Avery Weigh-Tronix

Model E1070 Indicator

E1070

User Instructions

ENGLISH

43094-0015A e1 *May 16, 2006*

IMPORTANT

When programming or configuring the equipment you must ensure that you comply with all relevant standards and legislation. The example settings given in this book may not be legal for trade with the public.

Declarations of compliance

United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n’émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.

European Countries

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which the user may be required to take adequate measures.

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

ATTENTION: IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE, REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE ÉQUIVALENT RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

CAUTION: THE POWER SUPPLY CORD IS USED AS THE MAIN DISCONNECT DEVICE, ENSURE THAT THE SOCKET-OUTLET IS LOCATED/INSTALLED NEAR THE EQUIPMENT AND IS EASILY ACCESSIBLE

ATTENTION: LE CORDON D'ALIMENTATION EST UTILISÉ COMME INTERRUPTEUR GÉNÉRAL. LA PRISE DE COURANT DOIT ÊTRE SITUÉE OU INSTALLÉE À PROXIMITÉ DE L'ÉQUIPEMENT ET ÊTRE FACILE D'ACCÉS".

CE

Declaration of Conformity

Manufacturer	Avery Weigh-Tronix
Type	E1065, E1070
No. of EC type approval certificate	UK 2722

corresponds to the requirements of the following EC directives:

Non–Automatic Weighing Instruments Directive	90/384/EEC [1]
EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC

The applicable harmonised standards are:	EN 45501, EN 61000-4, EN 55022, EN 60950

Note [1] : This declaration is only valid if the non–automatic weighing instrument was verified by the manufacturer **or** with a certificate of conformity issued by a notified body.

A copy of the original signed declaration for this instrument is available from:

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

CE Verklaring van Overeenstemming

Fabrikant	Avery Weigh-Tronix
Type	E1065, E1070
Nummer van de Verklaring van EG-typegoedkeuring	UK2722

is in overeenstemming met de voorschriften van de volgende EG-richtlijnen:

Richtlijn Niet-automatische Weegwerktuigen	90/384/EEG [1]
Richtlijn EMC	89/336/EEG
Richtlijn Laagspanning	73/23/EEG

Toegepaste geharmoniseerde normen:	EN 45501, EN 61000-4 EN 55022, EN60950

Noot [1] : Deze verklaring is alleen geldig indien het weegwerktuig door de fabrikant is geverifieerd **of** met een Verklaring van Overeenstemming, afgegeven door een bevoegde instantie

Een kopie van de originele ondertekende verklaring is verkrijgbaar door contact op te nemen met:

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

CE

Déclaration de Conformité

Fabricant	Avery Weigh-Tronix
Type	E1065, E1070
No. de certificat d'approbation de type CE	UK2722

correspond aux exigences des directives CE suivantes :

Directive pour les instruments de pesage à fonctionnement non automatique	90/384/CEE [1]
Directive CEM	89/336/CEE
Directive Basse Tension	73/23/CEE

Les normes harmonisées applicables sont :	EN 45501, EN 61000-4 EN 55022, EN 60950

Nota [1] : Cette déclaration est valide seulement si l'instrument de pesage à fonctionnement non automatique a été vérifié par le fabricant **ou** avec une attestation de conformité délivrée par un organisme notifié.

Une copie originale de la déclaration signée pour cet appareil est disponible à l'adresse suivante :

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

CE

Konformitätserklärung

Hersteller	Avery Weigh-Tronix
Typ	E1065, E1070
Nr. der EU-Bauartzulassung	UK2722

entspricht den Anforderungen folgender EU-Richtlinien:

Waagenrictlinie für nichtselbsttätige Waagen	90/384/EWG[1]
EMV-Richtlinie	89/336/EWG
Niederspannungsrichtlinie	73/23/EWG

Die angewendeten harmonisierten Normen sind:	EN 45501, EN 61000-4 EN 55022, EN 60950

Anmerkung [1]: Diese Erklärung gilt nur, wenn die nichtselbsttätige Waage vom Hersteller geeicht wurde **oder** in Verbindung mit einer Konformitätsbescheinigung einer benannten Stelle.

Eine Abschrift der original unterschriebenen Konformitätserklärung ist unter untengenannter Adresse erhältlich von:

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

CE Dichiarazione di conformità

Produttore	Avery Weigh-Tronix
Tipo	E1065, E1070
N. - certificato di approvazione CE	UK2722

conforme alle caratteristiche previste dalle seguenti direttive CE:

Normativa per satrumenti di pesatura non automatici	90/384/CEE [1]
Normativa EMC	89/336/CEE
Normativa per la bassa tensione	73/23/CEE

Le norme standard armonizzate applicate sono:	EN 45501, EN 61000-4 EN 55022, EN 60950

Nota [1] : Questa dichiarazione è valida solamente se lo strumento di pesatura non automatico è stato verificato dal produttore **o** provvisto di un certificato di conformità rilasciato da un ente riconosciuto.

Se richiesta, è disponibile una copia del certificato originale firmato presso:

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

CE

Declaración de Conformidad

Fabricante	Avery Weigh-Tronix
Tipo	E1065, E1070
Número del certificado de homologación CE	UK2722

conforme a las exigencias de las siguientes directivas CE:

Directiva para equipos de pesaje no automáticos	90/384/EEC [1]
Directiva CEM	89/336/EEC
Directiva de baja tensión	73/23/EEC

Las normas armonizadas en vigor son:	EN 45501, EN 61000-4 EN 55022, EN60950

Nota [1] : Esta declaración es válida solamente si el equipo de pesaje no automático ha sido verificado por el fabricante **o** con certificado de conformidad emitido por un organismo notificado.

Una copia del certificado de homologación que corresponde a este equipo se puede obtener en:

Avery Weigh-Tronix, Foundry Lane, Smethwick, West Midlands B66 2LP England

Contents

page

Safety and Warnings

1

1.1 Installation and service (English)

THE EQUIPMENT CONTAINS NO USER SERVICEABLE COMPONENTS.

Installation and maintenance of the equipment must only be carried out by trained and authorized personnel.

1.2 Electrical installation

The mains lead must be connected to a supply outlet with a protective earth contact. The electrical supply at the socket outlet must provide over current protection of an appropriate rating.

For your protection all mains (110V or 230V) equipment used out of doors or in wet or damp conditions should be supplied from a correctly fused source and protected by an approved ground fault protection device (RCD, GFCI etc.)
IF IN DOUBT SEEK ADVICE FROM A QUALIFIED ELECTRICIAN.

Pluggable equipment

Pluggable equipment must be installed near an easily accessible socket outlet.

Permanently wired equipment - Isolator requirements

Permanently connected equipment must have a readily accessible disconnect device incorporated in the fixed wiring. (An isolator or circuit breaker with at least 3mm contact separation).

The isolator MUST NOT be installed into the flexible mains cable supplied with the unit.

Electrical installation - (supplementary notes for wet conditions)

Under wet conditions the plug must be connected to the final branch circuit via an appropriate socket / receptacle designed for wash down use.

Installations within the USA should use a 'Rain tight while in use specification grade cover', such as those manufactured by Leviton. These allow the unit to be plugged in with a rain tight cover fitted over the plug / receptacle allowing it to meet a NEMA 3R rating, as required by the national electrical code under section 410-57. Note that the particular cover mentioned is listed in UL file #E13397.

Installations within Europe must use a socket which provides a minimum of IP56 protection to the plug / cable assembly. Care must be taken to ensure that the degree of protection provided by the socket is suitable for the environment.

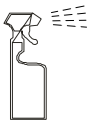
1.3 Routine maintenance

To avoid the possibility of electric shock or damage to the machine, always switch off the machine and isolate from the power supply before carrying out any routine maintenance.

To avoid the risk of the machine falling, where applicable, ensure that it is placed securely on a flat and level surface.

1.4 Cleaning the machine

The outside of standard products may be wiped down with a clean cloth, moistened with water containing a small amount of mild detergent.



Harsh abrasives, solvents, scouring cleaners and alkaline cleaning solutions, such as washing soda, should not be used especially on the display windows. Under no circumstances should you attempt to wipe the inside of the machine.

Do not spray any liquid directly onto the display windows. If you are using a proprietary cleaning fluid ensure you spray the cloth and not the display.

1.5 Training

Do not attempt to operate or carry out any procedure on a machine unless you have received the appropriate training or read the Instruction Books.

To avoid the risk of RSI (Repetitive Strain Injury) it is important to ensure that the machine is placed on a surface which is ergonomically satisfactory to the user. It is recommended that frequent breaks are taken during prolonged usage.

1.6 Sharp objects

Do not use sharp objects (screwdrivers, long fingernails etc.) to operate the keys.

1.7 EMC compliance

The following warning may be applicable to your machine.

WARNING:This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

1.8 Installatie en service (Dutch)

DE APPARATUUR BEVAT GEEN VOOR EEN SERVICEBEURT IN AANMERKING KOMENDE ONDERDELEN.

Installatie en onderhoud van de apparatuur mag alleen worden uitgevoerd door getraind en bevoegd personeel.

1.9 Elektrische installatie

De netstroomkabel moet worden aangesloten op een geaarde contactdoos. De stroomvoorziening op de contactdoos moet overstroombeveiliging van een toelaatbaar vermogen bieden.

Voor uw veiligheid moet alle in open lucht of onder natte of vochtige omstandigheden gebruikte netstroomapparatuur (110 V of 230 V) zijn voorzien van een goedgekeurde aansluitingsbescherming (RCD, GFCI enz.)
BIJ TWIJFEL DIENT ADVIES TE WORDEN GEVRAAGD AAN EEN GEKWALIFICEERDE ELEKTRICIEN.

Op een contactdoos aan te sluiten apparatuur

Op een contactdoos aan te sluiten apparatuur moet worden geïnstalleerd in de buurt van een goed te bereiken wandcontactdoos.

Permanent bedrade apparatuur - Vereisten voor isolatieschakelaar

Apparatuur die permanent op een contactdoos is aangesloten, moet in de vaste bedrading zijn voorzien van een goed te bereiken scheidingsschakelaar. (Een isolatieschakelaar of stroomonderbreker met een minimale contactscheiding van 3 mm).

De isolatieschakelaar MAG NIET worden geïnstalleerd in de met de installatie meegeleverde flexibele netstroomkabel.

Elektrische installatie - (aanvullende opmerkingen voor natte omstandigheden)

Onder natte omstandigheden moet de stekker op het eindtakcircuit worden aangesloten met een contactdoos dat geschikt is voor contact met water.

Installaties in de VS moeten gebruik maken van een ‘Rain tight while in use specification grade cover’, zoals die worden gemaakt door Leviton. Hierdoor kan de apparatuur worden aangesloten met een waterdicht deksel dat over de stekker / contactdoos wordt geplaatst. Zo voldoet de installatie aan NEMA 3R zoals vereist in de "national electrical code", sectie 410-57. Het betreffende deksel is vermeld in UL reg #E13397.

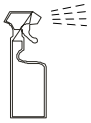
Installaties in Europa moeten gebruik maken van een stopcontact dat minimaal IP56 bescherming biedt aan de stekker / kabelassemblage. Men dient ervoor te zorgen dat de door de contactdoos geboden mate van bescherming geschikt is voor de omgeving.

1.10 Periodiek onderhoud

Schakel de apparatuur altijd uit en haal deze uit de contactdoos voordat u periodiek onderhoud pleegt om het risico van een elektrische schok of beschadiging van de apparatuur te voorkomen.

Zorg dat de apparatuur zich altijd op een vlak en effen oppervlak bevindt om te voorkomen dat deze op de grond valt.

1.11 Het apparaat reinigen



De buitenkant van de standaardproducten kan met een schone vochtige doek met een klein beetje mild reinigingsmiddel worden afgenomen.

Gebruik geen schuurmiddelen, oplosmiddelen, schuurpoeder of alkalische reinigingsmiddelen (zoals soda) om het apparaat te reinigen. Gebruik deze middelen in elk geval nooit op de displayvensters. De binnenkant van het apparaat mag nooit worden gereinigd.

Spuit geen vloeistof direct op het displayvenster. Als u een schoonmaakmiddel in een spuitbus gebruikt, spuit het middel op de doek en niet op het displayvenster.

1.12 Training

Tracht geen procedure op de machine uit te voeren, behalve wanneer u de relevante training gehad, of de instructieboeken gelezen heeft.

Om RSI (Repetitive Strain Injury = letsel door repetitieve werkzaamheden) te voorkomen, is het belangrijk ervoor te zorgen dat het apparaat op een werkoppervlak wordt geplaatst dat ergonomisch voldoet voor de gebruiker. In gevallen van lang gebruik adviseren wij regelmatig een pauze in te lassen.

1.13 Scherpe voorwerpen

Gebruik geen scherpe voorwerpen (schroevendraaiers, lange vingernagels etc.) om de toetsen te bedienen.

1.14 EMC-naleving

De volgende waarschuwing kan op uw apparaat van toepassing zijn.

WAARSCHUWING: Dit is een klasse A-product. In huiselijke omgeving kan dit product radiostoring veroorzaken in welk geval de gebruiker de noodzakelijke maatregelen dient te nemen.

1.15 Installation et Service (French)

CET EQUIPEMENT NE CONTIENT AUCUN COMPOSANT PERMETTANT L'INTERVENTION TECHNIQUE DE L'UTILISATEUR.

L'installation et la maintenance de cet équipement doivent être exécutées uniquement par du personnel spécifiquement formé et habilité à intervenir.

1.16 Installation électrique

Le câble d'alimentation doit être branché sur une prise équipée d'un dispositif de masse - mise à la terre. L'alimentation électrique au niveau de la prise doit assurer une protection d'une valeur appropriée contre une surcharge de courant.

Par mesure de sécurité, tous les équipements fonctionnant sous 110 ou 230 V utilisés en extérieur ou dans des conditions d'humidité doivent être raccordés à une source avec un coupe-circuit et protégé par un appareil homologué de protection contre les défauts de masse (normes RCD, GFCI, etc.)
EN CAS DE DOUTE, DEMANDER L'AVIS D'UN TECHNICIEN QUALIFIE.

Equipement avec prise secteur

Ces équipements électriques doivent être installés près d'une prise facilement accessible.

Equipement connecté en permanence - Consignes d'isolement

Les équipements qui doivent être alimentés en permanence doivent être dotés d'un système de déconnexion facilement accessible et intégré au câblage (un circuit isolant ou coupe-circuit avec une séparation de contact d'au moins 3 mm).

Le circuit isolant ne doit pas être installé dans le câble flexible fourni avec l'appareil.

Installation électrique - Information supplémentaire pour conditions d'humidité

Dans des environnements humides, la fiche d'alimentation doit être connectée à une prise ou boîtier spécialement conçu et protégé contre les jets d'eau.

Les installations effectuées aux États-Unis doivent utiliser un couvercle imperméable, tel que ceux fabriqués par Leviton. Ce couvercle, classé NEMA 3R, permet de protéger l'appareil et la prise conformément au code national électrique, section 410-57. Remarque : le couvercle mentionné ci-dessus est répertorié dans le fichier UL #E13397.

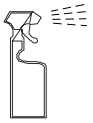
Pour les installations en Europe il est nécessaire d'utiliser au minimum une connexion aux normes IP56 pour la prise, la fiche secteur et le câble. Veiller à ce que la protection fournie par le point de connexion soit adaptée à l'environnement.

1.17 Maintenance de routine

Avant toute maintenance de routine, pour éviter toute possibilité de choc électrique ou de dommage à l'appareil, éteindre toujours la machine et la déconnecter de l'alimentation secteur.

Pour éviter tout risque éventuel de chute de la machine, vérifier qu'elle soit placée sur une surface plane et à niveau.

1.18 Nettoyage de l'appareil



L'extérieur des produits standard peut être nettoyé avec un chiffon propre, humidifié avec de l'eau et une petite quantité de détergent.

Ne pas utiliser de détergents abrasifs ou de solutions alcalines telle que la soude ménagère, surtout sur les écrans. Ne jamais essayer de nettoyer l'intérieur de la machine.

Ne jamais vaporiser de liquide directement sur l'écran. En cas d'utilisation d'un liquide de nettoyant ménager, asperger le chiffon et non l'écran.

1.19 Formation

Ne pas essayer d'utiliser la machine ou suivre une procédure quelconque sans avoir reçu la formation appropriée ou avoir lu les manuels d'utilisation.

Pour éviter le risque de microtraumatismes répétés, il est important de s'assurer que la machine soit placée sur une surface ergonomiquement satisfaisante pour l'utilisateur. Il est recommandé que l'utilisateur fasse des pauses fréquentes en cas d'une utilisation prolongée.

1.20 Objets tranchants

Ne pas utiliser d'objets tranchants (tournevis, ongles trop longs…) pour actionner les touches.

1.21 EMC

L'avertissement suivant pourrait concerner votre appareil.

Attention. Ceci est un appareil de classe A. Dans un environnement domestique, cet appareil peut être la cause d'interférences radio. Dans ce cas, l'utilisateur peut être obligé de prendre les mesures adéquates.

1.22 Installation und Wartung (German)

DAS GERÄT ENTHÄLT KEINE TEILE, DIE VOM BENUTZER GEWARTET WERDEN KÖNNEN.

Die Installation und Wartung des Gerätes darf nur von geschultem und autorisiertem Personal durchgeführt werden.

1.23 Elektrische Installation

Die verwendete Steckdose muss unbedingt mit einem Schutzleiter ausgestattet sein. Die Stromversorgung über die Steckdose muss durch einen vorschriftsmäßigen Fehlerstrom-Schutzschalter geschützt sein.

Zu Ihrer eigenen Sicherheit sollten alle Netzstrom betriebenen (110V oder 230V) Geräte, die im Freien oder unter feuchten Bedingungen verwendet werden, von einer gesicherten Stromquelle, die über eine zugelassene Fehlerstrom-Schutzeinrichtung (FI-Schalter) geschützt ist, versorgt werden. IN ZWEIFELSFÄLLEN WENDEN SIE SICH BITTE AN EINEN QUALIFIZIERTEN ELEKTRIKER.**Angeschlossene Geräte**

Ans Netz angeschlossene Geräte müssen leicht vom Netz trennbar sein.

Ständig angeschlossene Geräte - Trennschalter-Anforderungen Dauerhaft angeschlossene Geräte müssen über einen leicht zugänglichen, in den festen Stromkreis integrierten Notschalter verfügen. (Einen Trenn-schalter oder Sicherungsautomaten mit mindestens 3mm Kontakt-Trennung).

Der Trennschalter DARF NICHT in das mitgelieferte flexible Netzkabel installiert werden.

Elektrische Installation - (Zusatz-Hinweise bei nassem Umfeld)

Im Freien oder unter feuchten Bedingungen muss der Stecker direkt über eine geeignete abwaschbare Steckdose an die Stromversorgung angeschlossen werden.

Anschlüsse in den USA sollten mit einer Abdeckung mit dem Spezifikationsgrad ‚Wasserundurchlässig während in Betrieb' versehen sein, wie beispielsweise die von Leviton.
Dadurch kann das Gerät an eine Steckdose mit einer wasserdichten Abdeckung laut NEMA 3R angesteckt werden, wie dies nach dem ‚National Electrical Code' Abschnitt 410-57 erforderlich ist. Hinweis: die genannte Abdeckung ist unter UL E13397 aufgelistet.

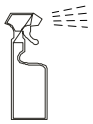
Anschlüsse in Europa müssen über eine Steckdose erfolgen, die die Mindest-Anforderungen der IP56-Schutzvorkehrung für Stecker / Kabel-anschlüsse erfüllt. Es muss darauf geachtet werden, dass der von der Steckdose gewährleistete Schutz den Anforderungen des entsprechenden Umfelds entspricht.

1.24 Regelmäßige Wartung

Zum Schutz vor Stromschlägen und um Beschädigungen des Gerätes vorzubeugen, muss dieses vor der Durchführung von Wartungs-arbeiten ausgeschaltet und vom Netz getrennt werden.

Um das Herunterfallen des Gerätes zu vermeiden, sollte dieses sicher auf einer ebenen und waagerechten Oberfläche platziert werden.

1.25 Reinigung des Gerätes



Das Gehäuse kann von außen mit einem feuchten Tuch gereinigt werden. Dem Wasser kann eine kleine Menge eines milden Reinigungsmittels beigefügt werden.

Zu Reinigungszwecken, besonders im Fall von Monitoren, dürfen keine Scheuermittel, Lösungsmittel oder andere alkalische Reinigungsmittel verwendet werden. Die Innenseite des Gerätes darf unter keinen Umständen nass gereinigt werden.

Sprühen Sie keine Flüssigkeiten direkt auf das Display. Wenn Sie eine Reinigungsflüssigkeit verwenden, sprühen Sie diese auf ein Tuch und nicht auf das Display.

1.26 Schulung

Ohne Durchlesen der Bedienungsanleitung bzw. einer Einweisung durch das Fachpersonal sollte das Gerät nicht bedient oder ein Verbundsystem in Betrieb genommen werden.

Um Fehlbelastungen zu vermeiden, sollte die Waage so platziert werden, dass sie den ergonomischen Ansprüchen des Bedieners gerecht wird. Es wird empfohlen, bei lang andauernder Bedienung des Gerätes regelmäßige Pausen einzulegen.

1.27 Spitze Gegenstände

Verwenden Sie keine spitzen Gegenstände (Schraubenzieher, lange Fingernägel usw.), um die Tasten zu bedienen.

1.28 EMV-gerecht

Der folgende Warnhinweis trifft unter Umständen auf Ihr Gerät zu.

WARNUNG: Bei diesem Gerät handelt es sich um ein Gerät der Klasse A. Dieses Gerät kann bei einem Betrieb in Wohngegenden Funkstörungen verursachen. Ist dies der Fall muss der Benutzer eventuell entsprechende Maßnahmen treffen.

1.29 Installazione e manutenzione (Italian)

L'APPARECCHIATURA NON CONTIENE COMPONENTI RIPARABILI DALL'UTENTE.

L'installazione e la manutenzione dell'apparecchiatura devono essere eseguite esclusivamente da personale addestrato e autorizzato.

1.30 Impianto elettrico

Il cavo di alimentazione deve essere collegato ad una presa di corrente con un contatto di messa a terra protettiva. La fornitura elettrica alla presa di corrente deve prevedere una protezione contro le sovracorrenti di un indice appropriato.

Per sicurezza l'apparecchiatura di rete (110 V o 230 V) utilizzata all'aperto oppure in condizioni di bagnato o umidità deve essere alimentata da una sorgente opportunamente equipaggiata con fusibili e protetta da un dispositivo approvato di protezione contro i guasti di terra, come ad esempio un dispositivo di corrente residua (RCI), un interruttore del circuito di rilevamento di fughe a terra (GFCI), ecc.
IN CASO DI DUBBI RIVOLGERSI AD UN ELETTRICISTA QUALIFICATO.

Apparecchiatura collegabile

L'apparecchiatura collegabile deve essere installata in prossimità di una presa elettrica facilmente accessibile.

Apparecchiatura cablata permanentemente - requisiti dell'isolatore

L'apparecchiatura collegata in modo permanente deve disporre di un dispositivo di disconnessione facilmente accessibile, incorporato nel cablaggio fisso – un isolatore o un interruttore salvacircuito con una separazione dei contatti di almeno 3 mm.

L'isolatore NON DEVE essere installato nel cavo di rete flessibile in dotazione con l'unità.

Impianto elettrico - (note aggiuntive in caso di condizioni di bagnato)

In condizioni di bagnato, la spina deve essere collegata al circuito terminale di derivazione tramite un'apposita presa concepita per applicazioni di lavaggio.

Per gli impianti negli Stati Uniti occorre utilizzare un "coperchio conforme alla specifica e un dispositivo di tenuta a prova di pioggia", come quelli prodotti da Leviton.
Questi consentono il collegamento dell'unità con un coperchio a prova di pioggia montato su presa che consente di soddisfare la classificazione NEMA 3R, secondo quanto richiesto dal codice nazionale per il materiale elettrico nell'articolo 410-57. Si noti che il coperchio menzionato è elencato nel file UL #E13397.

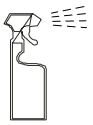
Per gli impianti in Europa occorre utilizzare una presa che fornisca almeno una protezione IP56 per il complesso spina/cavo. Assicurarsi che il grado di protezione fornito dalla presa sia adatto per l'ambiente.

1.31 Manutenzione di routine

Per evitare la possibilità di scosse elettriche o danni alla macchina, spegnere sempre la macchina e isolarla dall'alimentazione elettrica prima di eseguire gli interventi di manutenzione di routine.

Per evitare il rischio di caduta della macchina, laddove applicabile, assicurarsi che sia posizionata in modo sicuro su una superficie piana e orizzontale.

1.32 Pulizia della macchina



La parte esterna dei prodotti standard può essere pulita con un panno pulito, inumidito con acqua contenente una piccola quantità di detergente neutro.

Non utilizzare sostanze abrasive corrosive, solventi, detergenti sgrassanti e soluzioni detergenti a base alcalina, come ad esempio carbonato di sodio, particolarmente sui display. Non tentare mai di pulire l'interno della macchina.

Non spruzzare alcun liquido direttamente sui display. Se si utilizza un apposito liquido detergente assicurarsi di spruzzare il liquido su un panno e non sul display.

1.33 Formazione

Non tentare di azionare la macchina o non eseguire alcun intervento su di questa a meno che non si riceva una formazione appropriata o senza aver letto il manuale di istruzioni.

Per evitare lesioni derivanti da sollecitazioni ripetitive (RSI, Repetitive Strain Injury), è importante assicurarsi che la macchina venga posta su una superficie che sia posizionata in modo soddisfacente da un punto di vista ergonomico per l'utente. Si consiglia di effettuare frequenti interruzioni durante l'uso prolungato.

1.34 Oggetti appuntiti

Non utilizzare oggetti appuntiti (cacciaviti, unghie lunghe, ecc.) per azionare le chiavi.

1.35 Conformità alla direttiva sulla compatibilità elettromagnetica (EMC)

Per la macchina è possibile che sia applicabile la seguente avvertenza.

AVVERTENZA: questo è un prodotto di classe A. In un ambiente domestico, questo prodotto può causare interferenze radio e in tal caso è possibile che l'utente debba intraprendere misure adeguate.

1.36 Instalación y Mantenimiento (Spanish)

EL EQUIPO NO TIENE PARTES QUE PERMITEN UN MANTENIMIENTO POR EL USUARIO.

La instalación y el mantenimiento del equipo sólo pueden ser realizados por el personal calificado y autorizado.

1.37 Instalación eléctrica

El cable de electricidad debe ser conectado a un enchufe con toma de tierra. La alimentación eléctrica en el enchufe debe estar provista de una protección adecuada de sobrecorriente.

Para garantizar su seguridad, todo el equipo conectado a la red (110V o 230V) que se utiliza en el exterior o bajo condiciones de humedad debe ser alimentado por una fuente con fusibles adecuados y protegida por un dispositivo de protección contra la pérdida de tierra aprobado (RCD, GFCI, etc.).
EN CASO DE DUDA, CONSULTE UN TÉCNICO CALIFICADO.

Equipo conectado

Todo el equipo que se puede conectar a la red eléctrica se debe instalar cerca de una toma de corriente fácilmente accesible.

Equipo conectado permanentemente – Requisitos de aislador

Si el equipo está permanentemente conectado, debe existir un mecanismo de desconexión accesible incorporado en el cableado de la instalación eléctrica. (Un aislador o interruptor del circuito con una separación mínima del contacto de 3mm).

NO SE DEBE instalar el aislador dentro del cable de red flexible facilitado con la máquina.

Instalación eléctrica - (avisos adicionales para condiciones de humedad)

Bajo condiciones de humedad se debe conectar el enchufe directamente al suministro de corriente por medio de una toma de corriente adecuada e impermeable.

Instalaciones en los EEUU deberán proveer de una cubierta con un grado de especificación ‘Impermeable mientras en funcionamiento’ como aquellas fabricadas por Leviton.
Esto permite que la unidad sea enchufada con una cubierta impermeable colocada sobre el enchufe permitiendo cumplir con el grado NEMA 3R, según es requerido por el código nacional eléctrico bajo la sección 410-57.
Aviso: La cubierta mencionada está listada en el archivo UL número E13397.

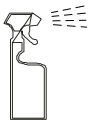
Instalaciones en Europa deben usar una toma de corriente que provea un mínimo de protección de IP56 a la conexión de enchufe / cable. Hay que asegurarse de que el grado de protección realizado por el enchufe corresponde a las exigencias del entorno.

1.38 Mantenimiento rutinario

Para evitar la posibilidad de un choque eléctrico o daños a la máquina, siempre apague la máquina y desconéctela del suministro eléctrico antes de realizar cualquier operación rutinaria de mantenimiento.

Para evitar el riesgo de caída de la máquina, asegúrese de colocarla adecuadamente sobre una superficie lisa y nivelada.

1.39 Limpieza de máquina



El exterior de los productos estándares se puede limpiar con un paño limpio humedecido con agua conteniendo una pequeña cantidad de detergente suave.

No se deben usar abrasivos duros, disolventes, estropajos o soluciones de limpieza alcalinas, tales como soda cáustica, especialmente en las pantallas de visualización. En ningún caso debe intentar limpiar el interior de la máquina.

No rocíe ningún líquido directamente a las pantallas de visualización. Si utiliza un fluido de limpieza específico asegúrese que lo rocía al paño y no a la pantalla.

1.40 Formación

No intente operar o llevar a cabo ningún procedimiento en la máquina si no ha recibido la capacitación apropiada o leído los Libros de Instrucción.

Para evitar el riesgo de LTR (lesión de la tensión repetida) es importante asegurarse que la máquina sea colocada en una superficie ergonómicamente satisfactoria para el usuario. En casos de un uso prolongado se les recomienda descansos frecuentes a los operarios.

1.41 Objetos afilados

No utilice objetos afilados (destornilladores, uñas largas, etc.) para teclear.

1.42 Conformidad de ESD

La siguiente advertencia se puede aplicar a su máquina.

ADVERTENCIA: Esto es un producto de clase A. En un ambiente doméstico este producto puede causar interferencias radiofónicas, en cuyo caso podría ser necesario que el usuario adopte medidas adecuadas.

Introduction

2

The Model E1070 is a full function, high connectivity indicator for most weighing applications and process control situations. It is ideal for connected system weighing applications. The display includes a multi-segment fan graph for fast visual awareness for checkweighing. Also, the indicator can perform counting functions, peak weight functions, and act as a remote display. The indicator also has 11 memory channels for storing data.

Communication ports allow connection to a many peripheral devices and to DeviceNet, ProfiBus and EtherNet/IP interfaces.

All this in a NEMA 6/4X rated enclosure.

2.1 About This Manual

Major sections of this manual are headed by titles in a black bar like Introduction above. Subheadings appear in the left column. Instructions and text appear on the right side of the page. Occasionally notes, tips, and special instructions appear in the left column.

2.2 Setup and Power-up

Attention

Plug the Model E1070 into properly grounded socket-outlet of the correct voltage, installed near the equipment and easily accessible. Never use the unit without an appropriate earthground connection.

Any computer based system should have a separate, grounded power circuit. We recommend one for the Model E1070.

Your indicator will be installed by a qualified Avery Weigh-Tronix distributor. They will make the required connections to your scale and peripheral devices.

1. With the unit plugged in, see note at left, press and release the on/off switch, shown below, to turn the indicator on.

2. The indicator powers up in normal operation mode.

Front Panel

3

The front panel, shown in Figure 1, consists of the keys and display.

Figure 3.1 E1070 front panel

3.1 Keys

Never press a key with anything but your finger. Damage to the overlay may result if sharp or rough objects are used.

The functions of the keys on the front panel are listed below.

Press the TARE key to perform a tare function. Also acts as a left arrow key when in the menu structure.

Press the SELECT key to toggle between Gross, Tare, Net, Count, Gross Accumulator, Net Accumulator, Transaction Counter, Piece Weight, and Peak. Dependent on the current application. Also acts as an up arrow key when in the User menu. Press and hold to access the output menu.

Press the ZERO key to zero the display.

Press the PRINT key to send information to a peripheral device through the Comm port. Also acts as a down arrow key when in the menu structure.

Press the UNITS key to scroll through the available units of measure while in normal operating mode. Also acts as a right arrow key when in the menu structure.

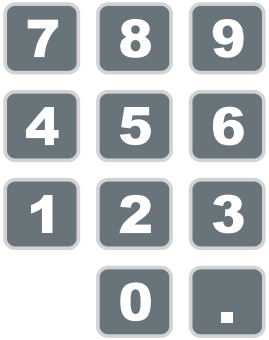
Press the F1 key to select application specific choices. Also used to access PLU memory channels.

Press the C/CE key to clear entries.

Press the MODE key to scroll through the activated applications. Press and hold for 3-5 seconds to see the name of the currently active application.

Press the ESC key to escape a function or return to normal operation mode. Use to access the password display for the menu structure.

Press the ENTER key to accept displayed choices.



Use the numeric keypad to enter values.

Press and release the ON/OFF key to turn the unit on. Press and hold the ON/OFF key until the unit turns off.

3.2 Annunciators

There are several annunciators around the edge of the display. Figure 3.2 explains each one.

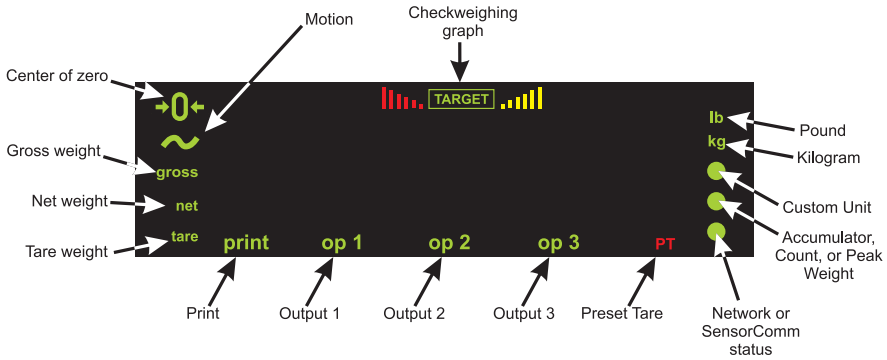


Figure 3.2 Annunciators

.

Center of Zero	Lights when weight on the scale is within the zero range
Motion	Lights during scale motion. Goes out when scale is stable
Gross	Lights when gross weight is displayed
Net	Lights when net weight is displayed
Tare	Lights when tare weight is displayed
Print	Lights when print format sent through serial port
OP 1	Lights when output one is activated
OP 2	Lights when output two is activated

Bottom LED color
SCOM:
Red – a cell has been ghosted. Check the ghost log.
Green – a sensorcomm error has occurred. Check the error log.
Off – Scale is functioning normally.

Network 1 or 2:
Red – A network error has occurred. Check the network settings on the indicator and PLC, and reboot the indicator.
Green – The network connection has been established.
Amber – The network is ready for a connection, but no connection has been established

OP 3	Lights when output three is activated
PT	Lights when preset tare is active
Network & SensorComm Status	This is configurable to light to show status of the Network 1, Network 2 or SensorComm. See note at left.
Accumulator, Count	Lights when an accumulation occurs and while in the count and peak applications
Custom Unit	Lights when a custom unit of measure is active
KG	Lights when kilograms is the active unit of measure
LB	Lights when pounds is the active unit of measure
Checkweigher	Lights when checkweighing application is active

Menu Mode 4

The E1070 has a User and a Supervisor menu you can use to perform tests on the indicator and to set up some indicator functions. Each is described below.

4.1 User Menu

Use the User menu to do the following:

- See software information
- See A to D mV/V values
- Do a display test
- Do a button test
- Test the serial ports
- Audit the number of configurations and calibrations performed

User menu password is 111. You must key in the password within 10 seconds or the display returns to normal operation mode.

The display represents M by nn so min becomes nnin, mode becomes nnode, etc.

1. **Access the User menu by pressing and holding the ESC** key for 3-5 seconds. Release the key when…

   PASS_ is displayed.

2. Key in the User menu password = 111 and press **ENTER**. Figure 4.1 shows a flowchart of the User menu items. Use the keys shown in the box in Figure 4.1 to navigate through the menu and choose the items you want.

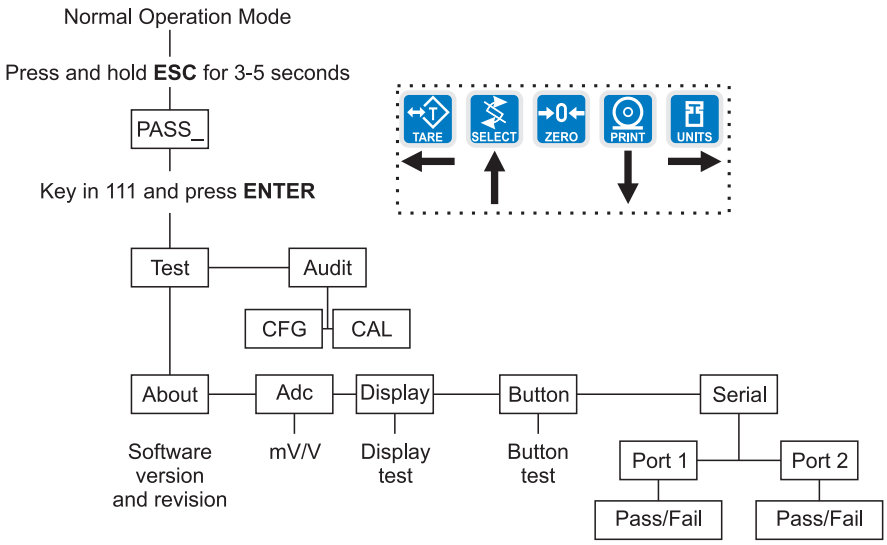


Figure 4.1 User menu flowchart

Specific instructions on the User menu appear in the section Indicator Diagnostics later in the manual.

4.2 Supervisor Menu

Password for the Supervisor menu is 1793.

The Supervisor menu is shown in Figure 4.2. Use this menu to set time and date, clear and print reports, perform diagnostic tests and view audit counters.

WARNING: Entering this menu and changing settings may affect operation of the indicator and may require a service call to correct. Be sure you want to change settings before doing so.

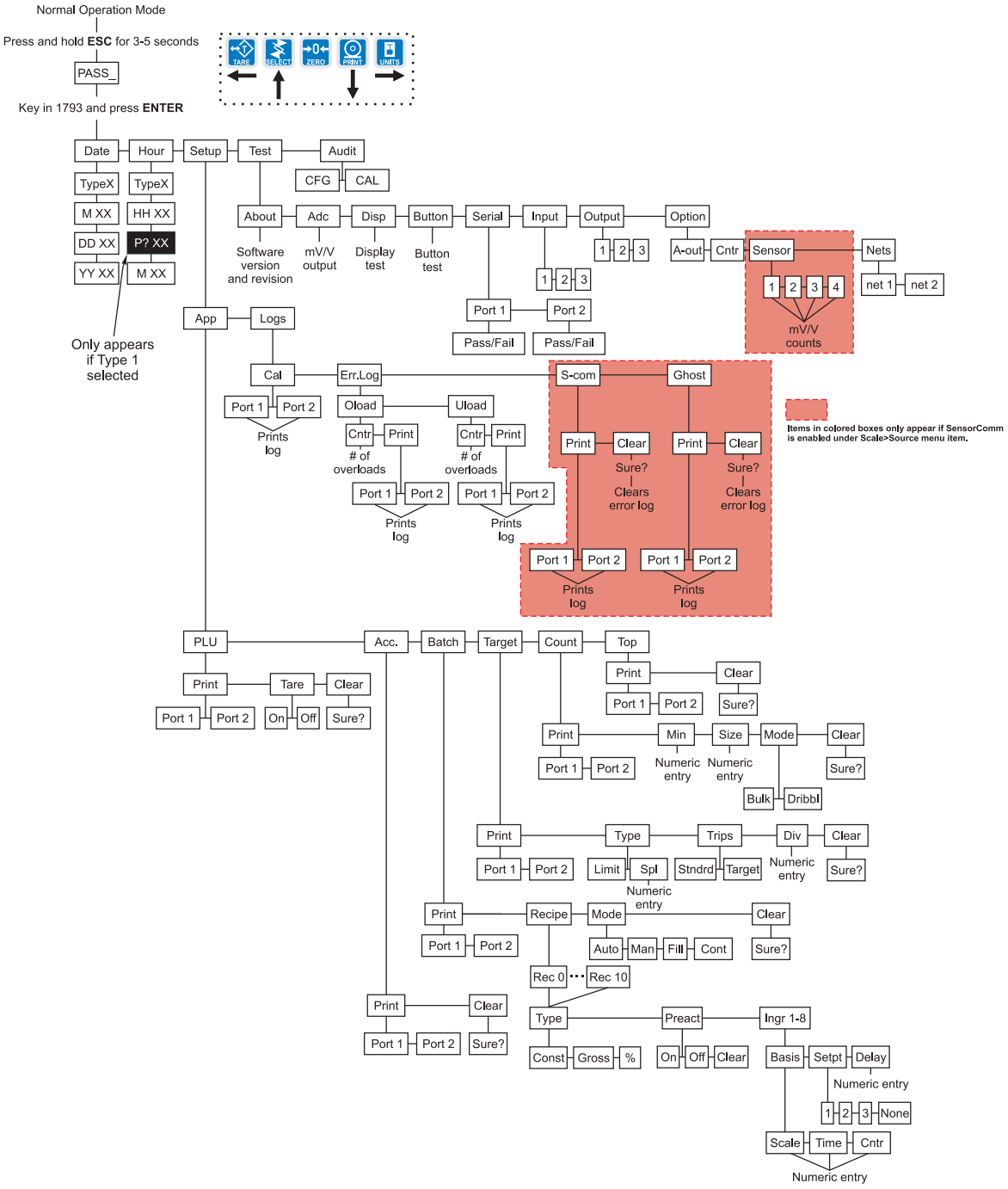


Figure 4.2 Supervisor menu

1. Access the Supervisor menu by pressing and holding the **ESC** key for 3-5 seconds…

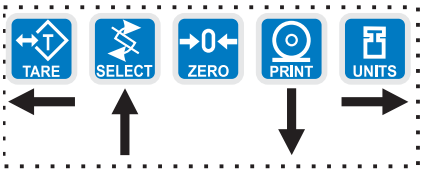
   PASS_ is displayed.

Password for the Supervisor menu is 1793.

2. Key in the password, 1793, and press **ENTER**…

   DATE is displayed. Use this to set the current date.

DATE (Set date)



3. Press the **PRINT** key…

   TYPE0 is displayed. Dates styles are listed below along with number you enter to create that style:

   0=MM/DD/YY

   1=MM/DD/YYYY

   2=DD/MM/YY

   3=DD/MM/YYYY

4. Scroll through the choices using the **TARE** or **UNITS** key and press the **ENTER** key when your choice is displayed…

   M XX is displayed. This stands for month.

See Figure 4.2 to reference the Supervisor's menu.

While in a menu, the fan graphs at the top of the display flash as a reminder.

5. Key in the month number (01 for Jan., 02 for Feb., …12 for Dec) and press the **ENTER** key…

   DD XX is displayed. ***DD*** stands for date and ***XX*** represents the current value.

6. Key in the date and press the **ENTER** key.

   YY XX is displayed. ***YY*** stands for year and ***XX*** represents the current value.

7. Key in the year (04=2004, etc.) and press the **ENTER** key…

   DATE is displayed.

HOUR (Set time)

1. Press the **UNITS** key…

   HOUR is displayed. Set the time in this item.

2. Press the **PRINT** key…

   TYPE0 is displayed. Time can be in 24 hour or 12 hour styles:

   0=HH:MM

   1=HH:MM AM/PM

3. Scroll through the choices using the **TARE** or **UNITS** key and press the **ENTER** key when your choice is displayed…

   HH XX is displayed. This stands for hour and its current value.

4. Key in the hour based on the type of time you selected in step 2 and press the **ENTER** key. If you picked 0 (military time) in step 2, skip to step 5. If you picked 1 (AM/PM time) continue below…

   P? yes or ***P? no*** is displayed. ***P? yes*** for PM. ***P? no*** for AM.

5. Toggle between the choices using the **TARE** or **UNITS** key and press the **ENTER** key when your choice is displayed…

   M XX is displayed. ***M*** stands for minute and ***XX*** represents the current value.

6. Key in the minute and press the **ENTER** key …

   HOUR is displayed.

SETUP (Setup menu)

1. Press the **UNITS** key…

   SETUP is displayed. Use this submenu to print and/or clear application reports, choose operation modes or values for applications which have choices and view various function logs. Each is explained in the following steps.

APP
(Application submenu)

2. Press the **PRINT** key…

   APP is displayed. As stated in the Service menu section of the manual, applications are enabled in the Service menu but you do each application's setup in this area of the Supervisor menu.

PLU
(Product Look Up)

3. Press the **PRINT** key…

   PLU is displayed. This stands for Product Look Up. There are 11 PLU memory channels, numbered 0-10. Each channel contains all the parameter values and accumulator totals associated with all the different applications. This menu item lets you print out all the information in each channel, in all the applications, and/or clear the information.

The PLU report contains the following information for each of the 11 channels:
Channel #
ID #
Gross Accum.
Net Accum.
Count Accum.
Total
Tare Value
Lower Limit
Upper Limit
Piece Weight
Output Wt1
Output Wt2
Output Wt3

4. Press the **PRINT** key…

   PRINT is displayed. Use this item to print out a complete report of all application parameters and totals.

5. Press the **PRINT** key …

   PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report. See note at left.

6. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when your choice is displayed…

   The report is printed and display shows ***BUSY*** briefly then returns to **PRINT**.

7. Press the **UNITS** key…

   TARE is displayed. Use this item to enable multichannel preset tares.

8. Press the **PRINT** key…

   ON or ***OFF*** is displayed.

9. Toggle between the choices using the **TARE** or **UNITS** key and press **ENTER** to accept the displayed choice…

The scale must be in the center-of-zero window for the tare weight to be accepted.

   If ***ON*** is chosen, the tare value for each channel can be entered. ***0*** will be displayed. Use the **TARE** or **UNITS** key to change the channel number. Press the **ENTER** key when the correct channel number is displayed to enter the tare value for that channel.

10. Press the **UNITS** key…

    CLEAR is displayed. Use this item to clear all the information stored for each application. **WARNING - Only do this if you are sure you want the information permanently removed!**

    You may want to print out the reports before clearing all the information. See step 4 above.

11. Press the **PRINT** key to clear all the information

    OR

    Skip to step 12…

    SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **PRINT** key. If you do not want to clear the data, press the **SELECT** key…

    CLEAR is displayed.

12. Press the **SELECT** key…

    PLU is displayed.

ACC Application

See Figure 4.2 to reference the Supervisor's menu.

1. Press the **UNITS** key…

   ACC. is displayed. This stands for the accumulator application.

2. Press the **PRINT** key…

   PRINT is displayed. Use this item to print out a complete report of accumulator totals for each PLU similar to the one shown below:

   Channel #:

   ID: 0

   Gross Accum: 0 lb

   Net Accum:0 lb

   Total:0

3. Press the **PRINT** key …

   PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

4. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

   Display shows ***BUSY*** briefly then returns to ***PRINT***.

5. Press the **UNITS** key…

   CLEAR is displayed. Use this item to clear all the information stored for this application. **WARNING - Only do this if you are sure you want the information permanently removed!**

   You may want to print out the report before clearing all the information. See step 2 above.

6. Press the **PRINT** key to clear all the information

   OR

   Skip to step 7…

   SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **ENTER** key. If you do not want to clear the data, press the **SELECT** key…

   CLEAR is displayed.

7. Press the **SELECT** key…

   ACC. is displayed.

BATCH Application

1. Press the **UNITS** key…

   BATCH is displayed.

2. Press the **PRINT** key…

   PRINT is displayed. Use this item to print out a complete report of recipe information.

3. Press the **PRINT** key …

   PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

4. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

   Display shows ***BUSY*** briefly then returns to ***PRINT***.

5. Press the **UNITS** key…

   RECIPE is displayed. Use this item to create a recipe.

6. Press the **PRINT** key…

   REC 0 is displayed.

7. Press the **PRINT** key to configure recipe #0 or use the **TARE** or **UNITS** key to scroll to another recipe number. Press the **PRINT** key when the recipe you want is displayed…

   TYPE is displayed. Set the type of recipe; Constant (CONST) Gross or Percentage (%):

CONSTANT	You set the weights for each ingredient and the batch size is always the total of these ingredient weights.
GROSS	You set the gross weight at which each ingredient will stop. The ingredient is complete when the gross weight on the scale reads the value that was set, regardless of the weight on the scale when the batch was started.
PERCENTAGE	You set the percentage of a total batch for each ingredient and you can pick a batch size and each ingredient amount will be calculated automatically.

8. Press the **PRINT** key…

   Current setting is displayed.

9. Toggle between the choices by pressing the **TARE** or **UNITS** key. Press the **PRINT** key when your choice is displayed…

   Your choice is selected and ***TYPE*** is displayed.

10. Press the **UNITS** key…

    PREACT is displayed. A preact is the time it takes an ingredient (which is falling from an auger or other feeder) to reach the scale after the auger or feeder is shut off. There will always be material in "free-fall" after an ingredient is shut off and the indicator will automatically calculate this and update this value.

    The first time a batch is run, overage for any ingredient weight is calculated and the next time the ingredient is being weighed the output will be shut down so approximately 70% of the overage is reduced. This occurs each time a batch is run so that the system quickly learns and produces accurate batches.

    Under this item you can turn the preact on or off, or clear a current preact.

11. Press the **PRINT** key to set the preact…

    ON or ***OFF*** is displayed.

12. Scroll through the choices (***ON***, ***OFF***, ***CLEAR***) with the **TARE** or **UNITS** key. Press **ENTER** when your choice is displayed…

    PREACT is displayed.

See Figure 4.2 to reference the Supervisor's menu.

13. Press the **UNITS** key…

    INGR X is displayed. ***X*** is the ingredient number. You have up to 8 ingredients for which you can set the following:

    BASIS Set whether the ingredient is based on weight (Scale), time (Time) or pulse counts (Cntr).

    SETPT Set the output you want associated with the ingredient. Choices are 1, 2 , 3 or None. Outputs must be enabled in a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.*

    DELAY Set a time delay between when a basis is met and the next ingredient action is started.

14. Press the **PRINT** key…

    BASIS is displayed.

15. Press the **PRINT** key…

    The current setting is displayed; ***SCALE***, ***TIME***, or ***CNTR***.

16. Scroll through the choices with the **TARE** or **UNITS** key. Press **ENTER** when your choice is displayed…

If SCALE is chosen for the basis, you can enter a negative weight to do an "unload." The selected output will activate until the entered amount of weight is removed from the scale.

    If you choose ***SCALE*** you are prompted to enter an ingredient weight. If you choose ***TIME***, your are prompted to enter a time value. If you choose ***CNTR***, your are prompted to enter the number of pulses.

17. Key in values and press the **ENTER** key…

    BASIS is displayed.

18. Press the **UNITS** key…

    SETPT is displayed.

19. Press the **PRINT** key…

1 is displayed. This stands for Setpoint 1.

20. Scroll through the choices with the **TARE** or **UNITS** key. Press **ENTER** when your choice is displayed…

SETPT is displayed.

If you chose ***1*** this ingredient will use output #1. The same is true for the 2 and 3 choices. If you choose ***NONE***, no output will be activated when the ingredient is called by the recipe.

21. Press the **UNITS** key…

DELAY is displayed.

22. Press the **PRINT** key…

The current delay value in seconds is displayed.

23. Accept this value by pressing **ENTER** or key in a new value and press **ENTER**…

DELAY is displayed. Repeat steps 13 through 23 for all the ingredients in your recipe.

24. Press the **SELECT** key twice…

RECIPE is displayed.

25. Press the **UNITS** key…

MODE is displayed. Use this item to set the mode of the batching application to Automatic, Manual, Fill or Continuous batching.

AUTO In auto mode, after the user begins the batching process the indicator will activate the OP2 output when the weight for OP1 has been reached. When the weight for OP2 is reached, OP3 will activate. This happens with no intervention from the operator.

MAN. In manual mode, after the user begins the batching process, the user must press the **F1** key to activate each subsequent output after each output weight is reached.

FILL In FILL mode, any recipe that has been setup is ignored. The filling process is run based on the values set for the outputs. In order to complete the filling process, at least one output must be enabled.

CONT Continuous batching mode. This mode is very close to the Auto mode, but in continuous mode, another batch is started immediately after the previous batch has finished. In Auto mode, the user must press the **F1** key to start each batch.

26. Press the **PRINT** key…

The current mode setting is displayed.

27. Toggle between the choices by pressing the **TARE** or **UNITS** key. Press the **ENTER** key when your choice is displayed…

MODE is displayed.

28. Press the **UNITS** key…

CLEAR is displayed. Use this item to clear all the information stored for this application. **WARNING - Only do this if you are sure you want the information permanently removed!**

You may want to print out the report before clearing all the information. See step 2 in this section.

29. Press the **PRINT** key to clear all the information

OR

Skip to step 30…

SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **ENTER** key. If you do not want to clear the data, press the **SELECT** key…

CLEAR is displayed.

30. Press the **UNITS** key…

PRINT is displayed.

31. Press the **PRINT** key…

PORT 1 is displayed.

32. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when your choice is displayed…

The recipes and batch report will be printed.

33. Press the **SELECT** key…

BATCH is displayed.

TARGET application (Checkweighing)

1. Press the **UNITS** key…

TARGET is displayed. Use this item to print and clear reports for the checkweigher application and to set the type of sampling to be used, Limit or Sample.

2. Press the **PRINT** key…

PRINT is displayed. Use this item to print out a complete report of checkweigher information.

3. Press the **PRINT** key …

PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

4. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

Display shows ***BUSY*** briefly then returns to ***PRINT***.

You do not set the limits in this menu item. Limits are set in normal operation mode. This menu item, TYPE, allows you to set the mode of choosing the target weight and limits.

To use Sample mode, both multi-interval and preset tares should be disabled. To disable multi-interval, set the scales division size to a whole number (not 1/2, 2/5, 5/10, 10/20 or 20/50). Preset tares are disabled in the Supervisor>Setup>App>PLU menu.

5. Press the **UNITS** key…

TYPE is displayed. Use this to choose the mode of setting the target weight for the checkweighing application. You have two choices; LIMIT and SPL (sample). See note at left.

LIMIT In this mode you enter the upper and lower limits for your item and the indicator will use those values to run the display.

SPL In this mode you use a correct weight “product” on the scale to set the target weight. The indicator will use this weight to run the display. After SPL is chosen, a number is displayed. This is the sample tolerance. When a sample is done, the upper and lower limits will automatically be ±(sample tolerance) divisions from the target weight.

6. Toggle between the choices by pressing the **TARE** or **UNITS** key. Press the **ENTER** key when your choice is displayed…

   TYPE is displayed.

7. Press the **UNITS** key…

   TRIPS is displayed. Use this to set outputs to follow over/under/ accept or to function as standard outputs.

Target outputs can only be reset when the scale returns to within the configured Gross Zero Band. Gross Zero Band is configured in a password protected menu. Contact your local Avery Weigh-Tronix supplier or distributor for assistance.

8. Toggle between ***TARGET*** and ***STNDRD*** by using the **TARE** or **UNITS** key:

TARGET	OP1 is Under
	OP2 is Accept
	OP3 is Over
STANDARD	You can configure outputs from weigh mode. Generally Accept/Reject.

9. Press **ENTER** to accept the displayed choice…

   TRIPS is displayed.

10. Press the **UNITS** key…

    DIV is displayed.

11. To configure how many divisions will be equal to one graduation on the fan graph, press the **PRINT** key…

    A number is displayed.

12. Press **ENTER** to accept the displayed number of divisions or enter a new number and press **ENTER**…

    DIV is displayed.

13. Press the **UNITS** key…

    CLEAR is displayed. Use this item to clear all the information stored for this application. **WARNING - Only do this if you are sure you want the information permanently removed!**

    You may want to print out the report before clearing all the information. See step 2 in this section.

14. Press the **PRINT** key to clear all the information

    OR

    Skip to step 15…

    SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **ENTER** key. If you do not want to clear the data, press the **SELECT** key…

    CLEAR is displayed.

15. Press the **SELECT** key…

    TARGET is displayed.

COUNT Application

1. Press the **UNITS** key…

   COUNT is displayed. Use this item to clear and print reports for the count application.

2. Press the **PRINT** key…

   PRINT is displayed. Use this item to print out a complete report of count application information.

3. Press the **PRINT** key …

   PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

4. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

   Display shows ***BUSY*** briefly then returns to ***PRINT***.

5. Press the **UNITS** key…

   MIN is displayed. Use this item to set the minimum sample weight as a percent of capacity.

6. Press the **PRINT** key…

   Current value is displayed.

7. Key in a percentage from 0-100% and press **ENTER**…

   MIN is displayed.

8. Press the **UNITS** key…

   SIZE is displayed. This is the sample size parameter. Use this to set the sample size for the counting application.

9. Press the **PRINT** key…

   Current sample size is displayed.

10. Key in a new sample size. Press **ENTER** to accept…

    SIZE is displayed.

11. Press the **UNITS** key…

    MODE is displayed. Use this to select the sampling mode; Bulk or Dribble.

    Bulk sampling — In this sampling method you place the specified number of items on the scale all at once (in bulk) and the scale automatically starts to calculate piece weight when the weight stabilizes. The count is then displayed.

    Dribble sampling — In this sampling method you count out the specified number of items onto the scale and when you are ready, press the **F1** key and the scale starts to calculate piece weight and then shows the count.

12. Toggle between the choices by using the **TARE** or **UNITS** key. Press **ENTER** when your choice is displayed…

    MODE is displayed.

13. Press the **UNITS** key…

    CLEAR is displayed. Use this item to clear all the information stored for this application. **WARNING - Only do this if you are sure you want the information permanently removed!**

You may want to print out the report before clearing all the information. See step 2 in this section.

14. Press the **PRINT** key to clear all the information

OR

Skip to step 15…

SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **ENTER** key. If you do not want to clear the data, press the **SELECT** key…

CLEAR is displayed.

15. Press **SELECT**…

COUNT is displayed.

TOP (Peak) Application

1. Press the **UNITS** key…

TOP is displayed. Use this item to clear and print reports for the peak application.

2. Press the **PRINT** key…

PRINT is displayed. Use this item to print out a complete report of peak application information.

3. Press the **PRINT** key …

PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

4. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

Display shows ***BUSY*** briefly then returns to PRINT.

5. Press the **UNITS** key…

CLEAR is displayed. Use this item to clear all the information stored for this application. **WARNING - Only do this if you are sure you want the information permanently removed!**

You may want to print out the report before clearing all the information. See step 2 above.

6. Press the **PRINT** key to clear all the information

OR

Skip to step 7…

SURE? is displayed. This is asking if you are sure you want to clear the information. If you are, press the **ENTER** key. If you do not want to clear the data, press the **SELECT** key…

CLEAR is displayed.

7. Press the **SELECT** key…

TOP is displayed.

8. Press the **SELECT** key…

APP is displayed.

LOGS
(Log submenu)

9. Press the **UNITS** key…

LOGS is displayed. The Logs menu item allows you to view, print or clear logs for the following:

Calibration
Overload and Underload Errors
SensorComm Errors
Ghost Errors

10. Press the **PRINT** key…

CAL is displayed. You must print out this log to view it. Below is a sample of a calibration log printout:

Calibration Log:

```
Time: 23:58
Date: 12/17/2003

Scale Serial#: 123456
Calibration Zero:
0.3456 mV/V

Calibration Span:
2.3455 mV/V @ 3000 lb
```

11. Press the **F1** key to print the report…

PORT 1 or ***PORT 2*** is displayed. Use this to choose which port to print through.

12. Toggle between the port choices using the **TARE** or **UNITS** key and press **ENTER** when your choice is displayed…

Report is printed and display returns to ***CAL***.

13. Press the **UNITS** key…

ERR.LOG is displayed.

14. Press the **PRINT** key…

OLOAD is displayed. This is the overload counter.

15. Toggle between ***OLOAD*** and ***ULOAD*** (overload) by using the **TARE** or **UNITS** key and press **ENTER** when your choice is displayed…

Under both ***OLOAD*** and ***ULOAD*** are choices to view the counter (***CNTR***) or print (***PRINT***) the report.

16. Toggle between ***CNTR*** and ***PRINT*** by using the **TARE** or **UNITS** key and press **ENTER** when your choice is displayed…

    If you choose ***CNTR***, the overload or underload count will be displayed.

    If you choose ***PRINT***, you can choose the port to print through and press **ENTER**. The counter value for overload or underload will be printed.

    Example:

```
Overloads:
  0 overloads
  00:00 on 00-00-00

Underloads:
  0 underloads
  00:00 on 00-00-00
```

17. When you are done with the error log section, press the **SELECT** key repeatedly until…

    ERR.LOG is displayed.

18. Press the **UNITS** key…

    S-COM is displayed. This is the SensorComm error log. See a sample below and the note at left.

See the section SensorComm Errors to see the list of error codes.

The S-COM log only appears if the scale is configured as a SensorComm scale. The Ghost log will only appear if ghosting is enabled.

```
SensorComm Log:
  Error #1 @ 15:00 on 12-17-03
```

19. Press the **PRINT** key…

    PRINT is displayed.

20. Press the **PRINT** key to print the report.

    PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

21. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

    Display shows ***BUSY*** briefly then returns to ***PRINT***.

22. Press the **UNITS** key…

    CLEAR is displayed. Use this to clear the log from memory.

23. Press **PRINT** to clear the log…

    SURE? is displayed.

24. Press **ENTER** to clear the log…

    CLEAR is displayed.

25. Press the **SELECT** key…

    S-COM is displayed.

26. Press the **UNITS** key…

    GHOST is displayed. This is the Ghost error log. See a sample below.

    ```
    Ghost Log:

    Ghost is not engaged.
    ```

27. Press the **PRINT** key…

    PRINT is displayed.

28. Press the **PRINT** key to print the report.

    PORT 1 or ***PORT 2*** is displayed. Use this item to select which port to use for printing the report.

29. Toggle between ***PORT 1*** and ***PORT 2*** using the **TARE** or **UNITS** key. Press the **ENTER** key when the choice you want is displayed…

    Display shows ***BUSY*** briefly then returns to ***PRINT***.

30. Press the **UNITS** key…

    CLEAR is displayed. Use this to clear the log from memory.

31. Press **PRINT** to clear the log…

    SURE? is displayed.

32. Press **ENTER** to clear the log…

    CLEAR is displayed.

33. Press the **SELECT** key…

    GHOST is displayed.

34. Repeatedly press the **SELECT** key until…

    SETUP is displayed.

    This completes the Setup submenu of the Supervisor menu. You can return to normal operation (step 35) or go to the next submenu item, ***TEST***, by pressing the **UNITS** key.

35. Press the **ESC** key to return to normal weighing mode. You will be prompted to save the changes you've made. Press the **ESC** key to abort any changes made or press **ENTER** to accept them and return to normal operating mode.

TEST (Test menu)

1. Proceed to the next menu by pressing the **UNITS** key…

   TEST is displayed. This menu lets you view indicator information and test the display, keypad, serial ports, inputs and outputs.

ABOUT
(Indicator information)

2. Press the **PRINT** key…

   ABOUT is displayed. Press the **PRINT** key then repeatedly press the **UNITS** key to view the part number and revision level for the software found in your indicator.

   Press **SELECT** key to return to ***ABOUT***.

ADC
(Analog scale test)

3. Press the **UNITS** key…

   ADC is displayed. This is the mV/V output of the connected analog scale.

4. Press the **PRINT** key…

   The mV/V value is displayed. This value should increase as weight is applied to the scale

5. Press the **SELECT** key…

   ADC is displayed.

DISP
(Display test)

6. Press the **UNITS** key…

   DISP is displayed. This is the display test item.

7. Press the **PRINT** key to perform a dynamic test of the display.
8. Press the **ESC** key to stop the dynamic test…

   The display flashes a few more times then ***DISP*** is displayed.

BUTTON
(Key test)

9. Press the **UNITS** key…

   BUTTON is displayed. This is the button test item.

10. Press the **PRINT** key to perform a button test. Each key you press will be reflected on the display screen to confirm the button is functioning correctly.
11. Press the **ESC** key to stop the button test.

    BUTTON is displayed.

SERIAL
(Serial port test)

12. Press the **UNITS** key…

    SERIAL is displayed. This is the serial test item.

13. Press the **PRINT** key to access the serial test.

    PORT 1 is displayed.

14. Jumper the transmit and receive lines on the serial port and press the **PRINT** key…

    The display should show ***PASS***. If there is a problem the display will show ***FAIL***.

15. Press the **SELECT** key…

    PORT 1 is displayed.

16. Press the **UNITS** key…

    PORT 2 is displayed. Repeat steps 14 and 15 to test port 2.

17. Press **SELECT** key…

    SERIAL is displayed.

INPUT (Input test)

18. Press the **UNITS** key…

INPUT is displayed. This is the input test item.

19. Press the **PRINT** key to access the test.

1 2 **3** is displayed. ***1*** stands for input 1, etc.

20. If you jumper pins 1 and 2 of the I/O connector on the bottom of the indicator…

1 becomes ***0*** until the jumper is removed.

To test input 2, jumper pins 1 and 3. ***2*** becomes ***0*** until the jumper is removed.

To test input 3, jumper pins 1 and 4. ***3*** becomes ***0*** until the jumper is removed.

21. Press the **SELECT** key…

INPUT is displayed.

OUTPUT (Output test)

22. Press the **UNITS** key…

OUTPUT is displayed. This is the output test item.

23. Press the **PRINT** key to access the test.

OUT 1 is displayed. This stands for output 1.

24. Press the **PRINT** key…

The display toggles between ***ON*** and ***OFF***. This will toggle the output off and on. Monitor the output to see that it is turning off and on. Use a Trips Interface Unit (TIU3) or other output device.

25. Stop the test by pressing the **SELECT** key…

OUT 1 is displayed.

26. Press the **UNITS** key…

OUT 2 is displayed.

27. Repeat steps 23 and 25 for outputs 2 and 3…

28. Press the **SELECT** key…

OUTPUT is displayed.

OPTION

29. Press the **UNITS** key…

OPTION is displayed.

A-OUT test

30. Press the **PRINT** key…

A-OUT is displayed. This stands for the analog output test.

31. Press the **PRINT** key…

A numeric entry screen is displayed.

32. Key in a percentage between 0 and 100 and press the **ENTER** key…

The analog output will put out that percentage of voltage. For example: If you have output set from 0 to 10V and you key in a percentage of 25, the analog output voltage should read 2.5 volts. You can continue to key in other percentages, press **ENTER** and check the analog output voltage.

33. When you are finished testing the analog output, press the **ESC** key…

A-OUT is displayed.

CNTR test

34. Press the **UNITS** key…

CNTR is displayed. This checks the pulse counter.

35. Press the **PRINT** key to check the counter…

0 is displayed if the pulse counter is inactive. If pulse input are occurring the display will show the increasing pulse counts.

36. Press **SELECT** or **ENTER** to stop the test…

CNTR is displayed.

SENSOR test

37. Press the **UNITS** key…

SENSOR is displayed. Use this to test the function of each weight sensor attached via SensorComm.

This test can be used to properly adjust the deadload of the scale. Each sensor should have similar mV/V outputs if the physical load on the scale is equally distributed.

38. Press the **PRINT** key…

1 is displayed.

39. Scroll through the available weight sensor numbers by pressing the **TARE** or **UNITS** key. Press the **ENTER** key when the sensor you want to test is displayed…

mV/V output of the selected sensor is displayed.

40. Apply weight to the scale to verify the mV/V level changes.

41. Press the **ENTER** key to exit the test…

Sensor number is displayed.

42. Repeat steps 38 through 40 for each sensor you want to test.

43. Press the **SELECT** key…

SENSOR is displayed.

NETS test

44. Press the **UNITS** key…

NETS is displayed.

45. Press the **PRINT** key…

NET 1 is displayed.

46. Toggle between ***NET 1*** or ***NET 2*** using the **TARE** or **UNITS** key and press **PRINT** when the network you want to view is displayed.

The first screen of network configuration information is displayed.

47. Repeatedly press the **PRINT** key to view all the configuration information. The display will return to ***NET 1*** or ***NET 2*** when you've seen all the information.

48. This completes the TEST submenu. Press the **SELECT** key until ***TEST*** is displayed.

To return to normal weighing mode, press **ESC**. If you press **ESC** you will be prompted to save any changes made. Press **ESC** to abort any changes or press **ENTER** to save changes.

AUDIT (Audit counters) menu

The next section of the Supervisor menu is the AUDIT submenu. This menu lets you view configuration and calibration audit counters. These counters cannot be changed, only viewed.

Follow these steps to access each item in the AUDIT submenu:

CFG
(Configuration audit counter)

1. Press the **UNITS** key…

   AUDIT is displayed.

2. Press the **PRINT** key…

   CFG is displayed. This stands for the Configuration audit counter. Use this item to see how many times this indicator has been configured.

3. Press the **PRINT** key…

   A number is briefly displayed, then ***CFG*** is displayed. This is the number of times this indicator has been configured.

CAL
(Calibration audit counter)

4. Press the **UNITS** key…

   CAL is displayed. This stands for the Calibration audit counter. Use this item to see how many times this indicator has been calibrated.

5. Press the **PRINT** key…

   A number is briefly displayed, then ***CAL*** is displayed. This is the number of times this indicator has been calibrated.

6. Press the **SELECT** key…

   AUDIT is displayed.

This completes the AUDIT submenu and the Supervisor menu. Press the **SELECT** key to return to normal weighing mode.

Indicator Operations

5

Press the **MODE** *key to scroll through the activated applications. The name of the active application will be briefly displayed or, press and hold the* **MODE** *key for 3-5 seconds to see the name of the currently active application.*

The E1070 comes equipped with several weighing applications;

- General weighing (default setting)
- Accumulator weighing
- Batch weighing
- Checkweighing
- Counting
- Peak weighing

These different applications are activated using a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.*

5.1 PLU Channels

This indicator has an 11 channel PLU (Product Look Up) memory. To access a memory channel, press a number from 0 to 10, then press the ***F1*** *key.*

This indicator has an 11 channel PLU (Product Look Up) memory. To access a memory channel, key in a number from 0 to 10, then press the **F1** key. The following information, if present, becomes active:

Channel #	Lower Limit
ID #	Upper Limit
Gross Accum.	Piece Weight
Net Accum.	Output Wt1
Count Accum.	Output Wt2
Total	Output Wt3
Tare Value	

The general weighing application comes as the default application. You can do gross weighments, tare/net weighments and print a print format. Below are instructions for each.

5.2 Entering an ID Number

You can enter an ID number which is then part of the active PLU channel. To enter an ID, key in a number on the keypad then press the **ENTER** key.

5.3 Print Operations

This indicator has multiple print functionality.

Method 1 - Each application can use multiple print formats. (This is configured from a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance*. Press the **PRINT** key to print all the configured print formats.

Method 2 – With multiple print formats configured, selecting the number of that print format will print only the selected format.

Example: Checkweigher application using print formats 1, 2, 3 and 4. Each print format references a different customer. Press **1** then the **PRINT** key to print only print format 1. Press **2** and the **PRINT** key to print only print format 2.

5.4 General Gross Weighing

To perform general gross weighing, power up the unit and follow these steps:

*To change unit of measure, press the **UNITS** key.*

1. Empty the scale and press **ZERO** key to zero the display…

   0 is displayed.

2. Place item to be weighed on the scale…

   Weight is displayed.

5.5 General Tare/Net Weighing

To perform a general net weighment, power up the unit and follow these steps:

1. Empty the scale and press **ZERO** key to zero the display…

   0 is displayed.

2. Place item to be tared on the scale…

   Weight is displayed.

3. Press the **TARE** key…

   0 is displayed and the *NET* annunciator lights.

4. Place material to be weighed on the scale…

   Net weight of material is displayed.

*To clear a tare weight, remove all weight from the scale and press the **TARE** key.*

5. Repeatedly press the **SELECT** key to scroll through gross, tare, and net modes. Remove the weight from the scale and press **TARE** to return to gross mode.

Using Outputs in the General Weighing Application

You can use the outputs function if so desired while in the general weighing application. Follow these steps to setup the outputs.

Output operation in the general weighing application:
Below Configured Value:
Outputs are ON
Annunciators are OFF
TIU3 Relays are ON

Above Configured Value:
Outputs are OFF
Annunciators are ON
TIU3 Relays are OFF

1. With the indicator powered up, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key to see a value entry screen…

   Press the **PRINT** key to accept the displayed value or key in a new value and press the **ENTER** key to accept. ***OP2*** will be displayed.

3. Repeat for the other outputs. You can skip the displayed output by pressing the **ESC** key.

4. After OP3 has been set, or skipped, the indicator will automatically return to normal weighing mode.

5.6 Accumulator Weighing

The accumulator is memory that collects individual weighments (gross and net) and stores the totals. These totals can be recalled at any time. The number of weighments included in the totals can be displayed and all information can be reviewed and deleted.

To use the accumulator, power up the unit and follow these steps:

1. Empty the scale and press **ZERO** key to zero the display…

   0 is displayed.

2. Place item on the scale…

   Weight is displayed.

You can use tare/net weighing with the accumulator application. The accumulator stores both gross and net totals for later recall.

3. Press the **F1** or **PRINT** key to add weight to the accumulator. Pressing the **PRINT** key also prints the default print format …

   A circle annunciator lights briefly on the right side of the display to show the weight was accumulated.

4. Remove weight from the scale. Weight must return to zero before another accumulation can be recorded.
5. Repeat 2 through 4 for each weighment you want to accumulate.
6. To review the accumulator total and the number of weighments, remove all weight from the scale and press the **SELECT** key repeatedly…

*You must remove all weight from the scale to scroll through the items listed at right. With weight on the scale, repeatedly pressing the **SELECT** key will only show the gross, net and tare values.*

1st press =	Net weight displayed
2nd press =	Tare weight displayed
3rd press =	Display toggles between showing ACCUM. and gross total of all weighments
4th press =	Display toggles between showing ACCUM. and net total of all weighments
5th press =	Display toggles between showing TOTAL and number of weighments
6th press =	Display returns to gross weigh mode

*Press the **MODE** key to scroll through the activated applications. The name of the active application will be briefly displayed or, press and hold the **MODE** key for 3-5 seconds to see the name of the currently active application.*

Clear the accumulator in the Supervisor menu. See *Supervisor Menu* on page 31.

Using Outputs in the Accumulator Application

If enabled, you can use the output function while in the accumulator application. Outputs are enabled in a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.* Follow these steps to set up to three outputs:

Output operation in the accumulator application:
Below Configured Value:
Outputs are ON
Annunciators are OFF
TIU3 Relays are ON

Above Configured Value:
Outputs are OFF
Annunciators are ON
TIU3 Relays are OFF

1. With the indicator powered up, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key…

   The current value for OP1 is displayed.

3a). Press **ENTER** to accept this value

OR

3b). Key in a value and press the **ENTER** key.

OP1 is displayed.

4. Scroll through all three outputs by using the **TARE** or **UNITS** key.
5. Repeat steps 2 and 3a or 3b for each output.
6. Press **ESC** key…
7. Press **ENTER** to save the changes or **ESC** to abort the changes…

   The unit returns to normal operation mode with the saved outputs active.

8. As you apply weight to the scale, output one will activate above its setpoint and deactivate below its setpoint. The same is true for the other two outputs. When activated each output's annunciator will light on the display.

5.7 Batch Weighing

This section applies if your indicator has the batching application active.

Press the **MODE** *key to scroll through the activated applications. The name of the active application will be briefly displayed or, press and hold the* **MODE** *key for 3-5 seconds to see the name of the currently active application.*

The batching application has 11 recipes, each with up to 8 ingredients. In the recipe, the following items are set:

Batch type can be by constant weight, percentage or gross. Explained below.

Constant Weight Batches are all the same size and the weight of each ingredient is predetermined by the recipe.

Percentage Batch size is chosen by the operator and each ingredient is determined by the percentage set in the recipe.

This indicator has an 11 channel PLU (Product Look Up) memory. To access a memory channel, key in a number from 0 to 10, then press the ***F1*** *key.*

Gross Each ingredient runs until the gross weight on the scale reaches the value that was set, regardless of the weight on the scale when the batch was started.

Batching mode can be Manual, Automatic, Filling or Continuous. (The PLU recipe channel must be selected prior to a batching operation.)

Manual If the recipe is set up for manual mode, you press the **F1** key to start the batch and you need to press the **F1** key each time an output is reached to activate the next ingredient output.

Automatic If the recipe is set up for automatic mode, you press the **F1** key to start the batch and each output is activated and deactivated automatically by the indicator.

Filling In FILL mode, any recipe that has been setup is ignored. The filling process is run based on the values set for the outputs. In order to complete the filling process, at least one output must be enabled.

Press the **F1** key to start the filling process.

1. a. If output 1 is enabled, and the net weight on the scale is below the value of the output, output 1 will come on.
   b. If output 2 is enabled, and the net weight on the scale is below the value of the output, output 2 will come on.
   c. If output 3 is enabled, and the net weight on the scale is below the value of the output, output 3 will come on.
2. Each output will remain on until its output value is met.
3. The filling process can be restarted by pressing the **F1** key.

Pulse count requires optional feature.

Continuous Continuous batching mode. This mode is very close to the Auto mode but, in continuous mode another batch is started immediately after the previous batch has finished. In auto mode the user must press the **F1** key to start each batch.

The *Basis* of each ingredient can be weight, time or pulse counts.

Weight If an ingredient basis is weight, the output activates at the appropriate time and deactivates when the weight set in the recipe is reached.

Time If an ingredient basis is time, the output activates for the time set in the recipe and then deactivates.

Counter If an ingredient basis is counts from a pulse counter, the output activates for the value based on pulse count units set in the recipe and then deactivates.

In filling mode the process can be changed by changing the value(s) of the outputs.

Output operation in batching application:
Before activation by recipe:
Outputs are OFF
Annunciators are OFF
TIU3 Relays are OFF

After activation by recipe:
Outputs are ON
Annunciators are ON
TIU3 Relays are ON

Follow these steps to set up the three outputs:

1. With the indicator powered up, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key…

   The current value for OP1 is displayed.

3. Press **ENTER** to accept this value (or **ESC** to abort) or key in a value and press the **ENTER** key.

   OP1 is displayed.

4. Scroll through all three outputs by using the left and right arrow keys.

5. Repeat steps 2 and 3 for each output.

6. Press **ESC** key to exit the outputs setup.

7. Press **F1** to save the changes or **ESC** to abort the changes.

In automatic or manual mode, a recipe must be setup. The recipe values are set in a password protected menu. However, a shortcut can be used to change the amount of each ingredient.

To access this shortcut menu:

1. Press and hold the **SELECT** key until

   rec 0 is displayed. This is the recipe for PLU channel 0.

2. Press the **PRINT** key to edit the recipe 0 or use the **TARE** or **UNITS** keys to scroll to another recipe and press the **PRINT** key when the recipe you want to edit is displayed…

   ing 1 is displayed.

3. Press the **PRINT** key to change the amount of ingredient 1 to batch.

   A numerical value is displayed.

4. Key in a new value and press **ENTER** or press **ENTER** to accept the value that is shown. The **UNITS** and **TARE** keys allow you to access all 8 ingredients.

5. When finished, press the **ESC** key to escape from this menu.

   Save is displayed.

6. To save the changes you made, press **F1**. To exit without saving, press the **ESC** key.

The batch type, batch mode, and ingredient basis cannot be changed through this shortcut. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance on creating a recipe.* Examples of two batching routines are given on the next pages.

Auto Batching by Weight

Following is an example of batching for a recipe set as follows:

Batch type: Constant

Batch mode: Automatic

Basis: Weight

1. With the indicator powered up and the scale empty, zero the scale by pressing the **ZERO** key…

0 is displayed.

2. Press the **F1** key…

The ***OP1*** annunciator lights and output 1 is activated.

Each ingredient may have a built in delay time between deactivation of one ingredient and activation of the next.

3. Add weight to the scale…

When the weight reaches the setpoint for ingredient 1, *OP1* annunciator light goes out, *OP2* annunciator lights and output 2 activates. See note at left.

4. Add weight to the scale…

When the weight reaches the setpoint for ingredient 2, *OP2* annunciator light goes out, *OP3* annunciator lights and output 3 activates. See note at left.

5. Add weight to the scale…

When the weight reaches the setpoint for ingredient 3, *OP3* annunciator light goes out and output 3 deactivates.

6. Empty the scale and repeat steps 1-5 for the next batch.

Manual Batching by Percentage

Following is an example of batching for a recipe set as follows:

Batch type: Percentage

Batch mode: Manual

Basis: Weight

1. With the indicator powered up and the scale empty, zero the scale by pressing the **ZERO** key…

0 is displayed.

2. Press the **F1** key…

The size of the last batch is displayed.

3a). Press the **ENTER** key to accept the batch size

OR

3b). Key in a new batch size and press the **ENTER** key…

The *OP1* annunciator lights and output 1 is activated.

4. Add weight to the scale…

When the weight reaches the percentage of the batch size set in the recipe for ingredient 1, *OP1* annunciator light goes out.

5. Press the **F1** key…

OP2 annunciator lights and output 2 activates.

6. Add weight to the scale…

When the weight reaches the percentage of the batch size set in the recipe for ingredient 2, *OP2* annunciator light goes out.

7. Press the **F1** key…

   OP3 annunciator lights and output 3 activates.

8. Add weight to the scale…

   When the weight reaches the percentage of the batch size set in the recipe for ingredient 3, *OP3* annunciator light goes out and output 3 deactivates.

9. Empty the scale and repeat steps 1-8 for the next batch.

5.8 Checkweighing

A segment of the fan graph, shown in Figure 5.1, will be lit when in the checkweighing mode as a reminder that this application is active.

This section applies if your indicator has the checkweighing application active. Applications are activated through a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.*

Checkweighing allows a quick, visual check of the acceptability or unacceptability of an item's weight.

You set your target weight in one of two ways. It depends on how your indicator is configured. See the *Supervisor Menu* on page 31 and *TARGET application (Checkweighing)* on page 38

Your unit will be configured with limits mode or sample mode. Each are explained below;

The graph is based off of net weight so, if a tare is active, only the net weight is considered for checkweighing. If there is no tare, gross weight is used as the basis for the graph.

Limits Mode Enter the upper and lower limits for the item and the indicator will use those values to run the display. See Figure 5.1. Each graduation equals one division by default but, this can be changed in a password protected menu so that one graduation is equal to a set number of divisions.

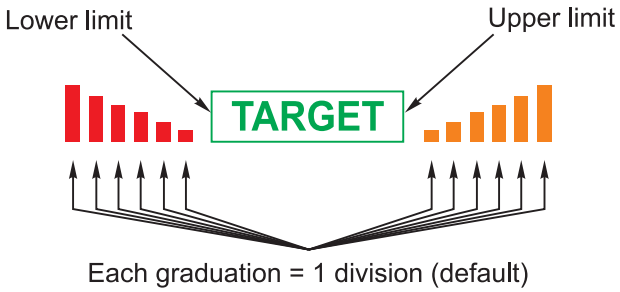


Figure 5.1 Limits mode

Sample Mode Place a correct weight “product” on the scale and press the **F1** key. The indicator will use this weight to run the display. Upper and lower limits will automatically be one division above and below the target weight respectively by default. This can be changed in a password protected menu so that the Upper and Lower limits are set to an equal number of divisions above and below the target weight. Figure 5.2 shows how the graphic display works in Sample mode. Each graduation is equal to 1 scale division. The TARGET light stays lit if weight is within the upper and lower limits.

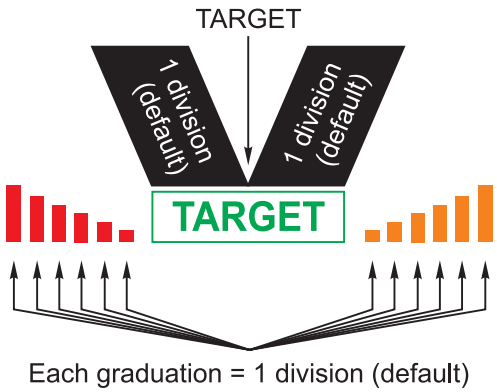
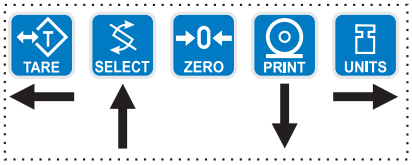


Figure 5.2 Sample mode

Directions for using each mode follow.

Limits Mode: Entering Upper and Lower Limits



*You can repeatedly press the **SELECT** key to view the items listed in the Sample and Limits modes on this page.*

Follow these steps to setup and use the checkweigher in limits mode:

1. Empty the scale, press the **ZERO** key to zero the display, then press the **F1** key…

   Hi is displayed.

2. Press the **ENTER** key to accept the value or **ESC** to skip…

   LO is displayed.

3. Key in the lower weight limit. Press the **F1** key to accept the value…
4. Place item(s) on the scale and the display will show if the weight is over, under or acceptable based on the limits you have set.

You can repeatedly press the **SELECT** key to view the following from the gross weight display:

1st press Net annunciator lights and net weight is displayed.

2nd press Tare annunciator lights and tare weight is displayed.

3rd press Display toggles between ***HI*** and the upper weight tolerance, in the current unit of measure.

4th press Display toggles between ***LO*** and the lower weight tolerance, in the current unit of measure.

5th press Display returns to gross weighing mode.

Performing a Checkweighment in Limits Mode

1. With your target weight set as described above, place your item on the scale…

   If the weight is within the upper and lower tolerances you set, the *TARGET* annunciator lights. If not, the upper or lower segments will be lit.

2. Repeat step 1 for all products of this weight.

Sample Mode: Using Product to Set Target Weight

Follow these steps to setup and use the checkweigher in sample mode:

1. Zero the empty scale then place a sample of the correct weight on the scale…

   Weight is displayed.

2. Press the **F1** key.

   The weight is captured, the display reads ***0*** (net weight) and your indicator is ready to use as a checkweigher. The target weight will be the same as your sample item and the target will stay lit whenever an item's weight is within the upper and lower tolerances. By default this is ±1 division from the target weight.

You can repeatedly press the **SELECT** key to view the following from the gross weight display:

1st press	Net annunciator lights and net weight is displayed.
2nd press	Tare annunciator lights and tare weight is displayed.
3rd press	Display toggles between ***HI*** and the upper weight tolerance, in the current unit of measure.
4th press	Display toggles between ***LO*** and the lower weight tolerance, in the current unit of measure.
5th press	Display returns to gross weighing mode.

Performing a Checkweighment in Sample Mode

1. With your target weight set as described above, place your item on the scale…

   If the weight is correct, ***0*** is displayed and the *TARGET* annunciator lights. If the weight varies from the target value, upper or lower segments may be lit and the weight will show a plus or minus weight reading for the deviation from the target weight.

2. Repeat step 1 for all products of this weight.

*You can repeatedly press the **SELECT** key to view the items listed in the Sample and Limits modes on this page.*

Using Outputs in Checkweigher Application

If enabled, you can use the output function while in the checkweigher application. Outputs are enabled in a password protected menu *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.* Follow these steps to set up to three outputs:

Standard Outputs

Output operation in the checkweigher application:
Outputs are OFF in gross zero band
Annunciators are OFF
TIU3 Relays are OFF

Outputs latch on for appropriate ABOVE, OVER and ACCEPT
Annunciators are ON
TIU3 Relays are ON

1. With the indicator powered up in normal checkweighing mode, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key…

   The current value for OP1 is displayed.

3a). Press **ENTER** to accept this value

OR

3b). Key in a value and press the **ENTER** key.

OP1 is displayed.

4. Scroll through all three outputs by using the left and right arrow keys.
5. Repeat steps 2 and 3a or 3b for each output.
6. Press **ESC** key to exit the outputs setup.
7. As you apply weight to the scale, output one will activate below its setpoint and deactivate above its setpoint. The same is true for the other two setpoints. Each output's annunciator will light on the display when the output value is reached.

Target Outputs

If outputs are configured for Target mode in the Supervisor menu, outputs will follow the limits and accept values. This means there is no additional configuration required.

5.9 Counting

Press the **MODE** *key to scroll through the activated applications. The name of the active application will be briefly displayed or, press and hold the* **MODE** *key for 3-5 seconds to see the name of the currently active application.*

This indicator has an 11 channel PLU (Product Look Up) memory. To access a memory channel, key in a number from 0 to 10, then press the ***ENTER*** *key.*

This section applies if your indicator has the counting application active. Applications are activated through a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.*

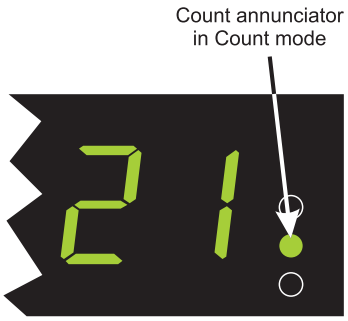
There are two types of sampling; bulk and dribble. See the *Supervisor Menu* on page 31 and *COUNT Application* on page 40

Bulk sampling In this sampling method you place the specified number of items on the scale all at once (in bulk) and the scale automatically starts to calculate piece weight and then shows the count.

Dribble sampling In this sampling method you can count out the specified number of items onto the scale and when you are ready, press the **F1** key and the scale starts to calculate piece weight and then shows the count.

Each method is described below.

Bulk Sampling



The display is showing counts when the green annunciator on the right of the display is lit.

1. In gross weight mode, press the **F1** key…

A numeric value is displayed. This is the current sample size.

2a). Accept the current sample size by pressing **ENTER**

OR

2b). Enter a new sample size and press **ENTER**…

Zeroin is briefly displayed. This shows the indicator is zeroing itself. ***Add*** is then displayed.

3. Place the correct sample size on the scale all at the same time.

Busy is briefly displayed, followed by one of two possible outcomes:

a. If the sample met the minimum sample requirements and the weight is stable, the display will show the correct number of parts on the scale and the green annunciator is lit.

b. If the sample size was not large enough or if the weight was unstable, ***Abort*** is displayed and the display returns to gross weight mode. Repeat steps 1-3 using a larger sample size.

4. Place the parts on the scale to be counted.

5. You can accumulate the counts and track the number of transactions by pressing the **PRINT** key while in count mode. See *Displaying Count Information* on page 63 about displaying this information.

Dribble Sampling

1. In gross weight mode, press the **F1** key…

A numeric value is displayed. This is the current sample size.

2a). Accept the current sample size by pressing **ENTER**

OR

2b). Enter a new sample size and press **ENTER**…

Zeroin is briefly displayed. This shows the indicator is zeroing itself. ***Add*** is then displayed.

3. Place the correct sample size on the scale and press the **F1** key…

Busy is briefly displayed, followed by one of two possible outcomes:

a. If the sample met the minimum sample requirements and the weight is stable, the display will show the correct number of parts on the scale and the *Count* annunciator is lit.

b. If the sample size was not large enough or if the weight was unstable, ***Abort*** is displayed and the display returns to gross weight mode. Repeat steps 1-3 using a larger sample size.

4. Place the parts on the scale to be counted.

5. You can accumulate the counts and track the number of transactions by pressing the **PRINT** key while in count mode. See *Displaying Count Information* below about displaying this information.

If the piece weight of the item being counted is known, you can manually enter the piece weight by keying in the weight with the keypad and pressing and holding the **SELECT** key.

Displaying Count Information

You can scroll through the following information by using the **SELECT** key:

From count display-

press **SELECT** - The display toggles between ***PIECE*** and the piece weight.

press **SELECT** - The display toggles between ***CNT TOT*** and the count total.

press **SELECT** - The display toggles between ***TOTAL*** and the number of accumulations done.

press **SELECT** - The *Gross* annunciator lights and gross weight is displayed.

press **SELECT** - The *Net* annunciator lights and net weight is displayed.

press **SELECT** - The *Tare* annunciator lights and tare weight is displayed.

press **SELECT** - The count display returns.

Using Outputs in the Counting Application

If enabled, you can use the output function while in the counting application. Outputs are enabled in a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.* Follow these steps to set up to three outputs:

1. With the indicator powered up, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key…

   The current value for OP1 is displayed.

3a). Press **ENTER** to accept this value

OR

3b). Key in a value and press the **ENTER** key.

   OP1 is displayed.

4. Scroll through all three outputs by using the left and right arrow keys.
5. Repeat steps 2 and 3a or 3b for each output.
6. Press **ESC** key to exit the outputs setup.
7. As you apply weight to the scale, output one will activate above its setpoint and deactivate below its setpoint. The same is true for the other two setpoints. When activated each output's annunciator will light on the display.

*You can press the **SELECT** key or the **ESC** key to abort the process in step 3.*

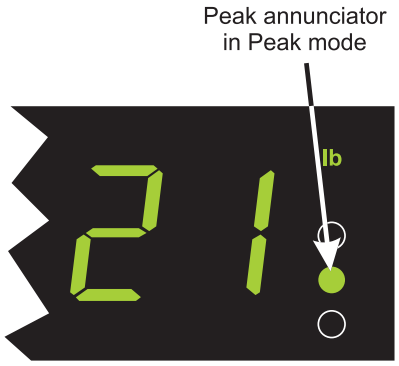
Output operation in the counting application:
Below Configured Value:
Outputs are ON
Annunciators are OFF
TIU3 Relays are ON

Above Configured Value:
Outputs are OFF
Annunciators are ON
TIU3 Relays are OFF

5.10 Peak Weighing

This section applies if your indicator has the Peak application active.

Press the **MODE** *key to scroll through the activated applications. The name of the active application will be briefly displayed or, press and hold the* **MODE** *key for 3-5 seconds to see the name of the currently active application.*



Only the highest weight applied to the scale is displayed in the Peak application. As a reminder that you are in peak mode, a green annunciator is lit to the right of the weight display.

1. Add weight to the scale…

   Weight is displayed.

2. Remove weight…

   Peak weight is displayed.

3. To clear the peak value, be sure scale is empty and press the **F1** key…

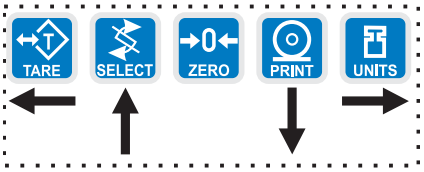
   0 is displayed.

4. Repeat steps 1-3.

5. Press the **SELECT** key to cycle through Gross, Tare, Net and Peak.

Using Outputs

If enabled, you can use the output function while in the peak application. Outputs are enabled in a password protected menu. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance.* Follow these steps to set up to three outputs:



You can press the ***SELECT*** *key or the* ***ESC*** *key to abort the process in step 3.*

1. With the indicator powered up, press and hold the **SELECT** key until…

   OP1 is displayed.

2. Press the **PRINT** key…

   The current value for OP1 is displayed.

3a). Press **ENTER** to accept this value

OR

3b). Key in a value and press the **ENTER** key.

   OP1 is displayed.

4. Scroll through all three outputs by using the left and right arrow keys.

5. Repeat steps 2 and 3a or 3b for each output.

6. Press **ESC** key to exit the outputs setup…

7. As you apply weight to the scale, output one will activate above its setpoint and deactivate below its setpoint. The same is true for the other two setpoints. When activated each output's annunciator will light on the display.

8. As weight is removed the displayed weight will remain unchanged due to being in peak mode but the OP annunciators will go out as each output is reached.

Output operation in the peak application:
Below Configured Value:
Outputs are ON
Annunciators are OFF
TIU3 Relays are ON

Above Configured Value:
Outputs are OFF
Annunciators are ON
TIU3 Relays are OFF

Communications

6

The E1070 provides an RS-232 output for data transmission to a peripheral device. *Contact your local Avery Weigh-Tronix supplier or distributor for assistance on RS-232 interface connections.*

The default serial port parameters are 9600 baud, 8 databits, no parity and 1 stop bit.

Stop bits for the serial communication are preset to 1 stop bit. This is not configurable.

If your indicator has a peripheral device connected, from the gross/net weighing mode press the **PRINT** key to transmit the selected output(s).

The *PRINT* annunciator will illuminate while data is transmitted and the data configured to be printed will be output to the printer.

Following are the default print formats

Print Formats 1-8 are for the Zebra Thermal printer. See examples in Figure on the following pages.

Print Formats 9-15 are for a standard ASCII characters for use with dot matrix printer.

Print Formats 9 & 10

```
G  123456 lb
{ACT}{DSP}{UN}<CR><LF>{EOS}
```

Accumulator (Print Format 11), Batching (12) and Checkweigher (13) all use the following:

```
G  123456 lb
{ACT}{DSP}{UN}<CR><LF>{EOS}
```

Counting, Print Format 14

```
Piece Count:      48
Piece Count: {CNT}<CR><LF>{EOS}
```

Peak Print Format 15

```
123456 lb
{PWT} {UN}<CR><LF>{EOS}
```

Remote Display Print Format 16

```
G  123456 lb
{ACT} {DSP} {UN}<CR><LF>{EOS}
```

The following are the default print formats are for the corresponding “Mode” setting in the serial port configuration menu.

17 Port 1 Enquire (HEX05)

18 Port 1 Broadcast

19 Port 1 RD4100

20 Port 2 Enquire (HEX05)

21 Port 2 Broadcast

22 Port 2 Remote display

```
G  123456 lb
{ACT} {DSP} {UN}<CR><LF>{EOS}
```

Thermal Labels Print Formats

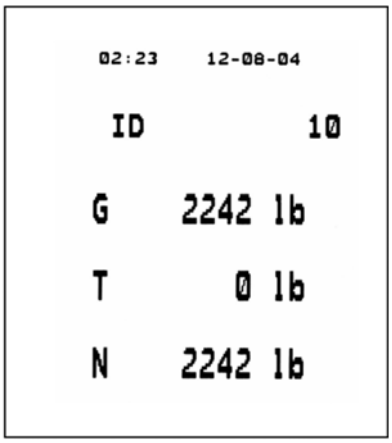
Format 1, 2 & 3

```
Time   Date
G      Gross Weight
T      Tare Value
N      Net Weight
```

Format 1 label 1.25” Wide x 1.00’

Format 2 label 2.50” Wide x 4.00’

Format 3 label 4.00” Wide x 6.00’

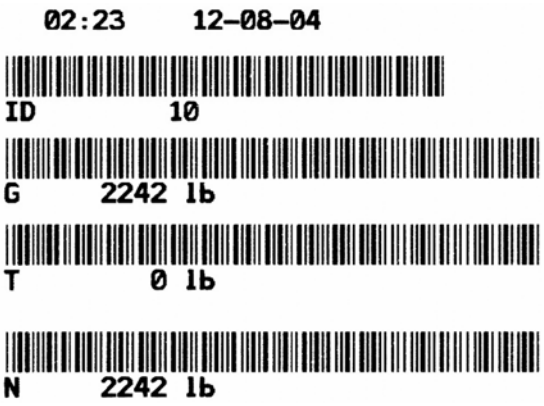


Print Format 4, same as above with barcode.

Label Size:

2.50” Wide

4.00” Long



Thermal Labels Print Formats

Print Formats 5, 6 & 7

Time Date

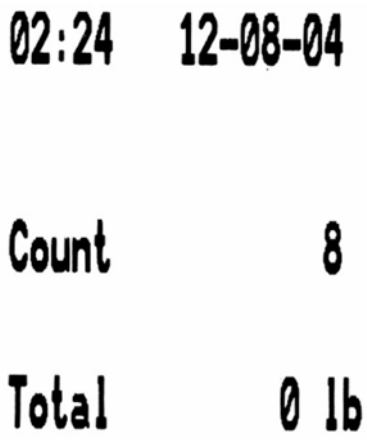
PLU Totals Information

Gross Total Accumulator

Format 5 label 1.25” Wide x 1.00” Long

Format 6 label 2.50” Wide x 4.00” Long

Format 7 label 4.00” Wide x 6.00” Long



Print Format 8, same as above with barcode.

Label Size

2.50” Wide

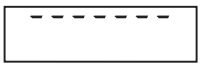
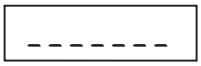
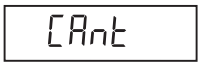
4.00” Long

Error Messages

7

The following are displays you may see if problems occur or if invalid operations are attempted with your indicator:

*The display represents **M** by **nn** so **min** becomes **nnin**, **mode** becomes **nnode**, etc.*

Display	Description
	Over-range weight
	Under-range weight
	The unit cannot perform a function
	Displayed while a key is pressed when attempting to modify a sealed selection without edit privileges.

Indicator Diagnostics

8

8.1 Testing Indicator Functions

The user menu lets you test various functions of the indicator. The user menu is shown in Figure 8.1. Instructions for using the menu are found below.

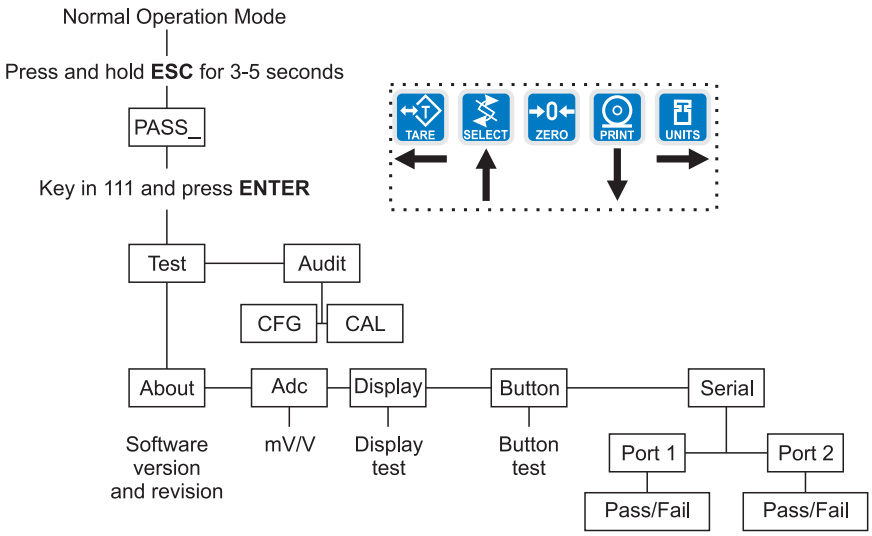


Figure 8.1 User Menu

1. Access the User menu by pressing and holding the **ESC** key for 3-5 seconds.

   PASS_ is displayed.

2. Key in the User menu password (111) and press **ENTER**.

   TEST is displayed.

3. Press the **PRINT** key.

   ABOUT is displayed. Press the **PRINT** key then the **UNITS** key to view the part number and revision level for the software found in your indicator.

   Press **SELECT** key to return to ***ABOUT***.

4. Press the **UNITS** key…

   ADC is displayed. This is the mV/V output of the connected analog scale.

5. Press the **PRINT** key…

   The mV/V value is displayed. This value should increase as weight is applied to the scale.

6. Press the **SELECT** key…

   ADC is displayed.

7. Press the **UNITS** key…

   DISP is displayed. This is the display test item.

8. Press the **PRINT** key to perform a dynamic test of the display…

   All parts of the display flash.

9. Press the **ESC** key to stop the test…

   The display flashes a couple more times and then ***DISP*** is shown.

10. Press the **UNITS** key…

    BUTTON is displayed. This is the button test item.

11. Press the **PRINT** key to perform a button test. Each key you press will be reflected on the display screen to confirm the button is functioning correctly. The **ESC** key is excluded from this test. It is used to stop the testing and return to the menu item

12. Press **ESC** key to stop the button test.

    BUTTON is displayed.

13. Press the **UNITS** key…

    SERIAL is displayed. This is the serial test item.

14. Press the **PRINT** key to access the serial test.

    PORT1 is displayed. If you jumper the transmit and receive lines on the serial port and press the **PRINT** key, the display should show ***PASS***. If there is a problem the display will show ***FAIL***.

15. Press the **SELECT** key after checking the port function…

    PORT1 is displayed.

16. Press the **UNITS** key…

    PORT 2 is displayed. Repeat the test from step 14 to check the port.

17. Press the **SELECT** key twice to exit the serial test.

    SERIAL is displayed.

18. Press the **SELECT** key…

    TEST is displayed.

19. Press the **UNITS** key…

    AUDIT is displayed.

20. Press the **PRINT** key…

    CFG is displayed. This stands for the configuration audit counter.

21. Press the **PRINT** key to see the number of times the configuration has been altered on this indicator.

22. Press the **SELECT** key…

    CFG is displayed.

23. Press the **UNITS** key…

    CAL is displayed. This stands for the calibration audit counter.

24. Press the **PRINT** key…

The number of times the indicator has been calibrated is displayed.

25. Press the **ESC** key twice…

The display returns to normal operation mode.

This completes the User menu.

Specifications

9

Power requirements
- 85-265 Volts AC @ 0.3Amp maximum
- 50/60 Hz

Excitation
- +/- 5 volts DC
- Supports up to eight 350-ohm weight sensors

Analog signal input range
- +/-60 mV

Analog signal sensitivity
- 0.2 µV/V/divisions minimum
- 1.0 µV/V/divisions recommended

Calibration
- 2 to 5 points stored

Operational keys
- Twenty-two keys: Tare, Select, Zero, Print, Units, F1, Clear, Mode, Escape, Enter, On/Off, Decimal, 0-9 numericf

Operational annunciators
- Center of Zero, Motion, Gross, Net, Tare,
- Under/Target//Over
- Units of measure (LB, KG)
- Print, OP1, OP2, OP3, Pt Tare

Display
- Six-digit, seven-segment, 0.8-inch high, LED

Display rate
- Selectable (1, 2, 5, 10)

Analog to digital conversion rate
- 100 times per second

Unit of measure
- Pounds, kilograms, custom

Capacity selections
- 999,999 with decimal located from zero to five places

Incremental selections
- Multiples and sub-multiples of 1, 2, 5

Programmable selections
- Zero range, motion detection, automatic zero tracking, five-point linearization.

Time and date/RAM
- Battery backed up real time clock and RAM standard

Internal resolution
- 53,687,100 counts per mV/V per second

Harmonizer™ digital filtering
- Fully programmable to ignore noise and vibration

Standard inputs
- Three logic level inputs for: Zero, Print, Tare, Units, F1, Start and Stop

Standard outputs
- 10/100 Ethernet (Modbus/TCP, TCP/IP, SMTP, DHCP, Ethernet/IP)
- PROFIBUS DP
- DeviceNet
- Three outputs
- Two serial ports
  - RS-232/422/485 (SensorComm) - one
  - RS-232 or 20mA current loop

Serial Command Inputs/Outputs
- Programmable serial response to ASCII character input
- SMA protocol, Broadcast, Enquire, RD-4100, E-series remote display

Self diagnostics
- Display, keys, inputs, outputs, serial port, A to D converter

Circuitry protection
- RFI, EMI, and ESD protection

Options
- Analog output/Pulse input
- Remote I/O
- ControlNet™
- TIU3
- Washdown remote foot control

Operating applications
- General weighing, Accumulation, Batching, Counting, Checkweighing, Peak measurement, Remote display

Operating temperature
- 14 to 104° F (-10 to 40° C)
- -40 to 140° F (-40 to 60° C) non-legal
- Up to 95% non-condensing humidity

Enclosure
- Stainless steel NEMA 6/4X

Dimensions

- 9.25" W x 9.25" H x 4.5" D (without mounting bracket)
- 9.75" W x 11" H x 7" D (with mounting bracket)

Weight

- 8.5 lb, 4 kg

Agencies

- NTEP CC#04-031 Class III/IIIL:10,000 divisions
- OIML Cert. # R76/1992 - GBI - E410
- Canadian Weights and Measures pending
- UL/CL
- CE marked

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