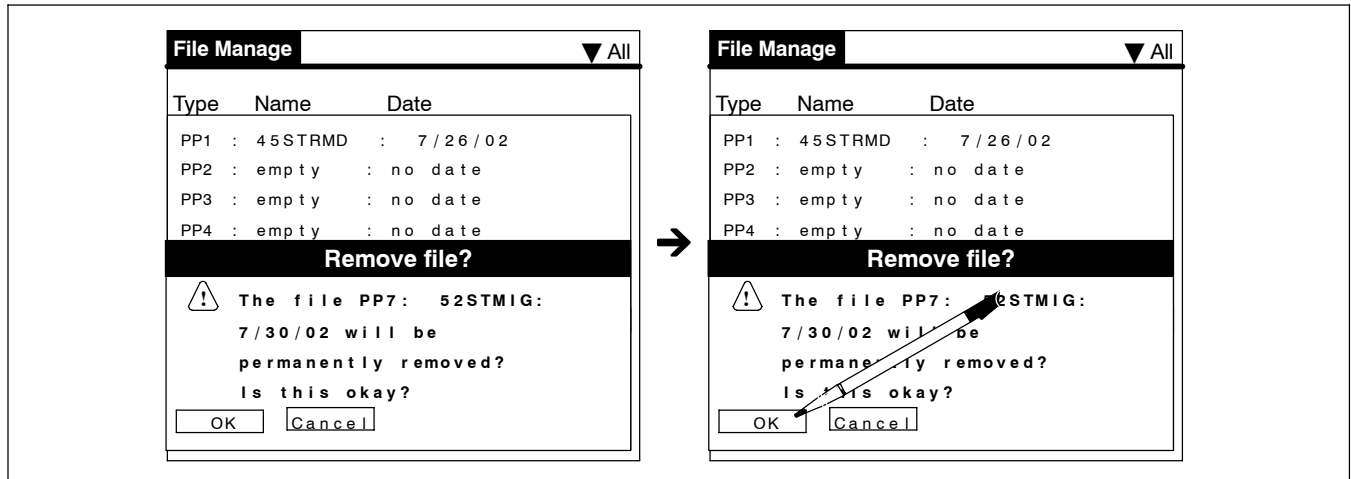


Figure 15-3. Message Display Before Cutting A File

The location where the file was removed will be highlighted and the PDA file name will change to empty.

The undelete procedure will only work by placing the cut file back in the same location.

Tap File Manage.

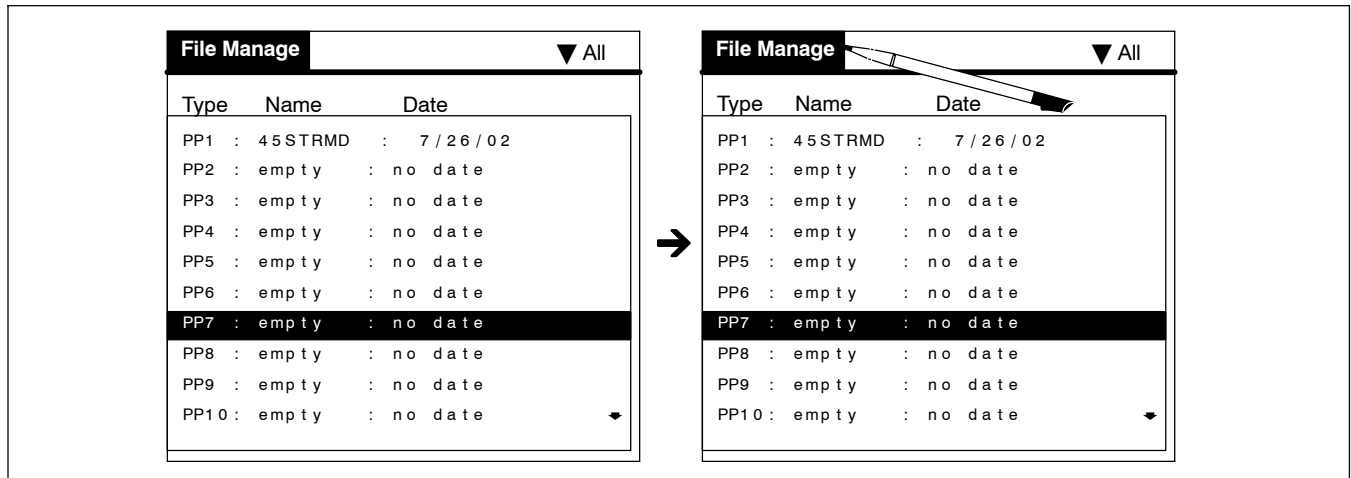


Figure 15-4. Empty File Location After Cutting File

Tap Undelete File.

Before a file is restored, the option is provided to select OK or Cancel.

If Cancel is selected, the cut file is not restored to a PDA file location.

To undelete the file, tap OK.

A Continue Recovery message pops up to indicate the file name must be re-entered or changed before Undelete proceeds.

Use the stylus to tap OK.

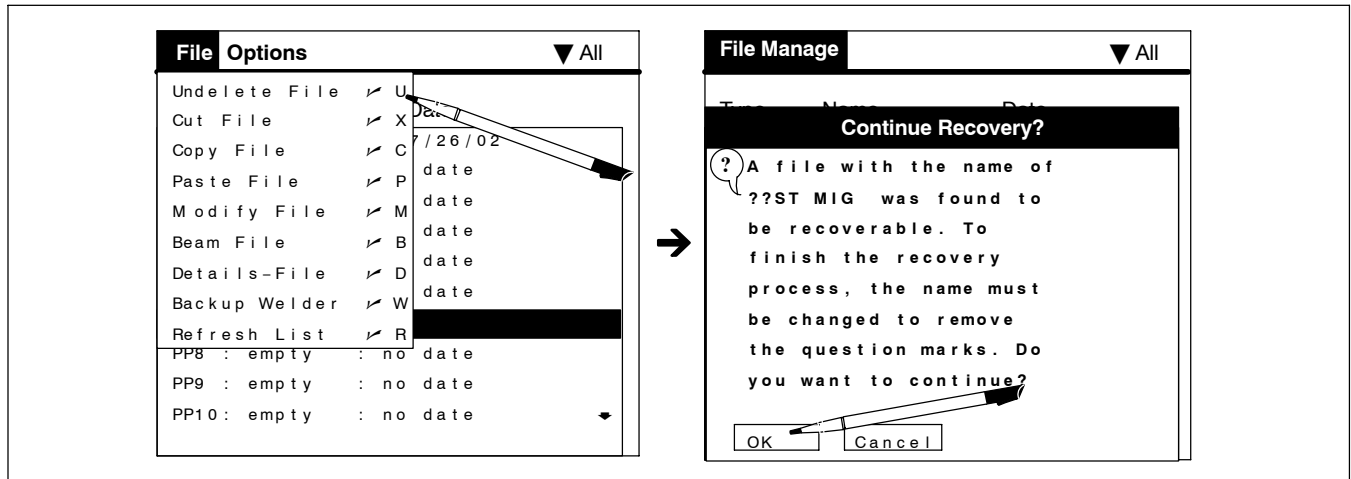


Figure 15-5. File Manage Display For Undelete File Selection

Numerous methods are available to the operator to change text or a numeric value as follows:

- The 1 2 3 or a b c keyboard selection in the graffiti area of the display (PDA model dependent)
- The full keyboard (PDA model dependent)
- Use graffiti to write changes in the graffiti area of the display
- The increase or decrease (up or down) function of the 5-way navigator (for numeric input only).

Choose a preferred method to either name the file the same as before (replace the question marks) or change the file name to something entirely different (see Figure 15-6). A valid file name cannot have any question marks as part of the name.

Tap OK after renaming the file.

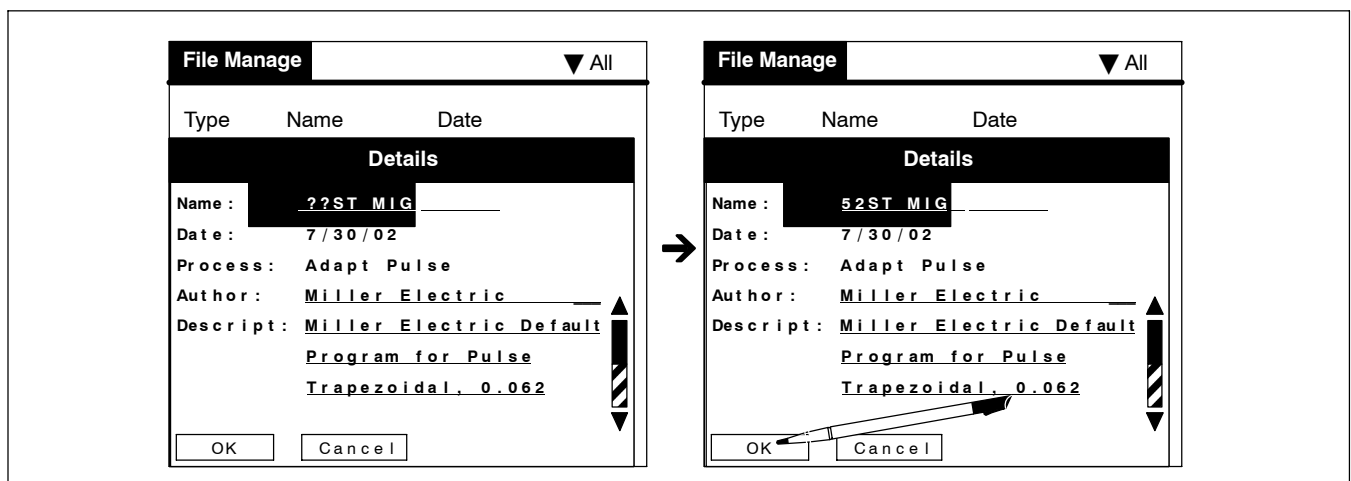
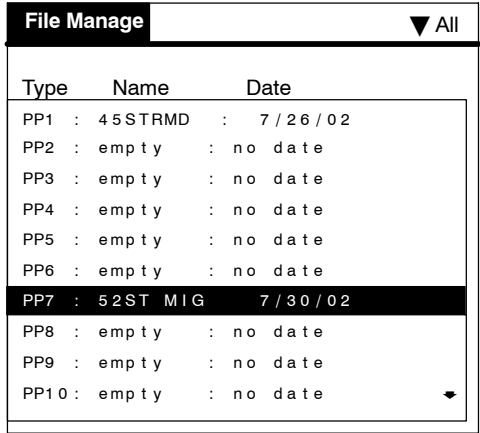


Figure 15-6. Display Before And After The File Renaming Procedure

The file is restored back to its original location.



Type	Name	Date
PP1	: 45STRMD	: 7/26/02
PP2	: empty	: no date
PP3	: empty	: no date
PP4	: empty	: no date
PP5	: empty	: no date
PP6	: empty	: no date
PP7	: 52ST MIG	: 7/30/02
PP8	: empty	: no date
PP9	: empty	: no date
PP10	: empty	: no date

Figure 15-7. Final Display After File Renaming

Tap desired selection to continue PDA operations.

SECTION 16 – BACKUP WELDER

The Backup Welder function allows saving weld programs from the welding power source to the PDA or transferring saved weld programs from the PDA to the welding power source.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 16-1).

Tap All.

Tap Palm Backup Files.

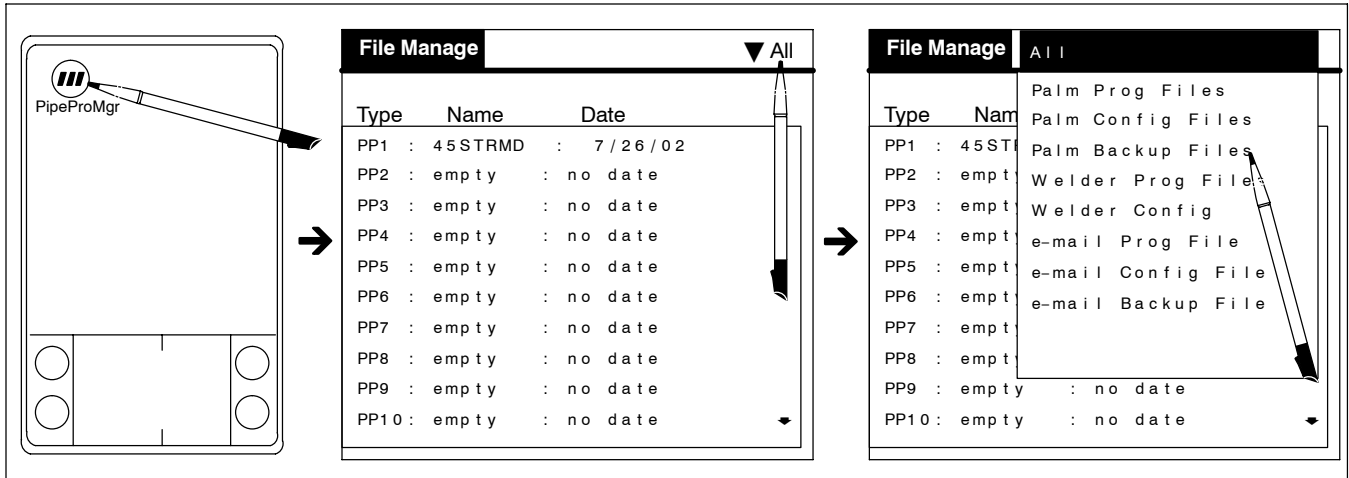


Figure 16-1. Initial Display From Main Menu And Backup Files Selection

Tap an empty PB file location (e.g. PB2).

Use stylus to tap File Manage (see Figure 16-2).

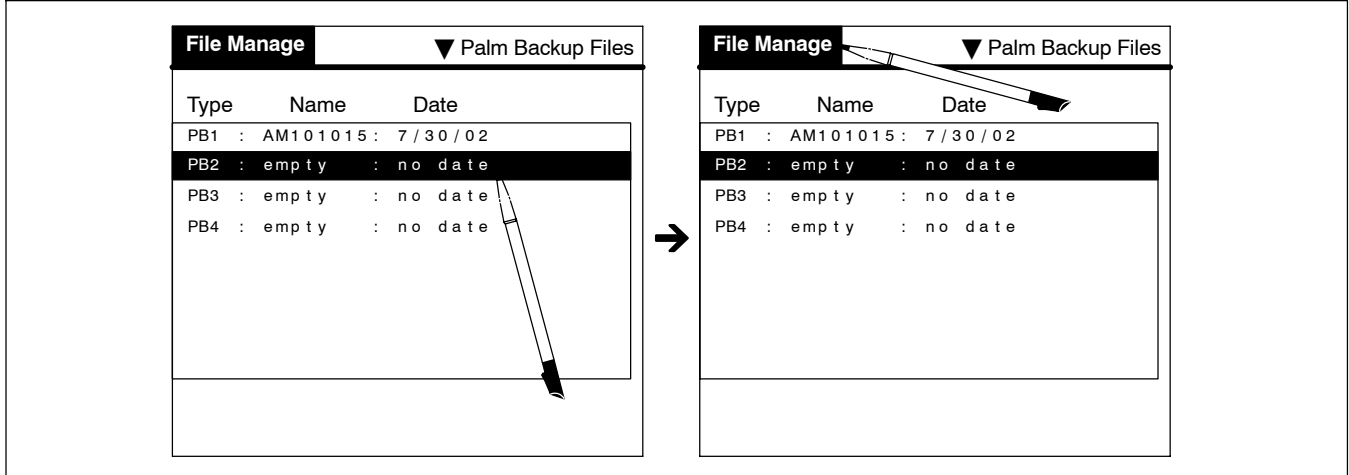


Figure 16-2. Selecting Backup Files Location

Tap Backup Welder.

Before starting the backup operation, the option is provided to select the welder as the Source, Destination, or Cancel the entire operation.

Tap Source.

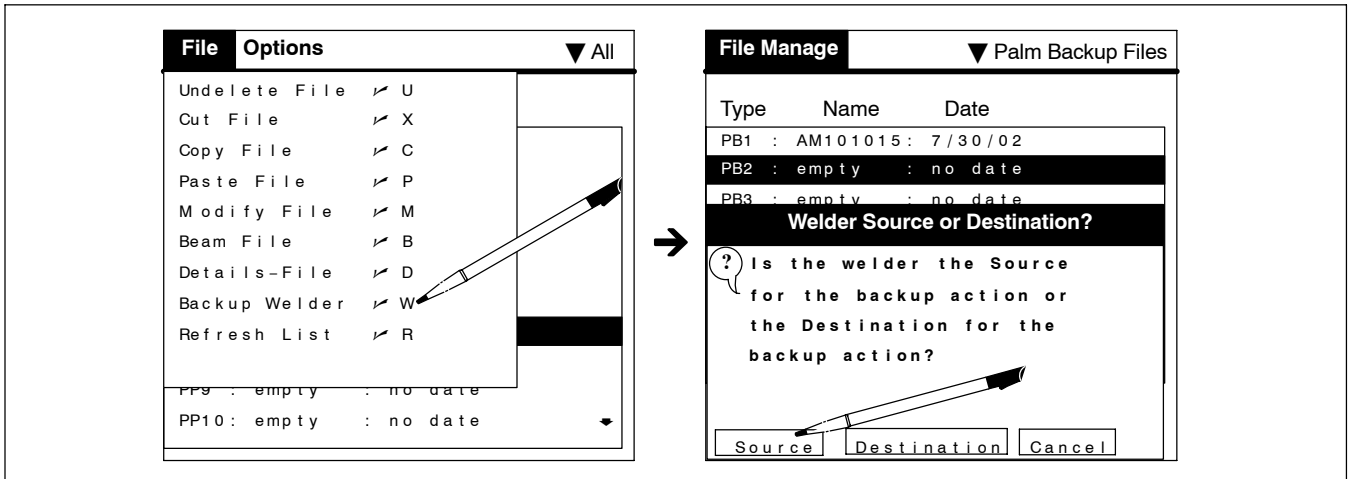


Figure 16-3. Backup Welder Selection

A Wait message will appear indicating the transfer process is in progress beginning with Program# 1 and finishing with the last program (e.g. Program # 8).

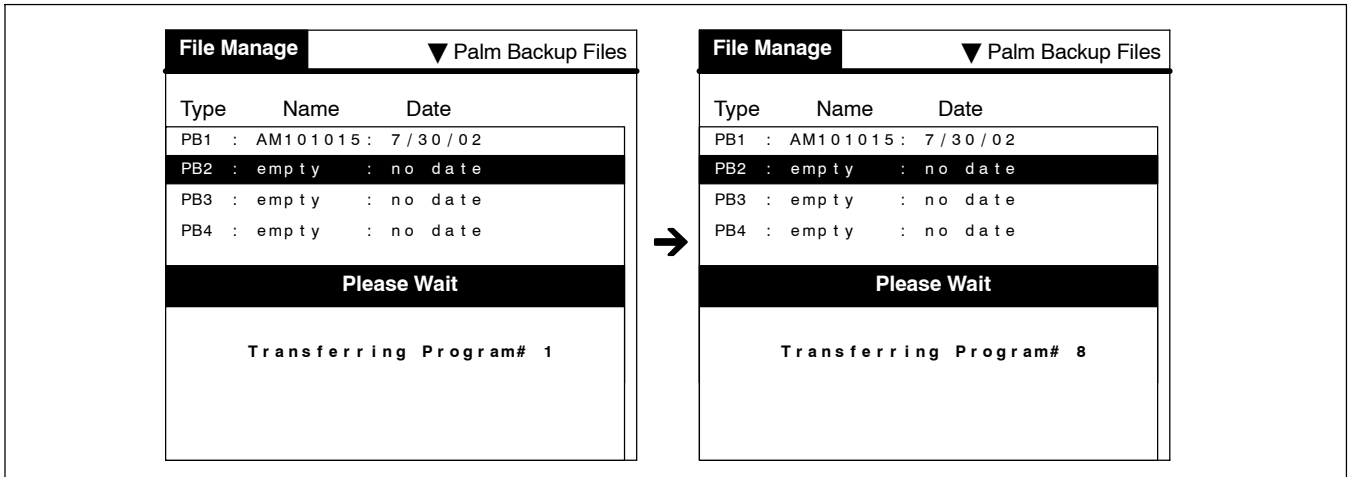


Figure 16-4. File Transfer Display

The next Wait message indicates the copy operation of the Configuration file.

Before completing the backup operation, the option is provided to accept the new file name or rename the new file.

To accept the new file name, tap OK.

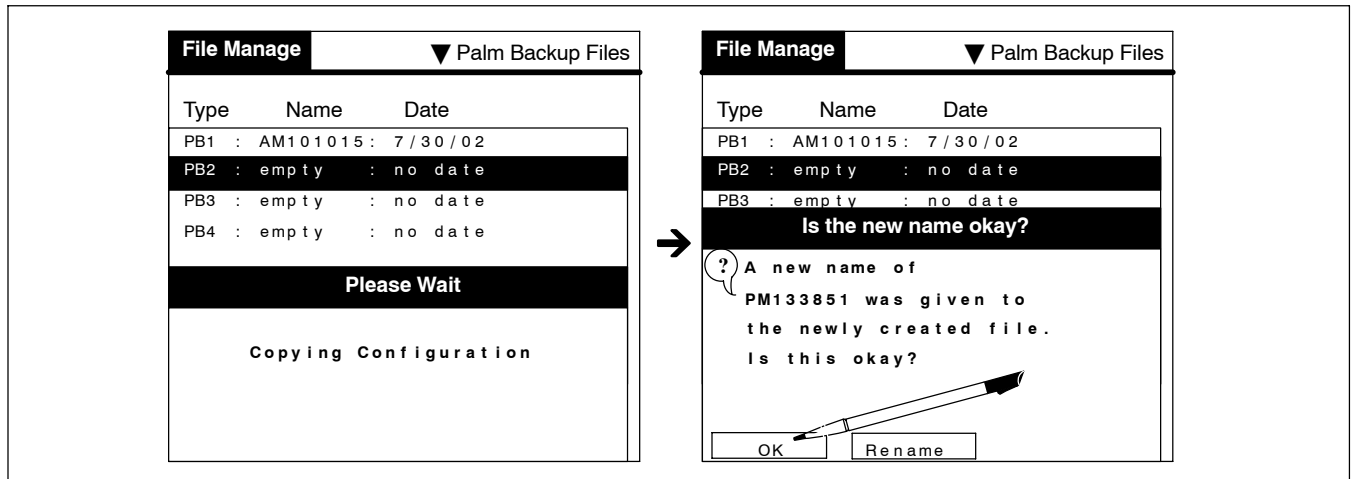


Figure 16-5. Option Display For Renaming File

The new file is placed in the selected empty location.

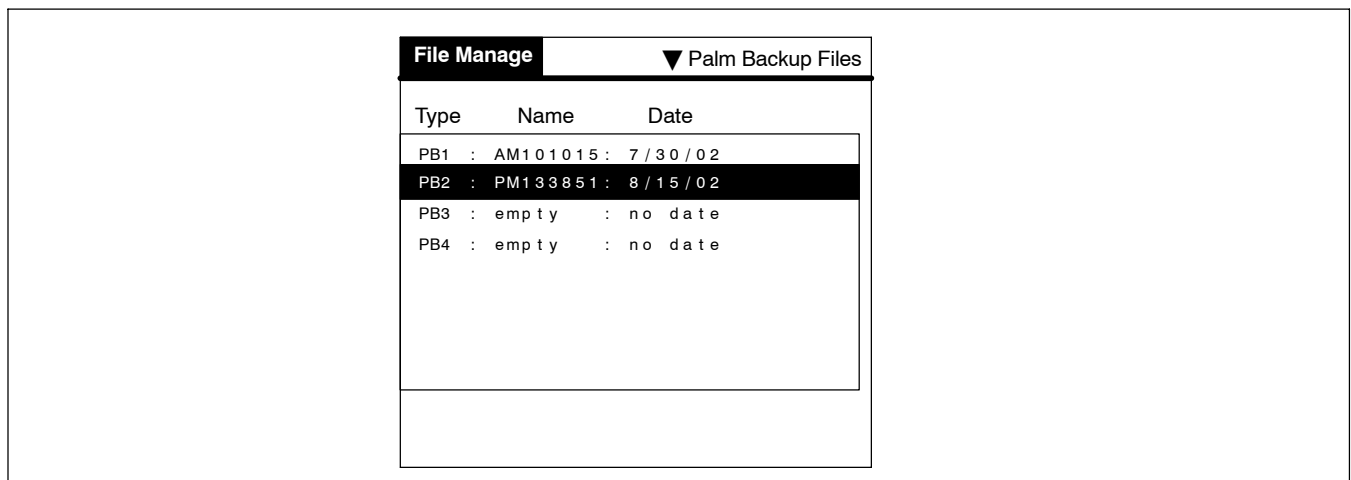


Figure 16-6. New Backup File With Default Name

If a different name is desired, tap Rename and continue the procedure.

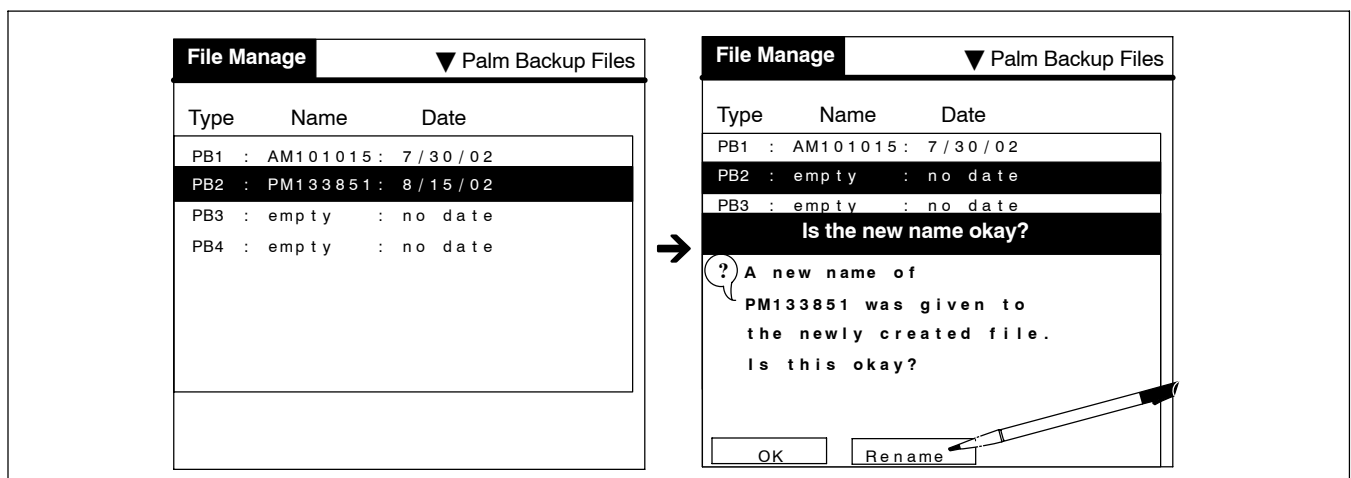


Figure 16-7. Rename File Selection

Numerous methods are available to the operator to change text or a numeric value as follows:

- The 1 2 3 or a b c keyboard selection in the graffiti area of the display (PDA model dependent)
- The full keyboard (PDA model dependent)
- Use graffiti to write changes in the graffiti area of the display
- The increase or decrease (up or down) function of the 5-way navigator (for numeric input only).

Choose a preferred method to change the file name to Job 1–8 (see Figure 16-8).

Tapping the line next to Author allows entering a new author's name.

Tapping the line next to Descript allows entering up 120 characters for a new description.

To exit the display without any changes tap Cancel.

Tap the right arrow next to the B to view details of the 8 weld programs and the config file that are part of the backup file.

Use the same method to change information by tapping the line next to the item; otherwise, tap Cancel to exit a display without any changes.

Tap OK after renaming the file.

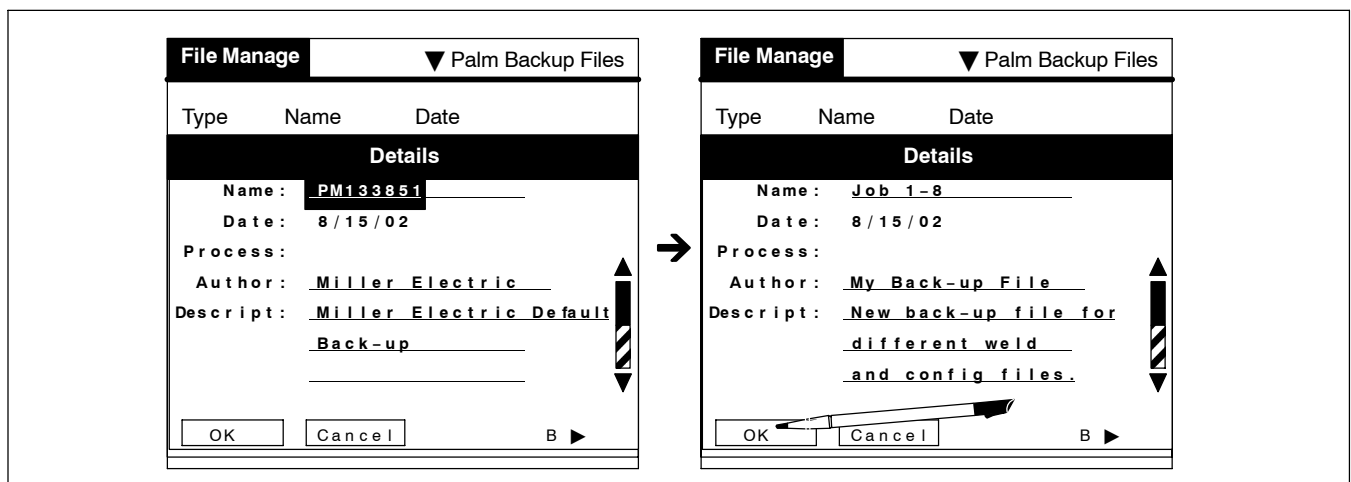


Figure 16-8. Details Display Before And After Renaming File

Tap desired selection to continue PDA operations.

SECTION 17 – MODIFY FILE FOR MIG WELDING PROGRAM

Modify File allows changing parameters in a welding program by modifying values within the sequences of the program.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 17-1).

Tap All in upper right portion of display.

Tap Welder Prog Files in the popdown menu.

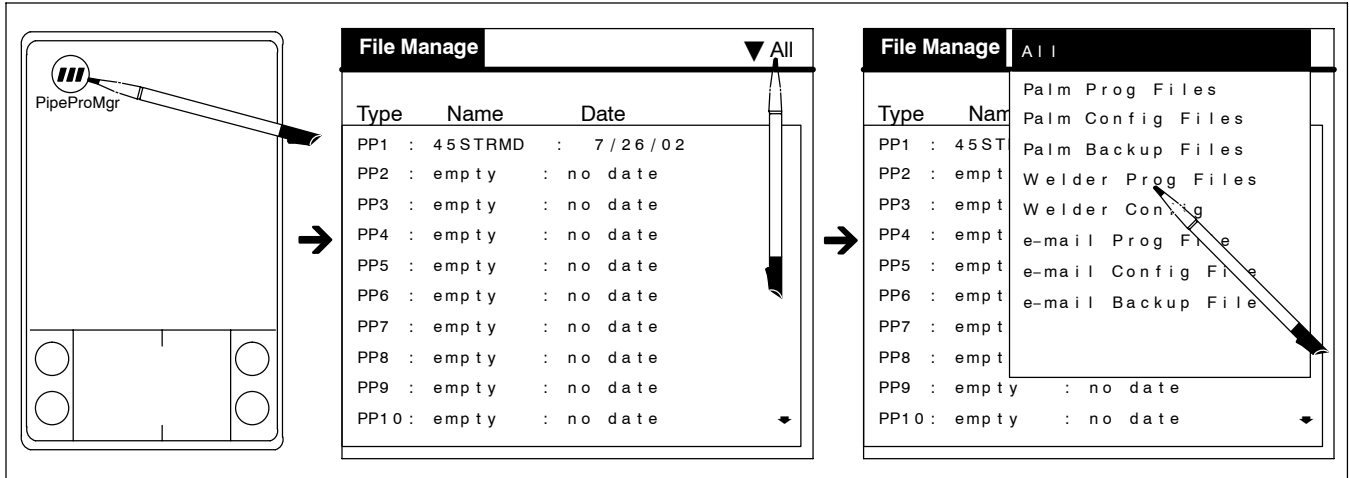


Figure 17-1. Initial Screen From Main Menu

Use stylus to tap the desired program for modification (e.g. WP2 : 35STMIG : 7/30/02) (see Figure 17-2).

Tap File Manage in upper left portion of display.

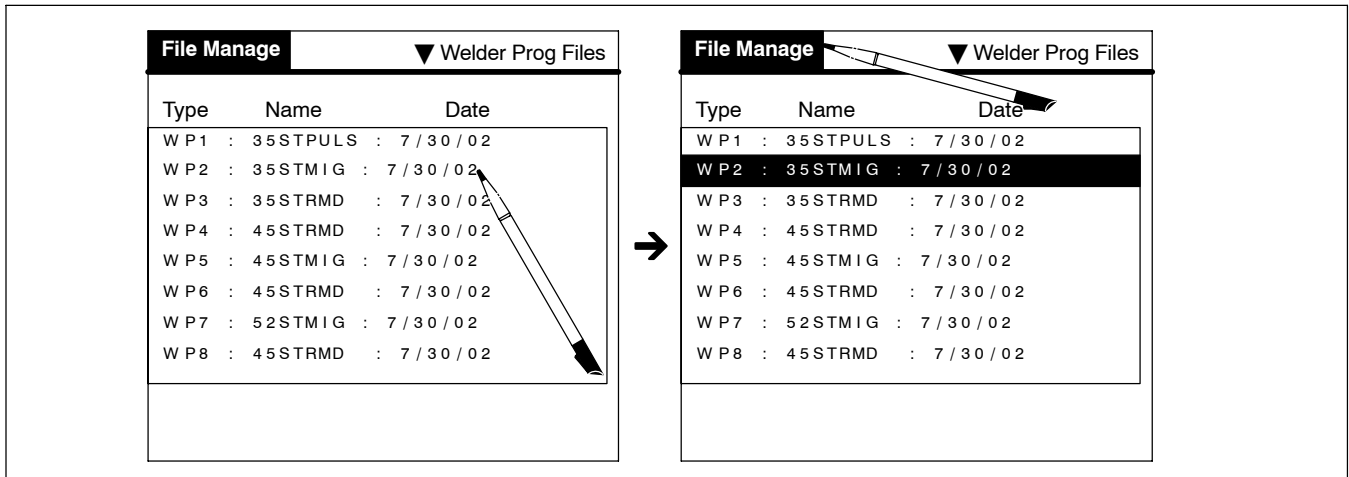


Figure 17-2. Weld Program Selection

Tap Modify File in the popdown menu (see Figure 17-3).

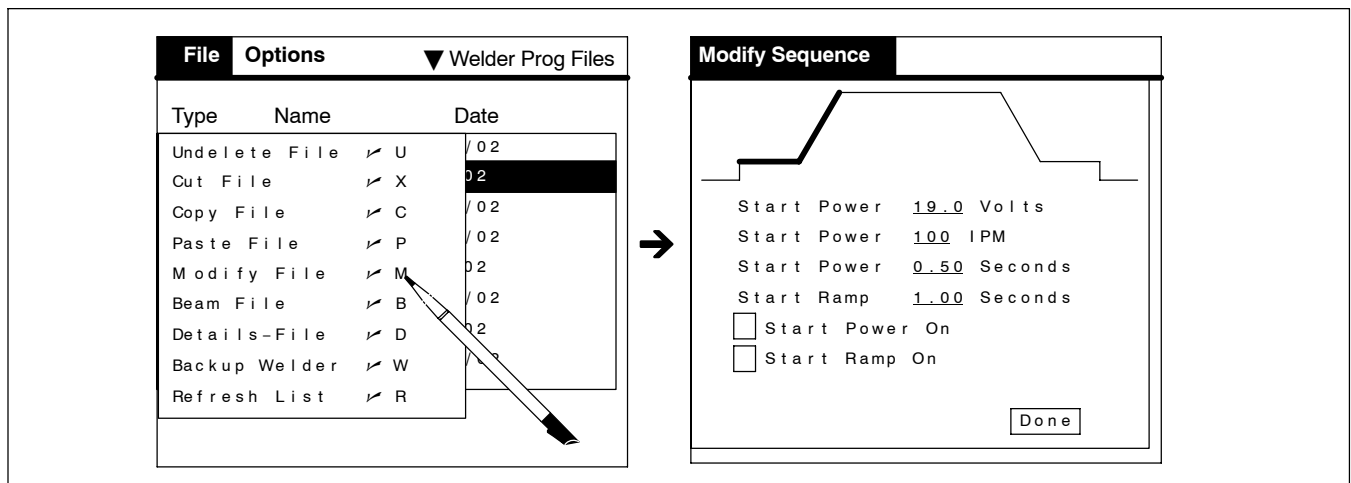


Figure 17-3. Modify File Selection

Items that can be changed in the second sequence are as follows:

- Start Power Volts
- Start Power Speed
- Start Power Time
- Start Ramp Time
- Start Power On/Off
- Start Ramp On/Off

Tap Start Power Volts.

Numerous methods are available to the operator to change text or a numeric value as follows:

- The 1 2 3 or a b c keyboard selection in the graffiti area of the display (PDA model dependent)
- The full keyboard (PDA model dependent)
- Use graffiti to write changes in the graffiti area of the display
- The increase or decrease (up or down) function of the 5-way navigator (for numeric input only).

Choose a preferred method to make any desired changes.

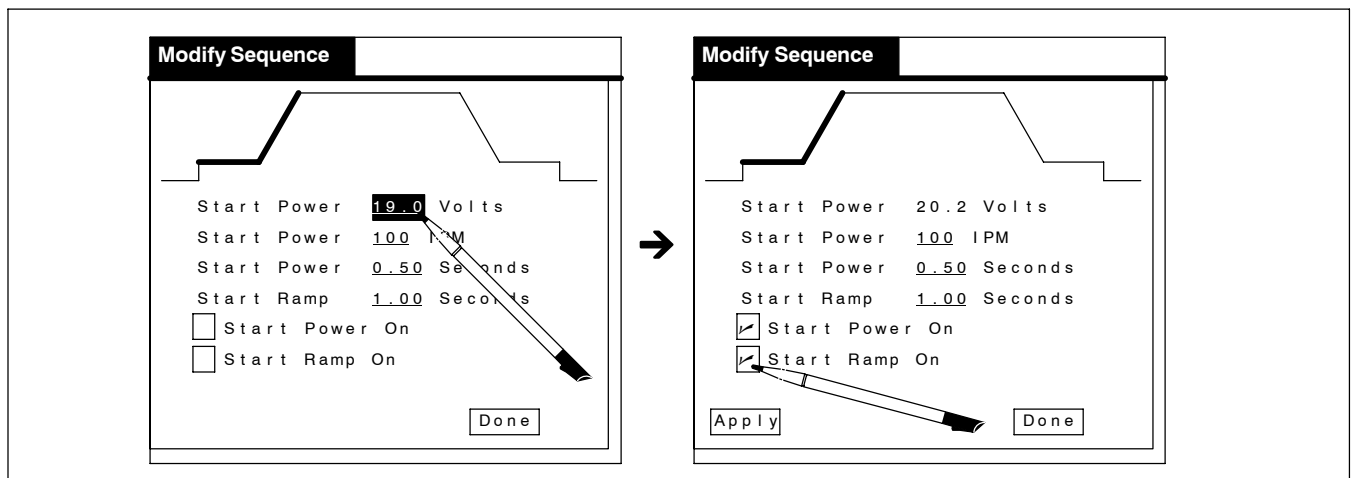


Figure 17-4. Changing Second Sequence Parameter Values

Continue to tap the desired values to make changes.

Tap the Start Power On check box to enable start power function, and tap the Start Ramp On check box to enable the start ramp function.

Tap Apply to accept the parameter value changes.

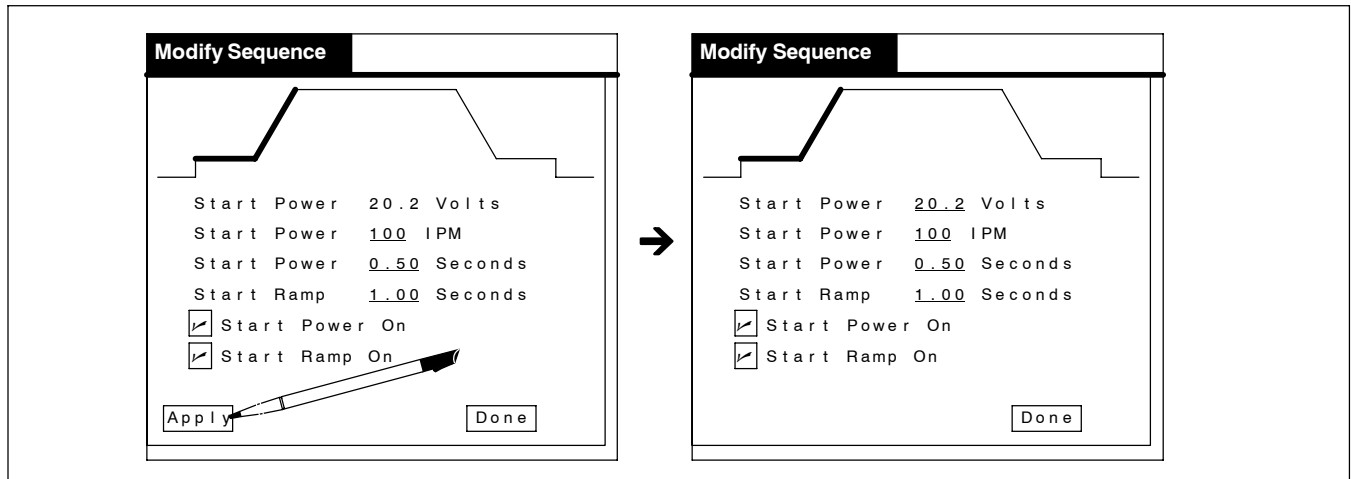


Figure 17-5. Applying Changes To A Parameter Values

If this concludes changes to parameters, tap Done to quit making changes (see Figure 17-13); otherwise, continue to select program sequences.

Tap the third sequence of the weld program.

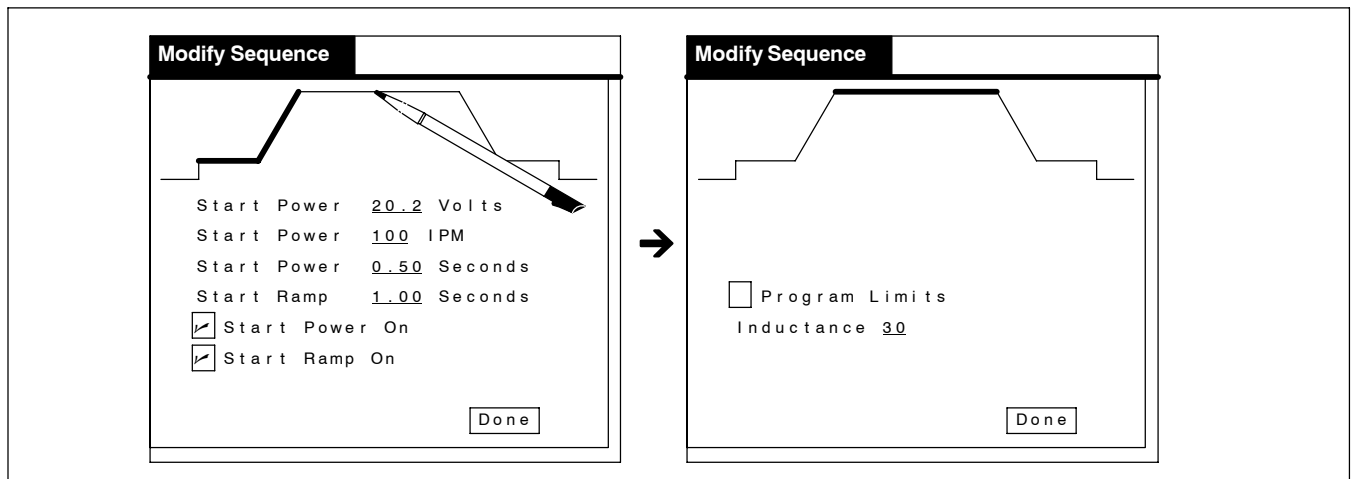


Figure 17-6. Changing Third Sequence Parameter Values

Items that can be changed in the third sequence are as follows:

- Program Limits
 - min to max Volts
 - min to max Inductance
- Inductance

Tap the Program Limits check box to enable program limits and a button called “View Limits” appears on the display.

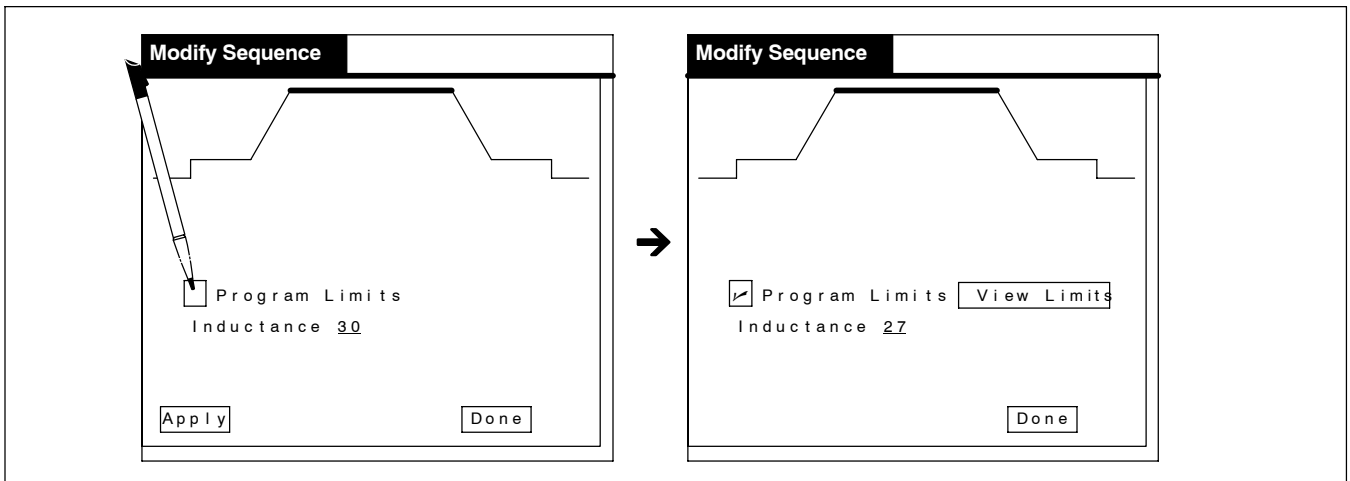


Figure 17-7. Changing Third Sequence Parameter Values

Tap View Limits to see limit values.

Tap min Volts.

Choose a preferred method (as listed previously) to make any desired changes.

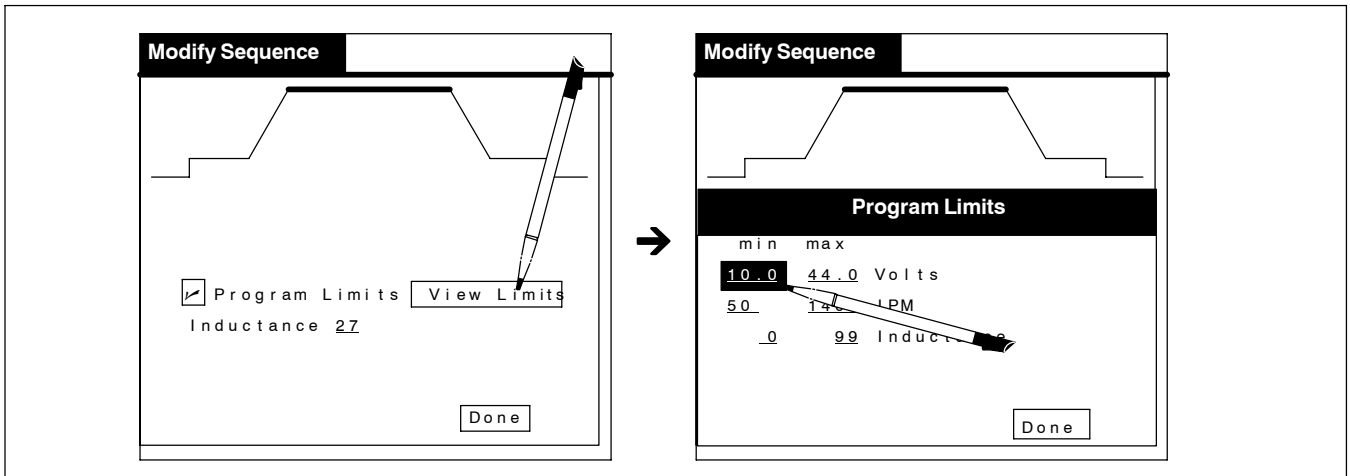


Figure 17-8. Enabling Program Limits

Tap Apply to accept the value change.
 Continue to tap the desired values to make changes.
 Tap Done to quit making changes to program limits.

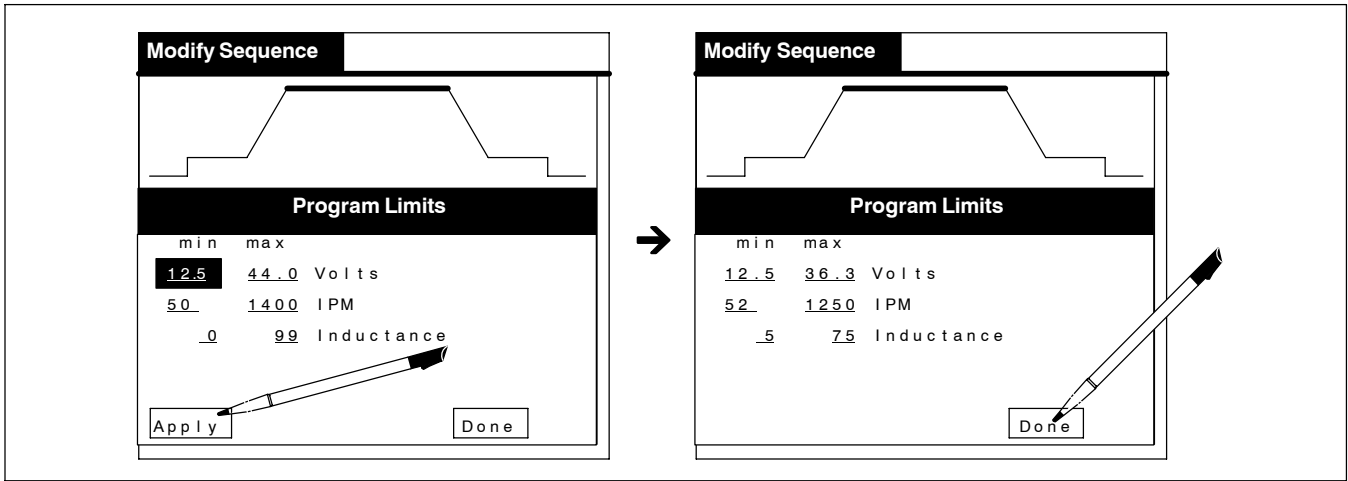


Figure 17-9. Changing Program Limits

After tapping Done, a message screen will appear on the display. Follow the instructions to make Program Limits active.
 Tap OK.

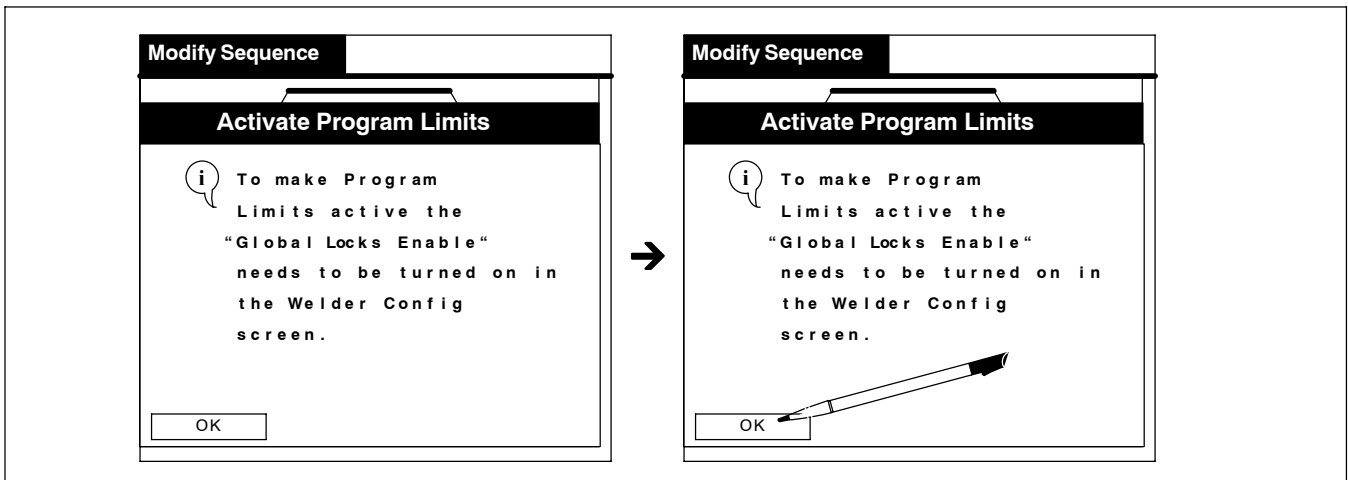


Figure 17-10. Enabling Program Limits

If this concludes changes to parameters, tap Done to quit making changes (see Figure 17-13); otherwise, continue to select program sequences.

Tap the fourth sequence of the weld program.

Items that can be changed in the fourth sequence are as follows:

- Crater Volts
- Crater Speed (IPM)
- Crater Time (Seconds)
- Crater Ramp Time (Seconds)
- Crater On
- Crater Ramp On

Tap Crater Volts.

Choose a preferred method (as listed previously) to make any desired changes.

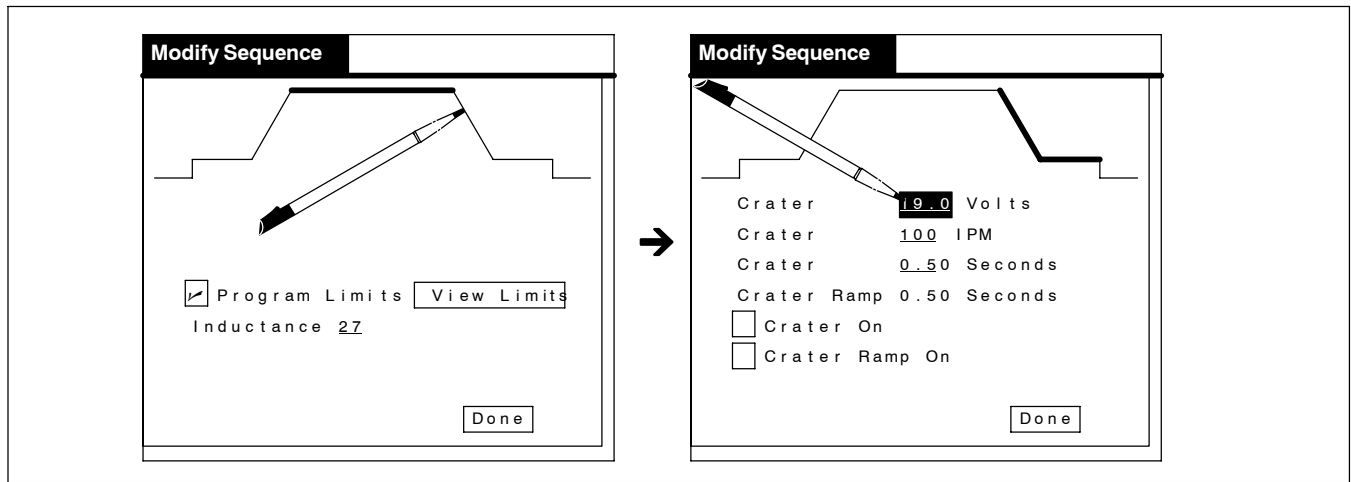


Figure 17-11. Changing Fourth Sequence Parameter Values

Continue to tap the desired values to make changes.

Tap the Crater On check box to enable the crater function, and tap the Crater Ramp On check box to enable the crater ramp function.

Tap Apply to accept the parameter value changes.

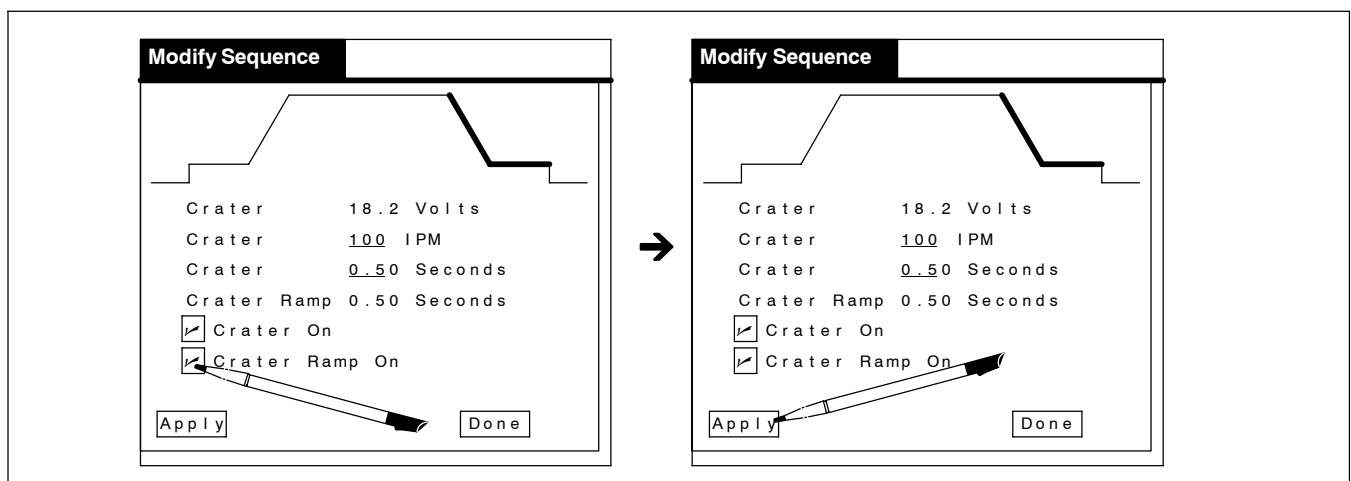


Figure 17-12. Applying Changes To A Parameter Values

Tap Done to quit making changes to parameter values.

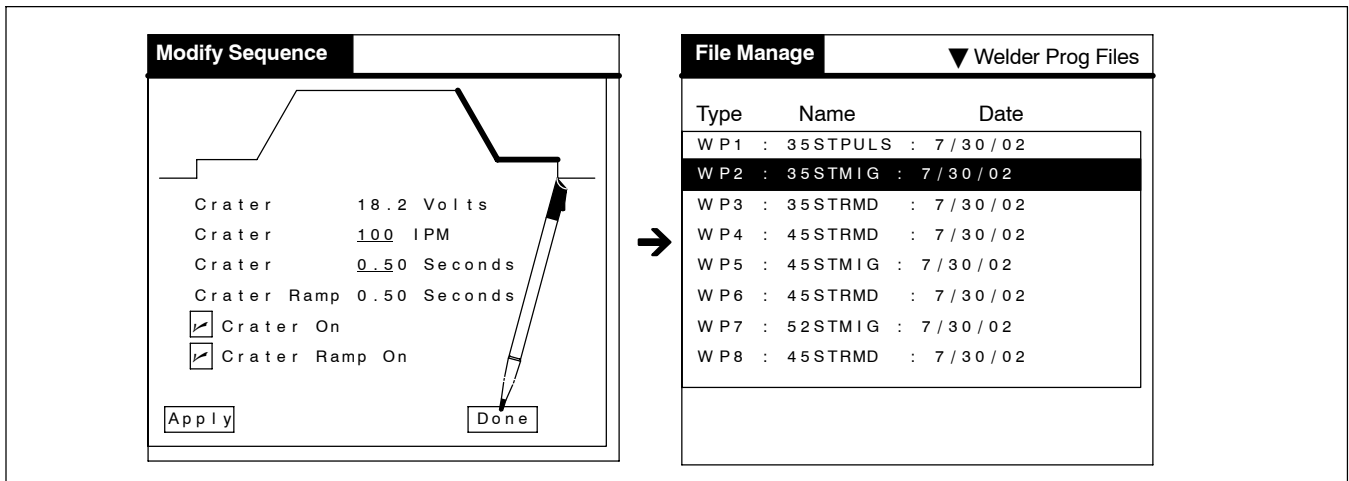


Figure 17-13. Ending Changes To Weld Program Parameter Values

Tap desired selection to continue PDA operations.

SECTION 18 – MODIFY FILE FOR PULSE WELDING PROGRAM

Modify File allows changing parameters in a welding program by modifying values within the sequences of the program.

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 18-1).

Tap All in upper right portion of display.

Tap Welder Prog Files in the popdown menu.

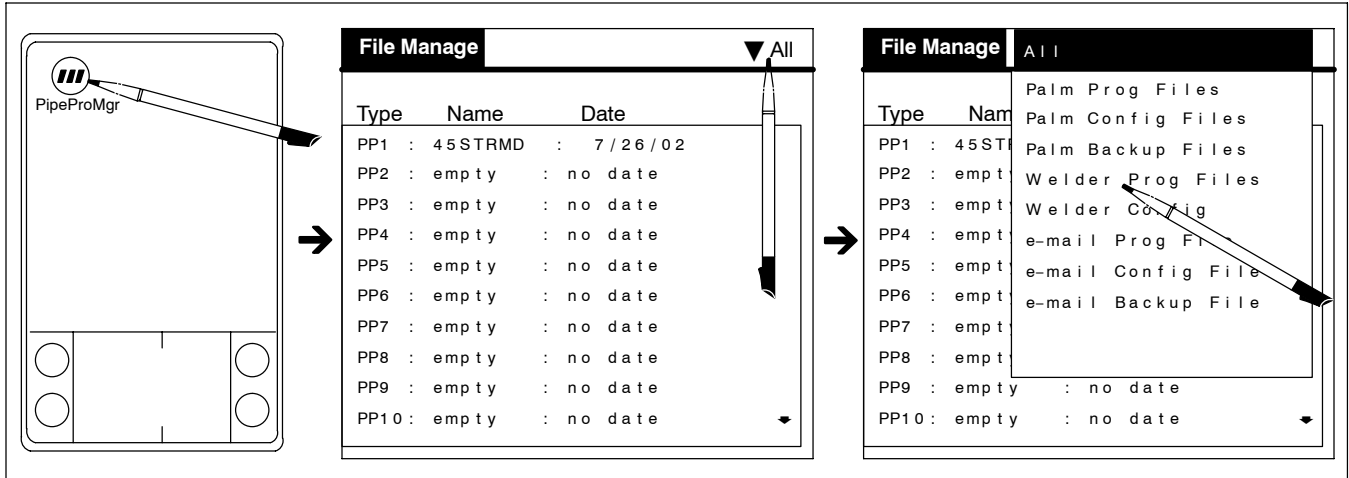


Figure 18-1. Initial Screen From Main Menu

Use stylus to tap the desired program for modification (e.g. WP1 : 35ST PULS : 7/30/02) (see Figure 18-2).

Tap File Manage in upper left portion of display.

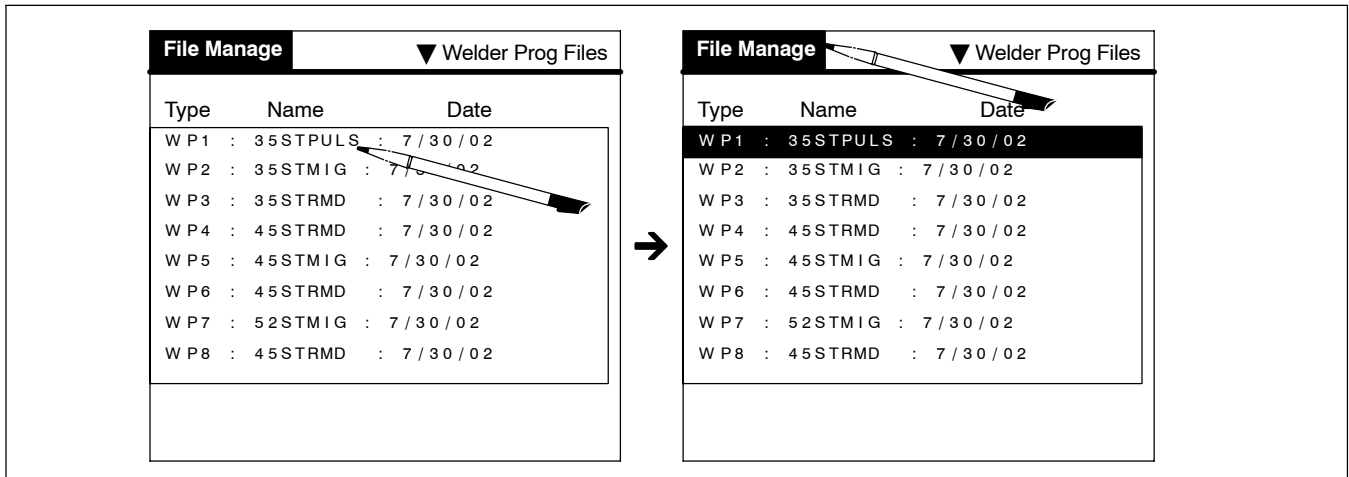


Figure 18-2. Weld Program Selection

Tap Modify File in the popdown menu (see Figure 18-3).

If Changes are desired to Pulse Data (only available for Pulse programs), tap Seq. Data in the upper right portion of the display.

Figure 18-4 through Figure 18-15 pertain only to Pulse programs. Other process types will not display this information.

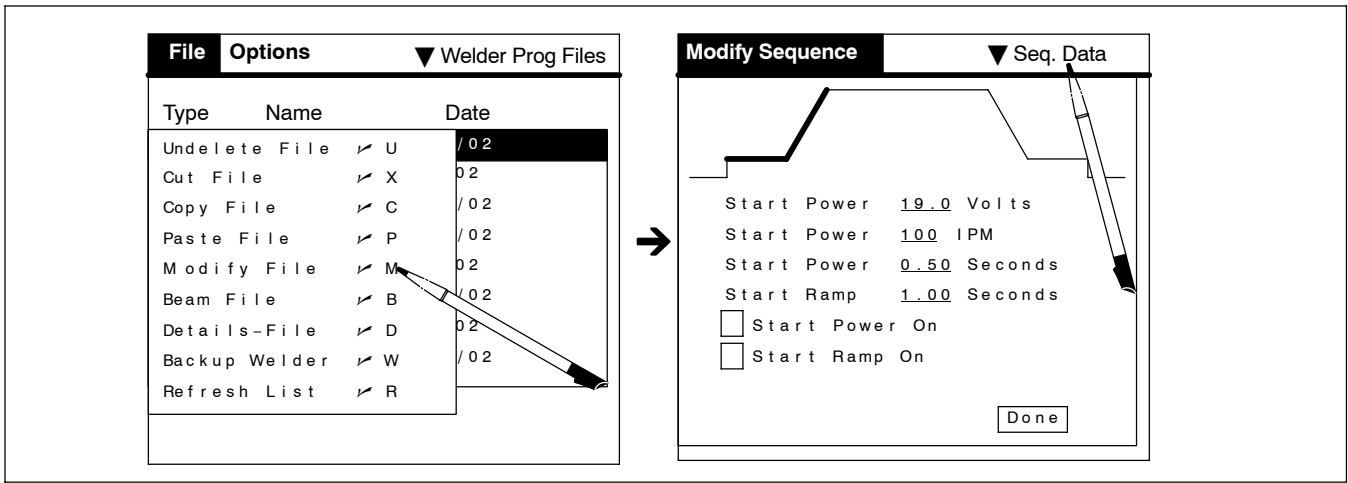


Figure 18-3. Modify File Selection

Tap Pulse Data.

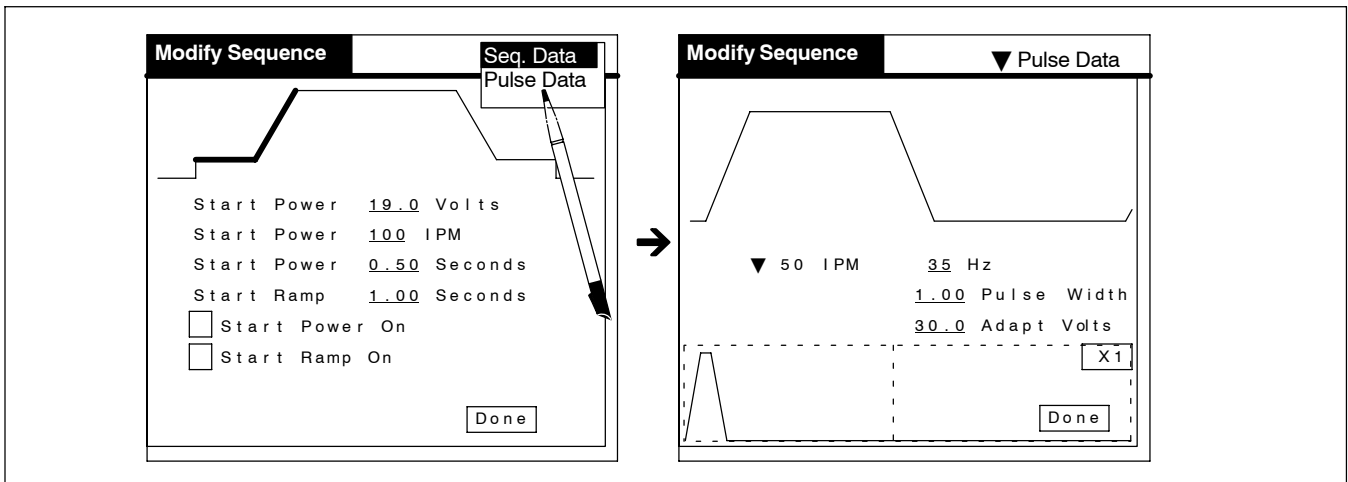


Figure 18-4. Selecting Pulse Data

Tap the rise portion of the pulse wave to change the rise setting of the pulse wave. Both the rise and fall portions of the pulse wave will highlight. Tap the rise portion again to highlight just that portion of the pulse wave.

Numerous methods are available to the operator to change text or a numeric value as follows:

- The 1 2 3 or a b c keyboard selection in the graffiti area of the display (PDA model dependent)
- The full keyboard (PDA model dependent)
- Use graffiti to write changes in the graffiti area of the display
- The increase or decrease (up or down) function of the 5-way navigator.

Choose a preferred method to make any desired changes.

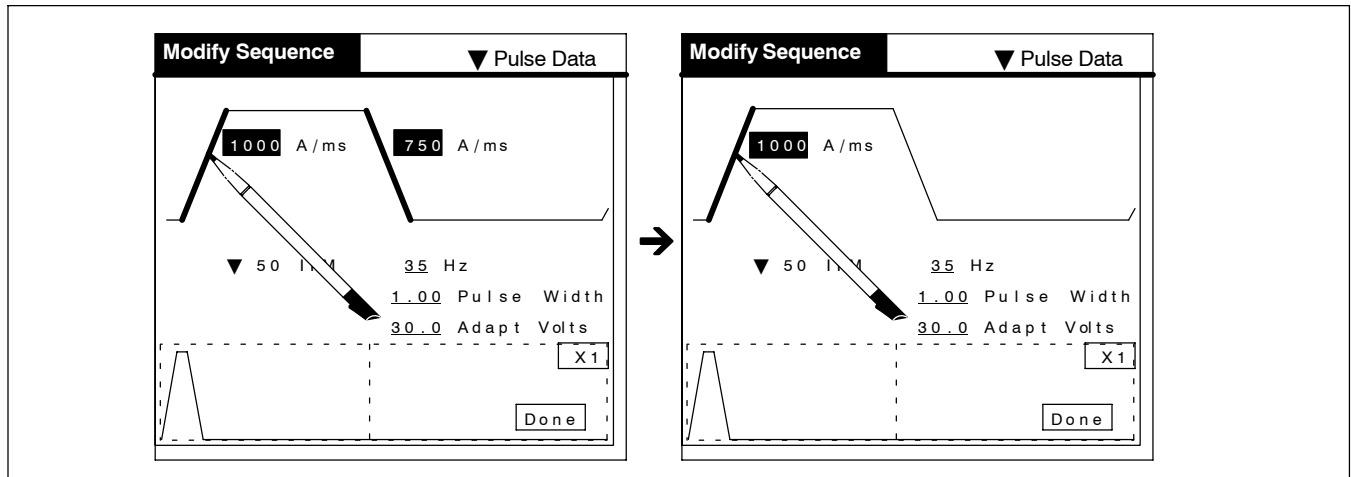


Figure 18-5. Selecting Rise Portion Of Pulse Wave

Tap Apply to save the changed value.

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap the peak portion of the pulse wave to change the peak setting of the pulse wave.

Choose a preferred method (as listed previously) to make any desired changes.

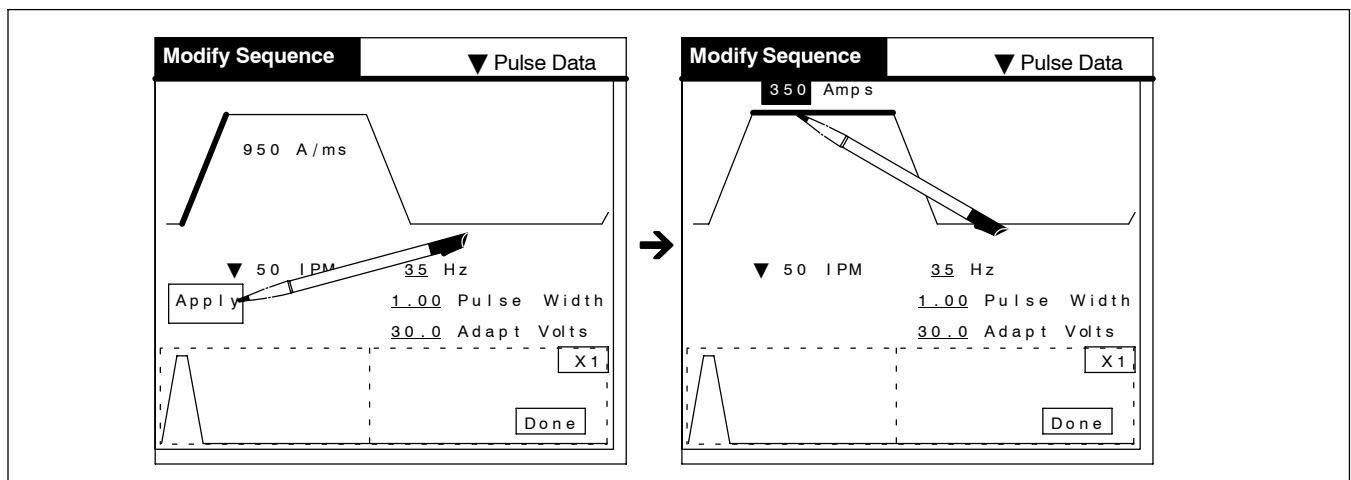


Figure 18-6. Selecting Peak Portion Of Pulse Wave

Tap Apply to save the changed value.

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap the fall portion of the pulse wave to change the fall setting of the pulse wave.

Choose a preferred method (as listed previously) to make any desired changes.

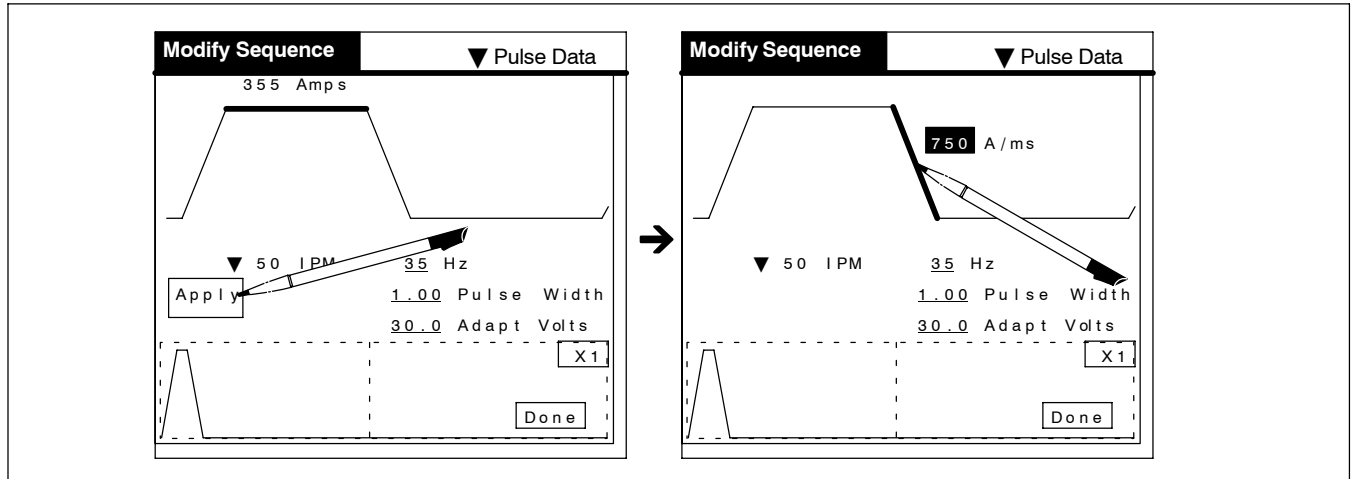


Figure 18-7. Selecting Fall Portion Of Pulse Wave

Tap Apply to save the changed value.

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap the back portion of the pulse wave to change the back setting of the pulse wave.

Choose a preferred method (as listed previously) to make any desired changes.

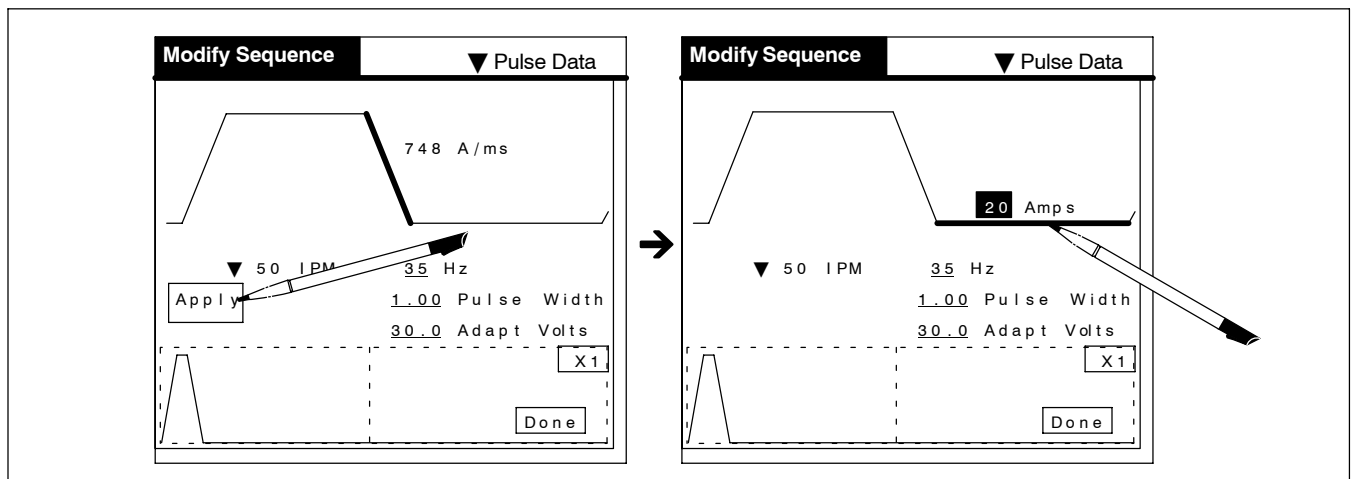


Figure 18-8. Selecting Back Portion Of Pulse Wave

Tap Apply to save the changed value.

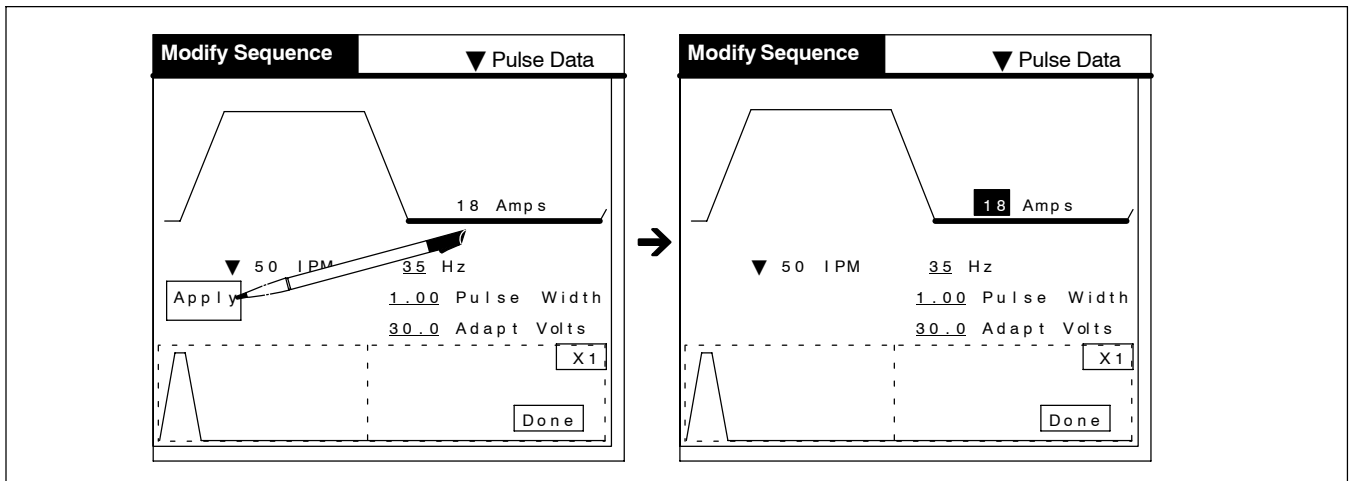


Figure 18-9. Completing Changes To Back Portion Of Pulse Wave

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap Hz to change the pulse frequency value.

Choose a preferred method (as listed previously) to make any desired changes.

Tap Apply to save the changed value.

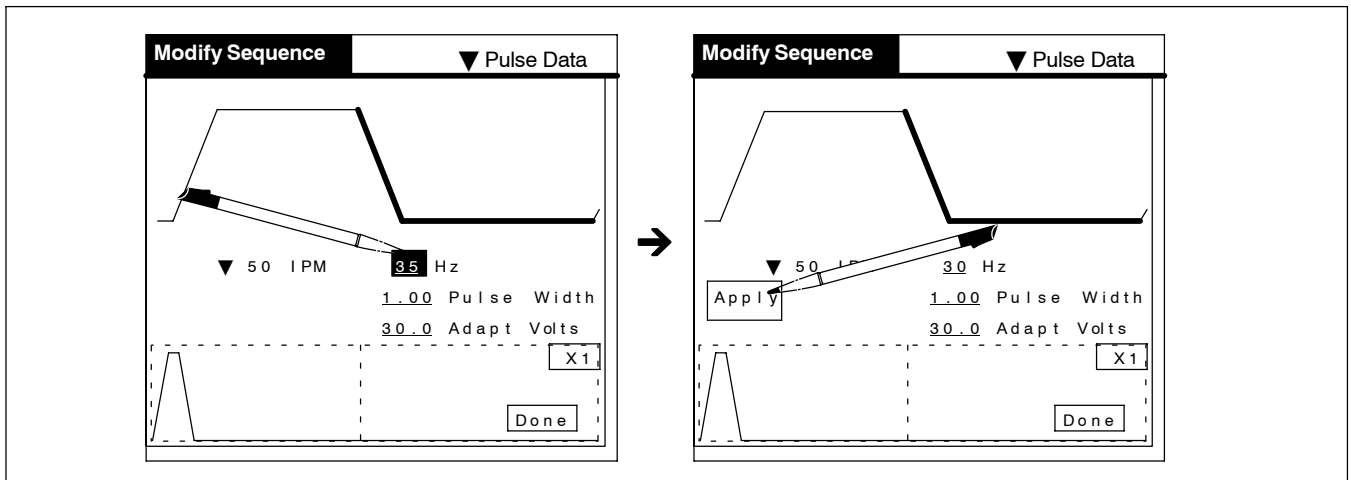


Figure 18-10. Selecting Hz For Pulse Wave Data Changing

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap Pulse Width to change the pulse width value.

Choose a preferred method (as listed previously) to make any desired changes.

Tap Apply to save the changed value.

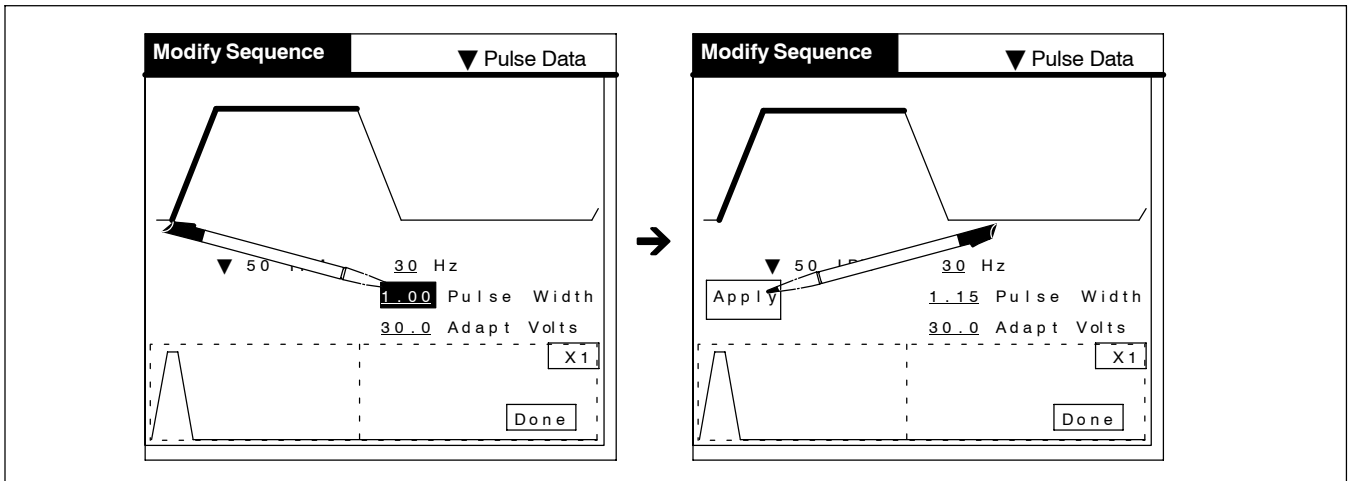


Figure 18-11. Selecting Pulse Width For Pulse Wave Data Changing

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap Adapt Volts to change the adaptive volts value.

Choose a preferred method (as listed previously) to make any desired changes.

Tap Apply to save the changed value.

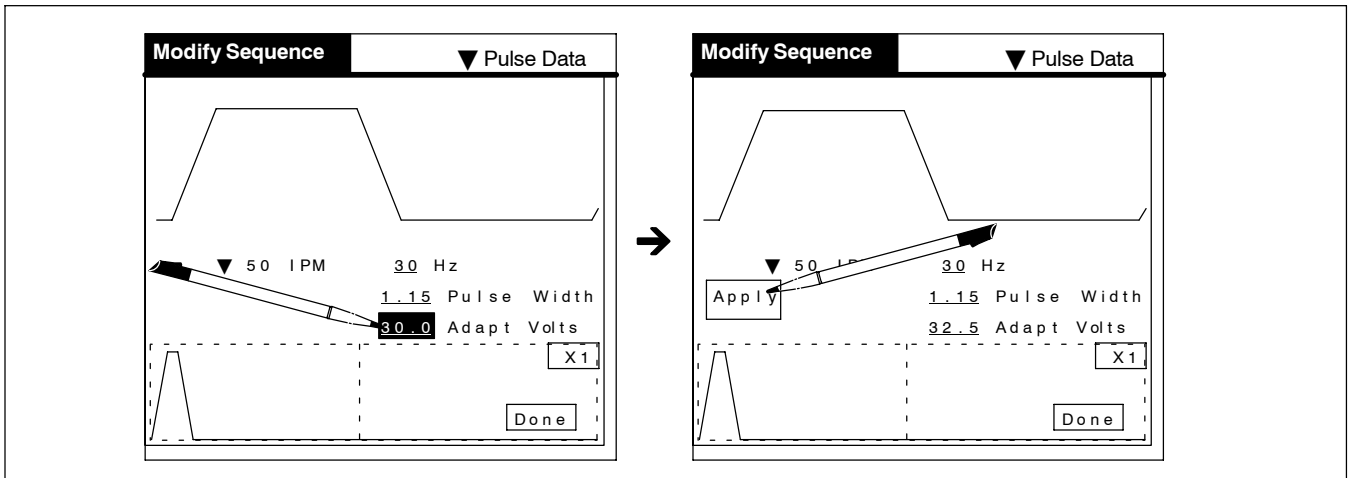


Figure 18-12. Selecting Adapt Volts For Pulse Wave Data Changing

All of the previously described pulsing parameters can be changed at any of the given preset wire feed speeds. To change these parameters, tap the down arrow next to 50 IPM.

NOTE 

Editing the preset wire feed speed points should only be done by the most advanced users familiar with all aspects of the characteristics involved in setting pulse welding parameters.

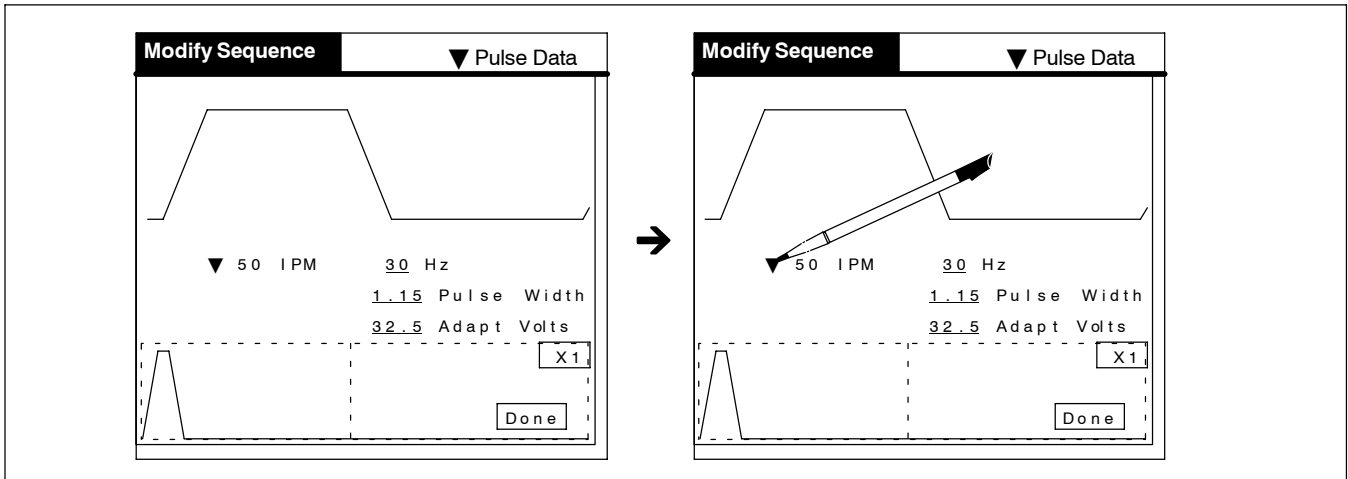


Figure 18-13. Selecting Wire Feed Speed

Tap the desired wire feed speed. Frequency (Hz), Pulse Width, Back, Peak, Rise, Fall, and Adapt Volts all change with the wire feed speed change.

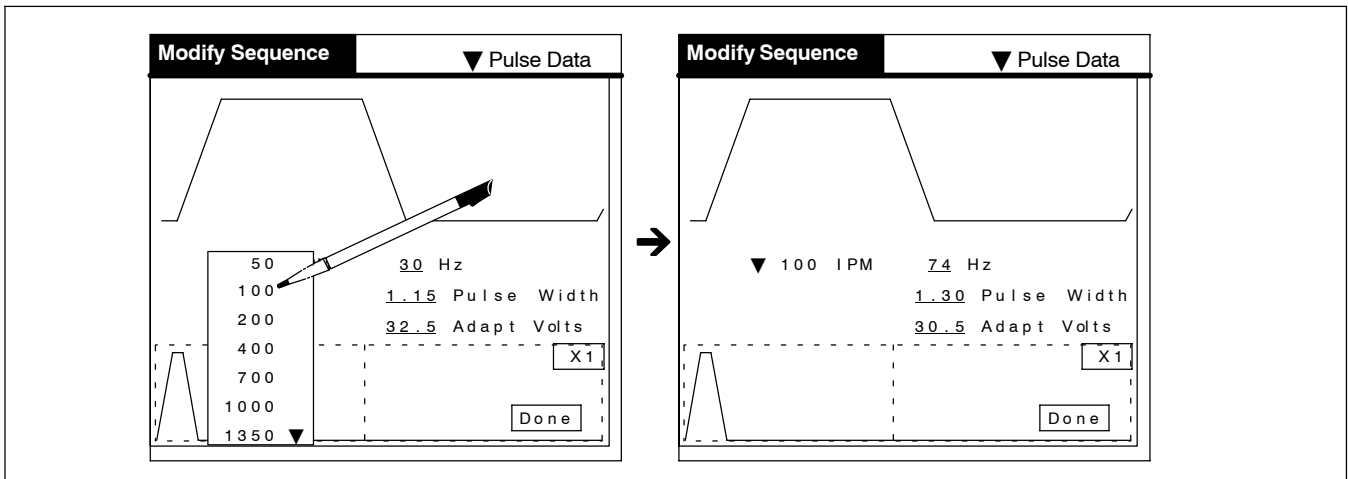


Figure 18-14. Changing Wire Feed Speed

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, tap Pulse Data and select Seq. Data.

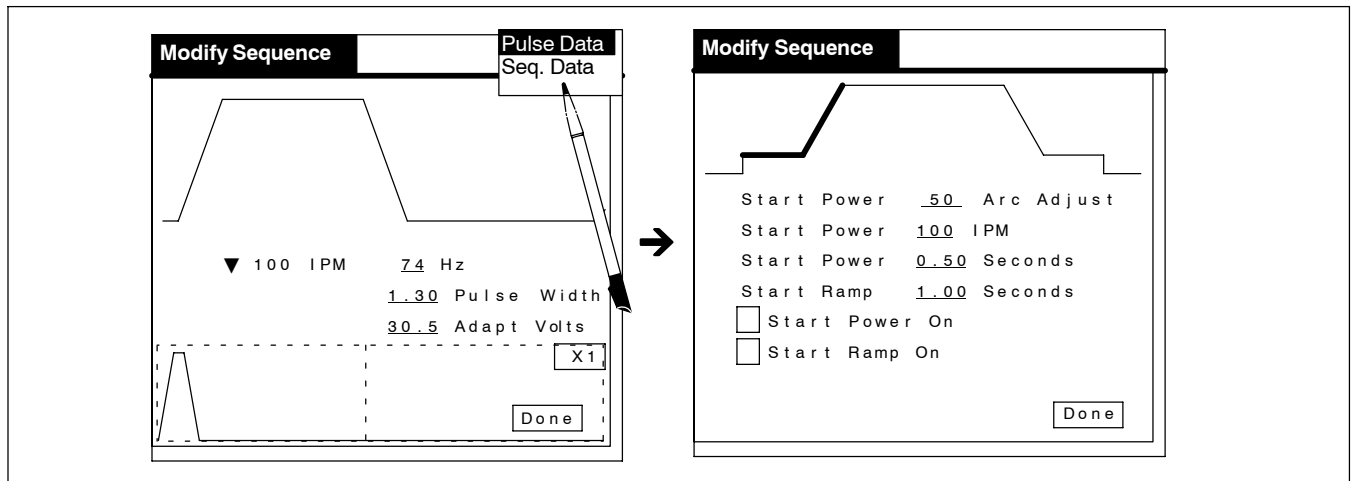


Figure 18-15. Changing Selection To Sequence Data

Items that can be changed in the second sequence are as follows:

- Start Power Arc Adjust
- Start Power Speed (IPM)
- Start Power Time (Seconds)
- Start Ramp Time (Seconds)
- Start Power On/Off
- Start Ramp On/Off

Tap Start Power Arc Adjust.

Choose a preferred method (as listed previously) to make any desired changes.

Continue to tap the desired values to make changes.

Tap the Start Power On check box to enable start power function, and tap the Start Ramp On check box to enable the start ramp function.

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, continue to select program sequences.

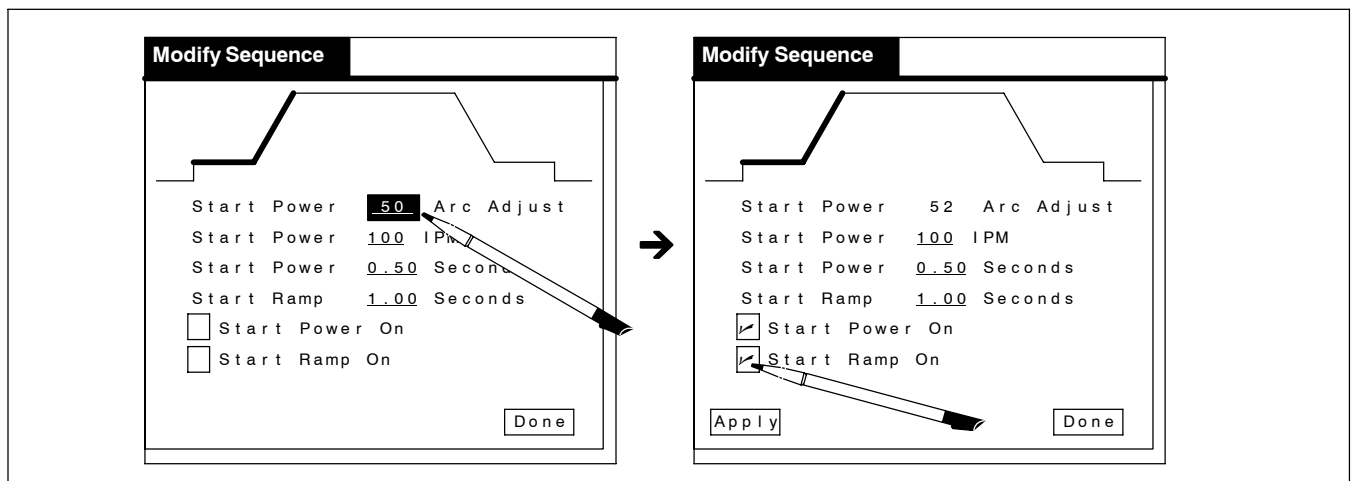


Figure 18-16. Changing Second Sequence Parameter Values

Tap Apply to accept the parameter value changes.

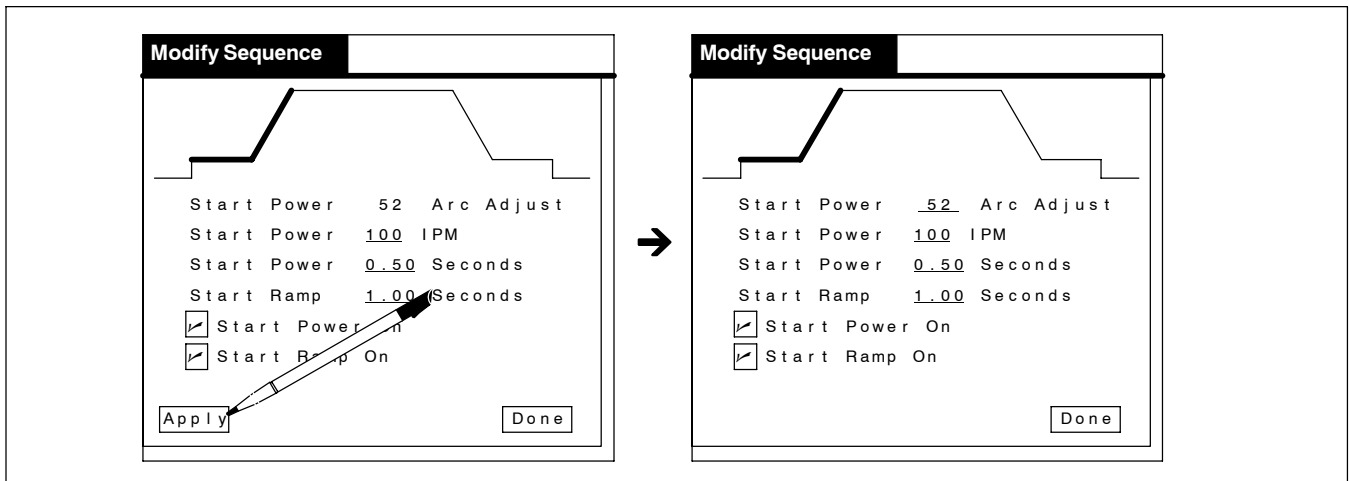


Figure 18-17. Applying Change To A Parameter Values

Tap the third sequence of the weld program.

Items that can be changed in the third sequence are as follows:

Program Limits

min to max Arc Adjust

min to max IPM

min to max Arc Control

Arc Control

Adaptive On/Off

Tap Weld Arc Control.

Choose a preferred method (as listed previously) to make any desired changes.

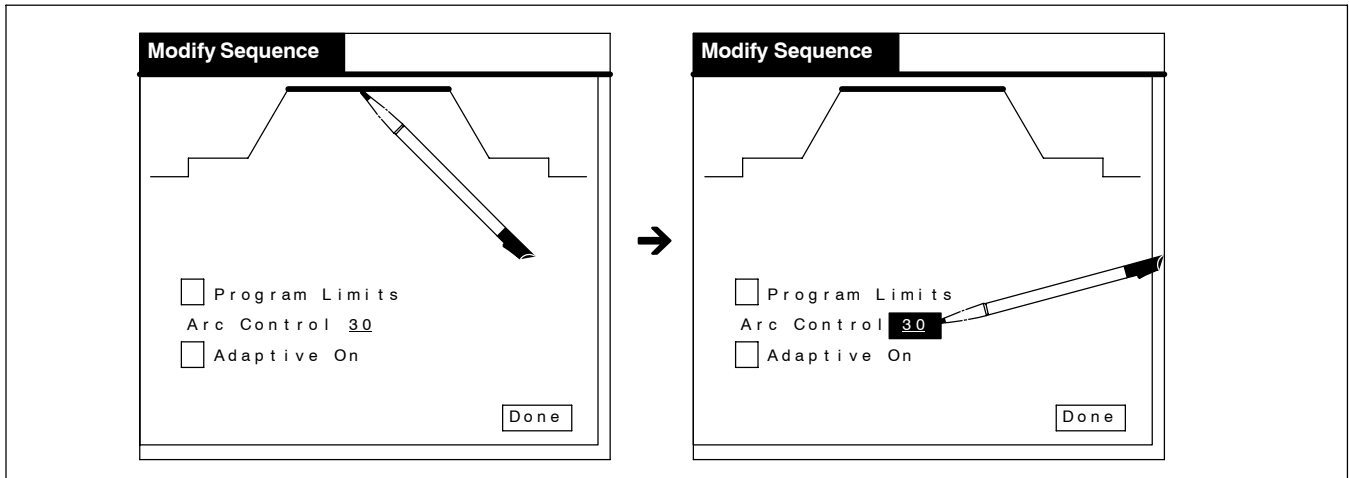


Figure 18-18. Changing Third Sequence Parameter Values

Tap Apply to accept the value change.

Continue to tap the desired values to make changes.

Tap the Program Limits check box to enable program limits and a button called "View Limits" appears on the display.

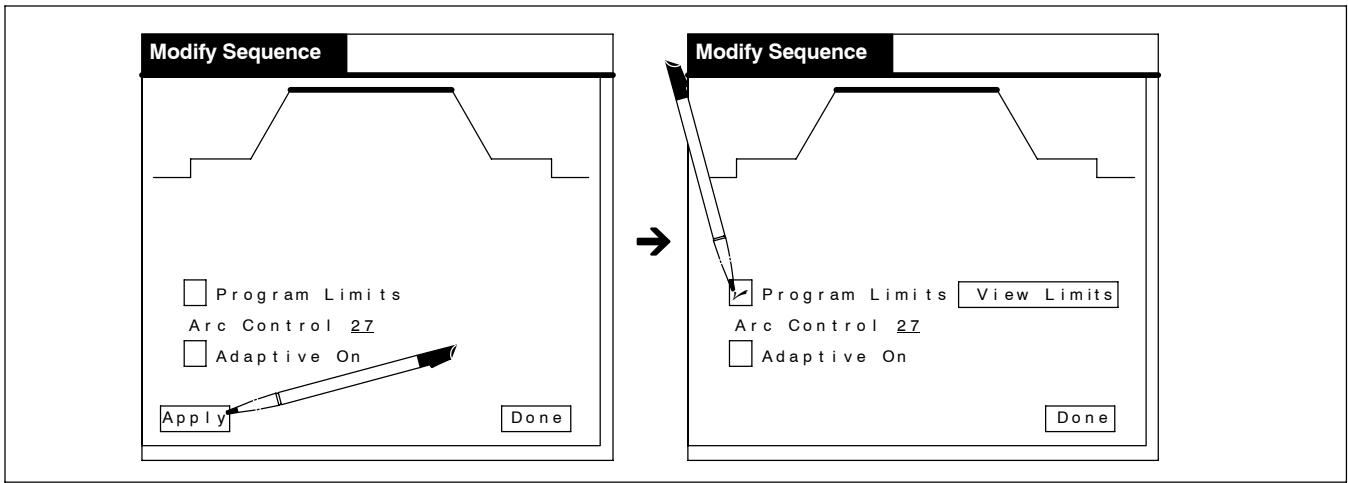


Figure 18-19. Changing Third Sequence Parameter Values

Tap View Limits to see limit values.

Tap min Arc Adjust.

Choose a preferred method (as listed previously) to make any desired changes.

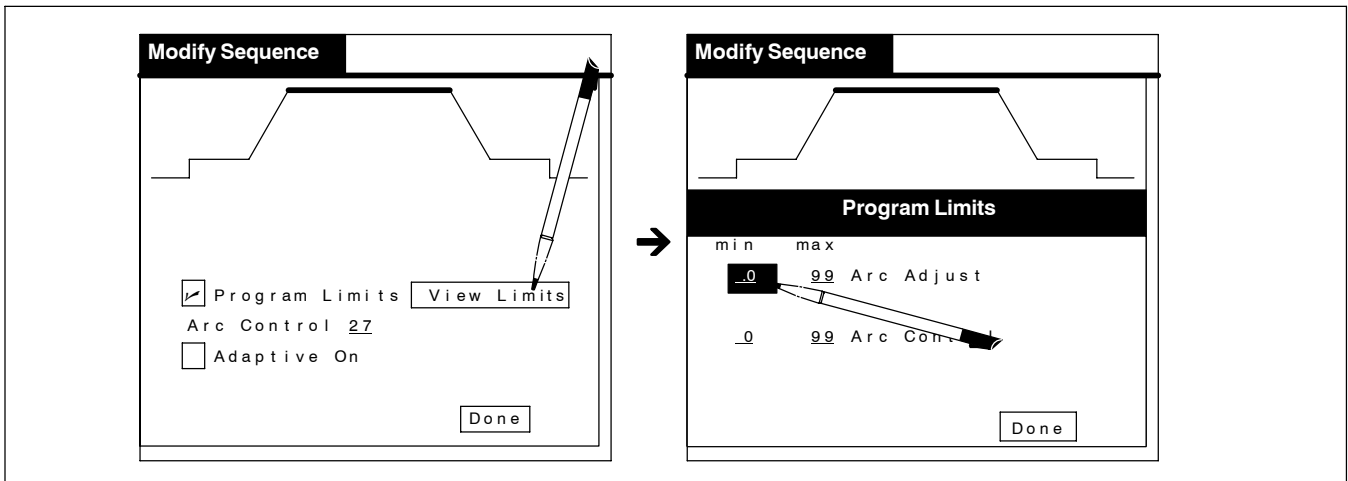


Figure 18-20. Enabling Program Limits

Tap Apply to accept the value change.
 Continue to tap the desired values to make changes.
 Tap Done to quit making changes to program limits.

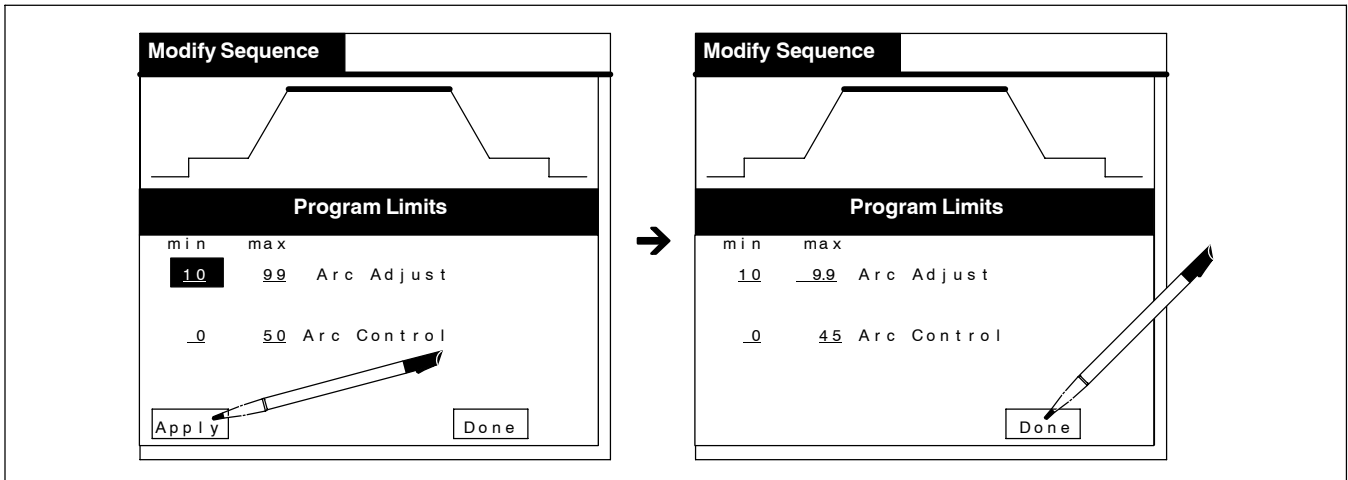


Figure 18-21. Changing Program Limits

After tapping Done, a message screen will appear on the display. Follow the instructions to make Program Limits active.
 Tap OK.

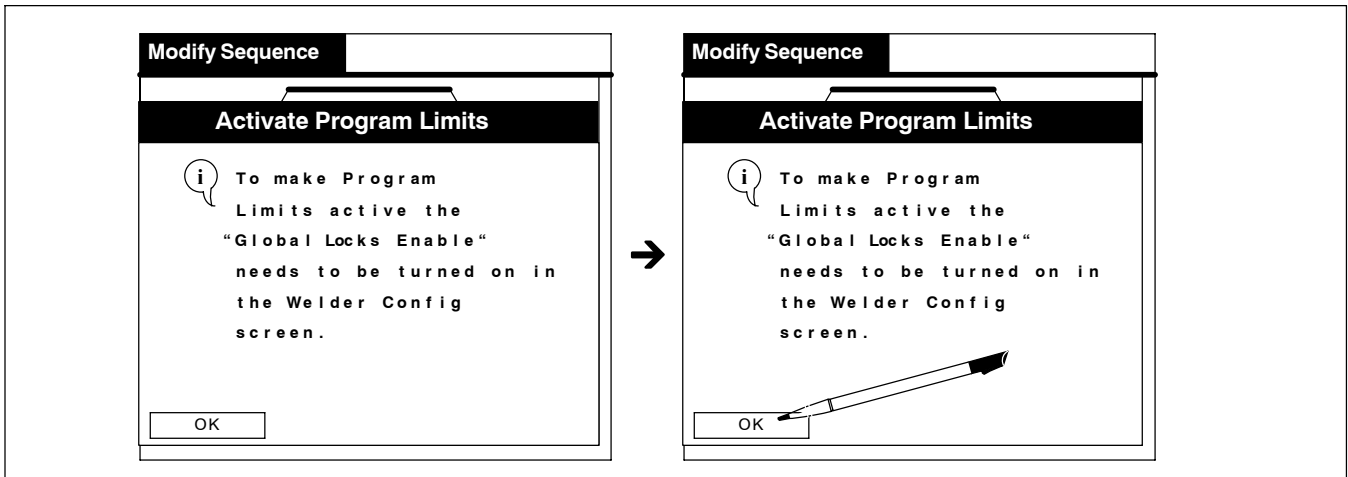


Figure 18-22. Enabling Program Limits

If this concludes changes to parameters, tap Done to quit making changes (see Figure 18-25); otherwise, continue to select program sequences.

Tap the fourth sequence of the weld program.

Items that can be changed in the fourth sequence are as follows:

- Crater Arc Adjust
- Crater Speed (IPM)
- Crater Time (Seconds)
- Crater Ramp Time (Seconds)
- Crater On
- Crater Ramp On

Tap Crater Arc Adjust.

Choose a preferred method (as listed previously) to make any desired changes.

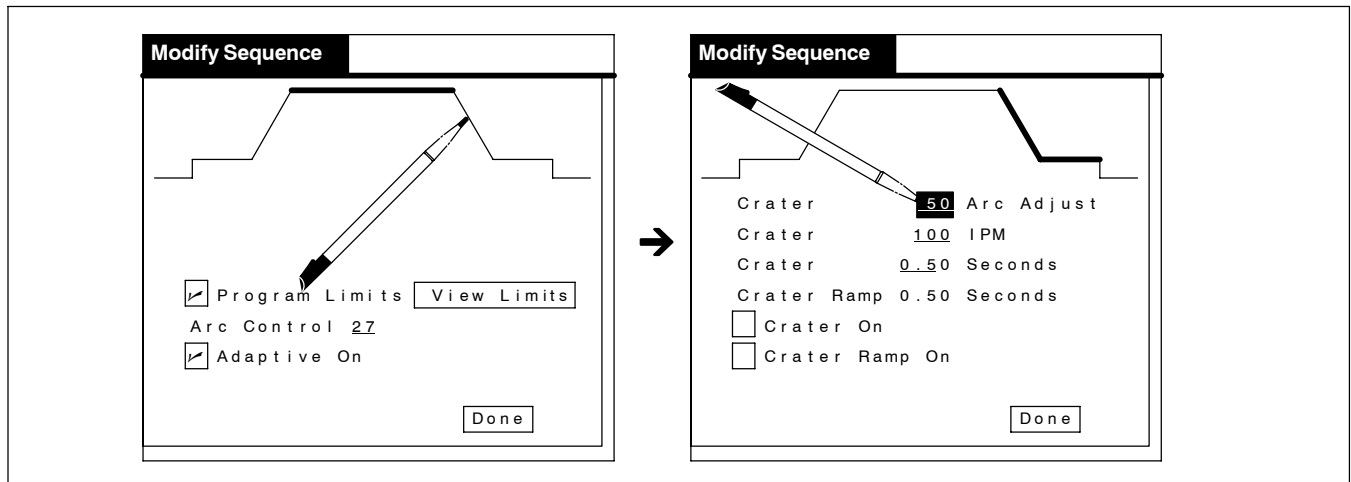


Figure 18-23. Changing Fourth Sequence Parameter Values

Continue to tap the desired values to make changes.

Tap the Crater On check box to enable the crater function, and tap the Crater Ramp On check box to enable the crater ramp function.

Tap Apply to accept the value change.

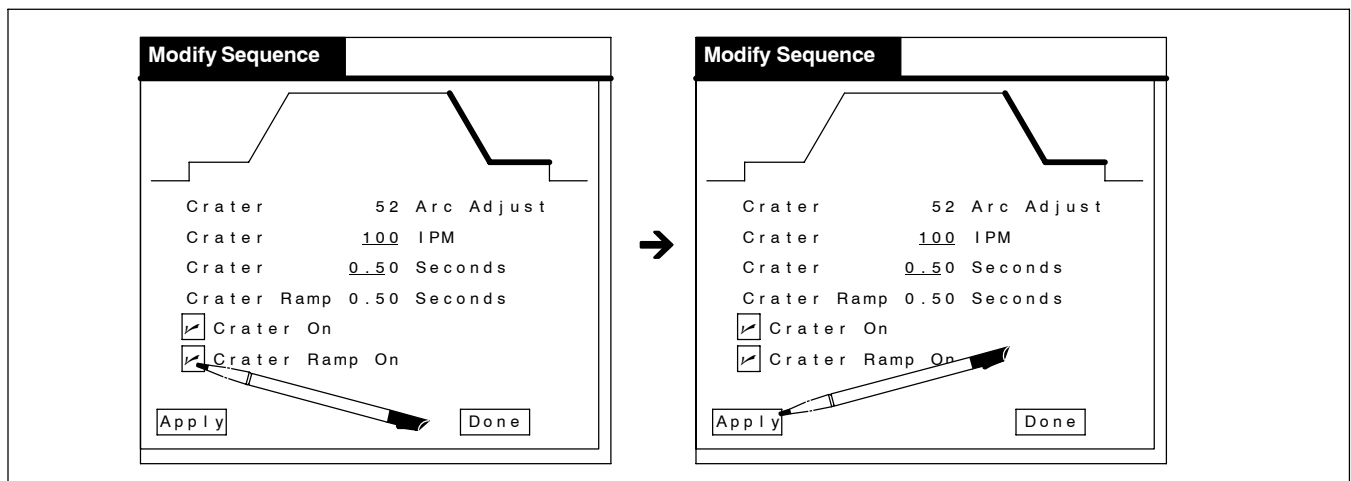


Figure 18-24. Changing Last Sequence Parameter Values

Tap Done to quit making changes to parameter values.

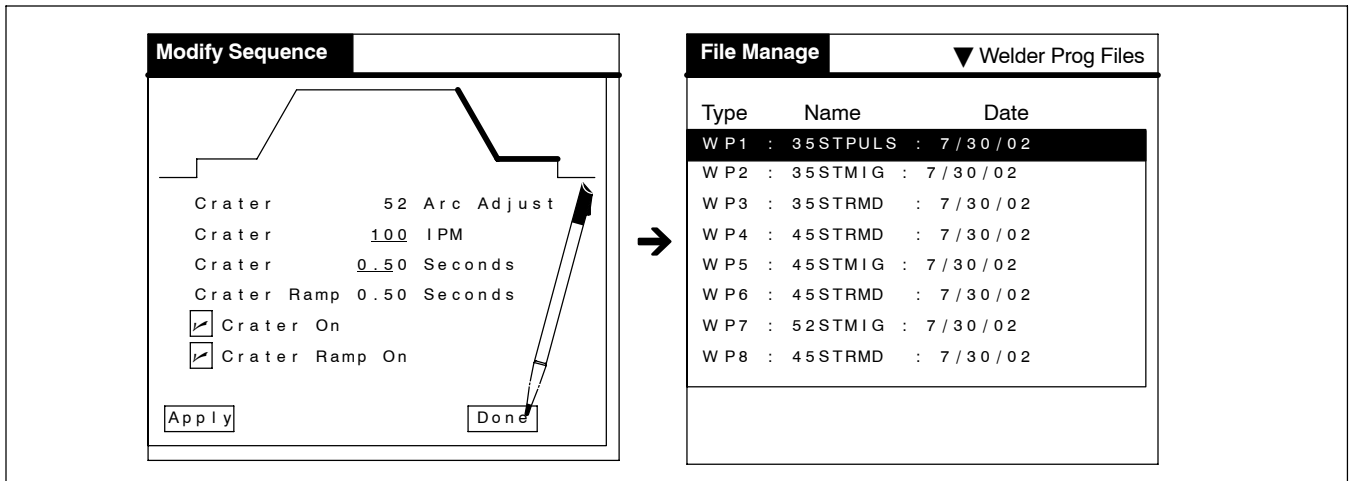


Figure 18-25. Ending Changes To Weld Program Parameter Values

Tap desired selection to continue PDA operations.

SECTION 19 – E-MAIL FILES

19-1. Location Of E-mail Files On PDA

E-mail File (Prog, Config, and Backup) provides a location to store individual files for sending or receiving using an e-mail website.

The 3 e-mail locations, Prog, Config, and Backup, should only be considered as temporary storage locations. This means these files can only be “cut”, “undeleted”, copied and pasted, and viewed using Detail File. To keep or use any of these files, they should be moved into one of the Palm Group [i.e. Palm Prog (PP file), Palm Config (PC file), or Palm Backup (PB file)].

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 20-1).

Tap All in upper right portion of display.

Tap e-mail Prog File.

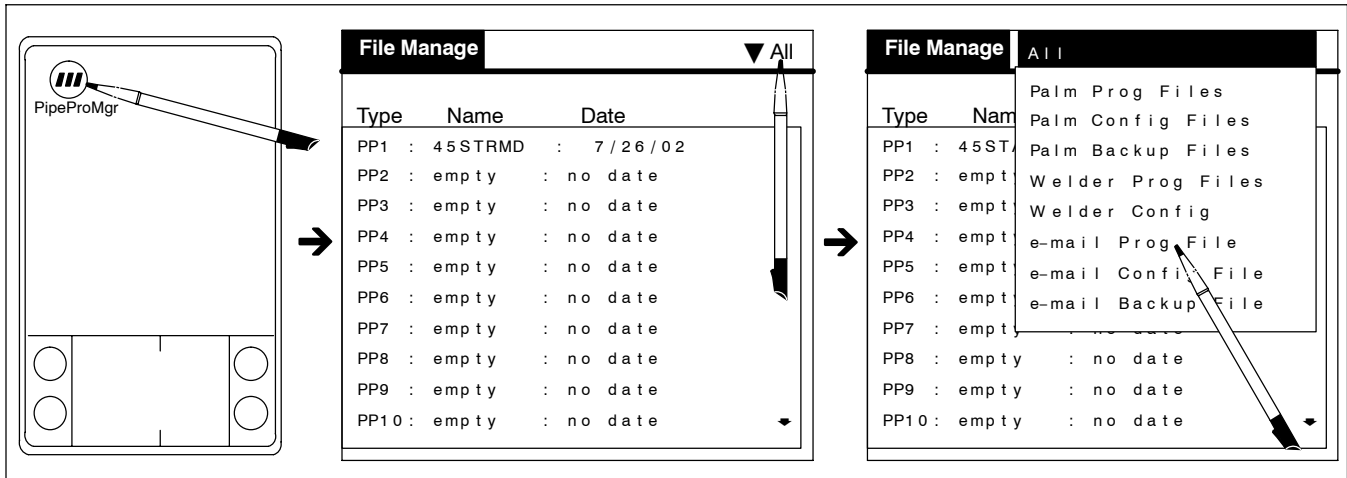


Figure 20-1. Initial Screen From Main Menu

The e-mail Prog File provides 4 empty slots for files to either send or receive by e-mail.

Tap e-mail Prog File in the upper right portion of the display.

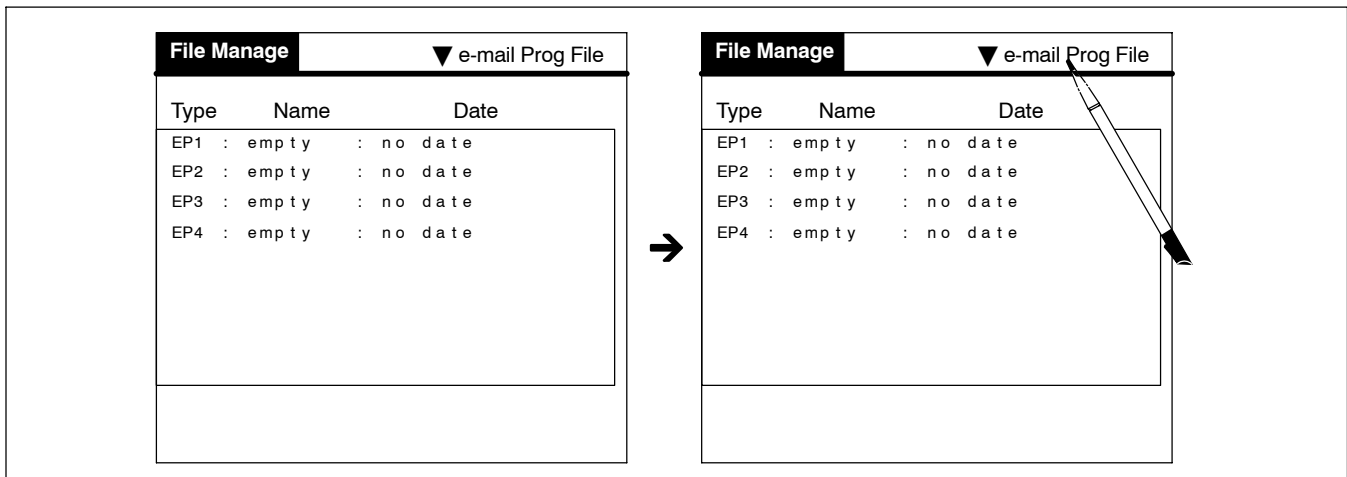


Figure 20-2. E-Mail Program File List

Tap e-mail Config File (see Figure 20-3).

The e-mail Config File provides 1 empty slot for a file to either send or receive by e-mail.

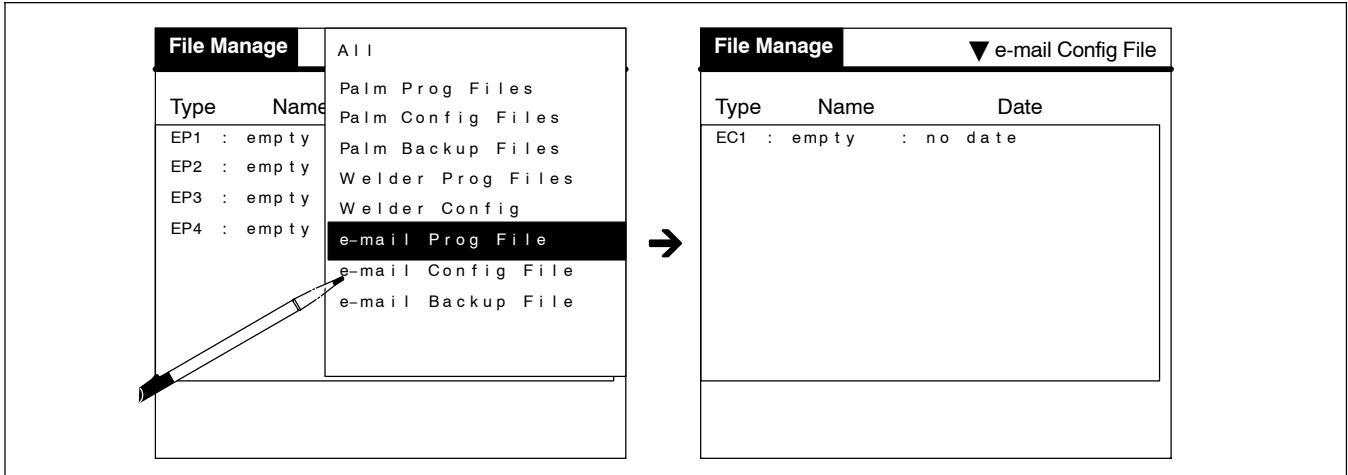


Figure 20-3. E-Mail Configuration File List

Tap e-mail Config File in the upper right portion of the display.

Tap e-mail Backup File.

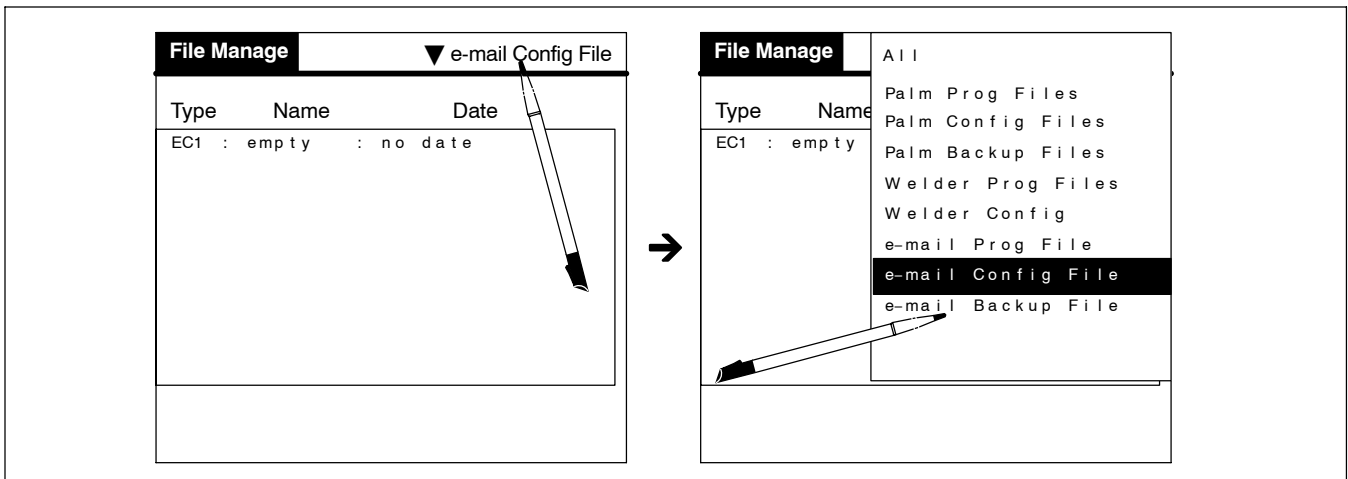


Figure 20-4. E-Mail Configuration File List

The e-mail Backup File provides 1 empty slot for a file to either send or receive by e-mail.

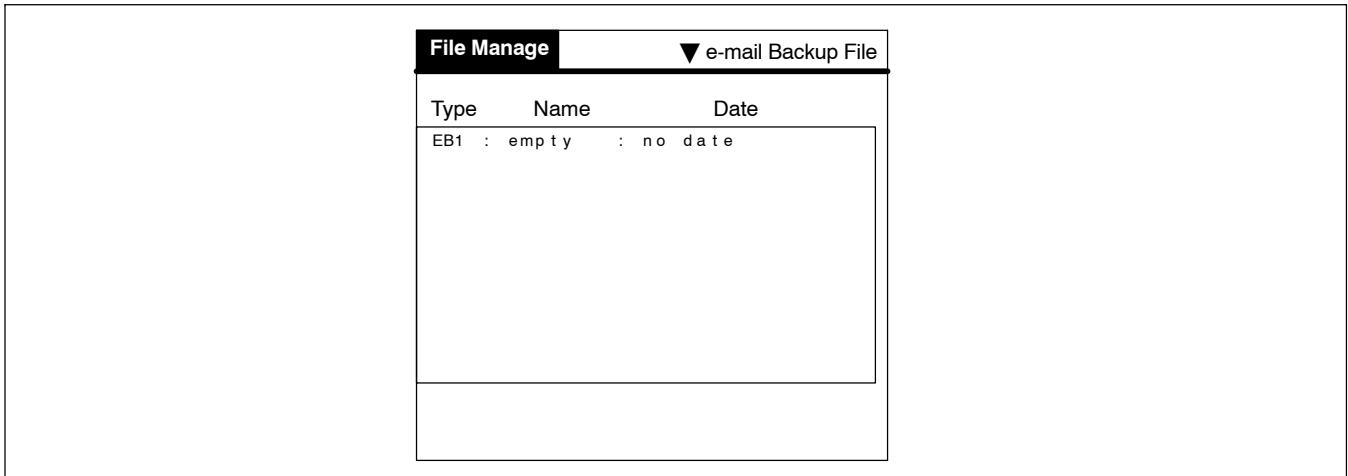


Figure 20-5. E-Mail Backup File List

19-2. Sending A PDA Program By E-mail

NOTE

The procedure for e-mailing a file is the same for a Welder Prog file, Welder Config file, or Palm Backup file; however, in each case the appropriate e-mail file location must be used to transfer the file.

To send a file by e-mail (e.g. Welder Prog File), proceed as follows:

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 20-6).

Tap All in upper right portion of display.

Tap Welder Prog Files in the popdown menu.

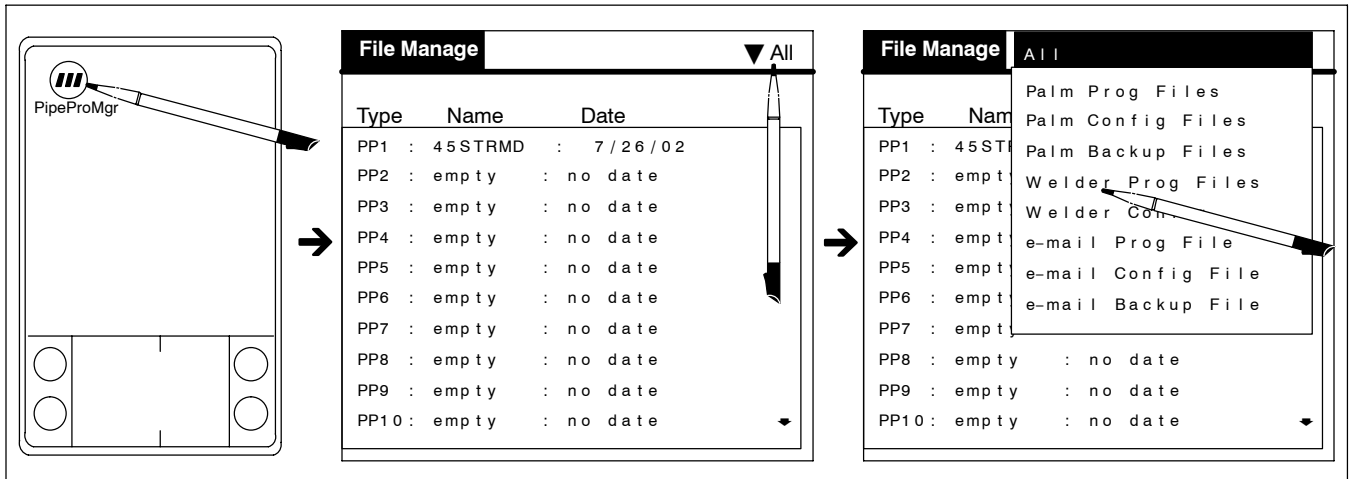


Figure 20-6. Initial Display From Main Menu

Use stylus to tap the desired program to be copied (e.g. WP7), and the line will highlight on the display (see Figure 20-7).

Tap File Manage in upper left portion of display.

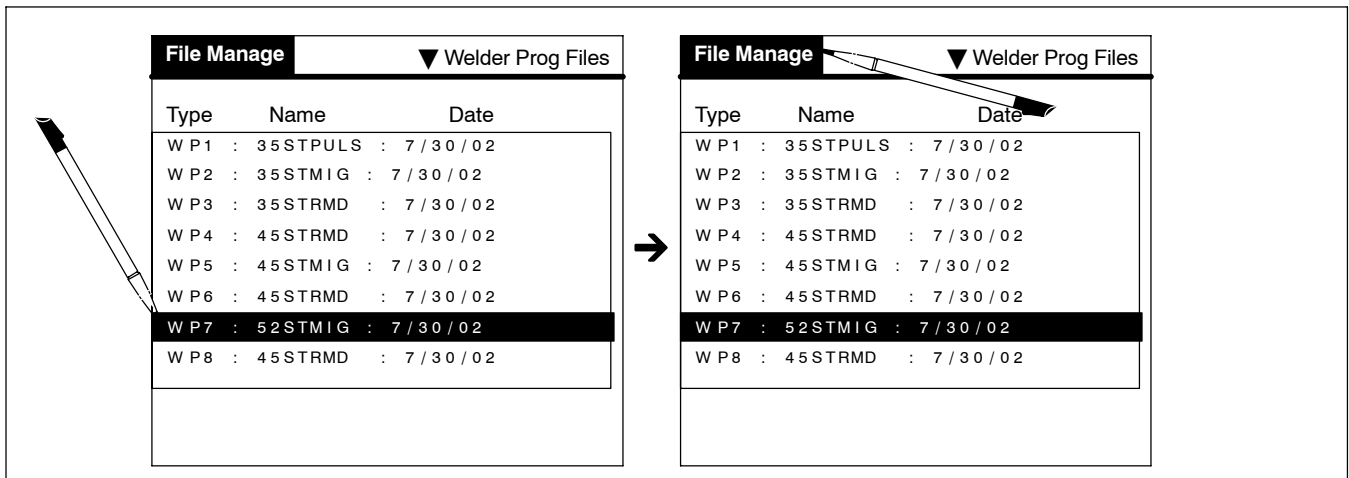


Figure 20-7. File Manage For File Copy And Paste Selection

Use stylus to tap Copy File (see Figure 20-8).

Tap Welder Prog Files.

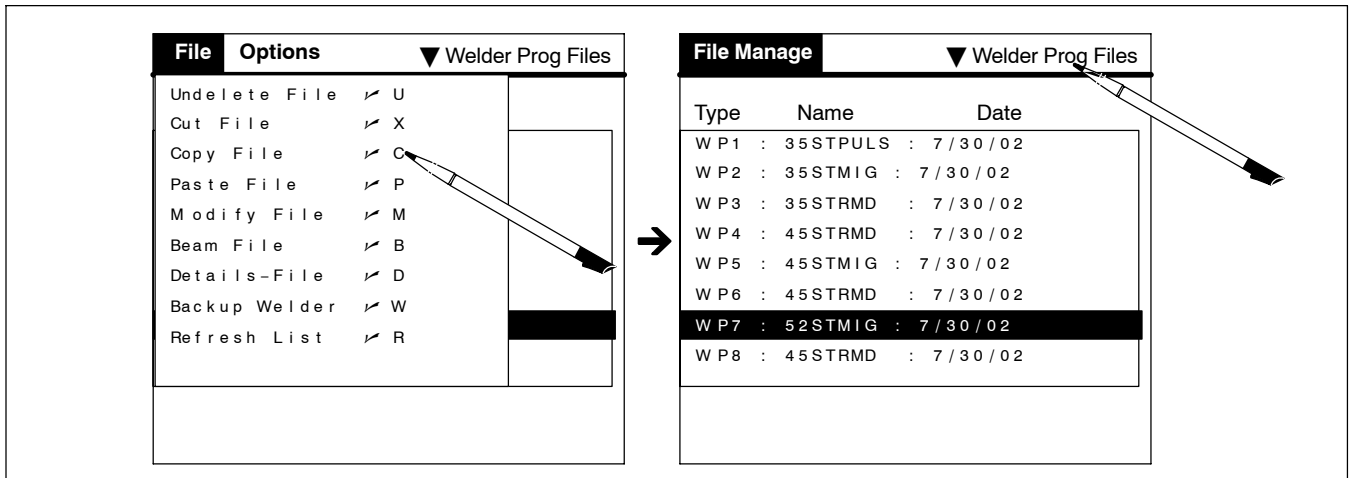


Figure 20-8. File Copy Selection

Tap e-mail Prog File.

Tap an empty Palm Program file (e.g. EP1).

If this were for a Config File the selection would be e-mail Config File and the file location would be EC1. Also, If this were for a Backup File the selection would be e-mail Backup File and the file location would be EB1.

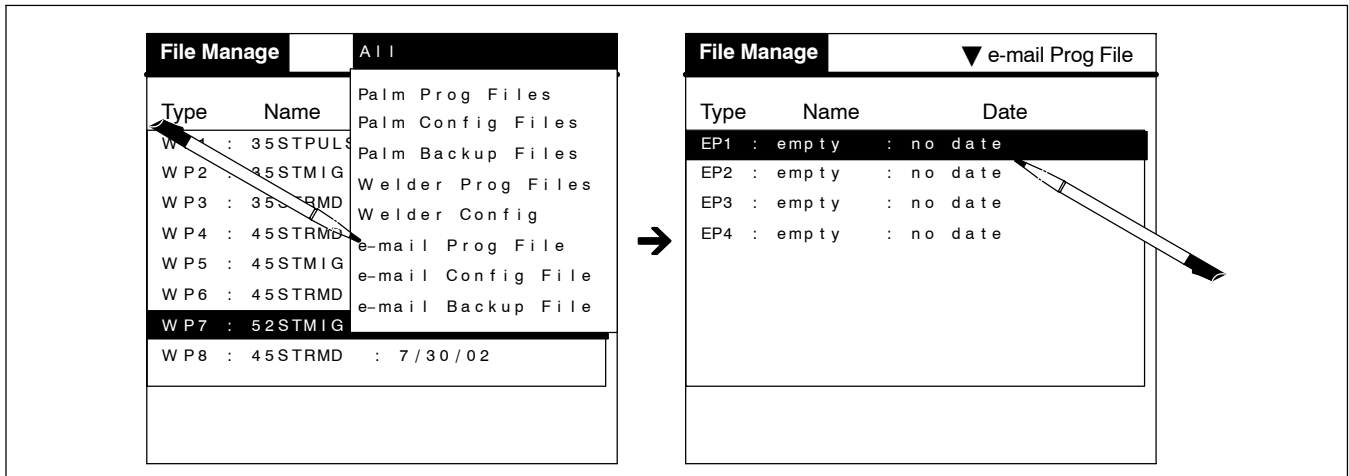


Figure 20-9. Selecting A File Paste Location

Tap File Manage in upper left portion of display.

Tap Paste File.

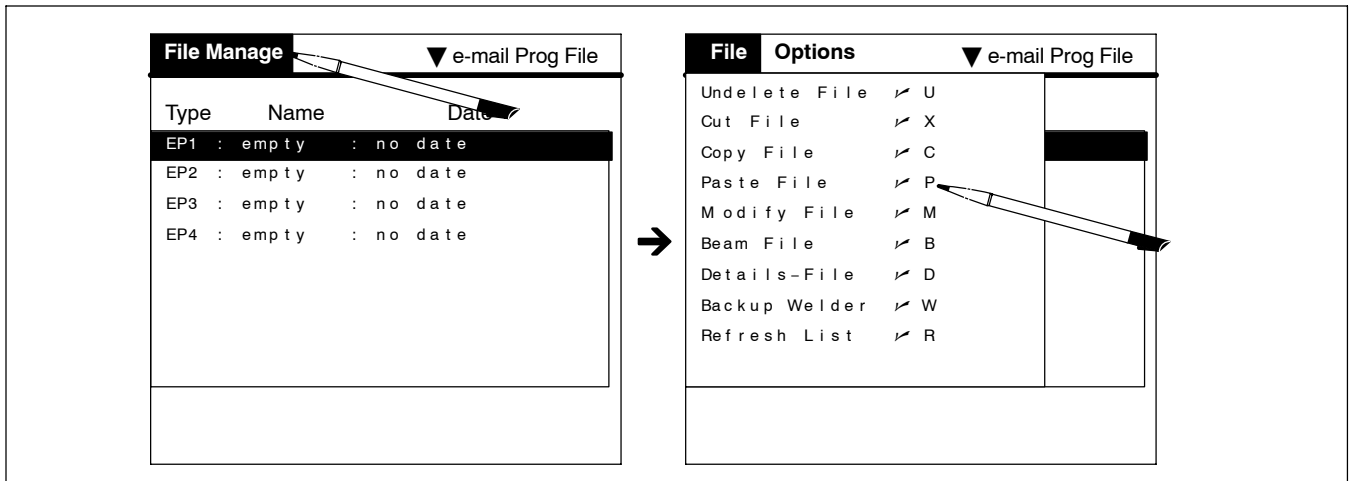


Figure 20-10. Selecting The Paste Function

A “File Copied Confirmation” message appears on the display. Tap OK.

The file name and date appear in the selected e-mail Prog File location (EP1).

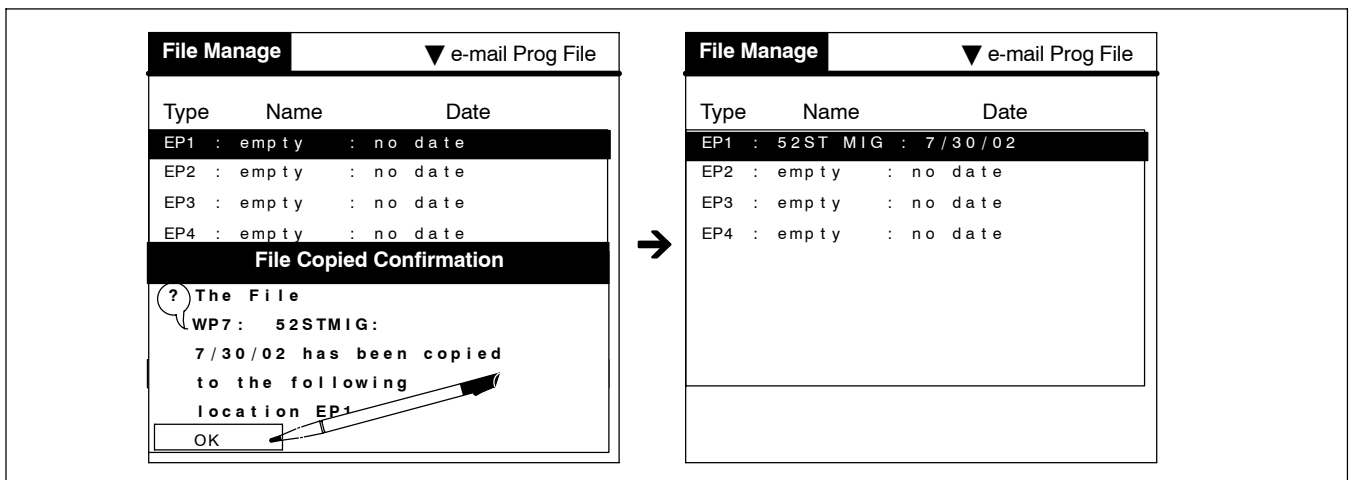


Figure 20-11. Final Display After The Paste Operation

Disconnect the serial interface cable from the welding power source and connect to the serial port on the PC. Connect the PDA and turn it on.

The HotSync operation can be performed by using different methods. Either press the Hotsync button on the serial interface cable connector at the PDA or tap Card in the upper right hand portion of the display, tap All, tap the HotSync program, and tap the HotSync symbol.

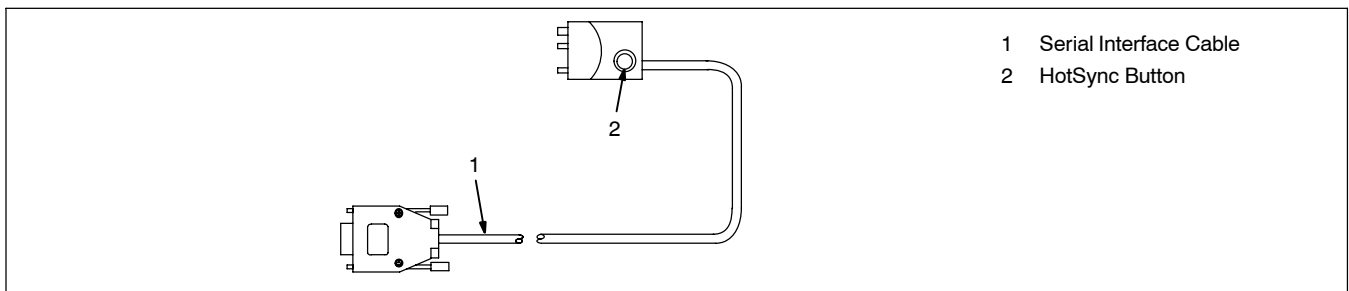


Figure 20-12. HotSync Button Location

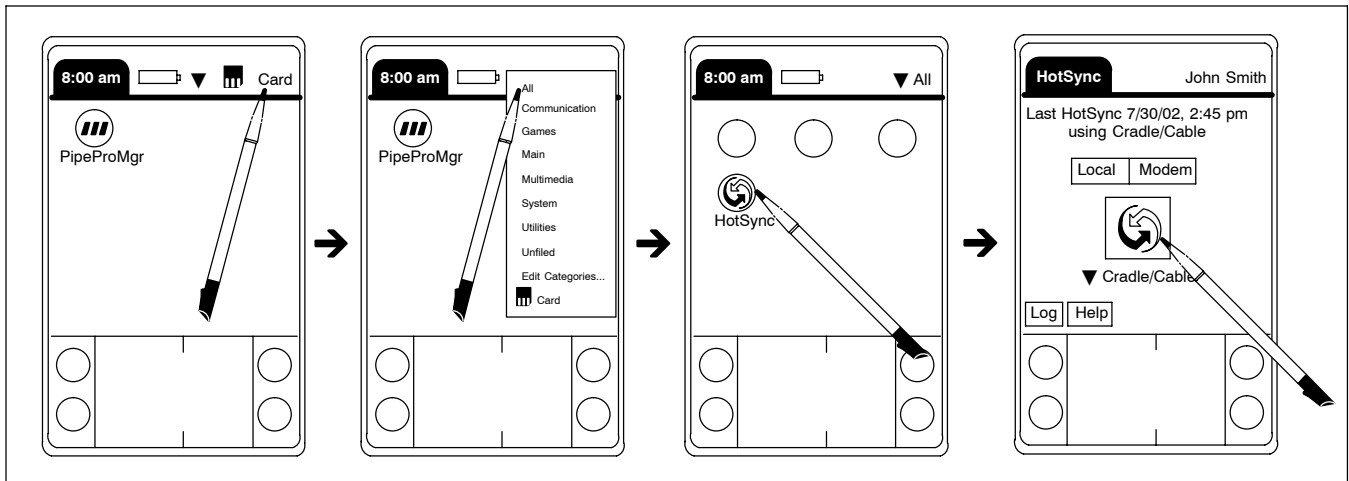


Figure 20-13. Selecting The HotSync Operation

If this is the first time running HotSync, a user name must be entered. Choosing a user name will affect how the user file will appear in the PC program. Some examples of how the user appears are as follows:

If a user name is John Smith, the PC file name will be SmithJ. The Palm file selects the first six letters of the last name and first letter of the first name. Smith is five letters long, so the Palm file selects the entire last name and the first letter of the the first name.

If a user name is John L Smith, the PC file name will be LJ. The letter L will be considered the last name which is only a single letter and then the first letter of the first name.

Once the HotSync process is done, the Welder Prog file, 52ST MIG, will be transferred to the PC.

To locate the transferred file, open Windows Explorer and select the path as follows:

c:\Program Files\Palm\SmithJ\Backup\M_Email_Prog1_DB.PDB

The file named M_Email_Prog1_DB.PDB contains the Welder Prog file 52ST MIG.

If the e-mail file location had been EP2, the file containing the weld program would be M_Email_Prog2_DB.PDB and the same applies to EP3 and EP4. Remember to select the correct file name that contains the weld program to be sent by e-mail.

If this were for a Config File the file name would be M_Email_Config_DB.PDB that contained the Config File. Also, If this were for a Backup File the file name would be M_Email_Backup_DB.PDB that contained the Backup File.

Open the e-mail software on the PC and select M_Email_Prog1_DB.PDB as the attachment file. Select send to e-mail the file to the desired destination.

19-3. Receiving A PDA Program By E-mail

NOTE

Files received by e-mail will be placed in the same location at the destination as it was sent from by the source. As an example, If a Welder Prog file was sent from EP1 in the e-mail Prog File list from the source, it will be received at EP1 in the e-mail Prog File list at the destination. This means if a file is currently in this location on the PDA, it will be overwritten when another file is received during the HotSync operation. To keep or use any of these files, they should be moved into one of the Palm Group [Palm Prog (PP file), Palm Config (PC file), or Palm Backup (PB file)].

To receive a file by e-mail (e.g. Welder Prog File), proceed as follows:

Open the e-mail software on the PC and find the e-mail message that contains M_Email_Prog1_DB.PDB as the attachment file sent from the source.

If the e-mail file location had been EP2, the file containing the weld program would be M_Email_Prog2_DB.PDB and the same applies to EP3 and EP4.

If this were for a Config File the file name would be M_Email_Config_DB.PDB that contained the Config File. Also, If this were for a Backup File the file name would be M_Email_Backup_DB.PDB that contained the Backup File.

Either double click on the attachment file or right click and select "Open With..." and open the file with palmOne Quick Install software. A "Confirm Add" message should appear on screen indicating the file M-Email_Prog1_DB.PDB will be placed on your handheld during the next HotSync operation.

Select OK to remove the message.

If more than one user is assigned to the palmOne Quick Install program, be sure that the correct user name for the receiving PDA appears in the "User" selection box in the upper right hand portion of the display.

Disconnect the serial interface cable from the welding power source and connect to the serial port on the PC.

Connect the PDA and turn it on.

The HotSync operation can be performed by using different methods. Either press the Hotsync button on the serial interface cable connector at the PDA or tap Card in the upper right hand portion of the display, tap All and tap the HotSync program.

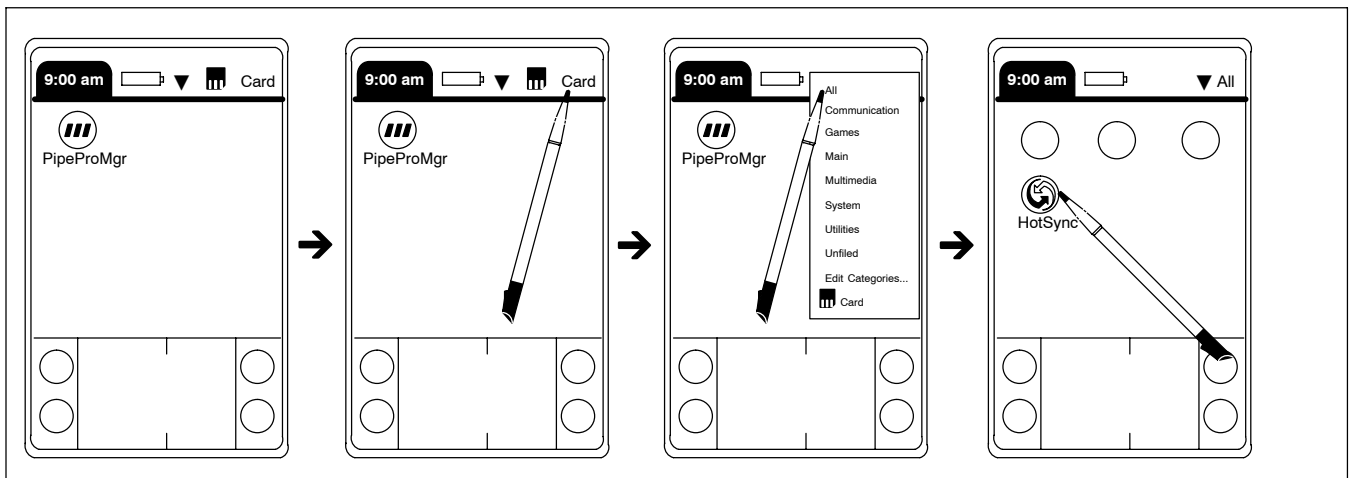


Figure 20-14. Selecting The HotSync Operation

Once the HotSync process is done, the Welder Prog file, 52ST MIG, will be transferred to the PDA.

Return to the Card display and use stylus to tap PipeProMgr program (see Figure 20-15).

Tap All in upper right portion of display.

Tap e-mail Prog File.

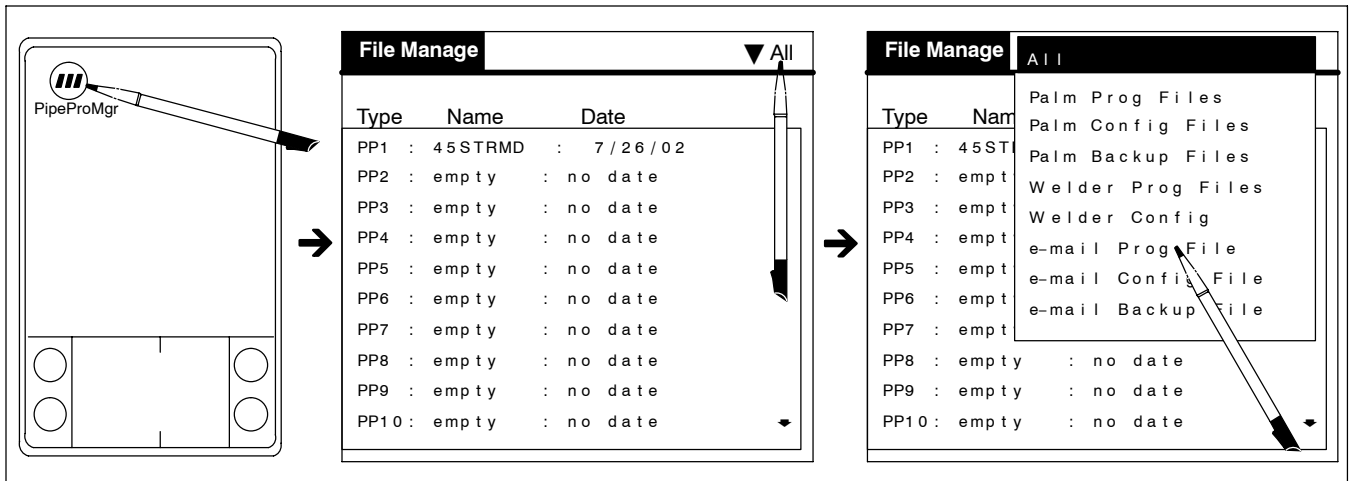


Figure 20-15. Initial Screen From Main Menu

The e-mail Prog File EP1 will now contain Welder Prog file 52ST MIG.

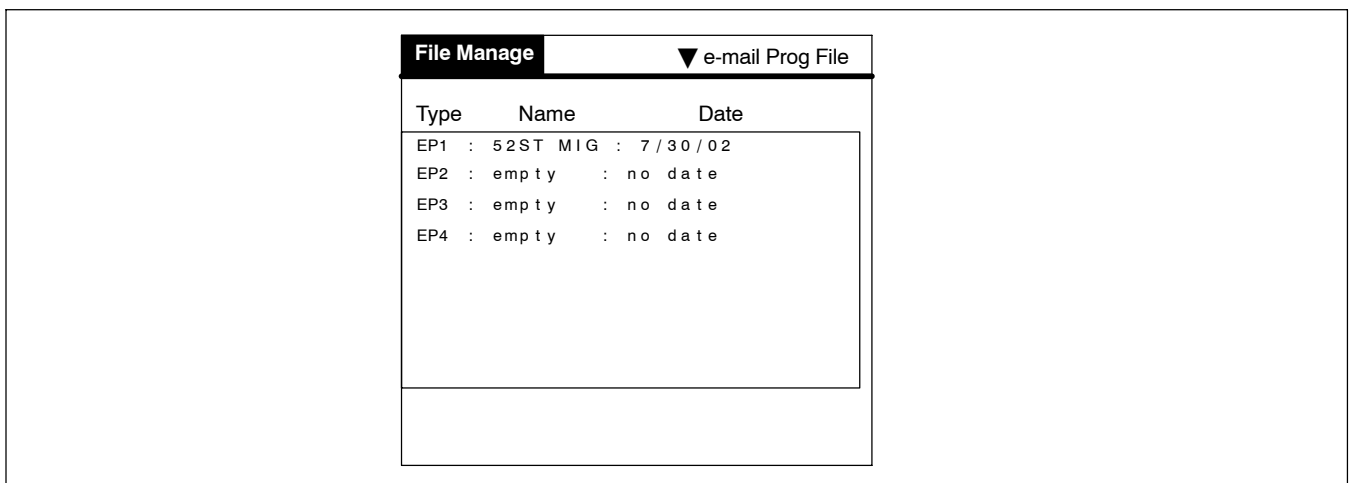


Figure 20-16. E-Mail Program File List

Tap desired selection to continue PDA operations.

SECTION 20 – PASSWORD

Turn on PDA. Use stylus to tap PipeProMgr program (see Figure 21-1).

Tap File Manage in upper left portion of display.

Tap Options.

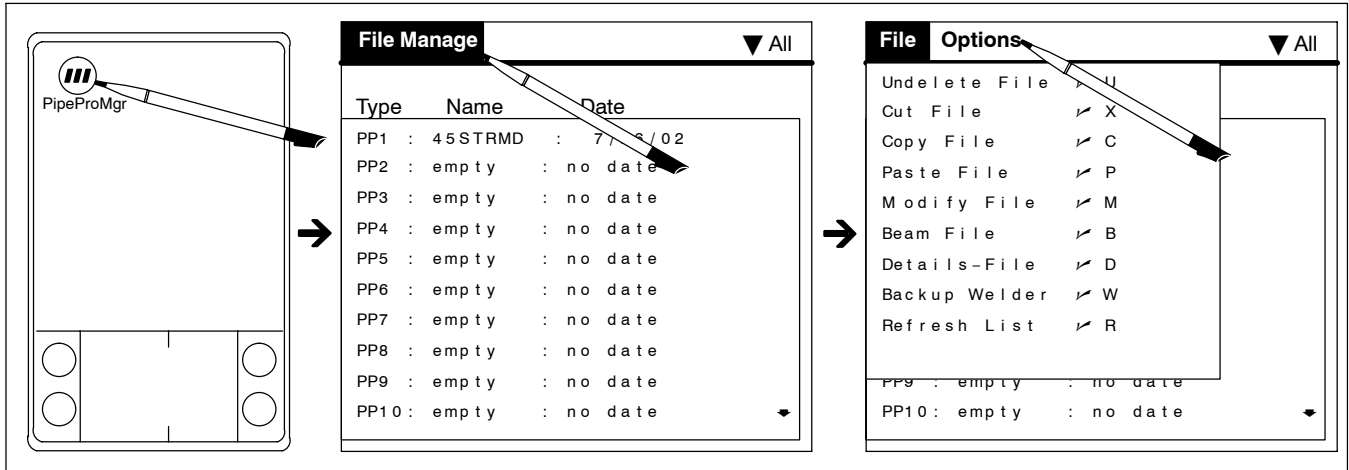


Figure 21-1. Initial Display From Main Menu

Tap Set Password in the popdown menu.

The password screen will appear on the display.

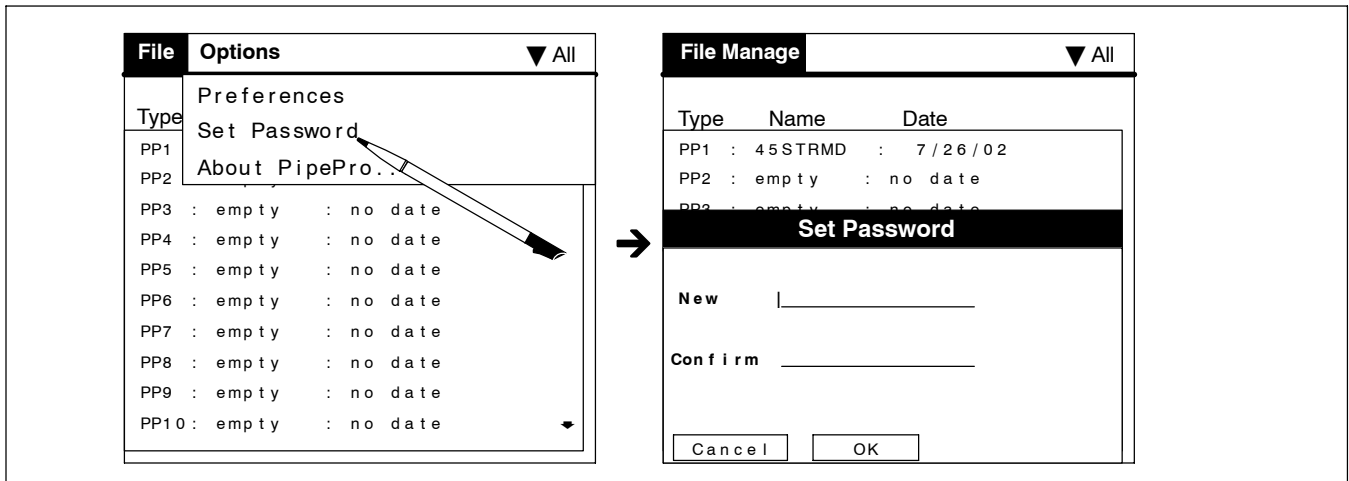



Figure 21-2. PipeProMgr Password Display

Enter the desired password in the New field (password will display as asterisks). Enter the same password again in the Confirm field (password will display as asterisks).

NOTE  To clear your password, leave both the New and Confirm fields blank.

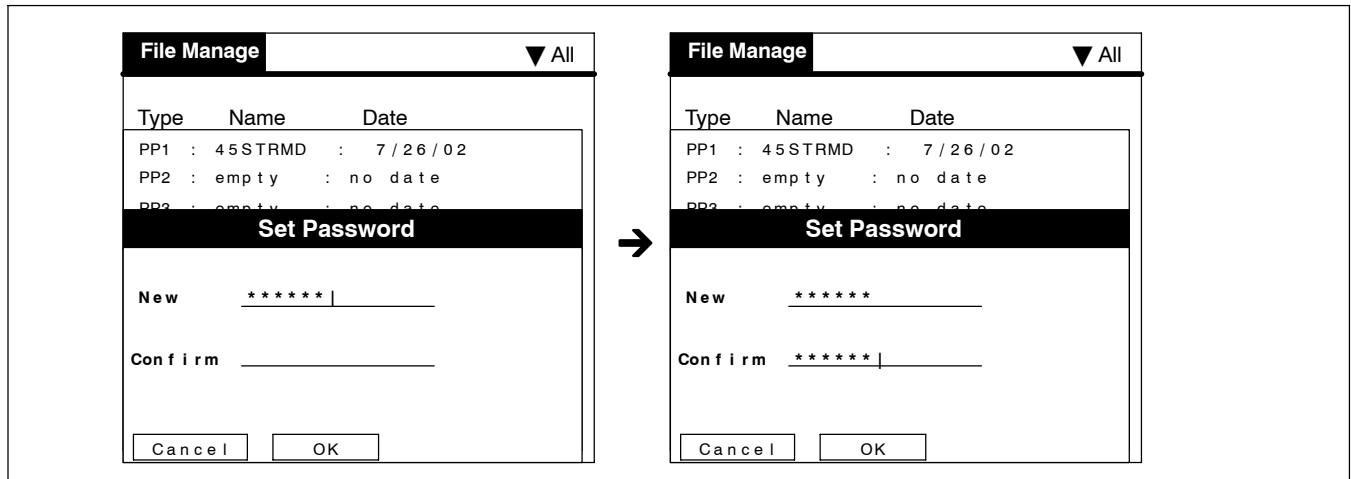


Figure 21-3. PipeProMgr Password Display

Tap OK with the stylus.

A confirmation dialog will display asking whether or not you are sure you wish to change/clear your password.

Tap OK with the stylus.

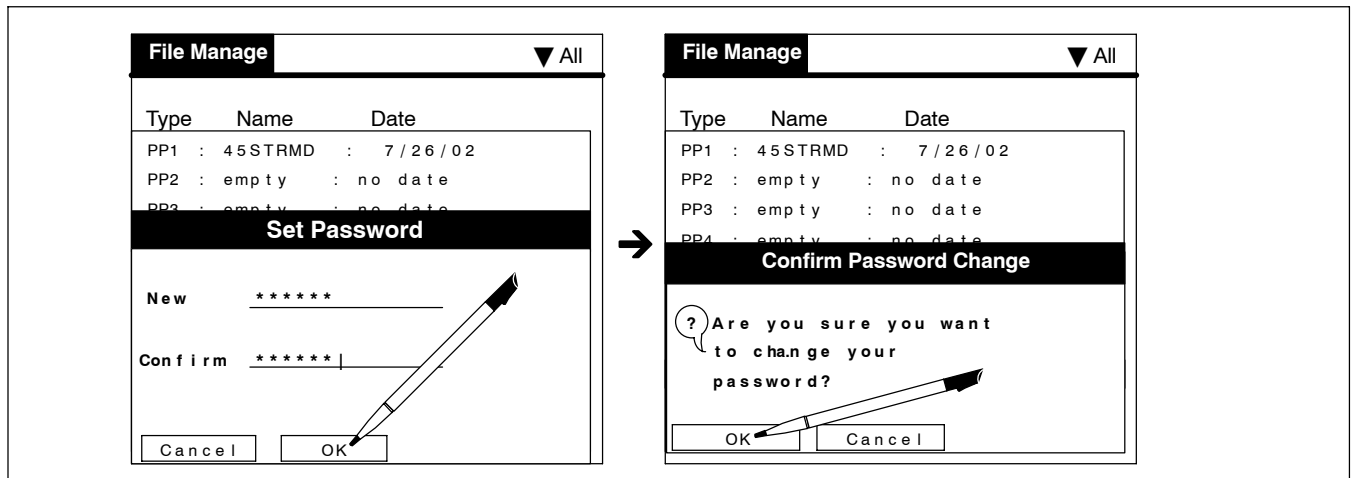


Figure 21-4. Setting Password Display

A status dialog will display reporting that the password has been saved/cleared.

Tap OK with the stylus.

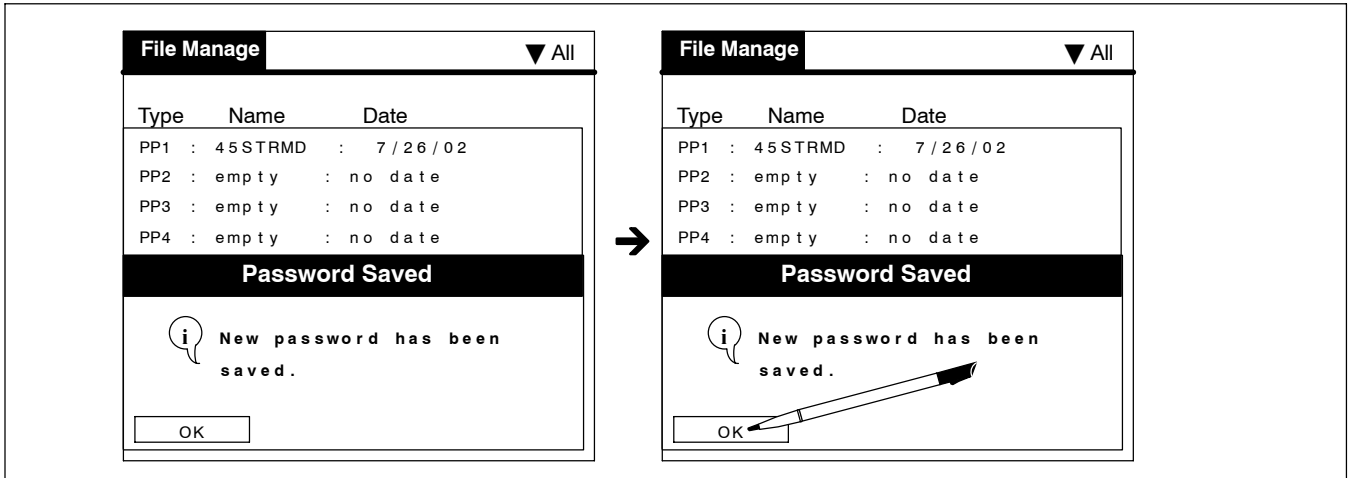


Figure 21-5. Saving Password Display

If a password has been programmed for the welding power source, you will automatically be prompted to enter your password when necessary.

Enter the password and tap OK with the stylus.

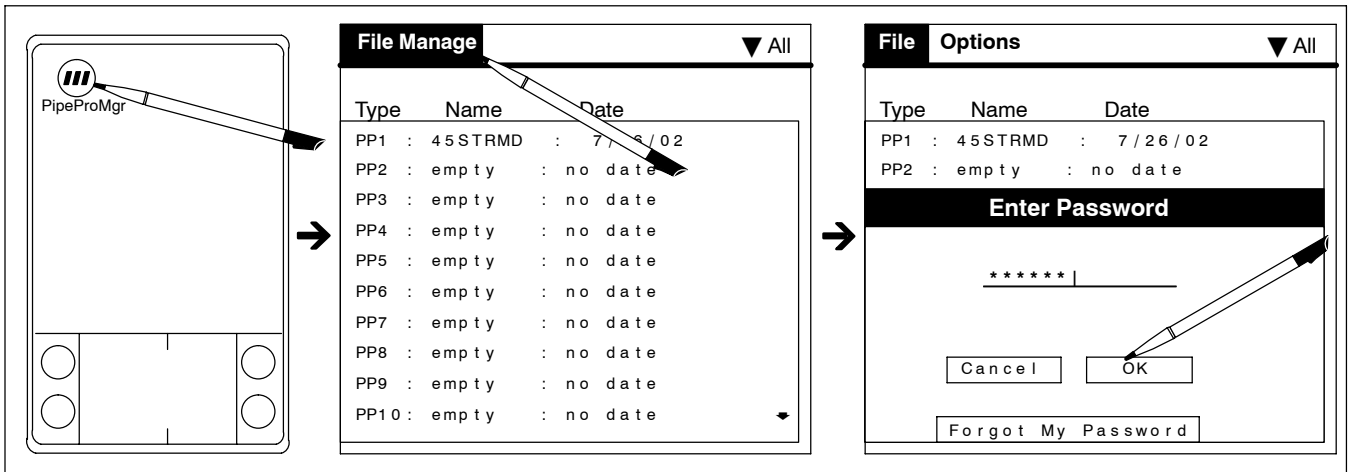


Figure 21-1. Initial Display From Main Menu

If you have forgotten your password, tap **Forgot My Password** with the stylus when prompted for the password. You will be prompted for a retrieval code which must be obtained from Miller Electric. You must provide the Serial Number and Time Code provided on the **Forgot Password** display. The password retrieval code is valid for approximately three hours of cumulative time that the welding power source is turned on after the time code was obtained.

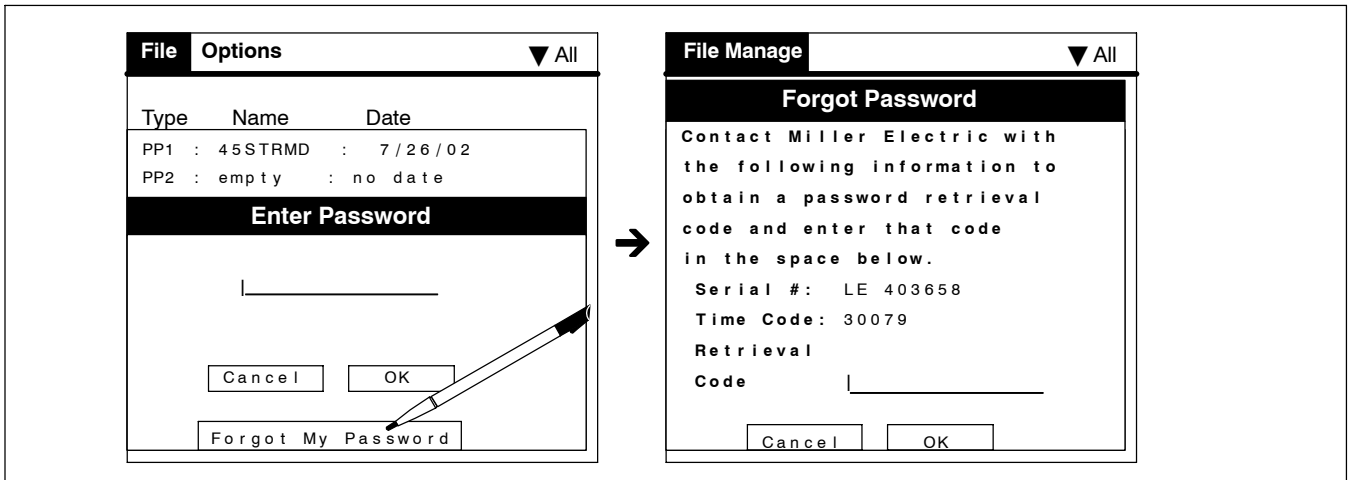


Figure 21-2. Entering Preferences Settings

Enter the retrieval code and tap **OK** with the stylus. A dialog will display the current password. Tap **OK** with the stylus.

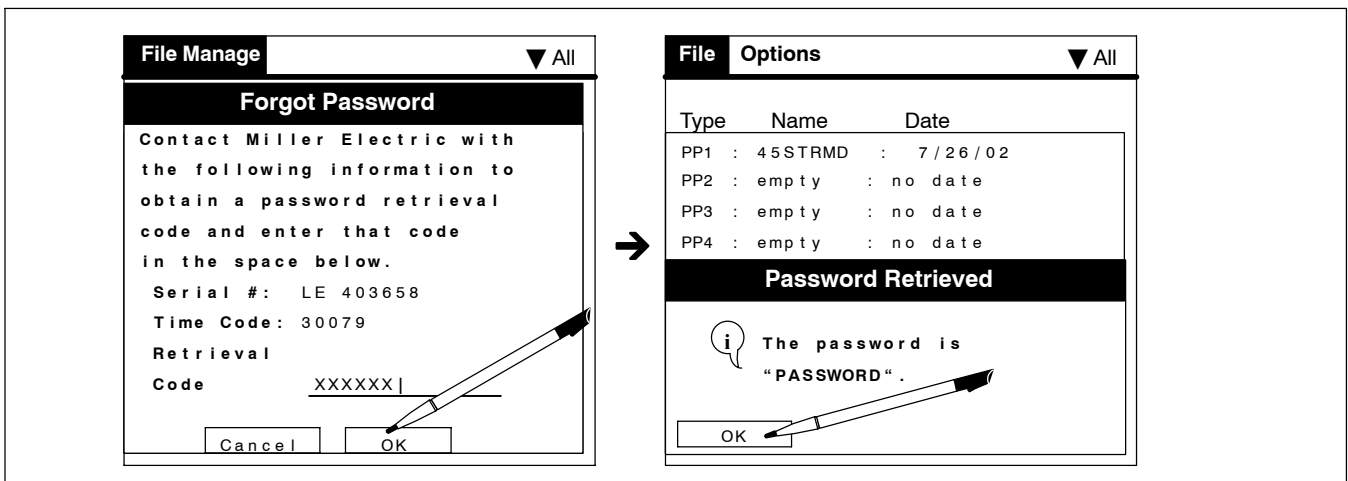


Figure 21-3. Entering Preferences Settings

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WARRANTY

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tough welding questions?
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distributor and Miller is
there to help you, every
step of the way.

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Within the warranty periods listed below, Miller will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. Miller must be notified in writing within thirty (30) days of such defect or failure, at which time Miller will provide instructions on the warranty claim procedures to be followed.

Miller shall honor warranty claims on warranted equipment listed below in the event of such a failure within the warranty time periods. All warranty time periods start on the date that the equipment was delivered to the original retail purchaser, or one year after the equipment is sent to a North American distributor or eighteen months after the equipment is sent to an International distributor.

1. 5 Years Parts — 3 Years Labor
 - * Original main power rectifiers
 - * Inverters (input and output rectifiers only)
2. 3 Years — Parts and Labor
 - * Transformer/Rectifier Power Sources
 - * Plasma Arc Cutting Power Sources
 - * Semi-Automatic and Automatic Wire Feeders
 - * Inverter Power Sources (Unless Otherwise Stated)
 - * Water Coolant Systems (Integrated)
 - * Intelligig
 - * Maxstar 150
 - * Engine Driven Welding Generators
(NOTE: Engines are warranted separately by the engine manufacturer.)
3. 1 Year — Parts and Labor Unless Specified
 - * DS-2 Wire Feeder
 - * Motor Driven Guns (w/exception of Spoolmate Spoolguns)
 - * Process Controllers
 - * Positioners and Controllers
 - * Automatic Motion Devices
 - * RFCS Foot Controls
 - * Induction Heating Power Sources and Coolers
 - * Water Coolant Systems (Non-Integrated)
 - * Flowgauge and Flowmeter Regulators (No Labor)
 - * HF Units
 - * Grids
 - * Maxstar 85, 140
 - * Spot Welders
 - * Load Banks
 - * Arc Stud Power Sources & Arc Stud Guns
 - * Racks
 - * Running Gear/Trailers
 - * Plasma Cutting Torches (except APT & SAF Models)
 - * Field Options
(NOTE: Field options are covered under True Blue[®] for the remaining warranty period of the product they are installed in, or for a minimum of one year — whichever is greater.)
4. 6 Months — Batteries
5. 90 Days — Parts
 - * MIG Guns/TIG Torches

- * Induction Heating Coils and Blankets
- * APT & SAF Model Plasma Cutting Torches
- * Remote Controls
- * Accessory Kits
- * Replacement Parts (No labor)
- * Spoolmate Spoolguns
- * Canvas Covers

Miller's True Blue[®] Limited Warranty shall not apply to:

1. **Consumable components; such as contact tips, cutting nozzles, contactors, brushes, slip rings, relays or parts that fail due to normal wear. (Exception: brushes, slip rings, and relays are covered on Bobcat, Trailblazer, and Legend models.)**
2. Items furnished by Miller, but manufactured by others, such as engines or trade accessories. These items are covered by the manufacturer's warranty, if any.
3. Equipment that has been modified by any party other than Miller, or equipment that has been improperly installed, improperly operated or misused based upon industry standards, or equipment which has not had reasonable and necessary maintenance, or equipment which has been used for operation outside of the specifications for the equipment.

MILLER PRODUCTS ARE INTENDED FOR PURCHASE AND USE BY COMMERCIAL/INDUSTRIAL USERS AND PERSONS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF WELDING EQUIPMENT.

In the event of a warranty claim covered by this warranty, the exclusive remedies shall be, at Miller's option: (1) repair; or (2) replacement; or, where authorized in writing by Miller in appropriate cases, (3) the reasonable cost of repair or replacement at an authorized Miller service station; or (4) payment of or credit for the purchase price (less reasonable depreciation based upon actual use) upon return of the goods at customer's risk and expense. Miller's option of repair or replacement will be F.O.B., Factory at Appleton, Wisconsin, or F.O.B. at a Miller authorized service facility as determined by Miller. Therefore no compensation or reimbursement for transportation costs of any kind will be allowed.

TO THE EXTENT PERMITTED BY LAW, THE REMEDIES PROVIDED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL MILLER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT), WHETHER BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY OR REPRESENTATION AS TO PERFORMANCE, AND ANY REMEDY FOR BREACH OF CONTRACT TORT OR ANY OTHER LEGAL THEORY WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, WITH RESPECT TO ANY AND ALL EQUIPMENT FURNISHED BY MILLER IS EXCLUDED AND DISCLAIMED BY MILLER.

Some states in the U.S.A. do not allow limitations of how long an implied warranty lasts, or the exclusion of incidental, indirect, special or consequential damages, so the above limitation or exclusion may not apply to you. This warranty provides specific legal rights, and other rights may be available, but may vary from state to state.

In Canada, legislation in some provinces provides for certain additional warranties or remedies other than as stated herein, and to the extent that they may not be waived, the limitations and exclusions set out above may not apply. This Limited Warranty provides specific legal rights, and other rights may be available, but may vary from province to province.





Owner's Record

Please complete and retain with your personal records.

Model Name

Serial/Style Number

Purchase Date

(Date which equipment was delivered to original customer.)

Distributor

Address

City

State

Zip



For Service

Contact a DISTRIBUTOR or SERVICE AGENCY near you.

Always provide Model Name and Serial/Style Number.

Contact your Distributor for:

Welding Supplies and Consumables

Options and Accessories

Personal Safety Equipment

Service and Repair

Replacement Parts

Training (Schools, Videos, Books)

Technical Manuals (Servicing Information and Parts)

Circuit Diagrams

Welding Process Handbooks

To locate a Distributor or Service Agency visit www.millerwelds.com or call 1-800-4-A-Miller

Contact the Delivering Carrier to:

File a claim for loss or damage during shipment.

For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.

Miller Electric Mfg. Co.

An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters—USA

USA Phone: 920-735-4505 Auto-Attended
USA & Canada FAX: 920-735-4134
International FAX: 920-735-4125

European Headquarters – United Kingdom

Phone: 44 (0) 1204-593493
FAX: 44 (0) 1204-598066

www.MillerWelds.com

